THE DISTORTIONARY IMPACT OF TAXATION ON IRISH SAVINGS MEDIA: THE PRINCIPLE OF FISCAL PRIVILEGE

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FISCAL PRIVILEGE relates to the differential tax treatment of different assets or forms of saving. What this essay purports to do is to give an overview of how the degree of fiscal privilege is calculated for various assets across different categories of savers, and to show that the system of taxation currently in practice in Ireland has distortionary effects on the choices that savers make. The effect of inflation will also be highlighted.

FISCAL PRIVILEGE

Fiscal privilege is the term used to explain the differential tax treatment of different assets or forms of saving. Consider an individual who wishes to save a fixed amount on a yearly basis. There are a range of savings media open to her and we expect her choice to be based primarily on considerations such as her liquidity requirements, savings objectives (long run(LR) or short run(LR)) and her degree of risk aversion. However, the tax system is another influential factor, since tax efficiency varies widely between the alternative savings media. Different institutions carry different reliefs and are subject to diverse tax treatment. For example, contributions to pension funds offer savers relief against personal income tax, while deposits with financial institutions are subject to DIRT. What we are concerned with is an investigation of the extent to which the tax system favours or penalises different savings media, ie. the Degree of Fiscal Privilege (DFP) attached to each asset, and how this distorts the savings decision.

Such an analysis requires a comparison of the tax treatment of different assets or methods of saving. This will highlight the violation of the principle of horizontal neutrality which says that for a given tax-payer, the DFP must be the same for all assets. Furthermore, the tax system also violates the principle of vertical neutrality, which implies that the tax penalty/subsidy attached to different assets is not constant across groups of savers paying different rates of income tax. Thus we investigate the DFP of assets across two classes of savers.

Capitalisation Effects

Capitalisation refers to the process whereby the reliefs and exemptions which are firmly fixed in the tax system become incorporated into the price structure of the associated assets. Full capitalisation infers that prices have adjusted to reflect perfectly the effects of these reliefs and exemptions. If prices only adjust to a certain extent, then we say that partial capitalisation has occured. The existence of capitalisation effects implies that the removal of the reliefs and exemptions may impose significant costs on large sections of the population.

Consider the following two examples, which are frequently cited as illustrations of capitalisation effects:

a) If mortgage interest relief is introduced, then house prices will adjust to reflect this as the new information is absorbed and incorporated into the price mechanism. It can be easily recognised that the principal beneficiaries are those who owned houses already at the time the relief was introduced. Subsequent house-buyers will face house prices and mortgages that have been calculated taking the effect of the relief into account. In other words, the mortgage interest relief becomes capitalised into house prices and therefore the size of mortgages. The abolition of mortgage interest relief would therefore result in a drop in the value of houses; home-owners would suffer a reduction in the value of their houses as well as a lower post-tax income. Note, however, that supply side responses must also be taken into consideration. The greater the response of supply, the lower the degree of capitalisation in prices. For example, higher prices resulting from the introduction of tax concessions will lead to new construction, which moderates the LR impact on prices. Likewise, the SR impact on prices of a withdrawal of a tax concession is likely to be more severe than the LR impact.

b) Consider two deposits, A and B, which exhibit identical risk and liquidity characteristics. Assume that A is a deposit with a bank and B is a deposit with a building society, and that the tax laws are such that interest payments on deposits with both institutions are subject to tax at 35%. Hence if both A and B yield pre-tax nominal returns of 10%, post-tax returns to both will be 6.5%. Now, assume that the tax laws change so that deposits with building societies are now subject to tax at 30%. The post-tax return to B will now be 7%. A reallocation of existing portfolios will occur until the pre-tax return to B falls to 9.28%, fully capitalising the effects of the fall in taxes and restoring the post-tax return to 6.5%.

Hence the allocation of new savings is unaffected by the changed tax code. Note, however, that overall asset B now commands a greater proportion of the economy's savings, hence there are potential efficiency implications associated with the differential tax treatment of savings even if full capitalisation occurs. For the purposes of this essay I assume that we are dealing with an imperfect market in which only partial capitalisation takes place.

