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# Taxation and Revenue Sufficiency in the Republic of Ireland

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## ABSTRACT

In this paper we consider revenue sufficiency in the Republic of Ireland. In particular, we compare aggregate taxation in the Republic with aggregate taxation in the ten other European Union (EU) countries with GDP per capita in excess of €30,000. This is done across three broad categories of tax revenue, namely, *labour taxes* (which includes social contributions), *consumption taxes* and *capital taxes*. We also compare taxes across a number of subcategories. In order to avoid problems and distortions associated with the use of GDP as a denominator, we also compare revenue raised per person in the Republic with per capita revenue in the other high-income EU countries. In aggregate, we find that the Republic raises significantly less in revenue (€8.1 billion) than it would if per capita taxes and social contributions were at the population weighted peer country average. The difference between the Republic (€13,196) and the peer country weighted average (€14,953) in 2015 was €1,757 per person. The Republic's revenue deficit is particularly notable in the area of taxes on labour, where there is an aggregate deficit of €9 billion. Employer social contributions account for €6.4 billion of the Republic's revenue deficit or 79 per cent of the total. On the other hand, per capita taxes on consumption in the Republic are higher than the peer country average with an excess of receipts of close to €1 billion overall. The excess of consumption receipts is caused by the high level of revenues from excise taxes. Finally, per capita taxes on capital are close to the peer country average with the Republic taking in €0.1 billion less than the comparator average. Decomposing capital taxes, we find that the Republic has comparatively high per capita corporate tax receipts but a deficit under the category of 'taxes on stocks of capital' of €1.3 billion – this is mainly related to the low level of property taxes in the Republic. In conclusion we find no evidence that the Republic of Ireland is a high tax country when taxes are considered in aggregate. In fact, per capita receipts from taxes and social contributions are lower than in every other high-income EU country.

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# Taxation and Revenue Sufficiency in the Republic of Ireland

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## 1. Introduction

The general fiscal position of the Irish state has improved in the last several years. There was a general government deficit of just over €1.8 billion or 0.7% of GDP in 2016. This represents steady improvement over 2015's deficit of approximately €5 billion or 1.9% of GDP and 2014's deficit of €7.1 billion or 3.7% of GDP. The 2016 outturn was also the smallest nominal deficit since the public finances fell into deficit post-2007. Gross public debt has declined from a year-end peak of €215.3 billion to €200.6 billion between 2013 and 2016. This same decline measured relative to GDP represents a fall from 119.4% to 72.8% of GDP by the final quarter of 2016, though the improvement is greatly exaggerated by the large and distorted nominal increase in GDP observed in 2015.<sup>1</sup>

The Irish Fiscal Advisory Council (2017), as a result, prefer a measure of 'debt to government revenue' as a measure of debt sustainability. Using their methodology, the ratio of Irish gross debt to total government revenue amounted to 284.2% in the first quarter of 2017, only exceeded within the EU by Greece, Portugal and Italy. This suggests continued relative fragility in the public finances and perhaps also an insufficient revenue base. Of course 'debt to government revenue' is itself problematic as a measure of fiscal sustainability as aggregate government revenue is fundamentally a policy choice.

While these developments reflect a welcome improvement in the sustainability of the public finances, other longstanding issues exist in relation to the sufficiency of expenditure by government (McDonnell and Goldrick-Kelly, 2017) and, by extension, aggregate state revenue in the form of taxes and social contributions.<sup>2</sup> In this paper we discuss taxation in aggregate terms, as well as under a number of broad subheadings in comparison to other, similarly

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<sup>1</sup> Recently observed, substantial declines in gross debt to GDP ratios are misleading due to a major positive shift in statistically measured output, which largely reflect certain multinational activity. A significant portion of this activity is not substantively tied to domestic economic activity and potential tax yields are likely to be less than for other economic activity.

<sup>2</sup> The OECD (2017) publication [Taxing Wages 2015-2016](#) treats compulsory social security contributions (SSCs) paid to general government as tax revenues. The OECD points out that being compulsory payments they clearly resemble taxes. They also note that better comparability between countries is obtained by treating social security contributions as taxes. Consequently all references to 'aggregate revenues' in this section of the QEO refer to the aggregate of taxes and SSCs.

economically developed, European states.

We find that aggregate revenues in Ireland are significantly lower than in comparator countries. Linking this to the findings of McDonnell and Goldrick-Kelly (2017), we see this revenue shortfall as directly leading to a number of spending deficits that are troubling from a long-run economic growth perspective. In light of these deficits, as well as cumulative pressures arising from the maintenance of expenditures in real terms given an expanding and ageing population, we conclude that while there is certainly scope for reform of existing taxes the case for cutting taxes is very weak in the short-to-medium term. Forthcoming budgets should, at the very least, maintain aggregate taxation levels and should strongly consider introducing revenue-raising measures most consistent with inclusive and sustainable growth.

## 2. The Aggregate ‘Tax Take’

Assessments of the aggregate “tax take” are most commonly gauged as a ratio of tax revenue to Gross Domestic Product (GDP). This is linked to the idea that GDP, as a measure of total economic output, can be seen as the basis on which any potential taxation may be drawn. As such, it can be seen as the ultimate determinant of public fiscal capacity.

**Table 1 Comparison of different tax headings as % of GDP 2015**

| Country                                        | Labour      | Consumption | Capital    | Total Tax   |
|------------------------------------------------|-------------|-------------|------------|-------------|
| Denmark                                        | 23.9        | 14.3        | 8.4        | 46.6        |
| France                                         | 23.9        | 11.2        | 10.8       | 45.9        |
| Belgium                                        | 24.0        | 10.3        | 10.6       | 45.1        |
| Finland                                        | 22.7        | 14.2        | 7.0        | 44.0        |
| Austria                                        | 24.8        | 11.7        | 7.4        | 43.8        |
| Sweden                                         | 24.9        | 12.0        | 6.3        | 43.3        |
| Germany                                        | 21.8        | 10.4        | 6.3        | 38.6        |
| Luxembourg                                     | 17.2        | 9.8         | 10.7       | 37.8        |
| Netherlands                                    | 20.6        | 11.3        | 5.8        | 37.8        |
| United Kingdom                                 | 12.6        | 11.1        | 9.6        | 33.3        |
| <b>Ireland</b>                                 | <b>10.3</b> | <b>7.9</b>  | <b>5.7</b> | <b>23.9</b> |
| Peer Weighted Average (PWA)                    | 20.4        | 11.1        | 8.4        | 40.0        |
| Rep. Ireland percentage point gap to PWA (GDP) | 10.1        | 3.2         | 2.7        | 16.1        |
| Rep. Ireland tax revenue as % of PWA           | 50.5        | 71.4        | 67.5       | 59.8        |

Sources: [Eurostat \(2017\) Taxation trends in the European Union](#). Author’s calculations

Notes: The peer weighted average is the average for the 10 other high-income EU countries (i.e. excluding the Republic of Ireland) weighted according to population size.

Table 1 displays taxation revenue under each of the three main composite headings as a portion of GDP, ordered according to the relative size of revenue to output. The Peer Weighted Average (PWA) is also calculated. The PWA is the population weighted average for the other 10 EU countries with a per capita income in excess of €30,000. This measure indicates that the Republic of Ireland is, by some way, the lowest tax jurisdiction among comparable developed European states. This is true for all tax categories, but is especially pronounced for tax collected from labour, which is only slightly more than half of the peer-weighted average. Aggregate taxation, in turn, is less than 60 per cent of the PWA, constituting a gap of over 16 percentage points of GDP or over €42 billion at current 2015 prices. This pattern continued into 2016. Total revenue was 19 percentage points less than the Euro Area average and 3.7 percentage points less than the United States.

Circumstances surrounding the composition of statistically measured output and the make-up of tax revenue however, render direct GDP-based comparisons extremely problematic. Notably the 2015 output data reflects a surge in measured GDP that was in no small part related to tax planning on the part of the multinational sector. The CSO (2017) have recently introduced the Modified Gross National Income or GNI\* as a more reliable measure of output activity in the state,

but this also suffers from comparative problems with respect to overall tax revenue. While GNI\* better captures nationally based economic activity that forms the basis of much taxable income in the state, many of the removed components of GDP have tax revenue associated with them. This is particularly true of corporate tax revenue, which constitutes a major source of income to the state.

