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Martina Lawless and Donal Lynch Scenarios and Distributional Implications of a Household Wealth Tax in Ireland¹

INTRODUCTION

Designing a broad tax base that provides stable and sustainable sources of revenue with minimal economic distortion is a central policy objective of tax authorities worldwide. The examination of ways to improve the resilience of tax revenue streams to economic fluctuations has led to a discussion of the feasibility and desirability of including household wealth in the tax base in some way. For example, wealth taxes were re-introduced in response to the financial crisis in Spain and introduced on a temporary basis in Iceland. These initiatives were followed by broader debates on the potential for one-off capital levies in highly-indebted European countries (Deutsche Bundesbank 2014) and the inclusion of an analysis of regular taxation of wealth in the wide-ranging report on the UK tax system (Mirrlees et al. 2011).

This paper looks at a range of different wealth tax structures and their potential impact in terms of population coverage and tax yield using household level data on wealth in Ireland. We calculate a number of scenarios based on stylised examples of wealth tax structures similar to those in existence in other European countries. Our results give a wide range of possible scenarios; applying other country models shows how variations in the exemptions and thresholds can result in less than 1% to almost 50% of households being liable to a wealth tax. The scenarios we investigate show that varying the level of the threshold is the key determinant of the number of households that will be affected, which is in keeping with the concentration of wealth at the upper end of the wealth distribution. Given the numbers of households affected, the treatment of the household's main residence (which is the largest asset for almost all households, apart from the very wealthiest) is an important factor in the level of average tax payment and hence total revenues raised.

This work was carried out as part of the joint ESRI-Department of Finance/Revenue Commissioners research programme on Taxation and the Macro-economy. The Household Finance and Consumption Survey used in this analysis was collected by the Central Statistics Office in coordination with the Central Bank of Ireland and anonymised micro-data made available under the terms of the Statistics Act, 1993. The authors would like to thank Paul M. Crowley and Gerry Reilly of the CSO for their help with the data. We would also like to thank Alan Ahearne, Kieran McQuinn, David Hegarty, Gary Tobin, Edgar Morgenroth, Kevin Nolan, Pat Leahy, Seamus McGuinness, Keith Walsh and attendees at seminars in the Department of Finance and in the ESRI for their useful comments. The views expressed in the paper are the authors' own and not necessarily those of the Department of Finance or ESRI.

Looking at the composition of households under the different tax scenarios, we find that even with a narrow base and high threshold, some households in low income deciles are affected. This is because of the imperfect correlation between income and wealth.

PATTERNS OF IRISH HOUSEHOLD WEALTH

In order to undertake this analysis of the extent of the revenue base for a wealth tax and how many households it would affect depending on threshold levels and exemptions, detailed information on the asset and liability structure of Irish households was required. This data is available in the Household Finance and Consumption Survey (HFCS), which was carried out by the Central Statistics Office in 2013 in coordination with the Central Bank of Ireland (CSO 2015 and Lawless, Lydon and McIndoe-Calder 2015). The survey covered over 5,000 households across the country and included an over-sampling of households in more affluent areas to maximise the detail on asset holdings of wealthier households, where financial structures might be expected to be more complex.

As has been commonly found across countries, wealth is very unevenly distributed across Irish households – the median net wealth is 102,600 euros and the mean is over double this amount at 218,700 euros. The wealthiest 10% of households hold close to 54% of total household wealth and the top three deciles own close to 85% of the wealth. The picture is somewhat more evenly distributed by income decile, with the top 10% of households by income owning one-quarter of total wealth.

In terms of the components of wealth, we find that the household's main residence (HMR) accounts for just under half of the value of total gross assets (i.e., not adjusted for debt) of Irish households. Farms make up a further 20% of asset values and other residential property 9%. Overall, Irish households hold almost all of their wealth in the form of real assets, with just 12% accounted for by financial assets. The largest debts are also those associated with property, with outstanding mortgages on the household main residence representing 18% of total gross asset values, while other property debts account for another 6%.

