ASSISTING THE PROCESS OF TAX REFORM: TEN YEARS OF THE FFS

1. Introduction

When the Foundation for Fiscal Studies was founded ten years ago, the burden of Irish taxation had reached its highest proportionate level, having jumped year-by-year since 1979. The Commission on Taxation was at the end of its work, having completed its five substantial reports, and the stage should have been set for dramatic reform. A decade later there has been change, notably in the efficiency of tax administration and also because of reductions in the highest marginal tax rates. These latter reductions lead to the presumption that deadweight costs of the tax system have declined.

Yet no-one would claim that a far-reaching tax reform has been accomplished. The essential programme of the Commission on Taxation has not been implemented, and there is no strong promise from the major political parties that it will be. This gives rise to a number of questions. What is still wrong with the Irish tax system? Why is it not being fixed? And - the major theme of this paper - what has the Foundation for Fiscal Studies been doing about it?

The work of the Foundation goes beyond the research programme to which it is a catalyst. Despite this fact, I will focus on the research programme and I hope to show that we know quite a lot more about the Irish tax system and its effects as a result of research funded over the years by the Foundation. Although the Foundation does not take an institutional policy position, a reading of the work that it has commissioned is a prerequisite for informed policy debate. In this paper I will explore, through the lens of the Foundation's main research output,[1] our emerging understanding of the political economy of Irish tax system, and try to interpret the degree of policy change which has occurred and is likely to be observed in the light of this emerging understanding.

I have organized the paper as follows. Section 2 contains a review of the evolution of fiscal policy, both in terms of the aggregates and in terms of implementation of reform with a special focus on the taxation of savings. Section 3 looks at some of the obstacles to reform: public

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[1]This review is necessarily selective in several respects. As the aim has been to represent research which has been funded by the Foundation, short papers prepared for the Annual and pre-Budget Conferences or by visiting foreign speakers are mostly ignored (as is some early work that seems of less pressing current interest). There is no attempt to trace the linkages between the work that the Foundation has commissioned, on the one hand, and prior or parallel work by other researchers.

attitudes, procedural obstacles and what I suggest are some elements of intellectual confusion. But the main battle-lines are drawn between the advocates of neutrality and the promoters of targeting: what research has to say about the relative merits of each is the subject of Section 4 in which are assessed both the large-scale econometric models and specific exploration of particular incentives. Often considered the Achilles heal of the Commission on Taxation's recommendations, distributional issues are the subject of Section 5. Although most of the work has been on taxation, Section 6 outlines Foundation-funded research on some public expenditure issues. Finally, Section 7 contains some concluding remarks.

2. Fiscal policy during the Foundation's first decade

The aggregates

The potential and reality of reforms in the structure of taxation and public expenditure policy cannot be divorced from aggregate fiscal developments. Therefore I would like to begin by noting that the Foundations' first year, 1985, proved to be a turning point in the history of Irish taxation, not because of structural reforms, but because it marked the end of a period during which government had carved out larger and larger shares of GNP in taxation. Faced with spiralling expenditure which they were unable to control, Governments in the early 1980s had been engaged in a scramble for revenue in order to limit the recourse to borrowing. High inflation, high real interest rates, and soaring unemployment were partly cause, partly consequence of a vicious circle from which escape seemed impossible unless there was a return to improved external conditions.

By freezing tax revenues at their 1984 level of GNP the Government risked a continuation of the debt explosion, but it is clear that some stability in taxation, or at least a sense of light at the end of the tunnel in terms of future tax prospects was an essential component of any recovery in domestic economic confidence and performance. After soaring from 29.6 per cent of GNP in 1979 to 40.4 per cent five years later (Figure 1), tax revenue as a share of GNP has not since breached the 1984 ceiling (apart from the tax amnesty years of 1988 and 1994), and there is no expectation that it will do so.

Of course, a dramatic improvement in external economic conditions (renewed overvaluation of sterling, the UK and worldwide demand boom in the late 1980s, lower inflation and, for a time, real interest rates) helped make that ceiling less constraining than it had been in the years of stagnation, and has meant that even a constant share of GNP has implied increasing real

resources for Government (Figure 2).

The other side of the fiscal scissors was closed through drastic policy action in reducing expenditure during 1987-89 (Figure 3), helped by the replacement of the vicious circle with a virtuous one with lower unemployment and lower interest rates.

By 1989 the fiscal aggregates had normalized (Figure 4) and, with the economy emerging relatively unscathed from the double-dip world recession of 1990-94, there has been no great deterioration since then. The Maastricht criteria have become a lodestone, and one which is being followed. But Maastricht guides only deficits and debt; it does not constrain the level of public expenditure and hence does not determine the level of taxation. The upward drift in government spending since 1989 can be afforded within the Maastricht borrowing criteria and without an increase in the tax to GNP ratio,[2] and it owes something to the absence of a tighter criterion commanding general political acceptance.

The question for the future is whether the fruits of economic growth will continue be absorbed mainly in greater public expenditure or whether the available option of a much lower trend of taxation is to be adopted for the medium term. For what it's worth, I believe that the political pressure for tax cuts will not increase. Experience shows that the public becomes exercised about a tax, or about taxation in general, mainly when it increases. Anxiety and confusion decline with familiarity. In this connection it is worth noting that tax shares tend to rise with increasing GNP, and thus rising prosperity has meant that, though still high by this standard, Irish taxation is not as far out of line as it used to be (Figure 5)

Structural changes in taxation over the years

Let me now turn to the structural changes in taxation that have happened during the Foundation's decade. This is a period which overlaps almost fully the years studied by Francis O'Toole (1993), who reviewed (for the Foundation) tax reform in the years since the first reports of the Commission on Taxation. A main theme of his report is that much of the change that has happened has been the result of forces other than explicit policy decisions.[3] For example cumulative increases in prices tended to erode the real value of many of the discretionary

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[2]The increase in receipts from the EU Structural Funds from 1989 has also been a contributory factor in allowing spending to increase without additional borrowing.

