Property Tax in Ireland: Key Choices

Claire Keane John R. Walsh Tim Callan Michael Savage

RENEWAL SERIES PAPER 11

April 2012



Property Tax in Ireland: Key Choices

C. Keane, J.R. Walsh, T. Callan and M. Savage

RENEWAL SERIES PAPER 11

April 2012

Available to download from www.esri.ie

© The Economic and Social Research Institute Whitaker Square, Sir John Rogerson's Quay, Dublin 2

The ESRI

The *Economic Research Institute* was founded in Dublin in 1960, with the assistance of a grant from the Ford Foundation of New York. In 1966 the remit of the Institute was expanded to include social research, resulting in the Institute being renamed *The Economic and Social Research Institute* (ESRI). In 2010 the Institute entered into a strategic research alliance with Trinity College Dublin, while retaining its status as an independent research institute.

The ESRI is governed by an independent Council which acts as the board of the Institute with responsibility for guaranteeing its independence and integrity. The Institute's research strategy is determined by the Council in association with the Director and staff. The research agenda seeks to contribute to three overarching and interconnected goals, namely, economic growth, social progress and environmental sustainability. The Institute's research is disseminated through international and national peer reviewed journals and books, in reports and books published directly by the Institute itself and in the Institute's working paper series. Researchers are responsible for the accuracy of their research. All ESRI books and reports are peer reviewed and these publications and the ESRI's working papers can be downloaded from the ESRI website at www.esri.ie

The Institute's research is funded from a variety of sources including: an annual grant-in-aid from the Irish Government; competitive research grants (both Irish and international); support for agreed programmes from government departments/agencies and commissioned research projects from public sector bodies. Sponsorship of the Institute's activities by Irish business and membership subscriptions provide a minor source of additional income.

Renewal Series

This paper is one of twelve in the ESRI *Renewal Series*. This special series of studies tackles key issues relating to economic renewal, as Ireland seeks to emerge from the economic crisis. Each study adopts an evidence-based approach to a major policy challenge, assessing what we can learn from current international and domestic evidence.

The ESRI acknowledges the financial support of the FBD Trust for the *Renewal Series*. FBD Trust is a philanthropic trust established by FBD Holdings plc.

The Authors

Claire Keane is a Research Analyst, John R. Walsh is a Senior Research Analyst, Tim Callan is a Research Professor and Michael Savage is a Research Assistant at the ESRI.

Acknowledgements

We are grateful to participants at an ESRI internal seminar, to two anonymous referees and to the editors for comments which have helped to improve this paper. We would also like to thank David Duffy and John FitzGerald for helpful discussions.

Property Tax in Ireland: Key Choices

Abstract

The introduction of a property tax is now firmly on the policy agenda. Designing such a tax involves a series of choices which affect how the burden of the tax is distributed across households. In this paper we use *SWITCH*, the ESRI tax-benefit model, to explore the implications of alternative approaches designed to link a property tax with ability to pay. We also draw on international experience with property taxes to provide insights into choices regarding the structure and operation of a new tax.

A key finding is that an income exemption limit below which property tax is not payable (with marginal relief for those with incomes just above the limit) could provide a powerful tool for shaping the income distribution consequences of the tax. Without such an approach, the highest burden would be on those with lowest incomes. However, an income exemption limit for a single person of \pounds 12,000 per year, just above the State Contributory Pension rate, would greatly reduce the impact on low income groups. A higher income exemption limit of \pounds 15,000, with a tax rate of \pounds 2.50 per \pounds 1,000 of house value would mean that the property tax would have little impact on those on the lowest incomes, and have its greatest impact – a reduction in disposable income of just under 1 per cent – on those with the highest incomes.

1. INTRODUCTION

The introduction of a property tax is now firmly on the policy agenda. It was included in the initial Memorandum of Understanding between the Irish government and the IMF/EU/ECB Troika and has featured as one of the items specifically timetabled for action in all subsequent reviews. The flat-rate Household Charge in Budget 2012 was flagged as a "... first step towards a value-based property tax"¹ in later years. Arguments for and against the introduction or re-introduction of a property tax have been debated for more than 30 years, and have been rekindled in the current context. In this paper we seek to shed some light on the heated debate around these issues.

The design of a value-based property tax involves a series of choices, and the net impact on households can vary substantially depending on the precise design chosen. The relationship between property tax liabilities and ability to pay depends on the extent to which those with more valuable properties tend to have higher incomes and on the treatment of those who have low incomes together with high property values. We examine these issues using data for a nationally representative sample of Irish households, including information on housing values and on incomes from all sources. We explore the impact of full and partial waivers on property tax for those with low incomes, and examine the impact of net liabilities on households across different income levels.

The 2012 Household Charge is, according to government statements and the agreements with the Troika, an interim measure. For this reason we focus mainly on the impact of a value-based property tax compared with the situation before the introduction of the Household Charge, giving a fuller picture of the impact of a value-based property tax. However, the real choice is not between property tax and the pre-existing situation, but rather between property tax and some other combination of tax increases and expenditure cuts that would have an equivalent impact on the fiscal deficit. Fleshing out such alternative scenarios is outside the scope of this paper, but is part of our ongoing programme of work in the analysis of tax and welfare policies.

In order to answer questions about the design of a property tax, we need to consider the reasons which motivate its introduction. Section 2 reviews the basic rationale for property taxation.² Section 3 then deals with a series of issues about the design of a property tax for Ireland, providing a base for later development

¹ Attachment to Letter of Intent on behalf of the Irish government, included in IMF (2011).

² More detail is provided in Callan *et al.* (2010).

and analysis of policy options. The data and modelling tools used in our analysis are described in Section 4. The revenue and distributional impacts of a broader tax on owner-occupied residential property are examined in Section 5, using *SWITCH*, the ESRI tax-benefit model. The implications of full or partial waivers for those on low incomes are explored. In particular, we examine both the direct impact on incomes, and the impact of waivers on two measures of financial work incentives: the marginal effective tax rate and the replacement rate or ratio between income when unemployed and when in employment. The main findings are then drawn together in the final section.

2. PROPERTY TAX: RATIONALE AND IMPLICATIONS

Recent reviews of the rationale for a property tax in the Irish context, and the arguments for and against its introduction are given in Commission on Taxation (2009) and Tax Strategy Group (2010). Here we provide a more selective view of the arguments, so that we can focus on those which have implications for how a property tax should be designed and implemented.

Heady (2009) listed a number of features of property taxes which make them a useful part of the overall tax base, and a feature of tax systems in most industrialised countries:

- property is immobile, and taxes on property are hard to avoid or evade,
- property tax revenue can be used to reduce the burden of income taxation and has fewer behavioural consequences than income taxes,
- property taxes can offset distortions caused by favourable tax treatments of owner occupation which tend to cause overinvestment in housing,
- property is a major component of wealth,
- property is suitable as a local tax base.

All of these are relevant to the Irish situation. In the current context, raising revenue from property tax can help to help to limit increases in income taxes. Conefrey *et al.* (2008) confirm that, for a given revenue target, property tax has less impact on growth and employment than income tax or indirect tax.

Ireland's tax treatment of housing was, in the early 2000s, one of the most generous in the OECD, allowing a tax deduction for mortgage interest payments, while not taxing property values, capital gains or imputed rent (OECD, 2006). As of now, however, mortgage interest relief is scheduled for abolition by the end of 2017, while a value-based property tax is to be introduced. It is important in making such changes that a system-wide approach be taken to the design, rather than combining revenue-raising initiatives in a piecemeal fashion.

One coherent approach is to set up a system under which a property tax broadly approximates tax on the imputed rent of owner occupiers. It is owner occupation which has had a strongly tax favoured status. It may be appropriate to have some form of property tax for the rental sector, but it should not be assumed that this would have exactly the same form - or the same goals - as a property tax on the owner-occupied sector. While the imputed income from owner occupation is not monetised, and not taxed, there is income generated by the rental sector which is subject to tax. On the other hand, there have also been generous tax incentives for the rental sector, some of which are currently being phased out. A property tax in the rental sector might be designed to ensure a "minimum tax" so that tax breaks do not play such a large role in offsetting rental income for tax purposes. Property tax might be treated as an advance payment against income tax, for example. Where tax breaks lead to low or zero income tax liability on rental properties, the property tax would still apply – i.e., the credit would be a nonrefundable one. Important further implications of this "imputed income" approach are discussed below, in the context of the choice of the appropriate tax base.