CONSTRUCTING SCENARIOS FOR A WEALTH TAX DESIGN

We present a range of hypothetical scenarios loosely based on the structure of existing wealth taxes across European countries (specifically France, Spain, Iceland, Netherlands, Norway and three Swiss cantons). This approach allows us to explore the trade-offs from adjusting thresholds and asset exemptions. These hypothetical tax designs start from broadest possible tax base and a low threshold, thereby casting a wide tax net, and then examine the impact of applying exemptions to specific assets (especially the HMR) and



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Table 1
Thresholds and Exemptions for Liability to Wealth Tax by Wealth Tax Scenario

	Personal Threshold (euros)	Exclusions and Deductions			
High Threshold – Large Exemptions	1m (double if married) 500,000 per child	Excl. HMR, Farms, Business, & Pension			
No Threshold – Large Exemptions	None	Excl. HMR, Farms, Business, & Pension			
High Threshold – No Exemptions	1m (double if married) 250,000 per child	None			
Middle Threshold – No Exemptions	500,000 (double if married) 125,000 per child	None			
Low Threshold – 50% Deduction	125,000 (double if married) 30,000 per child	Excl. Pension Assets Ded. 50% from HMR, Farms & Business			
No Threshold – HMR Exempt	None	Excl. Household Main Residence			
Low Threshold - Large Exemptions	125,000 (double if married) No child allowance	Excl. HMR, Farms, Business, & Pension			
Low Threshold – No Exemptions	125,000 (double if married) No child allowance	None			
All Net Assets	None	None			

Source: Authors' illustrations.

increasing the qualifying threshold. For all of these different scenarios, we calculate the size of the tax base, the percentage of households that would be liable, the average tax payment and resulting revenues, as well as the distribution of the tax across household types.

The broadness of the wealth tax base is largely determined by two main parameters; the application of exemptions from, or reductions to, wealth tax liability for particular asset types e.g., the household main residence; and varying the level of individual thresholds of wealth before entering the wealth tax net. In the hypothetical wealth tax scenarios presented here, these two parameters are combined in varying extents to generate a variety of theoretical wealth bases. Each of these scenarios is labelled primarily in reference to these two parameters. The higher the individual thresholds, the narrower the base and the more assets are exempted or reduced in value, the narrower the base too.

Table 1 shows the main features of each of our alternative scenarios. At one extreme, a combination of the narrowest of asset bases and the largest individual thresholds can be conceived of, similar to the existing wealth tax structure in France. In this "High Threshold – Large Exemptions" scenario, exemptions² for the household main residence, farms, business assets and voluntary pensions (almost three quarters [73.6%] of gross assets) are combined with high individual thresholds of 1 million euros (double if married) and 500,000 euros per child.

At the opposite extreme, bringing together the broadest of asset bases and the smallest of individual thresholds yields a scenario whereby all positive net assets would be liable. In the "All Net Assets" scenario, all asset types are included in the base at their full valuation and there is no individual threshold, which would reduce individual wealth tax liabilities. In this scenario, any household with net assets greater than zero would incur a wealth tax liability. The full range of scenarios is set out in Table 1, with each scenario varying as the

combination of personal threshold and exclusions and deductions. For ease of comparison, each of these scenarios will be assigned a tax rate of 1%.

The final critical determinant of potential revenue yields is, of course, the rate applied. In the results presented here we show the outcome of having a 1% rate applied to all qualifying wealth above the specified threshold. As this is a simple proportional rate, the revenue from alternative rates would be a multiple of the number reported – a 0.5% rate would half our revenue estimates, or a 2% rate would double them, for example. The effects of introducing multiple rates would be more complex, but their upper and lower bounds can be set by these single proportional rate estimates.

TAX BASE, HOUSEHOLD LIABILITY AND REVENUE ESTIMATES

Table 2 shows the extent of the coverage of each wealth tax scenario and potential total revenues. To begin with the highly unrealistic scenario of taxing all positive wealth at 1%, this would raise an estimated 3,781 million euros and affect 86% of all households. To achieve this yield, however, would require taxing lots of people who have very little net wealth and possibly low incomes. In addition, applying a wealth tax to all households would present a very large administrative burden. All of the existing wealth tax designs in other countries apply a minimum wealth threshold for this reason. Looking at the results, we see a stark contrast in terms of the size of the tax base and the number of households liable between the very broad-based systems and the more narrowly-targeted systems, highlighting a distinction between taxing (almost all) wealth and taxing the upper part of the distribution of wealthy households.

The narrowest tax base that we look at in Table 2 – the high-threshold, large exemptions case - is relatively similar to a simplified version of the structure of the French wealth tax system. It applies a high personal allowance threshold, including increases for children, and exempts a range of assets such as the main residence, farms, business and pension wealth. This results

When particular assets are exempted from liability to wealth tax, the debt associated with those assets is still deducted from the remaining assets to arrive at net wealth. For example, when the household main residence (HMR) is exempted from liability to wealth tax, mortgage debt associated with the HMR is still deducted from the remaining gross assets to arrive at net wealth.