[3]He does acknowledge some definite policy-driven advances, notably in tax administration, in the treatment of capital gains, and in the area of capital allowances for investment.

allowances and deductions in the income tax code which had been criticized by the Commission.

As explained below, lower rates of inflation, achieved by the mid-1980s, substantially reduced the tax distortions in the savings market. EU directives and other pressures towards harmonization also played an important role; indeed Finance Ministers have apologetically introduced reforms as having been imposed externally, rather than taking credit for them. Furthermore, there have been reversals (relative to the base widening advocated by the Commission), such as the substantial increase in the ceilings for mortgage interest relief in 1993, and the introduction of a variety of new loopholes, e.g., BES, the IFSC and urban renewal incentives (on which more later).

O'Toole documents the well-known rise in average income tax rates, especially for single workers and for those in the middle-to-lower end of the income distribution, in the ten years after the Commission's first report. However, although average rates have increased, it is not that the numbers paying higher rates have increased: this percentage has not shown much of a trend since it first reached 40 per cent in 1983. Indeed, marginal income tax rates have fallen across a wide range of incomes, with the notable exception of those caught in the marginal relief range (resulting from the combination of a lowering of the real value of personal allowances, but not in the value of the exemption threshold). Important reductions have also occurred in marginal rates of capital gains tax, corporation tax and capital acquisitions tax.

A striking fact documented by O'Toole's data (updated here) is that, for all the comment during the 1980s on direct taxation, the share of Irish tax revenue made up of personal income tax plus social security tax is, at 48 per cent (1993), still lower than the EC average of 55 per cent. What was different is that this share leaped from 26 per cent in 1970 to 46 per cent in 1980, a much more rapid structural change than elsewhere. Of course, this reflected the substantial elimination of rates on property in Ireland, a source on which we had previously relied much more than had other European countries. At present, the share of tax on property (including stamp duties) is, at just 4 per cent, the same in Ireland as in the average of the EC, compared with a high of 12 per cent in 1970.

The *ad hoc* nature of some measures which have been ostensibly introduced as consistent with the Commission's recommendations seems to indicate either a rejection or a lack of

understanding of the Commission's logic. Let me offer the example of the Section 84 loans.[4] After several half-hearted attempts to close this large loophole which exploits the gap between the standard rate of corporation tax and the 10 per cent rate, the most decisive action that was taken involved the placing of a ceiling on the volume of such loans that might be made by financial institutions. Elementary microeconomic arguments strongly suggest that the consequence of such a limitation would be to shift the division of the tax savings from this particular device in favour of the financial institutions, hardly the desired result. One wonders what the point of having a considered approach to taxation is at all if perverse administrative patches like this are allowed to masquerade as reforms. It is the same approach that has Finance Ministers describing as an "abuse" any rational response to an incentive created by the tax system which happens to have consequences uncongenial to the Minister.

Distortions in the market for savings

It is hard to say where the worst distortions in the Irish tax system have been, but one candidate is the market for savings. The influence of taxation on the volume and especially the allocation of savings has long been recognized as a topic of special importance in the Irish context, and it was one where the Commission on Taxation made a set of very detailed and comprehensive recommendations. The Foundation asked Rodney Thom to quantify the distortions which taxation had introduced into the Irish savings market and his comprehensive report (1988) provides a benchmark for work in this area. He considers the degree of "fiscal privilege" associated with different assets, measured for each asset as the difference between the effective rate of tax on the asset's return and the saver's marginal rate of tax on earned income. This allows a concise quantification of the distortions imposed by the tax system on the after-tax return on savings in each year from 1970-87.

The main sources of distortion are well-known: taxation based on nominal rather than real returns, capital gains charged at lower rates than income (and not charged at all on Government Securities), tax relief on full nominal interest for mortgages, deductibility of contributions and non-taxability of the pension lump sum, deductibility of life insurance premiums and relatively favourable tax treatment of fund income. In the period reviewed by Thom, these effects gave a clear ranking of the main assets in terms of privilege. Most favoured was investment in BES schemes, followed by Housing, Pensions and Assurance. Relatively penalized were Shares,

[4]Individual ceilings on BES and other special reliefs fall into the same category. By placing ceilings the authorities have hoped to limit the revenue loss while creating distortions with largely unpredictable consequences.

Government Securities (held to maturity) and finally deposits. For high rate tax payers the differences in the degree of fiscal privilege across assets were enormous. Taking the average of 1979-86, for example, Thom estimates a fiscal privilege of 313 per cent for housing: in other words holding a house on mortgage actually sheltered other income from tax and conveyed a tax benefit several times the size of the real interest payments. At the other end of the scale, the fiscal privilege for bank deposits is estimated at *minus* 252 per cent: tax paid was a multiple of real interest earnings.

While some of the popular concern in the 1970s and 1980s with the tax treatment of savings was concerned with the regressive nature of many of the fiscal privileges, insofar as they were availed of chiefly by higher income categories, their effect on the allocation of investible resources was probably of even greater consequence. The system certainly contributed to an over-investment in up-scale housing, especially during the 1970s. In the late 1980s the impact of the BES (to which we return below) on the pattern of private investment was quite visible.

Short of full implementation of the Commission's approach designed to achieve complete neutrality in the tax code applying to savings, Thom advocated a distinction between long-term and short-term savings. The latter would be given expenditure tax treatment, i.e. deductibility of contributions, deferral of tax on the fund, full tax on withdrawal. Operation of such "qualifying funds" would be open to a wide range of intermediaries. This recommendation corresponds to initiatives which have been introduced in other industrial countries and responds to concerns that, at the individual as well as the national and international levels, saving for retirement may not prove adequate, especially with the income tax system biased in favour of consumption as against saving.