The local taxation aspects of a property tax are outside the scope of the current paper. However, we note here a number of important issues which arise in this context:

- Differences in the value of the aggregate housing stock across local authority areas.
- Potential differences in demand for local authority services across regions.
- Differences in the cost of supply of local authority services.
- The appropriate role and mechanisms for central government transfers to local authorities, to take account of differences in needs and resources.

These elements all come into play in the determination of differential property tax rates across local authorities, and are deserving of further investigation. The present paper, however, focuses on broad design issues at a national level, including the overall revenue target, mechanisms for the provision of relief to those on low incomes, and issues relating to the transition from the transactions-based stamp duty system to a new annual property tax.³

³ While property is often used as a base for local taxes, Muellbauer (2005) argues that the link between property taxes and macroeconomic (in)stability means that central government should take a large share of property tax revenue, with local authorities obtaining revenue from local income taxes.

2.1 Tax Treatment of Property in Ireland

Comprehensive overviews of the fiscal treatment of property in Ireland have recently been provided by Ryan (2009), the Commission on Taxation (2009) and the Tax Strategy Group (2010). Here, instead, we focus on selected aspects of Irish experience with property related taxes.

Domestic rates were abolished in 1978. Rates were a highly unpopular tax, and the design of a new property tax needs to consider what aspects of rates generated that unpopularity. Rates were widely regarded as unfair. Properties had not been revalued for many years, so that discrepancies arose in relative valuations (e.g., as between older and new property). This points to the importance of regular updating of the valuation base for property. Postponement of a revaluation can make it even more difficult to implement at a later stage, as changes are bigger (McCluskey, 1999). Another feature which contributed to unpopularity is that rates were a highly salient tax, payable directly by the taxpayer in two lump sums (or moieties) each year. This contrasts with tax paid under PAYE, where income tax is deducted from pay on a regular (weekly or monthly) basis.

The Residential Property Tax, introduced in 1983 and abolished in 1997, had both a high property value exemption limit and an income exemption limit. This combination resulted in a tax which applied only to a small proportion of the population, and generated very limited revenue. Consequently, the experience with this tax is of limited value when considering a much broader property tax. Given that the tax applied only to about 5 per cent of households, identification of the relevant properties and owners had to be a key concern. With a more general tax, the issues, and the enforcement mechanisms, would be rather different.

A further consideration is that up to three-quarters of the revenue from the Residential Property Tax was raised from Dublin. Callan *et al.* (2010) found that a more general property tax would not have such an extreme effect. Their results do indicate, however, that a tax on property values levied at the same rate across the country would see Dublin contribute a share of revenue substantially higher than its share of income, of income tax or of local authority expenditure. This raises issues about local variation in property tax rates, demand for services, costs of services and appropriate central-to-local transfers which, as explained earlier, are outside the scope of the current paper. We plan to analyse these issues of regional balance in further work.

2.2 International Experience

Table 1 below shows how tax revenues related to property, as classified by the OECD, as a share of total tax revenue for selected years between 1986 and 2010. These figures include taxes related to commercial as well as domestic property, and transaction charges such as stamp duties as well as annual charges or taxes on property. In Ireland, revenue from property taxes was less than 4 per cent of total tax revenue in 1986. This was somewhat less than the OECD averages⁴, and substantially less than the share of 8 to 12 per cent found in Australia, Canada, the UK and the US.

Country	1986	1996	2006	2010
OECD	4.5	5.1	4.8	5.5*
Australia	8.1	9.0	9.1	9.6*
Canada	9.4	10.5	10.1	11.3
IRELAND	3.8	4.7	9.1	5.6
UK	12.4	10.3	12.4	12.1
US	10.9	10.9	11.1	12.9

Table 1: Property Tax as a Proportion of Total Tax Revenue

* Figure is for 2009 – latest available data

By 2006, revenue from property taxes in Ireland had risen to about 9 per cent of total revenue – putting Ireland into the group of countries in which property taxes had the most important role, supplying close to 10 per cent of total revenue as against an OECD and EU 15 average of about 5 per cent. Of course, this pattern largely reflects the fact that in Ireland, stamp duties on house purchases provided the main source of property tax revenues. Revenue from such taxes rose sharply during the prolonged housing boom but has declined sharply, as the number of transactions has fallen. Amounts payable in stamp duty were also reduced by the measures in Budget 2008 which reshaped the system from one with higher percentage taxes on the entire value above successive thresholds into a graduated tax. By 2010, the share of property-related taxes in Irish tax revenue was back to 5½ per cent – and with continued decline in the housing market, and substantial reductions in stamp duty rates, this is likely to have fallen further since then.

A recurrent tax on residential property has two major advantages over a transactions based tax like stamp duty. First, a stamp duty is a barrier to mobility, encouraging owner occupiers to stay in the same home. This works against

⁴ EU 15 averages are close to those reported for the OECD as a whole.

efficient use of the housing stock, and discourages labour market mobility. Second, as is evident in the Irish case, stamp duties are strongly influenced by the housing cycle, with larger revenues during a boom, and much smaller revenues during a downturn as at present. A recurrent tax on residential property helps to provide a more stable source of revenue. Indeed, taxes related to property may also play a role as macroeconomic stabilisers; on this issue see Muellbauer (2005) and Conefrey and FitzGerald (2010).

While UK experience is often used in exploring tax options for Ireland, the nature of the Council Tax, which had its origins in the Community Charge (commonly known as the poll tax) makes it of less value on this occasion. For example, the Council Tax is designed to limit taxes for the highest valued properties to 3 times the tax bill for the lowest valued properties – whereas the ratio of property values can average 8 to 1. However, recent Northern Ireland experience in moving from a system of domestic rates based on rental values to a system based on capital values is highly relevant and we draw on this in the next section (Northern Ireland Department of Finance and Personnel, 2002, 2004, 2007, 2008, 2009)

3. ISSUES IN THE DESIGN OF A PROPERTY TAX FOR IRELAND

There are several key choices to be made in designing a recurrent tax on residential property. In this section we consider some of the main elements, and outline the choices made in the design of a property tax to be modelled in the Irish setting in the next section.

3.1 Tax Base

The main approaches to property taxation used in most countries focus either on capital market values or on rental values. A third approach, site value taxation (SVT), was envisaged in an earlier Renewed Programme for Government (Government of Ireland, 2009). The Commission on Taxation (2009) had also considered this approach, but noted that despite the economic rationale, it was rarely used for tax collection in other countries. They concluded that this was because of a range of associated substantial practical difficulties, which are spelt out by the Tax Strategy Group (2010). Lyons (2011) describes the system in use in Denmark, and sets out an approach towards the implementation of a Site Value Tax in Ireland. However, to our knowledge, there is no data source which combines information on site characteristics (location and size) and household incomes, so that it is not possible to provide a clear picture of how a Site Value Tax relates to ability to pay or its impact on the distribution of income.

A further aspect of the choice of the base for a property tax is that with rates of owner occupation close to 80 per cent, capital market values have a natural advantage in being more clearly visible and well established. The small size of the private rental market in Ireland, despite its growth in recent years, makes it more difficult to implement a system based on rental values. McCluskey and Bell (2008), in a review of capital value versus rental value approaches, state that:

Under any tax system, taxpayer understanding is central to having an acceptable system. The basis of the tax and the transparency of its assessment needs to be easily understood. A good example of the lack of taxpayer comprehension was the use of the hypothetical gross annual rental value system that was used in England for residential property. This hypothetical gross value was based on very few actual rents that made it difficult to explain to taxpayers, simply because they did not relate the value of their house to an abstract hypothetical rental value.

Similar remarks about the difficulties of taxpayers' understanding could apply to site value taxation. In developed economies, the number of transactions in undeveloped urban land is not sufficient to allow direct measurement of site values. Instead, an approach similar to that outlined in Lyons (2011) is adopted: site values are estimated using relationships between sale prices of property and a range of characteristics. In what follows, therefore, we focus on capital values as the basis for a property tax.

There is, however, a further important implication of the strategy of approximating imputed rent from owner occupation. In this approach, it is the imputed rent, net of associated costs such as mortgage interest, which is of relevance. Thus, imputed net rent depends not just on the gross value of the accommodation, but on the owner's net equity in that property. In order to approximate this approach, a new property tax would need to take into account the extent of debt, or of debt interest, linked to the purchase of the residence. In practice, taxation based on property values is based on the gross value of the property, and does not adjust for the value of the mortgage outstanding on the property.