Table 2
Tax Base, Household Liability and Revenue

	Tax base (million euros)	% Wealth Liable	Liable Hhds (thousands)	% Liable Households	Revenue (million euros)
High Threshold – Large Exemptions	5,297	1.4%	4	0.25%	53
No Threshold – Large Exemptions	82,257	22%	1,075	64%	823
High Threshold - No Exemptions	24,753	6%	26	1.5%	248
Middle Threshold – No Exemptions	62,178	16%	95	6%	622
Low Threshold – 50% Deduction	87,151	23%	296	18%	872
No Threshold – HMR Exempt	204,099	54%	1,140	67%	2,041
Low Threshold – Large Exemptions	32,968	9%	96	6%	329
Low Threshold - No Exemptions	205,429	54%	548	32%	2,054
1% tax on all net assets	378,120	100%	1,459	86%	3,781

Source: Authors' calculations.

in just 1.4% of wealth liable for taxation. The 4,288 liable households would pay over 12,000 euros each in this scenario (Table 3 gives the tax payment estimates for liable households) and, in total, this scenario would raise 53 million euros in revenue. Keeping the asset exemptions in place but removing the personal allowances completely (the no threshold, large exemptions scenario) brings 64% of households into the tax net, although as the largest assets have been excluded, the amount of total wealth liable for taxation is just under 22%. Many more households are liable to be taxed under this scenario, albeit at a considerably lower average amount (765 euros), resulting in a revenue yield of 823 million euros.

The effect of taking the opposite course and removing all asset exemptions, but restoring the personal allowances is the basis of the next two scenarios presented – high and middle thresholds, both with no exemptions. This experiment demonstrates that the threshold largely drives the number of households liable, even when no specific asset exemptions are included. Unlike the previous example where excluding many assets but having no threshold for remaining wealth still resulted in the majority of households facing some level of wealth tax, both of these scenarios would have the wealth tax apply to not much more than 5% of households. The average tax payment is lower in the middle threshold scenario as households with

Table 3

Fstimated Tax Amounts for Irish Households

	Mean payment (euros)
High Threshold – Large Exemptions	12,353
No Threshold – Large Exemptions	765
High Threshold – No Exemptions	9,590
Middle Threshold – No Exemptions	6,565
Low Threshold – 50% Deduction	2,945
No Threshold – HMR Exempt	1,790
Low Threshold – Large Exemptions	3,418
Low Threshold – No Exemptions	3,746
All Net assets	2,592

Source: Authors' calculations.

lower levels of wealth are included; notwithstanding this, the revenue is 2.5 times higher because of the larger number of taxpayers.

In practice most specific country systems take a balance of some form between the asset exemption and allowance approaches. We therefore take an intermediate approach for the next scenario – low threshold, 50% deduction - with a lower threshold (125,000 euros for an individual, double if married and an additional 30,000 euros per child) applied and specific assets are provided with an offset of half their value (specifically the main residence, farms and businesses, while pensions are exempted completely). This scenario brings 18% of households into the scope of a wealth tax, with an average tax bill of just under 3,000 euros per household.

Given the high share of household wealth in Ireland accounted for by the household's main residence, we include a scenario of exempting this particular asset only with no other allowances or exemptions applied (no threshold, HMR exempt). The lack of personal allowance in this scenario means that it would bring a significant proportion of households into the tax net, but by exempting the main asset that most households possess, the average payment would be lower than in all but one of the other scenarios presented (1,790 euros).

The final new scenario reduces the threshold once again (low threshold, no exemptions): this time applying to all wealth above 125,000 euros (doubled for married couples but no additional child allowance), perhaps the broadest feasible base. This threshold reduction brings considerably more households into the tax net, increasing the percentage liable to almost one-third compared to the 6% in the middle threshold, no exemptions scenario. This reflects the highly non-linear distribution of wealth across households.

DISTRIBUTION OF LIABILITY

The calculations in the previous section showed the percentage of households that would be liable for a wealth tax under a range of scenarios. This section

looks at where these households sit in the income distribution. Although income and wealth are positively correlated, there are a number of reasons why this correlation is not perfect. Kaplan, Violante and Weidner (2014) identify the "wealthy hand-to-mouth" as households with valuable assets - typically property or pension funds - but low incomes. For example, households may have acquired assets through inheritance, or assets they purchased in the past may have had varying degrees of capital appreciation (or indeed depreciation in the case of households with negative equity properties). Some farming households may have assets of high value that generate modest income streams and older households may own mortgage-free property, but now be living on a pension income that is considerably lower than their prior employment earnings. At the other end of the age distribution, high-income young families with recent house purchases may have apparently low net wealth relative to their income, as they are at a life-cycle stage where asset accumulation has only just begun.