Since the mid-1980s, to which Thom's piece chiefly referred, there have been important changes in the taxation of income from savings.[5] By placing the deposits of banks and building societies on the same footing, and by removing the old privileges for assurance policies, tax code changes have removed an important distortion between instruments of almost identical characteristics. As is documented in an update of some of his earlier calculations (Thom, 1992), there has also been a narrowing of the range between the most and least favoured savings instruments. But the reduction in inflation would on its own have had substantially reduced this distortion even if there had been no code changes . This applies both to the taxation of deposit

[5]Including the introduction in 1993 of a much lower and final rate of retention tax (15 per cent) for a significant class of Special Savings Accounts

interest, which is now much less onerous than when nominal interest rates of almost 20 per cent were being paid, corresponding to zero or negative real returns because of high inflation, and when mortgage interest relief applied to nominal interest rates which were over 16 per cent, even though again these may have been negative in real terms. The tax treatment of Pension Funds and of BES funds remains advantageous, but the scope of the latter has been restricted.

Today, the concerns most widely expressed concerning the tax treatment of saving are that "risk-taking' is being relatively penalized by the low nominal rates of tax on deposits. Several things are going on here. One is a restructuring of savings portfolios in response to a narrowing of fiscal privilege distinctions. Another is an apparent worldwide decline in the equity premium - the before tax difference between the return on risk assets and that on default-free government bonds. Third is the effect of tax competition following removal of exchange controls in Europe, a factor which tends to reduce the degree to which capital income can be taxed at all. It is not clear to what extent these factors argue for anything other than the tax neutrality already advocated by Thom and by the Commission on Taxation before him. Risk is pooled by financial intermediaries, and little of it need be passed through to the household saver. Besides, financial risk-taking and enterprise are not synonymous and it is unlikely that the optimal policy would be to use new tax privileges to patch those gaps in the financial infrastructure which inhibit small-scale would-be entrepreneurs from securing finance.

3. Why there has not been a systematic reform?

With some of the worst distortions in the market for saving evaporated, and lower marginal tax rates, it might seem that little is left to be done. It is not my purpose to set out the remaining agenda here, but we may note that most of what Dónal de Buitléir advocated as priorities in responding to the speech given by Roger Douglas to the Foundation in October 1989 remains undone. For example: integration of income tax and employee PRSI; systematic taxation of fringe benefits; full imputation basis for corporation tax; an easing (at least) of stamp duties and a worthwhile tax on residential property.

There are several possible reasons why tax reform on a more comprehensive scale has not occurred in the Irish context.[6] These include, first, the possibility that there is no widespread

[6]For an international perspective, see John Kay's (1994) paper to the Foundation's Annual Conference.

agreement in the electorate on the direction of tax reform. As voters, we all agree that the tax system is not good, but we differ too much on what we would like to see changed for radical change to be accepted. A second reason may be procedural: we may not have adequate institutional arrangements for improving tax and expenditure policies. An *ad hoc* Commission may be a good way of establishing a broad policy thrust, but is not good to ensure implementation. Third, there are a number of "King Charles' heads" that tend to block debate at an intellectual level. Finally (and this will be dealt with in Section 4) there is a fundamental unresolved dilemma between the advocates of neutrality and of targeting.

Attitudes to tax reform

Finding out just what people think they would prefer is an important, though not necessarily decisive, part of the political process. In regard to taxation and public expenditure politicians are bombarded with partial information regarding such preferences - information which they have to sort and evaluate. For several reasons this is difficult to do. First, the consequences of taxation changes are not obvious; if based on a false model, voter-expressed preferences over policies may not correspond with preferences over the true outcomes of those policies. Second, as is often remarked, those directly affected scream loudest. Does society resist tax reform because of a failure of a political process, or do people really not want any available change?

McDowell's 1989 survey for the Foundation throws some light on these questions, though it also shows that unambiguous answers are unlikely to be forthcoming from survey data. Among the interesting findings are responses to a question which asked whether persons had a preference for fewer or more income tax rates. Actually this is a quite arcane question, in that any given income tax structure can be approximated quite well by a regime of two tax rates plus a personal allowance. Expressing a preference as between 2, 3 or 4 rates of income tax in no way implies a preference for or against progressivity. A system with more rates is not necessarily more progressive.[7] Nevertheless, respondents were prepared to express such a preference.

When it came to more concrete proposals, most respondents proved reluctant to see the elimination of any of the well-known deductions. This may well have been because the memory of the period 1979-84, during which the burden of income tax had soared, was still too fresh: the bird in hand of a deduction seemed more attractive than the rate reduction still in the

[7]A two-rate system with 20 and 80 per cent as the rates could be compared with a four rate system with 20, 30, 40 and 50 per cent as the rates!

bush. All in all, McDowell's data do not provide much encouragement for those expecting tax reform to have a short-run popularity. Only two-fifths of respondents favoured the extension of property tax to half the households in the country to yield about £100 million, to be spent in reductions of marginal tax rates.

McDowell argued that his survey had uncovered evidence of communitarian as opposed to individualistic attitudes to public expenditure and taxation in that the match between people's priorities for reform did not correlate with the areas in which they reported greatest personal problems. Another dimension of sophistication which he uncovered was a distinction made by people between their desire for improved efficiency of public services and a desire for more or less government spending. Although a large majority wished to see efficiency savings used to improve the provision of public services, an equally large majority did not want to pay more tax for those services, assuming the efficiency improvements were not forthcoming (McDowell, 1993).