Nevertheless, it is illuminating to consider the contrast between the "pure" cases of a property tax based on gross housing values or on net equity. With a choice such as this there are substantial implications for how the burden of the tax is distributed. It is not possible a priori to regard one or other choice as being the definitive "undistorted" base for the tax, against which the other must be measured. The extent of a homeowner's net equity in his or her property depends, among other things, on the timing of the initial purchase in the housing market, on subsequent trading-up or down, and on the term and age of the mortgage and on the size of the initial deposit paid for a property. A net equity basis would automatically ensure that those in negative equity would have zero liabilities, while those with loans close to the now reduced values of their property would have small liabilities. Those who have gained most from the net rise in housing prices over the long run would face somewhat higher bills. Whether a property tax is viewed from the perspective of ability to pay – where income including imputed rent from owner occupation would be relevant – or as a form of taxation of wealth, some account needs to be taken of mortgage debt or mortgage interest.

Given that, to our knowledge, there are no systems based on net equity, the effective choice may be between a property tax combined with some form of mortgage interest relief (as, for example, in Denmark and the US) or a property tax without mortgage interest relief (as, for example, in the UK). In the Irish context, mortgage interest relief is currently scheduled for abolition as of 2017. The factors mentioned above could argue for a limited retention of mortgage interest relief, with the value of the relief for each taxpayer perhaps capped at some proportion of the amount of property tax payable. Under this approach the extent of relief would depend on interest payments rather than the size of the debt. Under this approach those paying high rates of interest would benefit more than those who have low cost tracker mortgages, for a given level of mortgage debt. For a given interest rate, those with low or negative net equity would obtain more relief than those with a greater net equity in their home.

There are, of course, broader issues concerning mortgage distress and negative equity which are already being considered in different policy areas. It is our view that the design of a new property tax mechanism needs to be aware of these issues, but that the design should flow from broad principles. The design of a property tax needs to be sustainable over the medium and long term and should not be overly influenced by the temporary, if severe, difficulties associated dwith mortgage distress. These should be addressed by more specific measures.. A property tax approach which encompassed some elements of mortgage interest relief, as set out above, would itself tend to limit the impact on those under greatest pressure from mortgage payments.

3.2 Valuation

How should properties be valued? Given that property taxes are common around the world, this issue has been faced in many different environments. Close to home, there is the recent example of the Rating Review process in Northern Ireland. (Northern Ireland Department of Finance and Personnel, 2002, 2004). Computer assisted mass appraisal combined the skills of valuers with hedonic regression models of house prices to allow for a revaluation of the housing stock within about 2 years. (See McCluskey *et al.*, 2007). The broad approach of the regression models is to relate the observed price of a house to its characteristics (location, size, number of bedrooms etc.). Once this relationship is established, it is possible to predict with reasonable accuracy the value of a house given a knowledge of a small number of key characteristics. The process need not be purely mechanical: it is possible for valuers to make an adjustment to the initial estimate. Furthermore, the owner can appeal a valuation.

In Northern Ireland, about 700,000 properties had to be valued. Less than 6 per cent of households appealed their valuation of which half were due to discrepancies over the information used in the assessment or clerical errors. Most of the remainder were dealt with either by an appeal to the District Valuer or to the Commissioner of Valuation. Only a small number were referred upwards to an Independent Valuation Tribunal. One factor which may have led to the low level of appeals was that rising house prices meant that owners were typically comparing the current house price with a valuation for a date somewhat earlier.

Property taxes based on market value are widespread internationally and operate on the basis of so-called "discrete" or "exact" values. Great Britain is the only jurisdiction that operates a system based on banded market value. One of the arguments which applied there – and has also been made here – is that a banded system could be implemented more quickly. In Britain, there was pressure to act quickly in order to move away from the poll tax (Community Charge) which had generated controversy and strong opposition following its introduction in 1990. The Council Tax was introduced in 1993. Just seven years later, Plimmer *et al.* (2000) wrote that

... initial allocations for banding now have reached a questionable "sell by date" and the arguments for an *ad valorem* revaluation or at least a rebanding are looming large. Plimmer *et al.* (2000)

Despite this, a scheduled revaluation for 2007 was cancelled, and almost 20 years since its introduction, there has been no re-banding or revaluation to take account of changes in market values in the intervening period. Thus, a policy instrument introduced under pressure of time has become fossilised.

Northern Ireland, as discussed above, provides a contrasting experience, where a revaluation on a "discrete" or "exact" basis, was undertaken in a short space of time and provides the basis for an ongoing system with scope for regular revaluation.

Can self-assessment play a role in valuing houses? Certainly it would seem possible to request basic information on a property from the owner, with systems of audit and penalty that make honesty the best policy. Direct self-assessment of the value by the owner may, in some circumstances, also be practicable. In current circumstances, there is great uncertainty about market values, with few transactions to guide owners in assessing their home values, there may be a greater need for external valuations based on mass appraisal methods, which estimate the relationship between market price and key characteristics of a dwelling.

How often should revaluations be carried out? International experience suggests that revaluations should be undertaken at least every 5 years. Some countries operate with more frequent revaluations, even every year. But in a periodic system, missing a revaluation tends to make it difficult to get back on track because the gains and, more especially, the losses, tend to be larger (Heady, 2009). Thus a robust revaluation schedule (including a built-in timetable) is an important element for a properly functioning property tax.

3.3 Tax Rate

Tax rates on property in the US, where property taxes are local taxes, tend to be in the range of 1 per cent upwards. (Smith, 2009). Of course, this is in a context where income taxes are much lower than in most European countries. Here we focus on a tax rate in the region of €2.50 to €3.00 per €1,000 of house value (or 0.25 to 0.3 per cent). A rate in this region is geared to bring in revenue of around €500 million per year. It is possible that the precise rate required to generate this amount of revenue may be somewhat above or below this level. This would have no impact on our analysis of distributional impacts. It could, however, mean that an individual taxpayer, attempting to estimate his or her liability, might find that this liability was somewhat under or over-estimated. Setting the required rate requires the use of information from a range of different sources on the value of the overall housing stock and its size distribution. This paper is not intended to focus on the issue of the precise rate of property tax and the numbers used are for illustrative purposes only. What matters to the individual taxpayer and to the Exchequer is the size of the tax bill, rather than the rate. Our analysis focuses on an aggregate tax revenue of €500 million and its distribution across the population of taxpayers. This distribution would not be significantly affected by changes in the calculation of the tax rate which are linked to general changes in house prices.

3.4 Relationship to Ability to Pay

How should property tax be related to ability to pay? There are several possibilities. Low income individuals may be exempt from the tax, or have their property tax bill reduced. Alternatively, the tax bills of low income individuals, particularly the elderly, may be deferred, and rolled up against the eventual sale of the property. We focus here on how an income-related rebate or waiver could be designed; but this could be complemented by an option for deferral, such as that now in place in Northern Ireland for those aged 60 or over. (Land and Property Services, 2010).

One key question here is *whose* income is to be measured. There will be households in which the owner has relatively low income, but there are also adult children present with higher incomes, so that there are sufficient resources in the household to pay the bill. In our analysis we focus on an income waiver which is related to the income of the owner and his or her spouse, but does not include the incomes of other household members. Potentially, a scheme which looked at wider household incomes could raise more net revenue and/or afford greater protection to households with least resources. This is an area that could be studied in further research.

A further issue arises in the administration of an income related scheme. Ideally, for administrative efficiency, income or resources would be measured once, for example by the tax system, and this income measure would be used for several purposes e.g., the calculation of income tax, and the calculation of income-related relief from property tax. The report of the de Buitléir committee on third-level student grants (Department of Education and Science, 1993), however, confirmed that the operation of the student grant system tended to favour those students whose parents were self-employed or farmers. This was because grants were determined on the basis of a single year of income, and the self-employed including farmers were better placed to ensure that their incomes fell below critical cut-offs for entitlement to grants.

A similar scenario may be of relevance when it comes to property tax reliefs. If taxable income is not a good measure of long-term resources for those who are self-employed, then there may be a case for having income-related relief administered in a different way, which is better able to take account of these long-term resources.