In Table 4, we divide households into ten income buckets with an equal number of households in each grouping and calculate the percentage of the wealth tax that would be paid by each group. The immediately striking result from this analysis is that, with the exception of the very narrowly focused high threshold/ high exemption scenario, all of the other wealth tax designs would affect at least some households in all of the income bands. Although we find that the bulk of the tax revenues would be raised from higher income households under all hypothetical tax designs, some households at all points in the income distribution would find they are liable for some payment in all but the first case that combines a high threshold with large exemptions. The scenarios where there is no threshold at all results in a fairly even spread of liable households all across the income distribution, even in cases where considerable assets are exempted (such as the "no threshold, large exemptions" and "no threshold, HMR exempt" cases).

In order to mitigate against an excessive burden of taxation, some systems of wealth taxes (such as those in place in France and Spain) have schemes that cap the combined (income and wealth) tax payable at 75% and 60% of income respectively. We experiment with the impact of capping wealth taxes alone at 33% of household income for each of the alternative scenarios presented earlier.3 For a 1% rate of wealth tax, this is equivalent to removing from liability household assets that are worth more than 300 times household income. A maximum payment cap has an immediate direct impact on reducing the revenue associated with each scenario, which is largest when middle or high thresholds are combined with no asset exemptions (revenue reductions of between -18% and -26%). In the other scenarios, the proportionate reductions tend to be slightly larger where the initial wealth tax revenue is greater.

As the purpose of a maximum payment cap is to address concerns regarding the ability to pay for high wealth - low income households, it follows that the beneficiaries of an income cap on wealth tax payments are likely to be those in the highest wealth deciles. Broadly speaking, the reduction in tax due to income capping would be distributed in much the same proportion as initial burden of wealth tax with, 90% plus of the reduction typically benefitting the top wealth decile. By contrast, the maximum payment cap would benefit households at the lower end of the income distribution to a much greater extent than the initial wealth tax burden on these households. There is a U-shaped distribution of benefit of the income cap by income decile in that households at either end of the income distribution are expected to benefit from the reduction in wealth tax. The income cap has a larger burden reducing effect among lower income decile households when there is a low threshold, or none

Table 4
Wealth Tax Payment as a Proportion of Gross Income by Income Decile

Decile	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	Тор	All Deciles
High Threshold – Large Exemptions					2.4%			4.4%	10.1%	4.8%	5.4%
No Threshold – Large Exemptions	3.3%	1.4%	0.9%	1.4%	1.3%	1.3%	1.3%	1.5%	1.9%	1.7%	1.6%
High Threshold – No Exemptions	16.4%	27.4%	3.5%	4.4%	17.0%	17.1%	8.3%	10.7%	7.5%	5.8%	6.9%
Middle Threshold – No Exemptions	40.4%	20.8%	12.2%	8.4%	12.9%	10.4%	9.5%	7.8%	8.4%	4.5%	6.3%
Low Threshold – 50% Deduction	17.2%	8.7%	5.7%	6.1%	5.7%	5.1%	4.1%	3.9%	4.0%	3.0%	3.9%
No Threshold – HMR Exempt	6.1%	4.8%	3.0%	3.5%	3.0%	3.5%	3.3%	3.7%	3.7%	3.4%	3.5%
Low Threshold – Large Exemption	15.5%	5.5%	6.6%	9.9%	5.2%	5.5%	3.6%	3.7%	4.2%	2.3%	3.2%
Low Threshold – No Exemptions	19.6%	12.2%	9.7%	9.4%	7.7%	7.0%	6.2%	5.4%	5.3%	3.8%	5.4%
All Net Assets	15.7%	9.2%	6.3%	6.1%	5.1%	5.5%	4.5%	4.4%	3.9%	3.7%	4.7%

Source: Authors' calculations.

 $^{^3}$ $\,$ Results are presented in detail in the working paper version of this article, available at http://www.esri.ie/pubs/WP549.pdf

CONCLUSIONS

This paper aims to provide as comprehensive an analysis as possible of the wealth holdings of Irish households and the potential implications that a wealth tax could have, if applied to the existing structure of assets and household composition. To provide a broad range of estimates and to illustrate the different effects of adjusting threshold levels and including or exempting specific assets, we calculated our wealth tax revenues and households liable using two different approaches. The first approach took the existing wealth tax structures of a number of European countries and applied them to the Irish household structure. The second used a range of hypothetical combinations of threshold level and asset exemptions to go more deeply into their respective impacts on the revenues and numbers of households that would be liable under different tax designs.

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