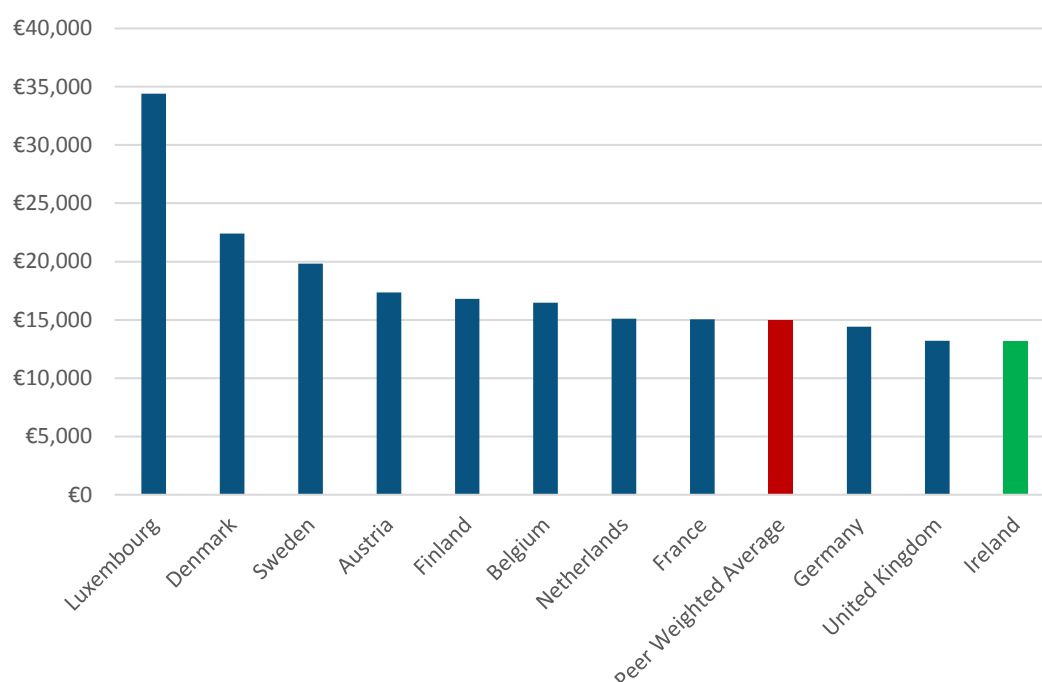
As an alternative and following the methodology used in McDonnell and Goldrick-Kelly (2017) we can compare tax revenue scaled according to contributions made per capita. Chart 1 displays receipts gathered per person for each of the comparator nations.<sup>3</sup> While social contributions are occasionally argued to be outside of ‘overall tax paid’ they are included here given their involuntary nature as per OECD methodology (OECD, 2016). The Republic is distinctive for its relatively low levels of aggregate Tax & Social Security Contribution (T&SC) receipts, the lowest in per capita terms. The relatively small contribution of social security contributions to revenue explains the Republic’s low level of aggregate T&SC receipts. In pure tax terms (i.e. excluding social contributions) the Republic is 7<sup>th</sup> of the 11 comparators and per capita receipts exceed the population weighted peer country average by €615 per person, or €2.8 billion when scaled to the overall population. Peer country average social contributions, however, exceed Irish levels by €11 billion scaled over the population. The net difference is approximately €1,757 per person or €8.1 billion in aggregate.

Another way of comparing taxes is to look at the Implicit Tax Rates (ITRs). ITRs represent the ratio of tax collected to the respective tax base, representing all activity under a given heading. Table 2 displays aggregate ITRs relative to the PWA as well as the implied collection gaps calculated on that basis. The aggregate tax on labour in the Republic of Ireland is lower than comparator rates by approximately €2.2 billion relative to its own base. This is netted out by consumption taxation, where it is implied that the Republic collects an above average amount of tax to the tune of €2.6 billion. The largest discrepancy, however, is exhibited by capital taxation, where the application of peer average implicit rates (assuming no other changes) would net €19.1 billion in extra revenue.

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<sup>3</sup> Total Receipts here relate to “receipts from taxes and compulsory social contributions after deductions of amounts assessed but unlikely to be collected”. As such, imputed social contributions are not included. This allows for consistency across category totals as reported by Eurostat in their Taxation Trends releases. The inclusion of imputed receipts widens the observed gap.

**Chart 1 Per Capita Receipts from Taxes and Social Contributions, 2015, High-income EU Countries**



**Sources:** [Eurostat \(2017\) Population on 1 January Age and Sex](#), [Eurostat \(2017\) Taxation trends in the European Union](#). Author's calculations

**Table 2 Comparison of Implicit Tax Rates, 2015**

| Country                                    | Labour % | Consumption % | Capital % |
|--------------------------------------------|----------|---------------|-----------|
| Ireland                                    | 32.9     | 24.2          | 14.5      |
| PWA                                        | 35.7     | 21.1          | 33.7      |
| Rep. Ireland percentage point gap to PWA   | 2.8      | -3.1          | 19.2      |
| Implied gap to average (total), Billions € | 2.2      | -2.6          | 19.1      |

**Sources:** [Eurostat \(2017\) Taxation trends in the European Union](#). . Author's calculations.

**Notes:** Implicit tax rates (ITR) measure the ratio between tax revenue under each category and their respective base. The *ITR on labour* is the sum of all direct and indirect taxes as well as social contributions from employees and employers levied on employed labour income divided by total employee remuneration in that jurisdiction. The *ITR on consumption* relates to consumption taxes divided by the final consumption expenditure of households in that territory. The *ITR on capital* is the ratio between capital tax revenue and potentially taxable capital and business income. It should be noted that due to data unavailability, Luxembourg is excluded in comparator calculations of the ITR on capital – thought the effect is likely to be modest given population weighting.

These bases can, however, be biased according to effects similar to those that render GDP problematic, particularly in the case of capital. With this in mind, the following sections decompose respective tax takes according to average payments per person in a given jurisdiction.

### 3. Taxation on Labour

#### 3.1 The Aggregate Tax Level

Labour taxation includes government income from tax and social contributions levied on employed as well as non-employed income (e.g. receipts from social payments and pensions).<sup>4</sup> While labour taxation is the largest single tax component at 43 per cent of tax revenue, Irish labour taxation as a function of the overall take is second lowest among comparators, exceeding only that of the UK (Table 3).

**Table 3 Comparison of Labour Tax as a Proportion of Total Tax Receipts 2015**

| Country                                  | %    |
|------------------------------------------|------|
| Sweden                                   | 57.6 |
| Germany                                  | 56.6 |
| Austria                                  | 56.6 |
| Netherlands                              | 54.7 |
| Belgium                                  | 53.2 |
| France                                   | 52.1 |
| Finland                                  | 51.7 |
| Denmark                                  | 51.3 |
| Luxembourg                               | 45.6 |
| Ireland                                  | 43.0 |
| United Kingdom                           | 37.8 |
| Peer Weighted Average (PWA)              | 50.5 |
| Rep. Ireland percentage point gap to PWA | 7.5  |

**Sources:** [Eurostat \(2017\) Population on 1 January Age and Sex](#), [Eurostat \(2017\) Taxation trends in the European Union](#). . Author's calculations.

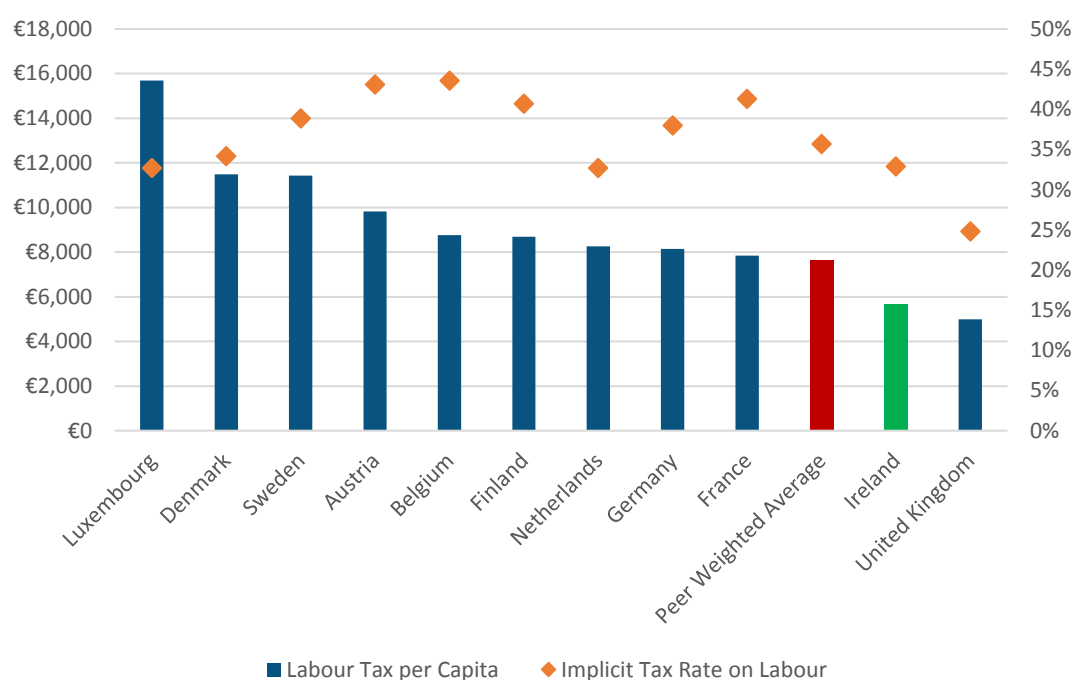
Labour taxation collected per person is shown in Chart 2 and in Table 4. In terms of aggregate per capita contributions, the Republic is the lowest tax jurisdiction, with the exception of the UK. The revenue gap relative to the PWA is €1940 per capita, or an aggregate total of €9 billion. The Republic is much less of an outlier with respect to the ITR on labour income. Effective rates of taxation exceed some higher receipt countries, though the effective rate is below the peer weighted average. Application of the peer country average ITR on labour of 35.7% would have implied slightly over €2.2 billion in additional revenue.