Could low income reliefs give rise to taxpayer responses seeking to avoid or minimise property tax payments? It is technically possible that there might be attempts to avoid tax by transfers of ownership to low income family members. The hazards involved in transfers of ownership might limit the extent of such a phenomenon, but in any event this is something which may need to be borne in mind in the drafting of legislation and monitored over time.

3.5 Transition from Transaction-based to Annual Property Tax

As discussed in Section 2, the Commission on Taxation's (2009) recommendations included introduction of a recurrent tax on property as part of a package involving the elimination of the stamp duty tax on house purchases. Such a shift has the attraction of reducing barriers to mobility, by reducing or eliminating a transactions tax. There would, however, be significant transitional issues to be dealt with. For example, an individual who had purchased a house in the last year or two would have paid substantial taxes under the "old" transactions-based system, and now face substantial ongoing taxes under the "new" system of recurrent tax on property. How might this be dealt with?

One line of argument is that the existence of stamp duty has already kept the price of land and property below the value it would have had in a tax free environment. On this approach, the full "capitalisation" of the tax into prices means that the burden of the tax fell on those who owned land and property at the time of its introduction. While a recent purchaser will have been the person writing a cheque, the total price paid for the property plus stamp duty, would have been the same if the tax were not in place. On this view, the burden fell elsewhere, with no effect on the recent purchaser. As a result, there would be no need for any compensatory mechanism.

This line of argument depends crucially on the tax being fully incident on the owners of property and land when the tax was introduced, so that the tax is fully capitalised into the price. The evidence on this is quite mixed. An overview of research in this area by Fullerton and Metcalf (2002) concludes that:

This type of measurement turns out to be a complicated statistical exercise, however, and economists continue to disagree about the degree of capitalization.

A more recent review by Sirmans, Gatzlaff and Macpherson (2008) reports that seven studies find no significant capitalisation, ten studies find partial capitalisation and nine studies find full capitalisation. With results so diverse, it would seem unsafe to rely on the idea that full capitalisation means that there is no need to provide for any compensation. At the same time, the fact that a majority of studies show at least some capitalization suggests that a compensation mechanism should not regard the full amount of stamp duty payments as a tax burden borne by the individual taxpayer.

If it is decided that some compensatory mechanism is appropriate, how might this be done? The Commission on Taxation recommended that, as a transitional arrangement, all those who have paid stamp duty should be exempt from property tax for a period of seven years from the year in which they paid stamp duty. This is to reflect the fact that "... many Homeowners paid considerable amounts of stamp duty... particularly from 2000 up to 2008". In our view a more refined system is needed if a compensatory arrangement is to be put in place. For example, the amount of stamp duty paid depends in part on the point of the house price cycle at which the purchase took place. A recent purchaser of a house may have paid much less in both stamp duty (and purchase price) than the buyer of a similar house at the peak of the cycle in late 2006/early 2007; but the system proposed by the Commission would give greater relief to the later purchaser. Similarly, the amount of stamp duty paid depends on the rates and rules of stamp duty in force at the time. Again, purchasers in recent years have benefited from a lowering of rates and the shift to a banded system, whereas earlier purchasers paid stamp duty at higher rates. The key point is that if there is to be an adjustment in respect of stamp duty, it needs to take account of actual stamp duty paid, as well as date of purchase.

4. DATA AND MODELLING FRAMEWORK

In this section we outline the tools used for this analysis of property tax options. The starting point is *SWITCH*, the ESRI tax-benefit model, which analyses the social welfare entitlements and income tax liabilities of a nationally representative sample of households. The database for *SWITCH* comes from the CSO's *Survey of Income and Living Conditions (SILC)*, which also contains direct data on owners' estimates of residential property values, and further data on housing characteristics. Of course, in implementing a property tax, the issue of achieving reliable valuations on which to base tax assessments is rather different, as discussed earlier. For this paper, data on housing values were added to the

SWITCH database, so that the model could be extended to simulate the impact of introducing a property tax. 5

4.1 SWITCH, the ESRI Tax-benefit Model

When considering the potential impact of tax changes, calculations are often undertaken for just a small number of illustrative families. This approach has severe limitations. For example, less than one family in 20 falls into the category of "one-earner couple with 2 children" which attracts so much attention in tax discussions and especially at budget time. Furthermore, families within this category differ in terms of income, housing tenure, and other characteristics that affect their tax-benefit position. More fundamentally, analysis of hypothetical families - no matter how well chosen - simply cannot give an overall picture of the impact of a policy change on incomes and work incentives. For this reason, policy changes are often assessed using tax-benefit models based on large-scale nationally representative samples of households. This ensures that the models represent as fully as possible the great diversity of household circumstances relevant to tax and social welfare. Several countries including the UK and the US have models which are maintained and used by official departments or agencies, as well as models developed and used in the academic sector (e.g., the Institute for Fiscal Studies, the Tax Policy Center in Washington and the Microsimulation Unit at the University of Essex). In Ireland, the ESRI has developed a microsimulation model of the Irish tax and benefit systems, SWITCH (Simulating Welfare and Income Tax CHanges).

The current *SWITCH* database uses data from the EU's Survey *on Income and Living Conditions (EU SILC)* for the year 2008.⁶ The survey contains detailed information on more than 5,000 households including more than 12,500 individuals. These data include detailed information on household size and composition, labour market participation, incomes from work and occupational pensions, and from receipts of social welfare payments. The *SWITCH* database is adjusted from year to year to allow for key changes in incomes and population structure as forecast for the next budgetary year. Changes in social welfare rates, income tax rates, bands and allowances, and the structure of employee PRSI are taken into account within the model. Using these data the model has been developed to simulate the rules of the welfare and tax systems so as to allow it to

⁵ We focus on issues regarding the design of a tax in the case where information on individual capital values for each house are available. This is the general practice internationally with property taxes based on capital values; banded values are used only in the British Council Tax system as discussed earlier.

⁶ SILC 2010 has recently been published (CSO, 2012). Work on re-basing the *SWITCH* model to use 2010 data is under way and, following model validation and testing, analysis using 2010 data will be possible later this year.

predict the tax liabilities and welfare entitlements of respondents under the existing tax/welfare rules and under alternative reforms.

The model has now been extended to allows for the modelling of various property tax options. This required the use of data contained in the survey on house values, described in the next section, and the establishment of a set of rules for modelling property tax liability, described in Section 4.3.

4.2 Data Issues

SILC contains information on the value of the house as assessed by the owner. Almost 4 out of 5 households in *SILC 2008* are owner occupiers, approximating the home ownership rate in the closest Census (2006). About 80 per cent of homeowners provide an estimated house value. For the remainder we must therefore estimate a house value based on the information available in the dataset. This includes information from respondents on the insured value of the house and the insured value of house and contents combined; and information on a range of housing characteristics such as number of rooms and dwelling type.

Our strategy in arriving at an alternative house value estimate is as follows. First, we examine information on the insured value of the house (or house and contents if the insured house value is not provided separately). In principle the insured value should reflect costs of site clearance and rebuilding, and should not include site value, which is an important component of house value. In practice, however, while insured values are typically lower than house values, there is a positive association between the two - high insured values are associated with high house values. The insured value is therefore useful in cases where the actual house value is not provided. Typically, however, the insured value is somewhat lower than the actual market value of the home. In order to take account of the fact that insured values are lower than the market values of the home we applied a "correction factor" derived as follows. For those who provided both a house value estimate and the insured value, we calculated the average ratio of the owner-estimated house value to the insured house value. We then applied this ratio to the insured house value, where this was the only information available. This approach was used for about 14 per cent of homeowners.

The remaining 6 per cent of homeowners had neither the owner's estimate of value nor the insured value. In these cases information on many characteristics relevant to house value were still available. We estimated the relationship between house values and these characteristics for households where full information was available. (This hedonic regression approach has been described

and applied by Conniffe and Duffy (1999) and by Mayor et al. (2010)). The characteristics used included:

- Location (region and urban/rural identifier).
- Number of rooms.
- Dwelling type (detached, semi-detached or terraced house, apartment).
- Neighbourhood traits (for example whether or not crime was a problem, pollution etc.)

We used this relationship to predict house value for cases where only the characteristics, and not the value, were known. As a final check, we also examined outliers in the dataset focusing on very low and very high house values. This revealed a small number of inconsistencies which were resolved on a case-by-case basis.