Although hardly conclusive, the McDowell survey does suggest that, in avoiding radical tax reform, the politicians may have been counting votes accurately. There may be no consensus in the electorate for the Commission's type of tax reform. Of course, the electorate is not necessarily very well informed about the benefits of tax reform and may also be sceptical of the intentions of politicians. Perhaps a consensus can be built by reason and advocacy. But even among professional observers, including policymakers, there is little consensus concerning tax reform.

Inadequate Procedures

With the help of Foundation funding, Aidan Kane (1993, 1995) has been looking at Irish financial procedures and accounts, examining their history, and comparing with practice in other countries. Some of his recommendations are based on what are well-established principles which have resisted practical application to date. These include suggestions about accounting which should be based on programme rather than departmental lines, and on accrual rather than cash concepts. Automatic indexation of the tax code is another suggestion, though its merits seemed more obvious during the period of high inflation and rising tax take than it does today, at a time when the automatic stabiliser function of the tax system may have recovered its earlier importance.

He has also come up with a lengthy list of innovative proposals regarding to improved procedures. Among these are the suggestion that the Comptroller and Auditor General should

praise success as well as castigating error, in order to avoid an unduly defensive management policy on the part of the administration. He also suggests that tax and spending provisions should be specifically audited for their tendency to induce socially wasteful rent-seeking behaviour. A special office of the Department of Finance, to give effect to improved financial management procedures, is a central part of his recommendations.[8] A sharper focus on these procedures, getting away from the day-to-day pressures of lobbying and balancing the books, could well induce a more systematic and coherent approach to tax and expenditure policy from the administration, and one which just might be seen by the politicians as worth backing.

King Charles' Heads

A character in *David Copperfield* was unable to prepare a memorial without getting stuck on the irrelevancy of the execution of King Charles the First. In much the same way, discussion of tax reform in Ireland is prone to becoming bogged down in one or other of a handful of intellectual quagmires. I will mention just some of these stumbling blocks.

(i) Endowment effects and incentive effects

Almost all tax reforms have two rather distinct types of effect, which may be called endowment effects and incentive effects. Both are important. For example, a lowering of the top marginal income tax rate provides a windfall to high salary earners (the endowment effect) and may be expected to affect their behaviour in response (the incentive effect). I observe that politicians and headline writers focus almost exclusively on endowment effects, while economists tend to be mesmerized by the incentive effects. Ignoring either is unlikely to result in good tax reform policy. By taking more account of endowment effects, economists would not only refine their policy advice, but could stand a better chance of seeing that advice implemented.

(ii) Merit goods vs. administrative clarity

Many good things are taxed; not only the things we know are good for us, but also things which our super-ego has to work hard at getting us to consume. The desire to have the tax code reflect the relative merits of different goods has brought us zero-rating of books and medicines despite the absence of strong redistributive or externality arguments. A workable tradition (and a rather stronger set of externality arguments) hallows major existing exceptions to uniform taxation,

[8] Kane also suggests embedding fiscal rules in the Constitution, but I fear that we cannot adequately anticipate the contingencies that might cause us to subsequently regret such Constitutional rules.

such as alcohol,[9] tobacco, petroleum and motor cars, and good arguments can be found for a few other exceptions on grounds of environmental externalities. Nevertheless there are strong arguments of practicality and political economy against using the merit goods argument very widely. It is not just a question of administrative resource costs in both public and private sector of having a complex tax code - though these are sufficiently important to have restrained the proliferation of rates in indirect taxation. In practice, it is impossible to design a workable tax code which pinpoints exactly any given intended structure of reliefs; instead any complex indirect tax structure inevitably displays boundary effects which introduce unintended tax rate differentials which result in strong behavioural distortions or inequities, and generate further pressure for specific reliefs.[10] Thes problems can be largely avoided by having a substantially uniform indirect tax structure. So long as this argument is not widely accepted, attempts to "reform" the tax system are doomed to result in a hodge-podge of special interest measures. The budget which claimed most in terms of tax reform in recent years proved on the contrary to have something for everyone - including the tax reform lobby. A practical rule of thumb might be to reject any specific reliefs from uniform taxation while not ruling out specific surcharges for demerit goods.

(iii) Lohilo taxes

The evolution of the income tax system over the past decade has resulted in what is effectively a low-high-low structure of marginal tax rates (because the PRSI taxes are not imposed beyond a ceiling). This is widely regarded as a poor design feature, but on the contrary it is quite arguably the best possible structure for a tax regime that must collect a very large average percentage of aggregate personal income. Low marginal rates at the top and bottom ends, where incentive effects may be more important than for salaried workers in the middle[11], need not (and in practice do not) result in a regressive average rate structure. Although this doctrine was already preached in the Meade Report,[12] it is not widely understood.

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[9]But see below.

[10]For example, the hard cases generated by the attempt to differentiate between children's and adults' clothes on the basis of size.

[11]And the opportunities for avoidance are also higher at the top end.

[12]"At [the] top end the number of taxpayers is rapidly thinning out, as one goes up the scale. There is very little to be gained distributionally from raising the average rate of tax at the very top end because there are so few taxpayers there that the gain in revenue would be insignificant; but the very high marginal tax rate that this would involve on those at somewhat lower rates of earnings might have significant disincentive effects...A somewhat similar analysis leads to the

(iv)The entitlement principle and social insurance

To defend a low-high-low structure is not to decry a rationalization of the rate structure by integrating the social insurance tax more effectively with the income tax code. But here too the debate is a dialogue of the deaf: no point in arguing the irrelevance of actuarial calculations to the structure of the PRSI charge to someone who maintains that social acceptance and the political legitimacy of PRSI is anchored in the entitlement principle evolved from the Beveridge approach. The international debate about the best way to make financial provision for old age is only beginning in Ireland. I suspect that the old attitudes to social insurance will quickly evaporate in the face of the challenges which that issue presents.