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<sup>4</sup> A certain proportion of *Taxes on individual or household income including holding gains* is attributed to tax collected on self-employed and capital income. These are included under the capital taxation heading.

Decomposing labour taxation according to payments from the employed, employers and non-employed individuals shows that the gap is explained by the relative dearth of social contributions paid on labour income to the Irish state relative to the comparator countries. Taxation on income paid by employees is actually above average, but this surplus is more than offset by a €9.5 billion cumulative shortfall in employer and non-employed payments largely comprised of social contributions. Approximately two thirds of this gap is accounted for by the relative shortfall of labour tax paid by employers.

**Chart 2 Per Capita Receipts from Taxes on Labour and ITRs on Labour, 2015, High-income EU Countries**



**Sources:** [Eurostat \(2017\) Population on 1 January Age and Sex](#), [Eurostat \(2017\) Taxation trends in the European Union](#). Author's calculations

**Notes:** Labour tax per capita is shown on the left hand side. The ITRs on labour are shown in percentage terms on the right hand side.

**Table 4 Per Capita Receipts from Taxes on Labour by Payer, 2015, €**

| Country                                    | Employees | Employers | Non-employed | Total |
|--------------------------------------------|-----------|-----------|--------------|-------|
| Luxembourg                                 | 10118     | 4215      | 1355         | 15689 |
| Denmark                                    | 8285      | 323       | 2883         | 11491 |
| Sweden                                     | 4736      | 5333      | 1364         | 11433 |
| Austria                                    | 4830      | 3829      | 1159         | 9818  |
| Belgium                                    | 4808      | 3215      | 745          | 8769  |
| Finland                                    | 4280      | 3332      | 1083         | 8695  |
| Netherlands                                | 4355      | 2073      | 1830         | 8259  |
| Germany                                    | 4747      | 2453      | 951          | 8151  |
| France                                     | 2922      | 4365      | 553          | 7840  |
| Ireland                                    | 4168      | 1418      | 91           | 5678  |
| United Kingdom                             | 3499      | 1406      | 90           | 4996  |
| Peer Weighted Average (PWA)                | 4056      | 2804      | 759          | 7618  |
| Rep. Ireland gap to PWA (per Capita basis) | -113      | 1386      | 667          | 1940  |
| Implied gap (total) Billions €             | -0.5      | 6.4       | 3.1          | 9.0   |

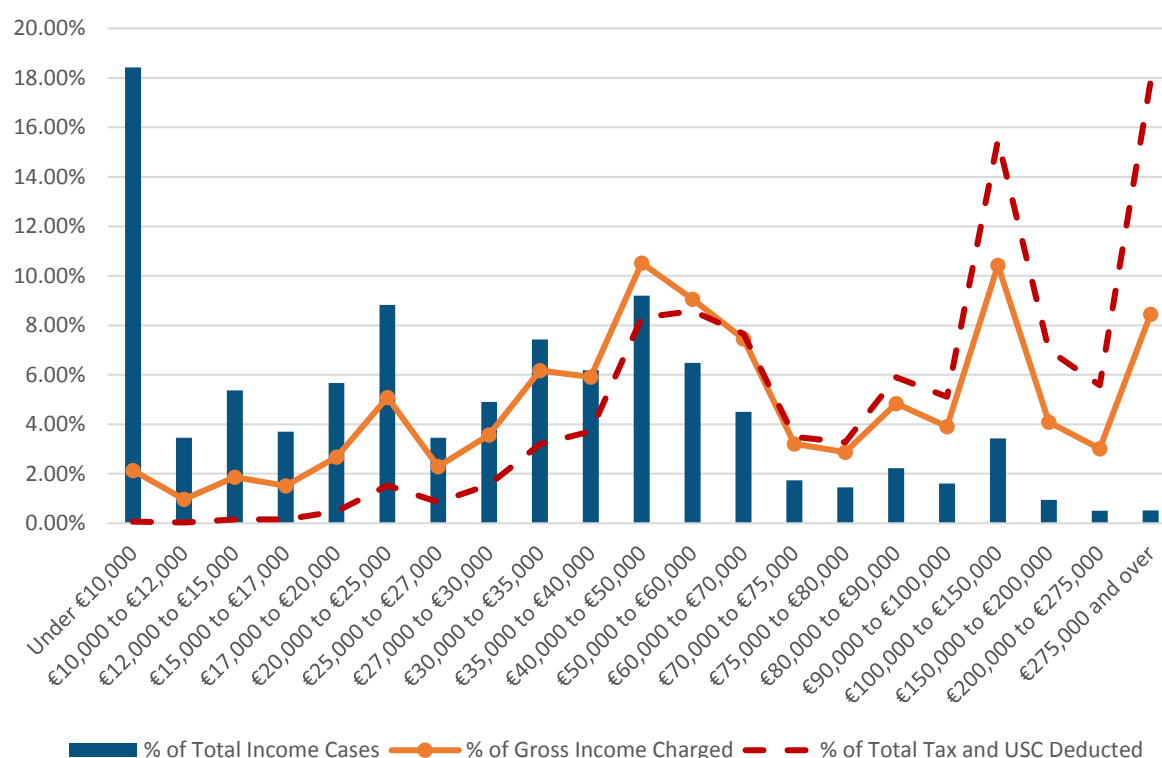
Sources: [Eurostat \(2017\) Population on 1 January Age and Sex](#), [Eurostat \(2017\) Taxation trends in the European Union](#). Author's calculations

### ***3.2 Effective Personal Taxes across the Income Distribution in Ireland***

While comparisons of the aggregate tax take from labour are obviously relevant with respect to overall revenue sufficiency for current and future public expenditure needs, equally salient is the distribution of tax across the population. Of particular interest is its distribution as a function of gross earnings. This is not only relevant to revenue sustainability but also helps us understand the extent to which the system of labour taxation operates to reduce net income inequality.

The majority of labour tax paid in Ireland comes from taxes levied on incomes in the form of income tax and the Universal Social Charge (USC). Chart 3 displays the distribution of taxable income and USC and Income tax paid. There exist significant discrepancies between the distribution of income tax cases, taxable income and tax paid.

**Chart 3 Distribution of Gross Income and Associated Incidence of Income and USC Taxes in 2015**



**Sources:** Central Statistics Office (2017): [Distribution of Income Tax and Universal Social Charge by Range of Gross Income, Marital Status, Year and Statistic](#)

**Notes:** Income Cases refers to tax units. A married couple or civil partnership are considered a single unit. "Gross Income" refers to income before adjustments for capital allowances, interest payments, losses, allowed expenses or retirement annuities but after superannuation contribution deductions by employees. See CSO, (2017)