Cross-checks indicate that owner estimates of housing values tends to be of good quality (see, for example, Callan, 1991 in an Irish context). In the US, Goodman and Itner (1992) found that owner estimates tended to overstate sales value by 6 per cent on average. There may be a greater upward bias in the *SILC 2008* figures, given that house prices peaked in late 2006/early 2007. Those peak values may have had more salience for owners reporting values in 2008, when price developments were less clear.

The earliest date envisaged for the introduction of a property tax is 2013. The survey data on which our analysis is based is from 2008, when house prices were still close to their peak. CSO (2012) figures for the Residential Property Price Index indicate falls from peak values of 57 per cent for Dublin and 45 per cent for non-Dublin properties by February 2012. There are recent indications of stabilisation in Dublin prices (DAFT, 2012) and analysis suggesting a 60 per cent fall from peak may bring prices close to their long run values (Lyons, 2011, 2012). We, therefore, apply a discount of 60 per cent to the self-reported 2008 price for both Dublin and non- Dublin properties. This is consistent with Dublin prices being close to long-run levels, but some further reductions in prices in other areas being required to reach equilibrium. It also incorporates some allowance for "owner optimism" in the self-reported price data by treating the price reported in 2008 as if it were the peak price: average prices fell by almost 6 per cent between 2007 and 2008. A greater allowance for owner-optimism would only affect the tax rates reported in this analysis, and not the distributional impacts.

The introduction of property tax might itself lead to some further downward pressure on house prices, though evidence on such capitalisation effects is mixed (see McCluskey, 1998, Fullerton and Metcalf, 2002). It should be noted, however, that the property tax is replacing the long-run revenue from the old stamp duty system. Stamp duty is now at a rate of 1 per cent on all residential property except for those houses sold for more than €1 million. The reductions in stamp duty which have already taken place, would, under the capitalisation argument, tend to raise prices, counteracting the influence of the introduction of a property tax. The extent to which this stamp duty reduction effect has already been factored into current prices is unclear.

A key advantage of the *SILC* data is that it provides information not only on the income tax base and social welfare client population, but also on housing values which can provide the basis for a value-linked property tax. *SILC* data also have the advantage that they contain detail on the incomes, composition and other characteristics of households. Our work builds on this to examine the implications of alternative forms of property tax for this nationally representative sample of households.

4.3 Modelling Property Taxes and Income-related Rebates

We allow for a property tax to be calculated by applying a specified percentage to an exact or "discrete" property value. As discussed in Section 3, this approach is the most widespread internationally.

Turning to income-related exemptions, waivers and rebates, we allow for a number of key parameters to be varied. The first of these is an income exemption limit for property tax, i.e., an income-cut off, below which no property tax would be payable. We allow for this to be a simple cut-off in terms of disposable income (income after taxes, PRSI, levies and including social welfare benefits). While some benefits and taxes operate in terms of gross income, disposable income seems a more appropriate criterion here – as with the Family Income Supplement in Ireland, or Housing Benefit in the UK, the aim is to ensure that income after housing costs does not fall below a certain floor. However, some sensitivity analysis suggests that for the levels of income exemption limit considered here, there are rather small differences between the use of disposable income and a more administratively convenient measure of "gross" income (defined to include social welfare payments received).

We explore the impact of an income exemption limit set at €12,000 per year for a single person – about the level of the State Contributory Pension. The

corresponding income exemption limit for a couple (whether married or cohabiting) is set at $\leq 20,000$ per year, with an additional $\leq 4,000$ per year for each child. We also examine the impact of a property tax with a higher income exemption limit – $\leq 15,000$ for a single person, $\leq 25,000$ for a couple, and with an additional $\leq 5,000$ per child. Of course, this also involves a higher property tax rate in order to maintain revenue at ≤ 500 million per year.⁷

If full relief is provided for (equivalised) incomes below the specified cut-off, and no benefit for those with incomes above the cut-off, then benefit withdrawal would take place in an "all or nothing" fashion. This would create a sharp "poverty trap", where a small increase in earnings or other income would give rise to a substantial fall in disposable income. Most systems would allow for a gradual reduction in benefit (or property tax rebate). We, therefore, allow for a property tax marginal relief rate, which could also be termed a rebate/benefit withdrawal rate.

Of course, the higher the income exemption limit, and the lower the rebate withdrawal rate/marginal relief rate, the more extensive is the protection afforded to those on low incomes. Increasing the exemption limit, and/or lowering the property tax marginal relief rate means that individuals and families who are further up the income scale obtain some benefit from the income-related reductions in property tax. The trade-off facing the government is that this also reduces the net revenue from the property tax. For the analysis in Section 5, we set the property tax marginal relief rate at 20 per cent⁸).

5. A VALUE-BASED PROPERTY TAX

Budget 2012 introduced a new Household Charge, stating that "The charge ... is an interim measure pending design and implementation of a full property tax, which will apply in 2014." (Department of Finance, 2011). Recent official statements (*Irish Times*, 22 December 2011) indicate that a property tax may be introduced as early as 2013. In this section we examine and compare the distributional impacts of a value-based property tax, relative to a baseline which

⁷ The UK's Council Tax Benefit pays a full rebate for those individuals or families whose incomes fall below a "needs amount" which varies depending on the characteristics of the family. Factors taken into account include the number and ages of children and also the category of welfare recipient (e.g., old age, persons with a disability, lone parent). This creates quite an elaborate menu of income support, differentiated by category of recipient. In our work we have taken a simpler approach. As is standard practice internationally (for example the EU uses equivalised income to identify those "at risk of poverty") we adjust incomes to take account of family size and composition, using an adult equivalence scale which approximates that used in the Irish welfare system. Thus, the income-cut off used in our analysis is based around equivalised income as it is often termed. The precise scale allows 1 unit for the first adult in the family, 0.66 for a second adult and 0.33 for children.

⁸ The 20 per cent marginal relief rate matches that used in the British Council Tax Benefit.

has neither a property tax nor a Household Charge. We also compare the impact of a property tax with that of the Household Charge.

The Commission on Taxation (2009) examined the introduction of a property tax which would generate €1.2 billion. More recently, however, the Taoiseach (Irish Independent, 23 December 2011) has indicated that the government is seeking revenue of about €500 million per annum from a property tax. For illustrative purposed we focus on a value based property tax that would bring in roughly €500 million once exemptions are taken into account.

We start by looking at the impact of a simple property tax, with no reliefs or exemptions. This is *not* a recommended policy, but it is a useful starting point in understanding how property taxation works. We examine a property tax calculated by applying a specified percentage to the property value.

Our next step is to introduce an income exemption limit. Those with incomes below this limit receive a full waiver of property tax liabilities. Those with incomes somewhat above the limit benefit from "marginal relief" ⁹, which limits the extent of the tax liability to 20 per cent of the family's income over and above the exemption limit level.

Income exemption limits and marginal relief provisions can adversely affect work incentives. For example, an unemployed person taking up a job may no longer benefit from a property tax waiver because his/her in-work income is above the exemption income level; or an individual in work, who benefits from a partial waiver of property tax, may find that this waiver is reduced or eliminated if he or she works longer hours or earns more. The extent to which this may occur cannot be predicted from theoretical considerations or aggregate data. Instead microsimulation modelling of the situation facing a nationally representative sample is needed, using a tax-benefit model such as *SWITCH*. Thus, in order to examine these issues, we look at the impact of this income exemption limit and marginal relief on replacement rates facing unemployed jobseekers and marginal effective tax rates facing those in work.

This operates in a similar way to the marginal relief provisions for those with incomes just above income exemption limits in the income tax code.

5.1 Distributional Impact of a Value-Based Property Tax

5.1.1. A Simple Property Tax

Our technical starting point is a simple property tax of 0.2 per cent or $\notin 2$ per $\notin 1,000$ of house value. with no income exemption limit: it must be stressed that this is not a recommended policy. The rate of $\notin 2$ per $\notin 1,000$ was chosen as it generates the $\notin 500$ million figure mentioned by government. This rate would result in an annual property tax bill of $\notin 400$ for a house worth $\notin 200,000$. The baseline policy is the 2012 system, without the household charge, so that the full impact of a property tax can be seen.¹⁰

Without any adjustments to liabilities for those with low incomes, a simple property tax would impose higher proportionate burdens on low income groups. Table 2 shows that losses are close to 1 per cent of disposable income for the lowest income decile and also for the third decile. For other deciles losses average 0.6 or 0.7 per cent.