(v) Super-progressivity

The last of my examples is a fatal obstacle to phased reform, namely the perception that no individual reform should reduce the existing level of progressivity. This is an impossible requirement to fulfil, being obviously much more severe than that which demands only progressivity of the total reform. In practice many of the more obscure provisions of tax legislation affect the progressivity of the tax code at the top end but, being complex and not well understood, they are not obstructed.

The five stumbling blocks are impeding reform. They need to be explicitly debated if progress is to be made.

4. Neutrality versus targeting

Flat versus focused: the general issue

Although we may blame voter attitudes, inadequate procedures and intellectual confusion for the comparative lack of comprehensive tax reform over the years, a more important and deep-seated factor cannot be neglected. Two fundamentally different and opposed attitudes to the role of taxation in Irish society are maintained by different professional observers. While the main thrust of the Commission's recommendations was in favour of the flat tax, with neutrality, simplicity and the level playing field its slogans, the practice is quite different. Distorting

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view that marginal rates of tax should also be kept exceptionally low at the bottom end of the income scale...But... it is doubtful whether such a pattern could ever command political acceptance" (Meade, 1978, pp. 312-4).

incentives such as the 10 per cent corporation tax for manufacturing and certain internationally-traded services, urban renewal reliefs, the Business Expansion Scheme are at the centre of the drive for economic development.

Several of the most extensive research programmes funded by the Foundation have explored aspects of this crucial debate. The work has fallen into two parts. First, studies which consider the static distortions generated by the tax system, and assess potential refinements. These have been systematic analyses focused on the economy as a whole. The second set of studies focuses on specific distorting tax initiative which have had more dynamic objectives.

4.1 The static model-based approaches

The Foundation has supported two major efforts based on sophisticated, though standard, models of economic behaviour where the parameters have been calibrated to or estimated from Irish data. Starting from subtly distinct methodological approaches, David Madden (on the one hand) and the team of Kevin Denny, Aoife Hannan and Kevin O'Rourke (on the other) arrive at conclusions which are not yet easy to reconcile, the former arguing for differentiation in tax rates, the latter seeing great benefits in uniformity. Along the way, they throw much light on how this question of flat versus focused can be considered. We consider them in turn:

The tax implications of the pattern of consumer demand

David Madden's suite of interrelated papers on the pattern of commodity taxation[13] and its relation to income tax is based on a rigorous empirical application of the classical micro-economic theory of demand. He asks the following question: given that demand is more price-elastic for some goods than for others, and that some goods are luxuries while others are necessities, how do we rate the existing Irish tax system from the point of view of the minimization of tax-induced deadweight losses and from the point of view of the reduction of inequality? Answering this question obviously requires estimates of the price and income-sensitivity of the demand for different goods, and Madden has provided several different approaches[14] to estimating these elasticities, based on a 10-commodity breakdown of aggregate

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[13]E.g. Madden (1992, 1993, 1995a and b). The issue of indirect taxation was the subject of the Foundation's first research paper by Fergal O'Dwyer (1987), which focused on the likely impact of EC tax harmonization on Irish tax revenues and on the Irish economy generally.

[14]Basically, one is trying to fit an equation to explain changes in the consumption of each commodity as a function of relative prices and of income. But in choosing the functional form and specification of the equation some account needs to be taken of the adding-up and

consumption in Ireland over the years 1958-88. The full set of own-price and cross-price elasticities, together with income elasticities amounts to almost 100 parameters to be estimated, even when the restrictions imposed by economic theory are taken into account. As a result there remains some room for debate about the accuracy of the estimates, but both the methodology adopted and the plausibility of most of the results mean that they represent a sufficiently good summary of patterns of consumption behaviour in Ireland to be used as the basis for consideration of tax policy.

This Madden proceeds to do in several different ways. For each commodity group he calculates the additional revenue which a little more taxation would yield, and also the welfare loss that would result.[15] The ratio of these two (denoted ρ) is the marginal welfare cost of additional revenue from that commodity. An improvement in welfare will be achieved by increasing the tax on commodities with low marginal costs ρ, while lowering the tax on the others. An optimal tax system will have the same value ρ for each commodity. Madden finds that, at present tax rates, the ρ's are widely different for different commodities, suggesting that - ignoring considerations of adminstrative clarity - welfare improvements could be achieved by altering tax rates, and in particular by departing from uniformity.[16]

Unless an adjustment is made for the consideration that alcohol, tobacco and petroleum consumption may have negative external effects, these goods tend to rank low on Madden's list of the goods to be heavily taxed. In another paper he inverts the procedure described above and estimates the degree of externality that it implicit in the existing tax structure as applied to these goods. This is a most useful framework for assessing these issues of externality in indirect

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symmetry conditions implied by theoretical analysis of optimal household behaviour, of the fact that the data represents an aggregate of households and not just one, and of the fact that preferences and behaviour may evolve dynamically. Balancing these often conflicting requirements is the art of applied demand theory.

[15]The marginal revenue depends on the price elasticities; the marginal welfare cost is the cash cost to each household, weighted by the marginal social valuation of income at different household income levels. Rather than relying on the fitted values from the estimated demand systems, the cash cost for different ranges of household income are based on data from the Household Budget Survey.

[16]Because consumption patterns differ at different household income levels, the value of ρ depends on how averse the policymaker is to income inequality. Nevertheless, the price elasticities are sufficiently different that Madden finds that the ranking of commodities is relatively insensitive to the degree of inequality aversion.

taxation.[17]

When labour supply, possibly subject to a ration, is also brought into the analysis, and existing average income tax rates taken into account, Madden's numbers suggest that reduction in some commodity taxes should have priority over a reduction in average income tax rates. This particular finding runs counter to the drift of most of the popular debate on taxation in Ireland. Of course much is omitted from Madden's model: by choosing mathematical rigour he does sacrifice elements of messy reality. Even if this conclusion about the relative ranking of direct and indirect taxes is not accepted, it presents a challenge requiring us to refine our understanding of why an alternative view should prevail. Among the relevant considerations are dynamic considerations related to saving, investment, migration and enterprise.