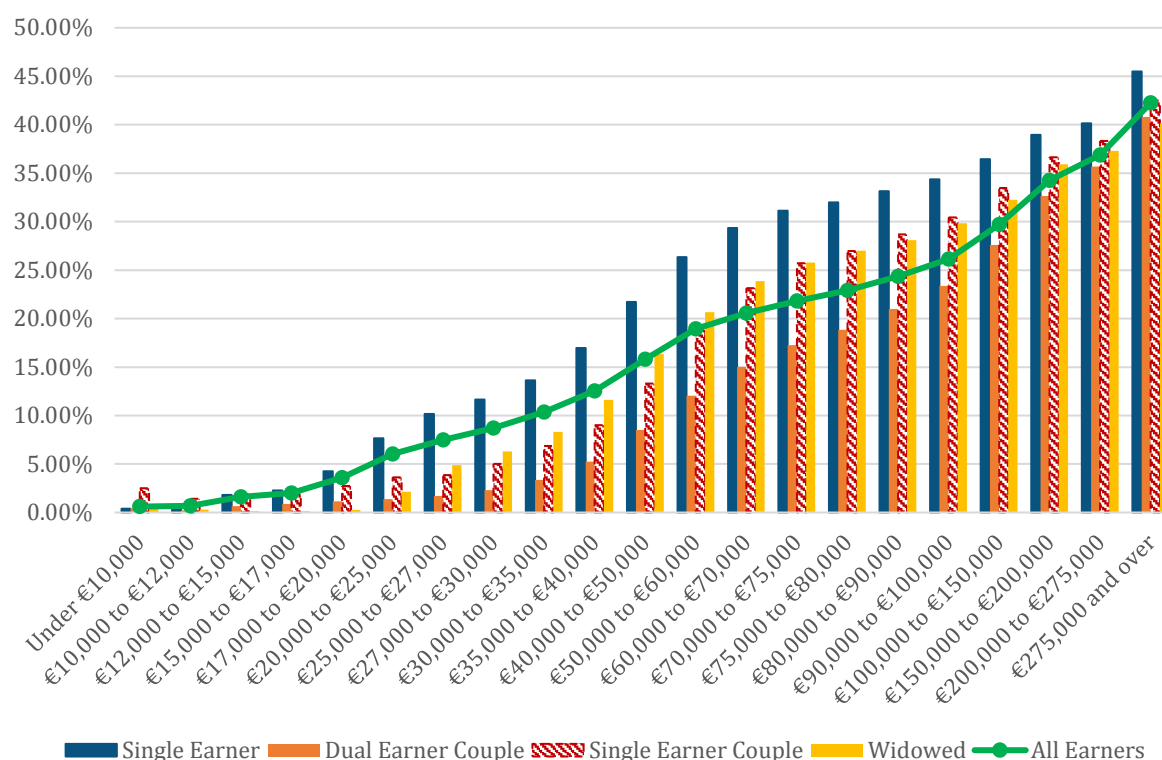
Well over half (53.8 per cent) of tax cases had a gross income less than €30,000. This same group accounted for approximately one fifth of gross income charged and less than 5 per cent (4.8 per cent) of USC and income tax paid. Incomes of between €30,000 and €50,000 constituted another 22.8 per cent of income cases and a comparable amount of chargeable income (22.6 per cent). This same group paid 15.2 per cent of Income tax and USC. A further 18 per cent of income cases had gross income between €50,000 and €100,000, earned 31.3 per cent of income, and paid just over 34 per cent of USC and income tax. Five per cent of income tax cases earned over €100,000 and this group paid close to 46% of all Income tax and USC while accounting for just under 26 per cent of gross income charged. This data is strongly indicative of a broadly progressive income taxation system.

Chart 4 displays average effective tax rates for gross income bands from under €10,000 to €275,000+ for a number of tax case types. In all cases, combined USC and Income tax rates display progressivity.<sup>5</sup> The degree of progressivity and rates, however, vary by tax case type – which are

<sup>5</sup> It should be stressed that the appearance of progressivity in Chart 4 and Chart 5 is somewhat distorted given the uneven intervals between average incomes in each gross income band.

subject to different tax bands and reliefs. For almost all income levels, *Single Earner* effective rates are highest, exceeding the combined *All Earners* rate. The gap between “Single Earner” and “All Earner” average rates exceeds 5 percentage points between €40,000 and €150,000, reaching a maximum of 9.3 per cent between €70,000 and €75,000. “Dual Earner Couple” average tax rates are less than “All earner” tax cases at all income levels.<sup>6</sup>

**Chart 4 Average Tax Rate (Income Tax and USC) for Tax Unit Categories by Gross Income, 2015**

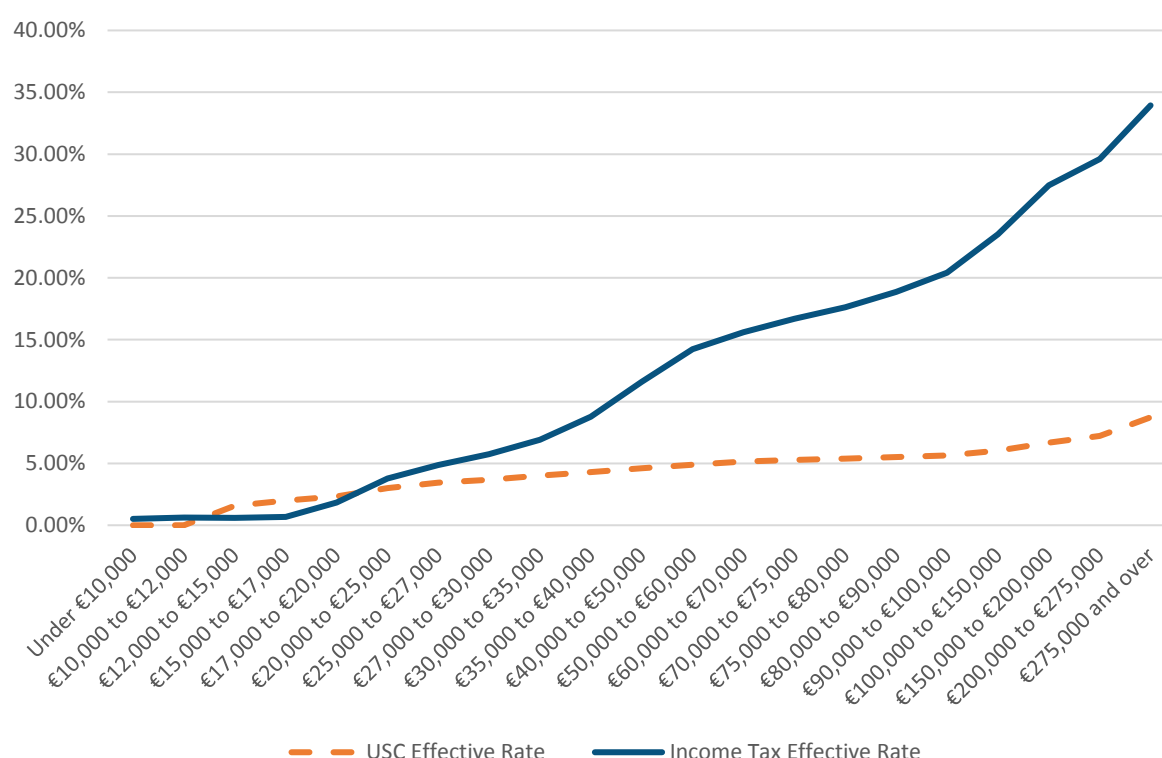


**Sources:** Central Statistics Office (2017): [Distribution of Income Tax and Universal Social Charge by Range of Gross Income, Marital Status, Year and Statistic](#)

Chart 5 shows a clear variance in the degree of progressivity between the Income Tax and the Universal Social Charge in 2015. Average tax rates within each band show far higher relative increases at upper gross income bands for the Income Tax than for the USC. Average paid USC rates at the €275,000+ band are less than two and a half times the effective rate for those in the band €27,000 to €30,000, whereas in Income Tax terms the effective rate for the €275,000+ band is nearly 6 times that of the €27,000 to €30,000 band. Low marginal rates and the presence of a single USC rate between €17,576 and €70,044 largely explain this effect (Collins, 2015). For a more representative picture of effective rate progressivity see Collins (2016).

<sup>6</sup> Effective Tax rates here do not include those associated with social contributions.

**Chart 5 Comparison of Average Income Tax and USC paid by Gross Income, 2015**



**Sources:** Central Statistics Office (2017): [Distribution of Income Tax and Universal Social Charge by Range of Gross Income, Marital Status, Year and Statistic](#)

**Notes:** For definitions of income, see Chart 3. “Single Earner” and “Widowed” categories entail addition of male and female (widower and widow) data sets. Tax rate reflects rate at average income within each band by tax unit status. Average gross income differs across tax unit categories. Chart 5 comparisons refer to “All Earners”.

### 3.3 Comparison of Tax Levels on Average Labour Costs and Average Incomes

Having established the contours of effective rates of taxation on income (excluding social contributions), we now turn to international comparisons.<sup>7</sup> Effective rates of taxation include “social security contributions”, known in the Republic of Ireland as Pay Related Social Insurance (PRSI). These payments are incident on the employee and on the employer. Table 5 displays the average effective personal tax rate (including income taxes and social security contributions) incident on the average wage earner, that is, paid out of the average gross wages received. Social security contributions are compulsory payments to government that confer contingent entitlements on the basis of payments into the system (OECD, 2017). These payments are occasionally considered outside of “overall tax paid” but following OECD (2017) and standard practice are considered here given their involuntary nature and payment as a function of income.

<sup>7</sup> These tax schedules refer to taxation on earnings and labour costs (incorporating employer social security contributions on wage income. Self-employed earnings are not considered here.

The Republic's effective tax rate on average gross waged income is the lowest in the EU15, at a rate of 19.2 per cent. This compares with a EU15 average (ex. Ireland) of 30.6 per cent. The discrepancy in the overall tax take relative to the EU15 is driven by Ireland's outlier status in relation to employee payment of social security contributions (SSCs) at the average wage. Ireland has the lowest employee social insurance payments in the EU15 with the exception of Denmark, which does not levy any payments on employees. Denmark does, however levy more than double the income tax on average incomes. The effective income tax rate at average wage level in Ireland, at 15.2 per cent, exceeds levels observed in some other comparators though remains lower than the EU15 average of 18.7 per cent. However, a close to average effective income tax rate is accompanied by a very low employee SSC rate. Irish effective tax rates are also lower than in the United States and is lower than in the OECD overall.