Decile	Disposable Income per Adult Equivalent		% Change in Disposable Income	Average Change in Disposable Income
	More Than	Less Than		€ per week
Lowest		221	-0.9	-3.2
2	221	271	-0.7	-3.3
3	271	311	-0.9	-4.5
4	311	366	-0.6	-4.1
5	366	430	-0.6	-5.0
6	430	486	-0.6	-5.9
7	486	552	-0.7	-7.2
8	552	627	-0.6	-6.6
9	627	756	-0.7	-8.2
Highest	756		-0.7	-11.8
Total			-0.7	-6.0

Table 2: Distributional Impact of a Simple Property Tax

Note: 2012 policy is taken as a baseline, but without the household charge, so as to show the full impact of the introduction of a value-based property tax.

¹⁰ If actual 2012 policy, including the Household Charge, were used as a baseline then the results would show only the impact of the property tax "over and above" the Household Charge payment.

5.1.2. A Property Tax with an Income Exemption and Marginal Relief

What is the impact of introducing an income exemption limit into the system? We look first at a cut-off of €12,000 per year for a single person, in line with the maximum annual personal rate for the State (Contributory) Pension of €230 per week. The corresponding income exemption limit for a couple (whether married or cohabiting) is set at €20,000 per year, with an additional €4,000 per year for each child. These relativities reflect the economies of scale implied by social welfare rates. Without marginal relief, someone with an income one euro below the limit would pay no property tax while someone one euro above the limit would be fully liable for the tax. This would create a sharp "poverty trap", where a small increase in earnings or other income would give rise to a substantial fall in disposable income. Most international systems allow for a gradual reduction in benefit (or property tax rebate). We set the marginal relief to be 20 per cent. This means property tax payable will be restricted to 20 per cent of the gap between its disposable income and the income exemption limit. For example, an owner of a house valued at €200,000 would be liable for a property tax, at 0.2 per cent, of €400 per annum. If this person's disposable income was €1,000 over the income exemption limit, then the property tax to be paid by this person would be limited to €200.

The introduction of an income exemption limit of $\leq 12,000$ means that the tax rate needs to increase from ≤ 2 per $\leq 1,000$ of house value to ≤ 2.30 , in order to reach the ≤ 500 million revenue target. The baseline policy again is the 2012 system, without the Household Charge, so that the full impact of a property tax is seen; but the impact of the Household Charge itself is also plotted in Figure 1.

The fact that the Household Charge is a fixed €100 irrespective of income means that a regressive pattern can be expected. There are, however, two factors which tend to reduce the extent of regressivity. First, households which are exempt from the Household Charge, such as those renting from local authorities or voluntary housing bodies, tend to have low incomes. Second, higher income households may have more than one property, and therefore pay a multiple of the flat rate charge.



Figure 1: Distributional Impacts of Property Value Tax (Income exemption limit €12,000 per year single, €20,000 couple) and Household Charge

Turning to the property tax, the proportionate loss of income is now lowest for the bottom decile, because of the operation of the income exemption limit (€12,000 single and €20,000 for a couple). The proportionate loss is also lower than average for the second decile, but from decile 3 to the top decile, the percentage loss in disposable income is in a narrow range, between 0.6 and 0.8 per cent, close to the average of 0.7 per cent for all households. In money terms the tax bill averaged across the lowest income households (poorest one-fifth) would be less than €2 per week. The corresponding figure would rise to €5 to €6 for those in the middle income categories, €8 to €9 for those on upper middle incomes and €13.50 for those in the top income decile (top 10 per cent of household incomes).

Decile	Disposabl per Adult E	e Income Equivalent	% Change in Income	Average Change in Disposable Income
	More Than	Less Than		€ per week
Lowest		221	-0.1	-0.5
2	221	271	-0.3	-1.7
3	271	311	-0.7	-3.7
4	311	366	-0.6	-4.0
5	366	430	-0.7	-5.4
6	430	486	-0.7	-6.6
7	486	552	-0.8	-8.1
8	552	627	-0.7	-7.5
9	627	756	-0.7	-9.4
Highest	756		-0.8	-13.5
Total			-0.7	-6.0

Table 3: Distributional Impact of a Property Tax with an Income Exemption Limit
(€12,000 per year single, €20,000 couple) and Marginal Relief

Note: 2012 policy is taken as a baseline, but without the household charge, so as to show the full impact of the introduction of a value-based property tax.

A higher income exemption limit ($\leq 15,000$ for single or widowed persons, $\leq 25,000$ for couples) would provide greater protection to those on low incomes. In order to raise the same revenue, the tax rate would have to rise from ≤ 2.30 per $\leq 1,000$ of house value to ≤ 2.50 per $\leq 1,000$, raising the liabilities of those who pay the tax. Figure 2 shows the associated distributional impact, measured against a pre-property tax baseline, and compared with the impact of the Household Charge. Under this configuration, a property tax could be progressive – the percentage of income raised by the tax is least for those on the lowest incomes, and tends to rise with income. Between deciles 5 and 9, the percentage of income taken in property tax is broadly flat, but a higher proportion of disposable income would be paid by those in the top income decile.



Figure 2: Distributional Impacts of Property Value Tax (Income exemption limit €15,000 single, €25,000 couple) and Household Charge

Table	4:	Distributional	Impact	of	а	Property	Тах	with	an	Income	Exemption	Limit
		(€15,000 per y	/ear) and	M k	ar	ginal Relie	f					

Decile	Adjusted Net I	quivalised Income	% Change in Income for Income Group	Average Change in Disposable Income by Decile
	More Than	Less Than		€ per week
Lowest		221	0.0	-0.2
2	221	271	-0.1	-0.6
3	271	311	-0.3	-1.3
4	311	366	-0.5	-3.7
5	366	430	-0.7	-5.6
6	430	486	-0.7	-6.9
7	486	552	-0.8	-8.4
8	552	627	-0.7	-8.1
9	627	756	-0.8	-10.1
Highest	756		-0.9	-14.7
Total			-0.7	-6.0

Note: 2012 policy is taken as a baseline, but without the household charge, so as to show the full impact of the introduction of a value-based property tax.

What is the pattern of average tax liabilities by income group under this configuration (≤ 2.50 per $\leq 1,000$ tax rate, income exemption limit of $\leq 15,000$ single and $\leq 25,000$ for a couple)? The average bill would be less than ≤ 2 per week for the poorest 30 per cent of households. For the next 30 per cent bills would average ≤ 4 to ≤ 7 , rising to ≤ 8 to ≤ 10 per week for the next 30 per cent. For the top 10 per cent of households the average bill would be close to ≤ 15 per week.

5.1.3. Impact by Family Type

The analysis above has focused on the impact by income deciles. Using *SWITCH* we also examine the impact by a family type classification which includes both demographic components (partnership status, presence or absence of children) and economic components (situation vis-à-vis the labour market). For simplicity, we concentrate on the impact of a property tax with an income exemption limit of \pounds 15,000 single/ \pounds 25,000 couple. Retired persons (both single or retired couples) would experience the greatest losses, of around 1.2 per cent of income. Single and two-earner couples would see losses of about 0.8 per cent of income. One-parent families and tax units depending on an unemployed person would see smaller losses.

The factors underlying these patterns deserve further investigation. They include a life-cycle element in the accumulation of housing wealth and growth in occupational pension entitlements. Council Tax in Britain, and many of the property tax relief schemes in the US, make provisions which tend to reduce the amounts of property tax payable by low-income pensioners. In our initial analysis we have modelled how a general low income relief can shape the distributional impact of a new property tax. The level at which this general low income relief is pitched in our analyses is sufficient to given substantial relief to low income pensioners. In particular, the €15,000 income exemption limit is 25 per cent above the State Contributory Pension level. As a result, pensioners who are wholly reliant on the State Contributory Pension payments would not be required to pay property tax. The same is true of others who are wholly reliant on social welfare - for example, a disabled person in receipt of Disability Allowance or Disablement Benefit. Nevertheless, it may be of interest in future work to examine some specific reliefs which are not contingent on income. For example, the Northern Ireland system now includes an allowance which applies to lone pensioners aged 70 or over. This gives a 20 per cent reduction, not means-tested, to this group.

5.2 Impact on Financial Incentives to Work

Finally, we examine the impact of a move towards a value based property tax with an income exemption limit and 20 per cent marginal relief would have on incentives to work. The concern here is that by making property tax reliefs contingent on income, the incentive to earn higher income may be reduced. The first step in addressing this is to establish how many people would be affected, and to what extent.