METHODOLOGY

Hills (1984) defines the DFP as simply "the difference between the owner's marginal income tax rate and the effective tax rate on the asset's real return", where the effective tax rate (ETR) measures the proportion of an asset's real pre-tax return paid in tax. The ETR practically always diverges from the tax-payers marginal income tax rate. The first stage in calculating the DFP is thus to work out the effective tax rate. This is done according to the following equation

$$ETR = \frac{(r - R)}{r^*}$$

where r = the asset's nominal pre-tax return
R = (1 - t)r = the asset's nominal post-tax return, t being the relevant tax rate
r* = r - inflation = the asset's real pre-tax return.

Note: The numerator terms can either both be expressed in real terms, or both in nominal terms. We choose nominal purely for reasons of computational simplicity.

Once we find the ETR we can get the DFP by subtracting the ETR from the individual's marginal tax rate, MTR.

Thus : DFP = MTR - ETR

When v = marginal tax rate, then

$$DFP = v - \frac{[r-(1-t)\,r]}{r - \text{inflation}}$$

$$DFP = \frac{vr - v.\text{inf.} - (r - r + rt)}{r - \text{inflation}}$$

$$= \frac{vr - v.\text{inf.} - rt}{r^*}$$

If the DFP is positive, then the asset is treated favourably by the tax system. If it is negative, then the asset is penalised by the tax system.

Discrepancies in real pre-tax returns across different savings media will of course play a part in influencing savers' decisions, hence in analysing in isolation the effects of the tax system on the allocation of personal savings a single pre-tax return is assumed for all assets. Calculations are thus based on the tax which would

have been levied if the different assets had all yielded an identical pre-tax real return. As such, then, the results below represent hypothetical relative performances as opposed to actual performance measures. Below I outline the calculation of DFP across three categories of assets:

(1) DEPOSITS

These calculations relate to interest-bearing deposits liable to DIRT.

Firstly we assume DIRT @ 27% with no additional tax liability for higher rate payers. In this case the formula for calculating ETR is given by:

$$ETR = f(r - (1-t)r, r - inflation)$$

Secondly we assume that higher rate tax-payers have additional liability at the difference between their marginal tax rate and the DIRT rate, so ETR is now given by the following formula:

$$ETR = f(r - (1 - t - d)r, r - inflation)$$

We finally assume that DIRT is charged at the reduced rate of 10% with no additional liability to either class of tax-payer.

(2) GILTS

The next group of assets we look at are 10 year gilts. The total return to gilts can be split into 2 components, viz. an interest payment and a capital gain/loss. The tax system dictates that the former be charged to tax at the owner's MTR and that the latter are tax free. The implication of this is that it benefits individuals to buy gilts with low coupons, ie. whose return is primarily in the form of capital gains. Following Hills' methodology, gilt prices are approximated by :

$$P = f(c,r) + [f(1-f(c,r), (1+r)^N)]$$

where c is the coupon and N denotes years to redemption. He therefore defines taxable yield as $r_G = f(c,p)$

and calculates ETR as :

$$ETR = [f(r_G - (1 - t)r_G, R)]$$

Thus $$DFP = v - f(t.r_G, R)$$

(3) COMPANY SHARES

The final group of assets we examine are company shares.

Letting r = pre-tax profits

b = the proportion of profits retained by the company

c = the rate of corporation tax

v = the share-holder's MTR

t = the tax credit

we can see that :

Profits available for distribution = (1 - c)r

Profits distributed = (1 - b)(1 - c)r

Corporation tax on undistributed profits = bcr

Corporation tax on distributed profits = (1 - b)cr

Income tax on distributed profits = (1 - b)(1 - c)(v - t(1 - v))r

As the sum of the last three items gives total tax paid, the effective tax rate on gross profits is :

$$ETR = (1 - b)(1 - c)(v - t(1 - v)) + c$$

Following this procedure, and assuming a real rate of return of 4% across all assets and inflation rate of 3%, Rodney Thom produced the following table of results:

			Marginal Tax Rate		
			27%		48%
ASSET		**ETR**	**DFP**	**ETR**	**DFP**
Deposits:					
(1) DIRT = 27%		47	-20	47	1
(2) DIRT = 27%		47	-20	84	-36
(3) DIRT = 10%		17	10	17	31
Gilts : 10 Years					
(4) 3% Coupon		28	-1	50	-2
(5) 6% Coupon		43	-16	77	-29
Shares:					
(6) CT = 40%	RP = 30%	41	-14	53	-5
(7) CT = 40%	RP = 70%	40	-13	45	3
(8) CT = 10%	RP = 30%	24	3	38	10
(9) CT = 10%	RP = 70%	16	11	22	26

THE ROLE OF INFLATION

There are two explanations for differences in DFP. Firstly, the tax system may have explicitly designed variations in the treatment of different assets in order to encourage certain forms of saving, eg. pension funds contributions are tax exempt to encourage this method of saving.