**Table 5 Income Tax plus Employee Social Security Contributions in 2016, % of Gross Wage Earnings (Single Person at Average Earnings), EU15 and OECD35**

|                                | Country                     | Total       | Income Tax  | Employee SSC | Gross wage earnings |
|--------------------------------|-----------------------------|-------------|-------------|--------------|---------------------|
| <b>1</b>                       | <i>Belgium</i>              | <b>40.7</b> | 26.8        | 14.0         | 58,214              |
| <b>2</b>                       | <i>Germany</i>              | <b>39.7</b> | 19.0        | 20.7         | 61,750              |
| <b>3</b>                       | <i>Denmark</i>              | <b>36.2</b> | 36.2        | 0.0          | 57,310              |
| <b>4</b>                       | <i>Austria</i>              | <b>31.9</b> | 13.9        | 18.0         | 55,680              |
| <b>5</b>                       | <i>Italy</i>                | <b>31.1</b> | 21.6        | 9.5          | 42,166              |
| <b>6</b>                       | <i>Luxembourg</i>           | <b>31.0</b> | 18.1        | 12.8         | 65,522              |
| <b>7</b>                       | <i>Finland</i>              | <b>30.8</b> | 22.0        | 8.8          | 48,479              |
| <b>8</b>                       | <i>Netherlands</i>          | <b>30.4</b> | 16.9        | 13.5         | 63,549              |
| <b>9</b>                       | <i>France</i>               | <b>29.1</b> | 14.8        | 14.3         | 47,817              |
| <b>10</b>                      | <i>Portugal</i>             | <b>27.6</b> | 16.6        | 11.0         | 29,946              |
| <b>11</b>                      | <i>Greece</i>               | <b>25.4</b> | 9.6         | 15.8         | 32,974              |
| <b>12</b>                      | <i>Sweden</i>               | <b>24.9</b> | 17.9        | 7.0          | 47,450              |
| <b>13</b>                      | <i>United Kingdom</i>       | <b>23.3</b> | 14.0        | 9.4          | 53,020              |
| <b>14</b>                      | <i>Spain</i>                | <b>21.4</b> | 15.0        | 6.4          | 40,276              |
| <b>15</b>                      | <b><i>Ireland (ROI)</i></b> | <b>19.2</b> | <b>15.2</b> | <b>4.0</b>   | <b>44,737</b>       |
| <b>Non-EU Western European</b> |                             |             |             |              |                     |
|                                | <i>Norway</i>               | <b>27.9</b> | 19.7        | 8.2          | 60,020              |
|                                | <i>Iceland</i>              | <b>29.2</b> | 28.9        | 0.3          | 59,044              |
|                                | <i>Switzerland</i>          | <b>16.9</b> | 10.7        | 6.2          | 70,077              |
| <b>Unweighted averages</b>     |                             |             |             |              |                     |
|                                | <i>EU15 (ex. ROI)</i>       | <b>30.3</b> | 18.7        | 11.5         | 50,297              |
|                                | <i>OECD</i>                 | <b>25.5</b> | 15.7        | 9.8          | 43,015              |
| <b>Other</b>                   |                             |             |             |              |                     |
|                                | <i>OECD median</i>          | <b>25.4</b> | 15.2        | 9.4          | 44,737              |
|                                | <i>United States</i>        | <b>26.0</b> | 18.3        | 7.7          | 52,543              |

**Sources:** OECD (2017) Taxing Wages 2015-2016 – Table 1.3 and author's calculations

**Notes:** Single individual without children at the earnings level of the average worker. Rounding affects totals. Wages are in US dollars with equal purchasing power. The median values for the tax payment components need not necessarily add up to the median value for the total tax payment.

Effective rates on the average wage do not, however, reflect the entirety of the tax paid to the state on the part of and for employed individuals or the total costs associated with employment. Table 6 presents the same data as a function of labour costs, adding employer payments of social security contributions.<sup>8</sup> This reflects what the OECD (2017) terms, the *Tax Wedge*, corresponding to the difference between labour costs and employee take home pay. A tax wedge that considers overall labour cost is more significant for considerations of relative economic competitiveness deriving from unit labour costs, than are taxes on average wages. These costs more directly reflect the actual costs of employment (OECD, 2017).

**Table 6 Comparison of Total Tax Wedge as % of Total Labour Costs (Single Person at Average Earnings), 2016, EU15 and OECD35**

| EU15                           | Country                     | Total       | Income Tax  | Employee SSC | Employer SSC | Labour Costs  |
|--------------------------------|-----------------------------|-------------|-------------|--------------|--------------|---------------|
| 1                              | <i>Belgium</i>              | <b>54.0</b> | 20.8        | 10.9         | 22.3         | 74,913        |
| 2                              | <i>Germany</i>              | <b>49.4</b> | 15.9        | 17.3         | 16.2         | 73,683        |
| 3                              | <i>France</i>               | <b>48.1</b> | 10.8        | 10.5         | 26.8         | 65,294        |
| 4                              | <i>Italy</i>                | <b>47.8</b> | 16.4        | 7.2          | 24.2         | 55,609        |
| 5                              | <i>Austria</i>              | <b>47.1</b> | 10.8        | 13.9         | 22.4         | 71,776        |
| 6                              | <i>Finland</i>              | <b>43.8</b> | 17.9        | 7.1          | 18.7         | 59,663        |
| 7                              | <i>Sweden</i>               | <b>42.8</b> | 13.6        | 5.3          | 23.9         | 62,359        |
| 8                              | <i>Portugal</i>             | <b>41.5</b> | 13.4        | 8.9          | 19.2         | 37,058        |
| 9                              | <i>Greece</i>               | <b>40.2</b> | 7.7         | 12.6         | 19.9         | 41,169        |
| 10                             | <i>Spain</i>                | <b>39.5</b> | 11.6        | 4.9          | 23.0         | 52,319        |
| 11                             | <i>Luxembourg</i>           | <b>38.4</b> | 16.2        | 11.4         | 10.8         | 73,489        |
| 12                             | <i>Netherlands</i>          | <b>37.5</b> | 15.2        | 12.2         | 10.1         | 70,665        |
| 13                             | <i>Denmark</i>              | <b>36.5</b> | 35.9        | 0.0          | 0.8          | 57,759        |
| 14                             | <i>United Kingdom</i>       | <b>30.8</b> | 12.6        | 8.4          | 9.7          | 58,714        |
| 15                             | <b><i>Ireland (ROI)</i></b> | <b>27.1</b> | <b>13.8</b> | <b>3.6</b>   | <b>9.7</b>   | <b>49,547</b> |
| <b>Non-EU Western European</b> |                             |             |             |              |              |               |
|                                | <i>Norway</i>               | <b>36.2</b> | 17.5        | 7.3          | 11.5         | 67,823        |
|                                | <i>Iceland</i>              | <b>34.0</b> | 26.9        | 0.3          | 6.8          | 63,384        |
|                                | <i>Switzerland</i>          | <b>21.8</b> | 10.0        | 5.9          | 5.9          | 74,439        |
| <b>Unweighted averages</b>     |                             |             |             |              |              |               |
|                                | <i>EU15 (ex. ROI)</i>       | <b>42.7</b> | 15.6        | 9.3          | 17.7         | 61,034        |
|                                | <i>OECD</i>                 | <b>36.0</b> | 13.4        | 8.2          | 14.4         | 50,214        |
| <b>Other</b>                   |                             |             |             |              |              |               |
|                                | <i>OECD median</i>          | <b>38.1</b> | 12.6        | 7.6          | 13.9         | 54,053        |
|                                | <i>United States</i>        | <b>31.7</b> | 16.9        | 7.1          | 7.7          | 56,956        |

**Sources:** OECD (2017) *Taxing Wages* 2015-2016 – Table 1.1 and Table 1.2 and author's Calculations

**Notes:** Single individual without children at the earnings level of the average worker. Rounding affects totals. Employer SSC includes payroll taxes where applicable. Labour cost is in US dollars with equal purchasing power. The median values for the tax wedge components need not necessarily add up to the median value for the total tax wedge.