Taxation of production and consumption

Equally ambitious is the research programme embarked upon by Denny, Hannan and O'Rourke in their GE modelling of the Irish economy. In contrast to other forms of economic modelling, GE (general equilibrium) derives its structure from the assumption that producers are minimizing explicitly specified cost functions and consumers optimizing explicitly specified utility functions. The impact of tax changes is thus calculated from its impact on the optimum response of the cost-minimizing producers and utility maximizing consumers.

In contrast to the work of Madden, the GE model does not assume away the impact of tax changes on producer prices, wages and employment.[18] On the other hand its modelling of consumer behaviour is very simple - the share of each good in consumer expenditure is taken as constant. In comparison with traditional macro-models the rigour and analytical coherence of the modelling of behaviour comes at the cost of neglect of many idiosyncratic features of the Irish economy which are not easily levered into the static cost-minimization framework. Furthermore, the parameters used in the GE model are based on evidence drawn from a variety of sources, and (not being based on confronting the equations of the model to actual data) are not necessarily those which would ensure that the model fits Irish experience well.

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[17]This and other questions relating to the taxation of alcohol has been examined in another recent Foundation-funded paper by John O'Hagan and Aisling Reilly (1995) who, in a broad overview of issues at home and in the EU, note the extremely high rates of alcohol taxation in Ireland and cast a sceptical eye on the externality arguments. They also mention the nonsense of duty-free, still not due to be phased-out until 1999.

[18]An early Foundation-funded report by Anthony Murphy (1987) also evaluated the impact of tax changes on employment and unemployment.

A note of caution needs to be entered regarding the interpretation of tax simulations with GE models: these models are something of a black box, the inner workings of which are rather impenetrable, even to the authors. The model on which Denny, Hannan and O'Rourke have been working on still displays some hard-to-understand features, including the existence of multiple equilibria. The sometimes dramatic impact of their tax simulations (e.g. the conclusion that replacing the existing indirect tax structure with a common tax across all commodities would lower the unemployment rate by almost 5 percentage points) suggest that the elasticity parameters that have been employed still need refinement before this approach can migrate from the academic to the policy sphere.

If Denny, Hannan and O'Rourke conclude that uniform taxation is better than differentiated, that is partly because, unlike Madden, they have not built-in to their assumptions strong reasons for differentiation. Madden explicitly includes estimates of the different demand elasticities (resulting in different deadweight costs) and different income elasticities (resulting in a potential distributional reason for differential taxation).

4.2 The effectiveness of targeted distortions

The papers discussed are based on essentially static concepts of efficiency and equity in taxation; they hardly address the dynamic issues of enterprise, investment and growth. Do distorting incentives have a sufficiently favourable dynamic leverage effect to outweigh these considerations?

The Foundation has funded several investigations into incentive schemes designed to skew economic behaviour in pro-development directions. I group under this heading Jim Stewart's (1992) evaluation of the Business Expansion Scheme, the work of Frank Convery and John Blackwell (1991) on urban renewal incentives and Maeve McCutcheon's (1995) assessment of the effect of the 10 per cent tax regime on marginal tax rates for MNCs.

The BES

Adopted in 1984 in imitation of a similar UK initiative, the Irish Business Expansion Scheme has been one of the most controversial and visible activist tax measures of recent years. No friend of this scheme, Stewart graphically displays its weaknesses during the period up to 1991. The scheme was designed as an encouragement for risk-taking and as alternative source of

finance to grant-aid, but Stewart shows that, even for the type of company for which it was initially made available, it tended to increase the exchequer cost-per-job by about one-half. Soon, the BES was employed in areas far from its original focus. One Shannon-based aircraft leasing company raised £23 million at an Exchequer cost estimated by Stewart at just under £2 million for each of the 7 jobs created. In 1987 the scheme was extended, among others, to tourism and ship purchase, with very visible consequences for economic activity in these sectors.

Because of the ingenuity of financial engineers, and because of the enormous tax concession involved, it was easy to construct schemes in such a way that the provider of funds received very large (e.g. 19 per cent per annum) guaranteed returns. Stewart explains how BES firms were established to own whiskey stores that already benefitted from a forward sales contract, or to own ships that had already been leased to other companies. Other schemes benefitted from bank guarantees that loan finance would be provided to the borrowing company on maturity of the BES fund. In 1989-90, before a substantial restriction in the scope of the scheme, BES companies raised £78 million, of which only about 30 per cent went to the manufacturing, computer software and food processing sectors. Intermediary fees were large, averaging over 10 per cent of funds raised in a dozen cases studied by Stewart.

Urban renewal incentives

A fairly sympathetic examination of the urban incentives package was provided by Convery and Blackwell, who carried out a detailed questionnaire and interview procedure to discover what the effects of the incentives had been. At the time of the research, the incentives had not been in place long enough for a definitive estimate of their full impact, but already major features were clear. Under the Urban Renewal Act of 1986 (amended in 1987), major incentives were available to developers and occupiers. For example, up to 100 per cent of building, reconstruction or improvement expenditure in the designated areas was made allowable against income tax or corporation tax.