We focus on the two main financial incentives to work. The first is the replacement rate (RR) which is the ratio between net income out of work and net income when in work. A high replacement rate can be seen as reducing the financial incentive to take up a job if unemployed, but also indicates effective income support for those who lose their jobs. The second aspect we examine is the impact on marginal effective tax rates (METR). The METR indicates what proportion of an increase in earnings is taxed away, either through an increase in tax and/or social insurance contributions, or a reduction or withdrawal of social welfare benefits. It can be seen as a measure of the financial incentive to progress through either working longer hours, or with greater skill or effort.

Looking first at replacement rates facing those who are unemployed, we find that:

- More than 9 out of 10 replacement rates faced by the unemployed are unchanged.
- The increases in replacement rates which do occur are almost all small (1-2 percentage points).
- Where the replacement rate increases, the initial replacement rate is low or moderate replacement rates are not increased for those whose replacement rate is already high.

Somewhat greater effects are found for replacement rates facing employees:

- More than 8 out of 10 replacement rates faced by the employees are unchanged.
- Increases in replacement rates are again small (1-2 percentage points).
- Again, increases are concentrated on those with low and moderate replacement rates initially, but some of those with higher replacement rates are also affected.

Finally, turning to marginal effective tax rates facing employees, we find that:

• About 1 per cent would be affected by the marginal relief provisions.

- The marginal effective tax rate rises by less than 10 percentage points for about a quarter of those affected, and by up to 20 percentage points for almost all of the remainder.
- The majority of those affected are currently facing a marginal effective tax rate of less than 30 per cent.

Overall, therefore, we find that the introduction of income-related reliefs, at the levels indicated, does not seem likely to have a major impact on financial work incentives. However, this is something which would need to be re-examined if higher income exemption limits were being considered.

6. CONCLUSIONS

In this paper we draw on three kinds of evidence to guide the design of a new property tax for Ireland. First, we analyse the economic rationale for the introduction of a property tax, which has implications for how the tax should be structured. Second, we draw on past experience with property taxes in Ireland and in other countries to get a sense of what works well and some pitfalls in property taxation. Third, we explore the implications of alternative property tax designs for the incomes of a nationally representative sample of households, using *SWITCH*, the ESRI tax-benefit model. Our analysis should be seen as an exploration of options, and *not* a definite recommendation for a particular blueprint.

One of the main economic arguments for the taxation of property is that for given incomes in money terms, an owner occupier is better off (and has greater ability to pay) than someone who does not own their acccommodation. Another argument is that property is a major component of wealth, so that taxation of property can be regarded as a partial wealth tax. On both of these grounds, some account would need to be taken of mortgage interest payments or mortgage debt outstanding. This could go some way towards dealing with issues such as mortgage distress and negative equity. However, the temporary, though severe, problems related to mortgage distress are best tackled by specific, targeted measures rather than overly influencing the medium- to long-term design of a property tax. The position regarding those who paid substantial amounts of money in stamp duty in recent years is a complex one: not all of the stamp duty should be regarded as a burden on the purchaser, as land and house prices tend to be depressed by such taxation. If a compensatory mechanism is to be put in place, it should, in our view, be structured so that compensation is greater the higher the amount paid in stamp duty, and lower the longer ago the purchase was made.

International experience indicates that property taxes are most often based on the assessed capital value of the property. In almost all countries this is done using an exact value for the property. Only Great Britain uses a system based on banded values. One of the reasons for doing so was that this meant the system could be introduced quickly. Similar arguments have been made in the report of the Commission on Taxation (2009). However, the dangers of adopting an interim solution are highlighted by the British experience. In England, the Council Tax system – introduced quickly in order to move away from the Poll Tax - has not been revalued or rebanded in almost 20 years. During this time there have been significant shifts in the relative and absolute prices of housing, bringing the fairness of the system into disrepute. Experience elsewhere also indicates that provisions for regular revaluations are important.

Site market values are rarely used in developed countries, and a number of countries (Australia, New Zealand and South Africa) have moved from site value to capital value in recent decades. While site value taxes are attractive in terms of their economic efficiency, there is no evidence on the relationship between site value tax liabilities and income. Furthermore, the capital value base for a property tax is a transparent one, using transaction prices which are familiar to taxpayers and which provide a clear external point of reference on which taxpayer appeals can be based.Site value calculations are more opaque.

How can a property tax take into account ability to pay? We explore this issue using SWITCH, the ESRI tax-benefit model, which is based on a nationally representative sample of households. One approach is to use an income exemption limit, below which no property tax is payable. For those with incomes just above the income exemption limit, property tax liability is restricted to a proportion (here, 20%) of the income above the exemption limit. A key finding is that an income exemption limit with marginal relief could provide a powerful tool for shaping the distribution of the tax burden across different income groups. Without such an approach, the highest relative burden would be on those with lowest incomes. However, an income exemption limit for a single person of €12,000 per year, just above the State Contributory Pension rate, would greatly reduce the impact on low income groups. A higher income exemption limit of €15,000, with a tax rate of €2.50 per €1,000 of house value would mean that the property tax would have little impact on those on the lowest incomes, and have its greatest impact - a reduction in disposable income of just under 1 per cent on those with the highest incomes.

The local taxation aspects of a property tax are outside the scope of the present paper, but are clearly of major importance. For example, differences between the average prices of houses in Dublin and the rest of the country mean that if a single tax rate is used nationally, the burden on Dublin homeowners would be disproportionate. These issues need to be considered in a broader context, which allows for an element of local determination of the property tax rate – something which is widespread internationally. The broader context also includes differences in the costs of supplying local authority services across regions, and variations in potential demand for services. The needs and resources of different transfers to local authorities also need to be considered.

BIBLIOGRAPHY

- BACON, P., 1998. "An Economic Assessment of Recent House Price Developments" *Report Submitted to the Minister for Housing and Urban Renewal* The Stationery Office, Dublin
- BERGIN, A., T. CONEFREY, J. FITZGERALD and I. KEARNEY, 2010. The Behaviour of the Irish Economy: Shocks to the HERMES Macro Economic Model, ESRI Working Paper No. 287
- CALLAN, T., 1991. *Property Tax: Principles and Policy Options*, Policy Research Series Paper No. 12. Dublin: The Economic and Social Research Institute,
- CALLAN, T., C. KEANE and J.R. WALSH, 2010. "What Role for Property Taxes in Ireland?", *The Economic and Social Review*, Vol. 41, No. 1, pp. 87-107.
- CENTRAL BANK, 2010. *Capital Assessment Macro Economic Scenario*, Dublin: Central Bank.
- CLARK, T., C. GILES and J. HALL, 1999. *Does Council Tax Benefit Work?*, London: Institute for Fiscal Studies.
- CONEFREY, T., J. FITZGERALD, L. MALAGUZZI VALERI, R.S.J. TOL, 2008. "The Impact of a Carbon Tax on Economic Growth and Carbon Dioxide Emissions in Ireland". ESRI Working Paper No. 251, Dublin: Economic and Social Research Institute.
- CONEFREY, T. and J. FITZGERALD, 2010. "Managing Housing Bubbles in Regional Economies Under EMU: Ireland and Spain," *National Institute Economic Review*, No. 211, January 2010.
- CSO, 2009. *Survey on Income and Living Conditions (SILC) in Ireland 2008*, Cork: Central Statistics Office.
- CSO, 2012. Survey on Income and Living Conditions (SILC) 2010, Cork: Central Statistics Office.
- COMMISSION ON TAXATION, 1985. Special Taxation. Dublin: Stationery Office.
- COMMISSION ON TAXATION, 2009. *Commission on Taxation Report* 2009, Dublin: Stationery Office.
- CONNIFFE, D. and D. DUFFY, 1999. "Irish House Price Indices: Methodological Issues". *The Economic and Social Review*, Vol. 30, No. 4, October 1999.
- DAFT, 2012. "The Daft.ie House Price Report 2012 Q1", available online at http://www.daft.ie/report/Daft-House-Price-Report-Q1-2012.pdf (13/04/2012)
- DEPARTMENT OF EDUCATION AND SCIENCE, 1993. Report of the Advisory Committee on Third-Level Student Support (Committee chaired by Dr. Donal de Buitléir), Dublin Stationery Office.
- DEPARTMENT OF FINANCE 2011. "Summary of 2012 Budget and Estimates Measures Policy Changes", available online at: http://budget.gov.ie/ Budgets/2012/2012.aspx
- DEPARTMENT OF THE TAOISEACH 2009. "Renewed Programme for Government", available online at: http://www.taoiseach.gov.ie/eng/Publications/ Publications_2009/Renewed_Programme_for_Government_October_2009.html (13/04/2012)
- DUFFY, D., 2009. "Measuring House Prices in Ireland" in A. Barrett, I. Kearney and J. Goggin (eds.), *Quarterly Economic Commentary*, Spring 2009, pp. 18-21.
- DUFFY, D., 2010. "Negative Equity in the Irish Housing Market", *The Economic* and Social Review, Vol. 41, No. 11, Spring.