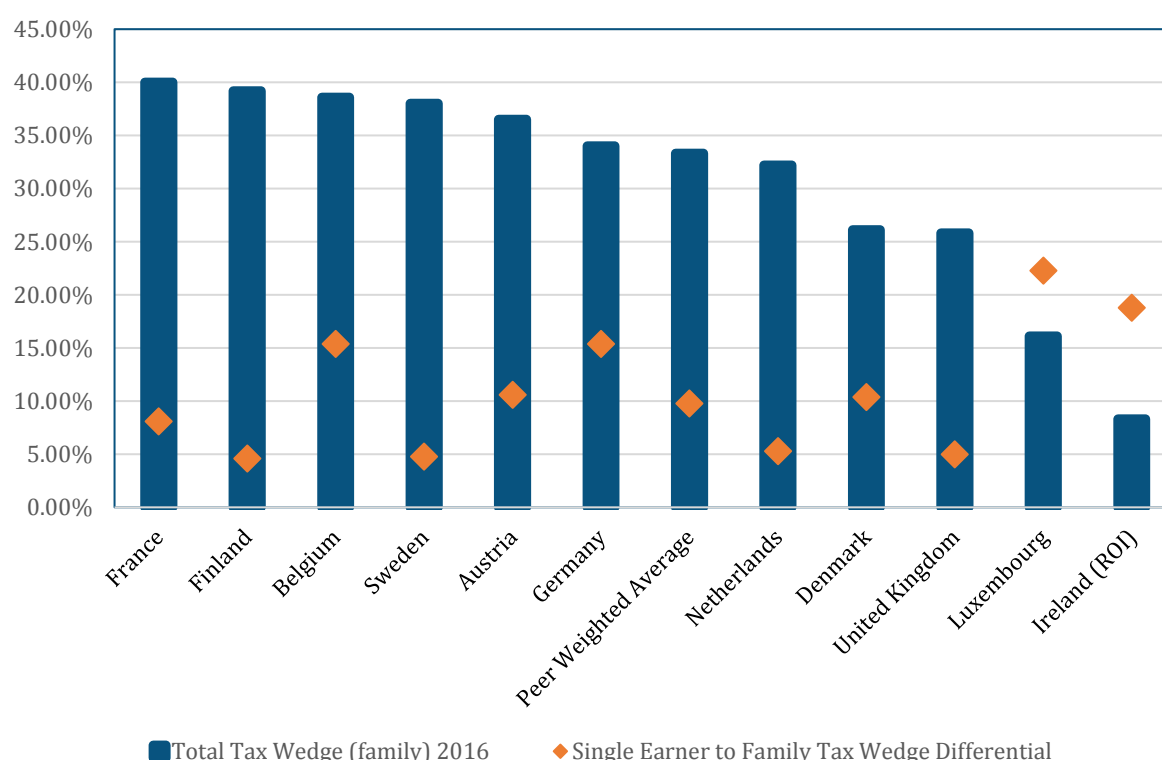
In a similar pattern, the Republic's tax wedge at 27.1 per cent of labour costs for a single average

<sup>8</sup> Labour costs reflect employee compensation plus employer and employee social contributions as well as any additional payroll costs.

earner is lower than in all other EU15 countries. It is also less than the United States (31.7 per cent) and the OECD's unweighted mean and median of 36.0 and 38.1 per cent. The tax wedge on labour costs in the Republic for a single average earner is therefore 11 percentage points lower than the OECD median. The low levels of SSCs paid by employees and employers explain the gap. Effective income tax as a percentage of labour cost is less than 2 percentage points below the EU15 average and seven EU15 countries have lower effective rates. In contrast, Ireland ranks second from the bottom on both measures of social security contributions. The comparator with lower contributions, Denmark, has effective income tax contributions over two and a half times higher than in the Republic.

Chart 6 shows that the Republic is even more of an outlier when it comes to the tax wedge on families relative to comparators. At the average wage, the differential between the tax wedge paid by single earners and a single earner family is 18.8 per cent - higher than in all comparators with the exception of Luxembourg. Luxembourg has the second lowest family tax wedge within the EU15 (16.1 per cent), an effective rate that is nearly double that observed in the Irish case (8.3 per cent).

**Chart 6 Comparison of Total Tax Wedge as % of Total Labour Costs (One Earner Married Couple with Two Children at Average Earnings), 2016, EU15**



**Sources:** OECD (2017) *Taxing Wages* 2015-2016 – Table 1.4 and author's Calculations

**Notes:** Compares one earner married couple with two children and earnings at the average wage level with single individual without children at the earnings level of the average worker. EU rankings relate to the total tax wedge

### 3.4 Comparison of Tax Levels on Labour Costs and Wage Incomes by Family Type and Gross Wage

Comparisons between income related taxation in the Republic relative to other countries, whether for reasons of equity or competitiveness, tend to centre on the level and income associated with the marginal rate of personal taxation, that is, the level of personal income related taxes paid on additional income above a certain level.

At below average levels of income, wage earners in the Republic of Ireland face comparatively low marginal tax rates (see Table 7). At 50 per cent of the gross average wage, single workers in 2016 faced a marginal rate of 23 per cent, the lowest observed among the peer group of 11 high-income EU countries. Sweden was the next lowest at 28.3 per cent. The same worker also faced by far the lowest effective rate (3.1 per cent) before consideration of non-universal tax expenditures.<sup>9</sup> The average effective rate was just one sixth of the peer group median. The marginal rate was at 49.5 per cent, slightly above the peer group median (47.8 per cent) for single workers on 100 per cent of gross average earnings. However, the average effective rate pre non-universal tax expenditures was just 19.3 per cent. This was well below the peer group median of 30.8 per cent. Average effective tax rates for this group in the other high-income countries ranged from 23.3 per cent in the UK to 40.8 per cent in Belgium.<sup>10</sup>

The Republic's marginal rate of 52 per cent is the median for the group of high-income EU countries for single earners on 200 and 250 per cent of gross average earnings. This fact notwithstanding, average rates for both of these groups are below their respective peer group medians – by 6.0 percentage points in the case of a worker on 200 per cent of gross earnings and by 5.3 percentage points in the case of a worker on 250 per cent of gross earnings.

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<sup>9</sup> Non-universal tax expenditures refer to certain tax revenues foregone that are not applied to all earners. Examples include reliefs associated with pensions or health insurance in the Irish case.

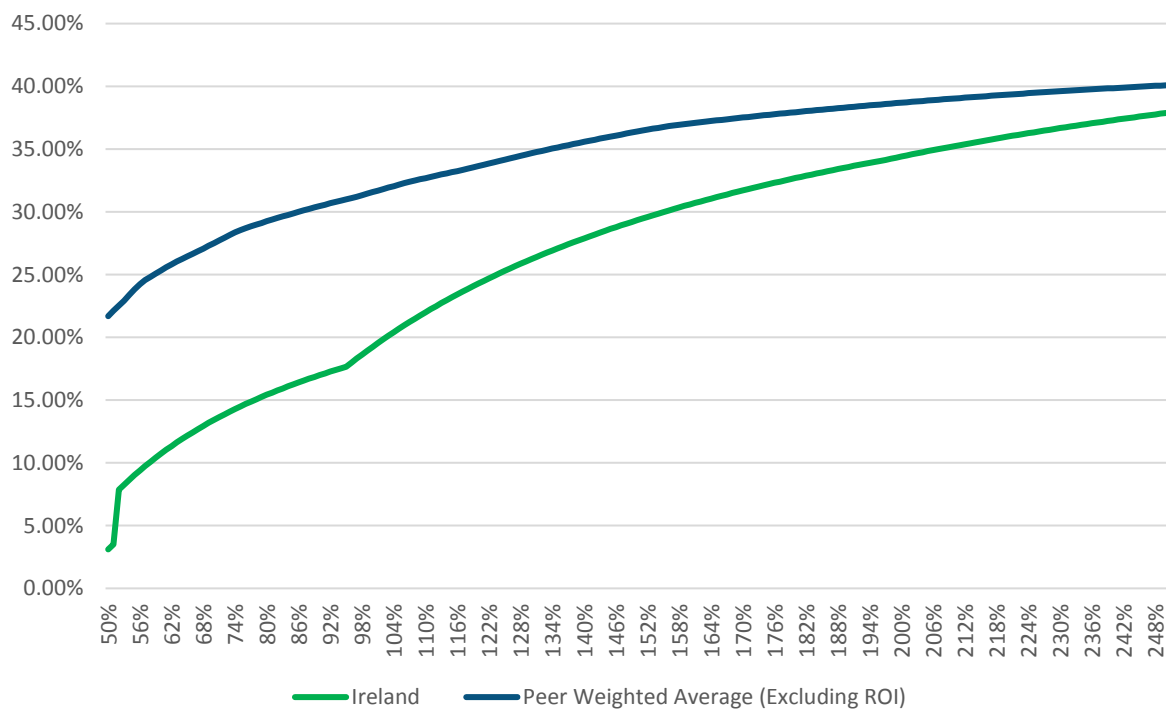
<sup>10</sup> Changes in USC in 2017 have lowered rates and shifted bands such that marginal rates have reduced at the average wage to 49 per cent. The highest marginal rate band now occurs after €70,044, where an 8 per cent charge is levied as of Budget 2017.