Official records provide an estimate of the total volume of investment undertaken - almost half a billion pounds by June 1990, and one of the purposes of the study was to estimate what proportion of this had been simply displaced from other locations, and what proportion was fully additional. Questionnaires indicated that about one-half of the investment would have gone ahead anyway, but two-thirds of that would have been located outside the designated areas had it not been for the incentives. Thus about 16 per cent of the total was pure deadweight and a further 30 per cent represented displacement. The methodology did not allow any assessment

of displacement or spin-off effects, positive or negative, outside the construction sector. No official figures were available for the tax expenditure involved. It might be unduly naive to assume that all of the investment expenditure sheltered tax at the top tax rate, considering the existence of other tax concessions which might have been lost by the displaced projects. The capitalized value of the double rent allowance may have been worth rather less, given the vacancy rates that were experienced by many of the office developments in Dublin (Pierse, 1991); but it has not, I think, been shown that the total cost to the Exchequer was lower than the full amount of the induced investment.

Although clearly enthusiastic about the need for an activist policy for urban renewal, Convery and Blackwell stressed the need for complementary policy instruments, and the key role of local initiative and of pioneer developers that remains even in the presence of such generous tax incentives. They also noted that use of tax incentives was unlikely to be redistributive, and that the incentives chosen had not been effective in maximizing conservation of existing buildings in the inner cities. The reader may conclude that the incentives were considered a blunt instrument deployed in a good cause. Since Convery and Blackwell wrote, and despite their warning that diminishing returns would set in, there have been extensions of this type of incentive. Clearly this is an area calling out to be revisited by future research.

Effective tax rates for MNCs

McCutcheon (1995) provides a detailed tabulation of the effective tax rates faced by US investors considering locating a profitable enterprise in Ireland. The 10 per cent nominal tax rate in Ireland is shown to be equivalent to about 3 per cent effective tax rate for companies without excess tax credits. Most of the difference arises because of the way in which the tax system provides generous relief for financing costs (a generosity which increases with the rate of inflation). She has taken account in these calculations of the MNC's ability to optimize the financing structure choosing between share issues or borrowing by either parent or subsidiary in such a way as to minimize the after-tax cost-of-capital.

Possible the most interesting aspect of McCutcheon's work is the way in which she highlights the role of excess tax credits. If the US-owned MNC has paid tax at a higher-than-US rate on profits earned in a high-tax jurisdiction, then by use of an averaging provision in US tax law, the lightly-taxed Irish profits can be used to get full value from what would otherwise be excess credits. After-tax, the Irish profits are actually worth more than before-tax; in other words the effective rate of tax is negative. Her tabulations show negative tax rates of up to 10 per cent. The fact that averaging, much more than deferral, is the key to the tax-efficiency of US MNC

operations in Ireland is a factor well-worth highlighting.

It is hard to be categorical about the consequences of the tax regime for MNCs. Undoubtedly, it induces an inflow of firms: the uniquely high share of manufacturing employment accounted for by foreign-owned firms is evidence enough of that. But to what extent does it make for a more capital-intensive form of industrial investment? A feature of McCutcheon's work is the way in which she moves away from the focus of earlier work, which computed after-tax cost of capital figures, in favour of computing effective tax rates on profits. This surely captures correctly the kinds of decision being made by multinationals locating here: they are typically choosing a location for a project whose capital intensity is predetermined (whereas immobile domestic producers would be choosing the capital intensity of a project certainly destined for Ireland). While other designs of incentive package could appeal relatively more to firms choosing the location of more labour intensive projects, job creation will not necessarily be maximized by the package that minimizes capital intensity; the volume of projects is as important as their labour intensity.

The case against the 10 per cent manufacturing regime (or, more precisely, against such a large gap between this and the standard rate of corporation tax) derives from its impact on the evolution of domestic firms. Here its anti-labour bias becomes more evident. Furthermore, while overseas expansion by the front-line manufacturers is largely driven by non-tax considerations, it would be surprising if none of the benefit of the 10 per cent rate leaked into the after-tax value obtained from overseas activities (despite the nominal restriction to activities in Ireland). Besides, though the scope of the regime has been extended in the direction of certain internationally-traded services, the *ad hoc* nature of such extensions contributes to the rent-seeking mentality, and could result in important and dynamic areas passing Ireland by entirely because they were excluded from the preferential regime.

5. Distribution and taxation

Distributive issues have often been seen as the Achilles heal of the Commission on Taxation. Quite clearly, implementation of its recommendations would have been somewhat regressive without some offsetting action in the sphere of expenditure, including social welfare payments. But it was not clear just what the distributional effects would be.[19] At the time one was limited

[19]And the subsequent Commission on Social Welfare did not choose to assume that the Commission on Taxation's recommendations would apply, but pursued a rather different type of

to making rather amateurish calculations based on the impact of tax reform packages on households with certain standard characteristics. These tend to be rather unrepresentative. For instance, that old work-horse of post-budget analyses, the "married man with wife and two kids at home" represents fewer than one in twenty of actual households. And even they differ in their mortgage interest obligations and other tax-relevant characteristics.

The Foundation helped fund a major research project by Tim Callan and colleagues[20] which has made a real breakthrough in this area. As a result, there is now a working tax micro-simulation model which allows detailed distributional analysis of proposed tax changes. We can discover how many households (and of what type) will gain, and lose, from complex reform packages and by how much.

This has been achieved by analyzing the large ESRI sample survey of 1987, which collected all of the necessary data. Information on the tax-relevant characteristics of each sample household are encoded in such a way as to allow the impact of most types of tax reform to be computed. The sample is sufficiently large and representative to allow inferences to be drawn about the impact on various sub-categories of the population. Although demographic, employment and other trends mean that the 1987 sample is getting a little out of date, it can still be tuned to current conditions. A new survey has been put in the field and will probably be available for analysis in 1996/7.

Among the many tax reforms which have been assessed using this model, let me mention the taxation of Social Welfare benefits. Callan (1991) showed that any suggestion that this would mainly hit the less well-off was wrong. Fewer than one in ten of losers were estimated to be in the bottom 30 per cent of the income distribution. Fully 80 per cent of the additional revenue would come from those in the top half of the income distribution.