- FITZGERALD, J., D. DUFFY, J. HORE, I. KEARNEY, C. MACCOILLE 2001. *Medium-Term Review: 2001-2007*, No. 8 ESRI Forecasting Series, Dublin: Economic and Social Research Institute.
- FULLERTON, D. & G.E. METCALF, 2002. "Tax incidence" Handbook of Public Economics, in: A. J. Auerbach & M. Feldstein (ed.), Handbook of Public Economics, edition 1, volume 4, chapter 26, pages 1787-1872
- GOODMAN, J.L. AND J.B. ITTNER, 1992, "The accuracy of home owners' estimates of house value," *Journal of Housing Economics*, 2, 1992: 339-357
- GOVERNMENT OF IRELAND, 2009. *Renewed Programme for Government*, Dublin: Stationery Office.
- HEADY, C., 2009. "Review of International Experience", paper presented to Foundation for Fiscal Studies Annual Conference on 'The Fiscal Treatment of Property', May.
- IMF, 2011. Fourth Review Under the Extended Arrangement and Request for Rephasing of the Arrangement, Washington: International Monetary Fund.
- IRISH INDEPENDENT, 2011. "Kenny reveals property tax will cost families an average of €300 per year". December 23rd 2011. Available online at: http://www.independent.ie/
- IRVINE, I., 1984. A Study of New House Prices in Ireland in the Seventies, General Research Series Paper No. 118, Dublin: The Economic and Social Research Institute.
- JOHANSSON, A., C. HEADY, J. ARNOLD, B. BRYS, L. VARTIA, 2008. "Taxation and Economic Growth", OECD Economics Department Working Papers, No. 620, OECD publishing © OECD. doi: 10.1787/241216205486
- LAND AND PROPERTY SERVICES, 2010. Guide to Rates Deferment for Owner Occupier Pensioners, available online at

http://www.nidirect.gov.uk/lps_rates_determent_guide_apr2010.pdf (15/04/2012)

LYONS, RONAN 2011. "Are We Nearly There Yet? Finding the New Floor for Property Prices" available online at:

http://www.ronanlyons.com/2011/07/05/

are-we-nearly-there-yet-finding-the-new-floor-for-property-prices/ (13/04/2012)

- LYONS, RONAN 2012. "Wealth taxes and property taxes in Ireland: understanding the tax base", available online at: http://www.ronanlyons.com/2012/04/05/ wealth-taxes-and-property-taxes-in-ireland-understanding-the-tax-base/ (13/04/2012)
- McCLUSKEY, W.J.; W. DEDDIS, A. MANNIS, D. McBURNEY and R. BORST, 1997. "Interactive Application of Computer Assisted Mass Appraisal and Geographic Information Systems", *Journal of Property Valuation & Investment* Vol. 15, No. 5, pp. 448-465.
- McCLUSKEY, W.J., F. PLIMMER and O. CONNELLAN, 1998, "Ad Valorem Property Tax: Issues of Fairness and Equity", Assessment Journal, May, pp. 47-55.
- McCLUSKEY, W.J., 1998. "Property Tax: Empirical Evidence on its Relative Importance", Journal of Property Tax Assessment & Administration, Vol. 3, No. 2, pp 47-58.

- McCLUSKEY, W.J., P. DAVIS and L.C. LIM, 2007. "Domestic Rate Reform in Northern Ireland: A Critical review of Policy Options", *Environment and Planning: Government and Policy*, Vol. 25, pp. 131-149.
- McCLUSKEY, W.J., P. DAVIS and L.C. LIM, 2007. Land Value Taxation: An International Overview School of the Built Environment, University of Ulster
- McCLUSKEY, W.J. and J. BELL, 2008. "Rental Value versus Capital Value: Alternative Bases for the Property Tax" International Studies Program Working Paper 08-18 Georgia State University
- McCLUSKEY, W.J. and A. ADAIR, 1997. *Computer Assisted Mass Appraisal Systems*, Gower, Avebury, London.
- McCLUSKEY, W.J. (ed.), 1999 *Property Tax: An International Comparative Review*, Aldershot, England: Ashgate Publishing Limited, pp. 1-458.
- MAYOR, K., S. LYONS, D. DUFFY, R. TOL, 2008. "A Hedonic Analysis of the Value of Rail Transport in the Greater Dublin Area" ESRI Working Paper 264.
- MAYOR, K., S. LYONS, D. DUFFY, R. TOL, 2010. "Designing a property tax without property values: Analysis in the case of Ireland", ESRI Working Paper 352, Dublin: Economic and Social Research Institute.
- MUELLBAUER, J., 2005. "Property Taxation and the Economy after the Barker Review", *Economic Journal*, Vol. 115, March, C99-C117.
- MURPHY, A., 2004. *Housing and National Competitiveness*, downloaded from www.irisheconomy.ie, 24 February 2012.
- NORTHERN IRELAND ASSEMBLY, 2003. *Capitalisation Effects: Effect on Property Values* Northern Ireland Assembly, Rating Policy Division
- NORTHERN IRELAND DEPARTMENT OF FINANCE AND PERSONNEL, 2002. *Review* of *Rating Policy: A Consultation Paper*, Bangor: Department of Finance and Personnel Rating Division.
- NORTHERN IRELAND DEPARTMENT OF FINANCE AND PERSONNEL, 2004. *Reform* of the Domestic Rating System in Northern Ireland: Policy Paper – A Fairer Share, Bangor: Department of Finance and Personnel Rating Division.
- NORTHERN IRELAND DEPARTMENT OF FINANCE AND PERSONNEL, 2007. *Reform* of the Domestic Rating System in Northern Ireland: A Consultation Report, Bangor: Department of Finance and Personnel Rating Division.
- NORTHERN IRELAND DEPARTMENT OF FINANCE AND PERSONNEL, 2008. Derelict Land Tax – Issues Paper, Bangor: Department of Finance and Personnel Rating Policy Division.
- NORTHERN IRELAND DEPARTMENT OF FINANCE AND PERSONNEL, 2009. *Review* of *Domestic Rating: A Consultation Report*, Bangor: Department of Finance and Personnel Rating Division.
- OECD, 2006. OECD Economic Surveys: Ireland, Paris: OECD.
- PLIMMER, F., W. McCLUSKEY, O. CONNELLAN, 2000. *Banding for UK Property Taxes,* Royal Institution of Chartered Surveyors Research Foundation.
- POTERBA, J., 2010. "The Challenge of Tax Reform and Expanding the Tax Base: The 2009 Geary Lecture", *The Economic and Social Review*, Vol. 41, No. 2, pp. 133-148.
- ROCHE, M. 1999. Irish House Prices: Will the Roof Fall In? The Economic and Social Review, Vol. 30, No. 4, pp. 343-362.

- RYAN, P., 2009. "The Fiscal Treatment of Property in Ireland". Presentation at The Fiscal Treatment of Property, Dublin: Foundation for Fiscal Studies.
- SIRMANS, G.S., D. GATZLAFF and D. MacPHERSON. 2008. "Horizontal and Vertical Inequity in Real Property Taxation", *Journal of Real Estate Literature* 16:167-180.
- SMITH, D., 2009. "Taxation of residential property: The US experience". Presentation at The Fiscal Treatment of Property, Dublin: Foundation for Fiscal Studies.
- TAX STRATEGY GROUP, 2010. *Taxation of Property*, TSG 10/09.



The Economic & Social Research Institute Whitaker Square Sir John Rogerson's Quay Dublin 2, Ireland + 353 1 863 2000 www.esri.ie The ESRI acknowledges the financial support of FBD Trust for the *Renewal Series*