**Table 7 Personal Marginal and Average Tax Rates at Selected Percentages of Gross Average Wage Income for a Single Earner with no Children, 2016**

|                | 50          |            | 100         |             | 150         |             | 200         |             | 250         |             |
|----------------|-------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
|                | Marginal    | Average    | Marginal    | Average     | Marginal    | Average     | Marginal    | Average     | Marginal    | Average     |
| Belgium        | 68.0        | 21.6       | 55.9        | 40.8        | 60.5        | 47.2        | 59.4        | 50.3        | 59.4        | 52.1        |
| Denmark        | 39.7        | 31.2       | 48.3        | 36.0        | 55.8        | 40.6        | 55.8        | 44.4        | 55.8        | 46.7        |
| Germany        | 44.3        | 31.0       | 52.5        | 39.7        | 52.6        | 43.5        | 44.1        | 43.9        | 44.4        | 44.0        |
| <b>Ireland</b> | <b>23.0</b> | <b>3.1</b> | <b>49.5</b> | <b>19.3</b> | <b>49.5</b> | <b>29.3</b> | <b>52.0</b> | <b>34.4</b> | <b>52.0</b> | <b>37.9</b> |
| France         | 51.6        | 18.4       | 43.9        | 29.1        | 42.6        | 33.6        | 42.6        | 35.9        | 42.6        | 37.2        |
| Luxembourg     | 32.0        | 18.2       | 50.1        | 31.0        | 50.1        | 37.3        | 50.1        | 40.5        | 43.8        | 41.5        |
| Netherlands    | 42.5        | 16.1       | 46.3        | 30.5        | 52.7        | 36.3        | 56.0        | 40.4        | 52.0        | 43.2        |
| Austria        | 75.1        | 20.9       | 47.8        | 31.9        | 48.2        | 37.3        | 42.0        | 37.7        | 42.0        | 38.6        |
| Finland        | 37.9        | 18.7       | 45.8        | 30.8        | 49.5        | 37.0        | 58.9        | 41.0        | 58.0        | 44.5        |
| Sweden         | 28.3        | 20.1       | 31.9        | 24.9        | 56.0        | 33.5        | 59.7        | 40.1        | 59.7        | 44.1        |
| UK             | 32.0        | 14.7       | 32.0        | 23.3        | 42.0        | 28.4        | 42.0        | 31.8        | 42.0        | 33.8        |
| Median         | 39.7        | 18.7       | 47.8        | 30.8        | 50.1        | 37.0        | 52.0        | 40.4        | 52.0        | 43.2        |

Sources: OECD (2017) *Taxing Wages* 2015-2016 and author's calculations

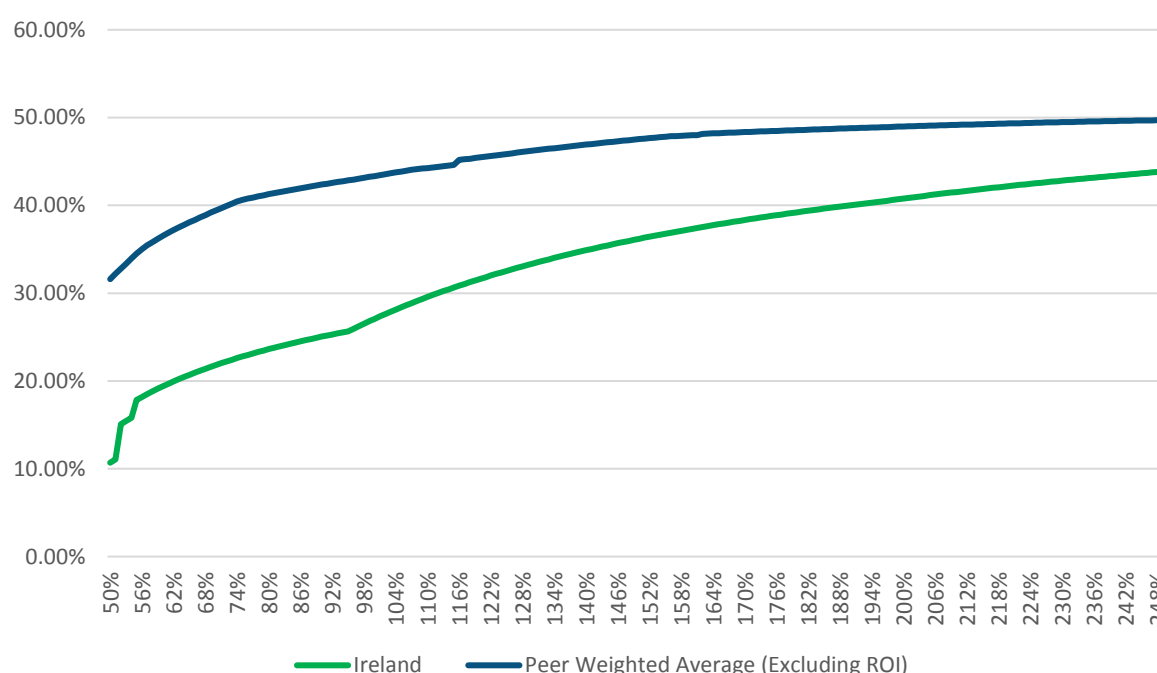
**Chart 7 Comparison of Personal Average Tax Rates on Labour Income for Gross Wage Earnings between 50% and 250% of the Average Wage – Single Earners No Children**



Sources: OECD (2017) *Taxing Wages* 2015-2016

The distribution of effective average rates for single earners between 50 per cent and 250 per cent is shown in Chart 7. We can see that average rates in the Republic are consistently below those of comparable jurisdictions. Between 50 per cent and 100 per cent of average gross income, the proportion of gross wage income paid in tax is the lowest among the comparator set and, despite converging with comparators as incomes increase, remains among the lowest at 250 per cent of average income at 9<sup>th</sup> out of 11 states.

**Chart 8 Comparison of Tax Wedge on Labour Costs for Gross Wage Earnings between 50% and 250% of the Average Wage – Single Earners No Children**



**Sources:** OECD (2017) *Taxing Wages* 2015-2016

In most countries a major component of taxation from labour comes in the form of employer contributions. Using the same OCED (2017) data set, Chart 8 shows the tax wedge for single earners with no children. The average tax wedge on labour income is lower in the Republic than in the peer weighted average at all displayed incomes, despite narrowing at upper incomes. Similar comparisons can be undertaken for different categories of household, for example *single parents with children*, *married couples with children* and *married couples with no children*. In all these cases the Republic of Ireland's average tax rate and average tax wedge is lower than the peer weighted average across the spectrum of earnings from 50 per cent to 250 per cent of gross average earnings.

## 4. Taxes on Consumption

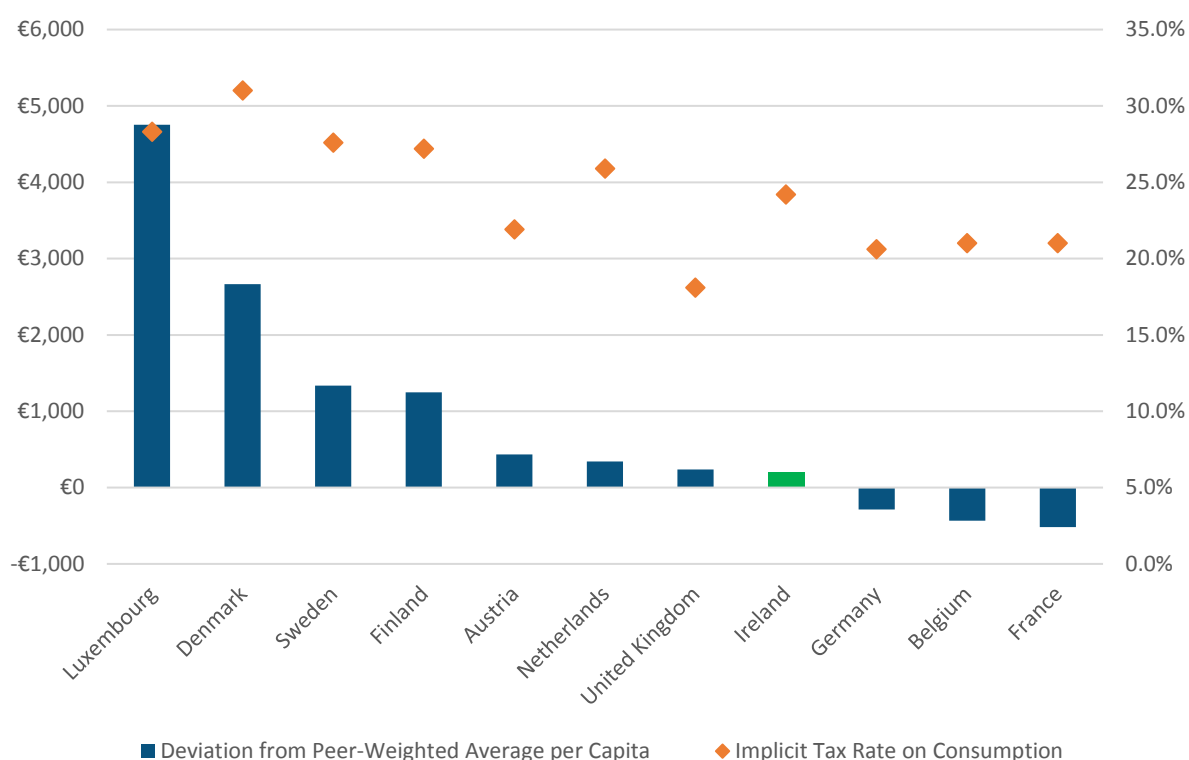
### 4.1 *The Aggregate Tax Level*

While taxation on labour income usually dominates discussions of the extent and distribution of taxation “burdens”, a substantial portion of revenue to the Irish state comes from taxation on consumption. Taxes on consumption refer to those levied on transactions between final consumers and producers as well as those on finished consumption goods. This refers to taxes such as *VAT*, *import duties*, *excises* as well as other expenditure taxes. One third of total state revenue from taxes and social contributions came from these taxes in 2015 (Eurostat, 2017).