The same paper also shows the favourable effects that could have been achieved by making child benefit taxable. May I be permitted to cry a little over some recently-spilled milk in this area? Just occasionally, an opportunity arises to make a solid reform without running into the usual constraint that nobody should lose. Heading into the 1995 budget, the configuration of

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agenda.

[20]cf. Callan and Nolan (1989), Callan (1990), Callan (1991), Callan, O'Donoghue and O'Neill (1994).

funds politically available to improve child benefit would have allowed a long-overdue structural reform easing the unemployment trap while generating a reduction in family poverty. Instead of the £7 per month extra across the board which was actually announced in this year's budget, it would have been possible to increase the universal child benefit by about £30 per month but (i) making the benefit taxable[21] and (ii) reducing the social welfare child dependant additions. (The latter are lost when a person moves into a job from unemployment, and they thus constitute one of the major elements of the unemployment trap.) Essentially all families would have gained by this scheme - by at least a couple of pounds per child per month.

It is interesting to contemplate the objections that would have been raised to this proposal, ranging from its potential divisive effects on the family, to the administrative headache of ensuring that only child benefit that is actually collected is taxed, to the consideration that the unemployed would have gained the least (deliberately so in order to ease the unemployment trap). And there would be some hard cases arising from the mismatch between the weekly nature of social welfare payments and the annual basis of income tax. Anyway, the available resources were used up without achieving structural reform, and this will make any no-loser reform much more costly. Clearly a missed opportunity - or at least that's my own view and at least some of it is supported by the results of impeccable research.

6. Expenditure Reform

The Foundation has not neglected the question of expenditure reform, but it is fair to say that the research programme here has not yet developed as far as in other areas. I will briefly mention three papers.

An unfortunate side-effect of the EU Structural Funds is the manner in which their availability has prevented any hope of a decline in the dole mentality in regard to public spending. In a preliminary examination of a statistical "needs" driven approach to regional allocation of the EU Structural Funds within Ireland, Kevin Rafter (1994) employs a number of indicators likely to be correlated with the distribution of different sub-regions' need for ERDF, ESF or EAGGF resources (examples for each fund would be the length of road network, the numbers unemployed and the number of farms respectively). The funds are not in fact distributed in

[21]In an ideal world, major child benefit reforms would be done only in the context of a massive restructuring of income tax rates and bands - and in that case a good job could be done even without taxing child benefit.

strict proportion to any combination of the chosen indicators, and Rafter asks whether the deviations could be used as a potential indicator of misallocation. He acknowledges that the method has its limitations, and it certainly would not endear itself to the central adminstration as a means of deciding on allocations within Ireland. The method probably has greater potential applicability in an EU-wide context.

Also in preliminary form is some econometric work by Kevin Denny and Cathal Guiomard (1994) attempting to assess the spin-off benefits of the public capital programme on economic growth. Early results suggest that roads investment may have very large favourable effects on growth, but the authors caution against drawing any policy conclusions yet.

The National Museum is not a large item of public expenditure, yet the issue of whether or not admission charges should be made is an interesting one which involves many of the conceptual issues which arise in public expenditure policy. The Foundation supported the research effort reported by John O'Hagan and Christopher Duffy (1994, 1995) which analyzed this question. The looked at survey data (collected in 1986) showing that only a small minority (fewer than 10 per cent) of the population had visited a museum in the previous year, and that the A (higher socio-economic) group was greatly over-represented among the visitors. Although unsurprising, the data do alert us to the limited quantitative relevance of the proposition that charges would keep out the less well-off. The museum provides services that have a public good quality about them, and there should not therefore be a presumption that it should self-financing from charges. Nevertheless, the authors provide a number of persuasive arguments for the introduction of charges, especially if structured (as is done in many museums abroad) in such a way as to minimize adverse side-effects, for example by having free days. Though many of the issues are not specific to museums, the results cannot easily be generalized. Analysis of charges for public services in Ireland is still in its infancy.

7. Concluding Remarks

Will more and better research help form better tax policy, or will it merely help us to understand why better policy is not forthcoming? Let me conclude with some remarks about the role of research in the formulation of fiscal policy. One type of research could be described as fact-driven. It aims to uncover facts whose relevance (if they could be found) is not in doubt. This is the type most in demand, as the utility of its results, if it is successful, are evident in advance. Another type of research involves drawing attention to the relevance of facts, not necessarily new, in a hitherto unrecognized context. There is much less demand for this kind of research,

because nobody expects or even wishes their preconceptions about how policy affects the economy to be overturned.

But most facts are subject to wide uncertainty, no matter how good the research, and it is more the way we look at how the economy and society work that really drives our approach to policy formulation. Sometimes, as in the micro-simulation models, there is a quantum-leap in the precision of facts generated. But insights such as the destructive nature of rent-seeking, and the way in which the powerful forces of financial engineering deal with poorly designed and distorted tax systems (dramatically illustrated by experience with the BES), are often of greater help.

That is why we continue to need a diversity of researchers working on different ways of modelling economic (and political) behaviour in relation to taxation. I would like to think that future research output, with the Foundation doubtless retaining its leading role, would result in new ways of looking at things that will make my King Charles' heads fade like the Cheshire cat.

Research teaches the researcher, and not the least benefit of the Foundation's research programme has been its success in encouraging researchers to turn their minds to matters fiscal, thereby widening the group of informed professionals participating in the policy debate.

For me, the big question is still whether the flat tax perspective of the Commission on Taxation should generally prevail, or whether instead one should adopt the sort of mindset which favors the use of taxes in a focused and deliberately market-distorting way to achieve some dynamic goals. The Commission made a powerful case, but it has not yet evidently won the day. No matter where one stands on this, further research cannot fail to help clarify the issue.