Secondly, variations in DFP also result from the definition of income applied by the tax authorities. While economists focus on real income, ie. income net of the effects of inflation, the tax authorities do not adjust nominal income for inflation. That is, if i = 7% and p = 3% , economists define income as 4% whereas the tax authorities consider the whole 7% as taxable income.

As can be seen from the formula for DFP, the rate of inflation has a significant impact on the DFP attached to assets. When nominal interest rates increase to compensate for rising inflation, the tax authorities refuse to acknowledge this and instead treat the increase in return as an increase in real income. Hence the DFP is inversely related to the inflation rate. The general effect of inflation is to increase the dispersion of fiscal privilege across the alternative forms of saving. It should be noted, however, that inflation also changes the relative position of different assets. For example, calculating the DFP of deposits and gilts at 3 different rates of inflation yields the following results:

		DFP(%)		
Asset:		0%	2%	5%
Deposits:				
MTR = 27%		0	-14	-34
MTR = 48%		21	8	-13
(assuming no extra charge for higher rate payers)				
Gilts(3% coupon)				
MTR = 27%		5	1	-6
MTR = 48%		9	2	-11

IMPLICATIONS

The above analysis has shown that in Ireland the tax treatment varies considerably across the different forms of saving. The principles of neutrality and equity, both horizontal and vertical, are violated. Yet the reasons for fiscal discrimination and the principles underlying the privileges and penalties applied to certain forms of saving are unclear and indeed, (as Hills also argues about the UK tax system), often appear accidental rather than the result of conscious fiscal policy. Examination of our tax system reveals a distinct lack of economic logic behind numerous tax laws. The result has been the emergence of a sheltered sector that tends to favour the wealthy/higher rate tax-payers who can afford such things as VHI and

pension fund contributions. The fact that those individuals paying higher rates of income tax receive a disproportionate advantage indicates that the current system is regressive, and highlights the need for reform.

A Framework for Reform

The suggestion for reform given by Thom and Hills is that rather than continuing to make ad hoc changes, savings should be divided into 2 parts, viz. a privileged sector and an unprivileged sector. The former would comprise those forms of saving which the government sought actively to encourage. The principle of horizontal neutrality would be applied rigourously, so that within the sector, all forms of saving would be taxed in the same manner, leading to a DFP equal to the tax exemption.

Within the unprivileged sector, the aim would be to get away from the present system of taxing nominal returns and to introduce a system whereby only real returns would be taxed, bringing the DFP to zero. There are obviously a number of constraints and problems with this suggestion. For a start, one would of course expect the former sector to dominate, and this raises the issue of the possibility of cash flow problems for the government. To avoid this situation arising, limits would have to be set on access to privileged saving. Secondly, the achievement of a zero DFP as aimed for in the unprivileged sector is highly improbable.

Conclusion

However, from the individual saver's point of view, such a system would clarify things considerably. At present, the variation in tax efficiency of different forms of saving distorts savers' decisions, being at least as important as nominal pre-tax returns. Furthermore, it is imperative that the effect of inflation on returns be given recognition. The current tax system encourages savers to save via media which show the highest DFP rather than the highest nominal pre-tax return, and to favour assets which yield returns in the form of capital gain rather than interest income. While the above proposals for reform may be too ambitious, they at least highlight the main problems in our tax system today, and emphasize the necessity for re-evaluation and change. Calculations of the DFP highlight the extent to which the current system violates the principles of neutrality and equity, and I concluded that such violations have distortionary effects on the decisions that savers will make. Finally, some proposals for reform were discussed. In conclusion, then, even a cursory overview of the tax system as given here clearly leads to a recommendation for reform of the system of differential tax treatment of savings in Ireland.

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