In aggregate terms, Ireland collects a relatively large amount of consumption related taxes, exceeding the PWA by €207 per capita implying close to €1 billion extra tax for the population as a whole. The gap relative to the peer-weighted average is largely driven by the discrepancy observed with respect to Germany and France (due to their relative weighting).

However, given the direct link between tax revenue from product taxes to expenditure, comparisons may be biased due to differences in individual and household purchasing power, relative price levels and purchasing habits. This may be particularly true for those countries displaying high per capita receipts, such as Luxembourg Denmark and Sweden. Each of these states is comparatively high income and price levels are high relative to EU averages. These biases can be offset by observing discrepancies tied to effective taxes levied against the taxable base, or the Implicit Tax Rate (ITR). The Republic’s ITR on consumption is marginally above average (see Chart 9). Specifically, the Republic’s ITR on consumption of 24.2 per cent compares to a peer country weighted average of 21.1 per cent. The 3.1 percentage point gap for the ITR implies additional revenue of €2.6 billion relative the peer country average.

**Chart 9 Implicit Tax Rates on Consumption and Differences in Consumption Taxes Collected per Capita, 2015**



**Sources:** [Eurostat \(2017\) Population on 1 January Age and Sex](#), [Eurostat \(2017\) Taxation trends in the European Union](#). Author's calculations

## 4.2 Value Added Taxes

Value Added Tax (VAT) is the largest single source of taxation from consumption and it accounts for approximately one fifth of the overall tax take in the Republic of Ireland (inclusive of social contributions) amounting to approximately €12 billion in revenue for the year 2015. The Republic of Ireland operates a number of different VAT rates varying by consumption type with a number of reduced rates and exemptions for various activities. The standard VAT rate of 23 per cent applies to over half of activity. Another quarter of activity is accounted for under the reduced 13.5 per cent rate applied to areas such as construction, labour intensive activities and fuel for heat and light. A second special reduced rate of 9 per cent applies to certain entertainment services and tourism related industries. A 4.8 per cent rate applies to registered livestock. Other activities are alternatively VAT exempt or feature an incident rate of 0 per cent, including food, children's clothing, oral medicines and various services (Department of Finance, 2017).

The Republic has the joint 7<sup>th</sup> highest standard rate of VAT in the EU28, with a standard rate

approximately 1.5 per cent higher than the EU28 average. Similarly, the main reduced rate in the Republic of 13.5 per cent is 4<sup>th</sup> highest in the EU28, though the range of goods and services against which this is applied is comparatively extensive in the Irish case (Department of Finance, 2017). Despite this, as Table 8 displays, VAT scaled to tax paid per person does not show the Republic to be a significant outlier in nominal terms. Relative to the peer average and scaled to the population the Republic of Ireland collects about €500 million less than the peer weighted average.

**Table 8 VAT Collected Per Capita, 2015**

| Comparator            | €            | % of Overall Tax Collected |
|-----------------------|--------------|----------------------------|
| Luxembourg            | 6,200        | 18.0                       |
| Denmark               | 4,500        | 20.1                       |
| Sweden                | 4,155        | 21.0                       |
| Finland               | 3,468        | 20.6                       |
| Austria               | 3,060        | 17.6                       |
| United Kingdom        | 2,743        | 20.8                       |
| Netherlands           | 2,655        | 17.6                       |
| Germany               | 2,606        | 18.1                       |
| <b>Ireland</b>        | <b>2,583</b> | <b>19.6</b>                |
| Belgium               | 2,451        | 14.9                       |
| France                | 2,276        | 15.1                       |
| Peer-Weighted Average | 2689         | 18.0                       |

**Sources:** Eurostat (2017) Main National Accounts tax Aggregates. Eurostat (2017) Population on 1 January Age and Sex. Author's calculations.

### 4.3 Other Taxes on Consumption

*“Other Taxes on Consumption excluding VAT”* account for the aggregate excess of consumption tax receipts in the Irish case. Receipts under this composite heading show an excess in tax collection of €313 per person, or €1.4 billion in total.

This composite heading can be divided into subcategories differences as Table 9 demonstrates. *“Taxes on Duties and Imports Excluding VAT”*, relating to taxes and duties level on imports into the European Economic area, account for this entire gap. The Republic is an outlier in these terms with respect other comparator states, collecting €648 in additional tax relative to the PWA, amounting to €3 billion in total. This gap relates to excise taxes present in Ireland. In the Republic, in contrast to a number of other European states, a significant portion of government revenue arises from Excise duties. In other states, the introduction of value added taxes led to the abolition

of many excise duties (Department of Finance, 2017a). This is reflected in Excise statistics under the ESA (2010) with a number of states showing null values. With the exception of Luxembourg, Ireland has the highest level of collected excise taxes among comparators and excise taxes comprise the largest percentage of overall tax revenue. At €748 per capita in 2015, excise taxation per person was over 55 per cent larger than the Netherlands and 220 per cent larger than in Germany, the two other major comparator states with significant excise revenues. Total excise taxation amounted to just under €3.5 billion in 2015 under the European system of accounts. Much of this arises from excise levied on alcohol and tobacco products (Department of Finance, 2017a).

The other subcategory “*Taxes on Products, except VAT and Import Taxes and other Consumption Tax Categories*” is comprised of certain taxes classified under “Taxes on Products except VAT and import duties”, “Other taxes on Production” and “Other current taxes”.<sup>11</sup> This category shows a shortfall relative to the peer average of €335 per capita or €1.6 billion. Ireland collects relatively small amounts of tax under the “pollution” heading, which amounts to approximately €100 million less than the comparator average. Ireland “over-taxes” on the other hand, relative to other states under the headings “Taxes on insurance premiums” and “payments by households for licenses”.

**Table 9 Per Capita Receipts from Taxes on Consumption by Subcategory, 2015**

|                                        | VAT type taxes | Taxes on Duties & Imports (exc. VAT) | Other | Total |
|----------------------------------------|----------------|--------------------------------------|-------|-------|
| Ireland                                | 2,583          | <b>818</b>                           | 988   | 4389  |
| Peer Weighted Average                  | 2,689          | <b>170</b>                           | 1323  | 4183  |
| Rep. Ireland gap to PWA (per Capita) € | 107            | <b>-648</b>                          | 335   | -207  |
| Implied gap (total) € Billions         | 0.5            | <b>-3.0</b>                          | 1.6   | -1.0  |

**Sources:** [Eurostat \(2017\) Taxation trends in the European Union](#), [Eurostat \(2017\) Main National Accounts tax Aggregates](#), [Eurostat \(2017\) Population on 1 January Age and Sex](#). Author’s calculations.

<sup>11</sup> According to Eurostat (2017) Taxation trends in the European Union, “*Taxes on Products except VAT and import duties*” classified under consumption relate to all of that tax category (D.214) except “*Stamp Taxes*”, “*Taxes on Financial and Capital Transactions*” and “*Export Duties and monetary compensatory amounts on exports*” which are allocated to Capital taxation. The included subcategories under “*Other Taxes on Production*” (D.29) include “*Taxes on International Transactions*”, “*Taxes on pollution*” and “*Under-compensation of VAT (flat rate system)*”. The relevant taxes from “*Other current taxes*” (D.59) are “*Poll Taxes*”, “*Expenditure taxes and Payments by households for licences*”. This composite is constructed due to gaps in data sets under several of these sub-categories.

## 5. Taxes on Capital

### 5.1 The Aggregate Tax Level

Taxes on capital can be broken down into two main categories: *Taxation on Capital and Business Income* and *Taxation on Stocks*. The former refer to taxes levied on flows of income deriving from asset ownership while the latter encompasses taxation tied to the assets themselves. *Capital and business income* includes the profit and income of corporations, self-employed income and dividends. Taxes on the capital stock include wealth taxes, inheritance, real estate taxes, fixed asset taxes, professional licensing and levies on production.

In aggregate terms, Irish taxation related to capital is close to average on a per capita basis. The Republic's €3129 in receipts is just €21 less than the peer country weighted average, implying a shortfall in collection of around €0.1 billion. This is despite the Irish state's high capital and business tax receipts – which are €1.2 billion more than the peer country average when scaled to the population. This can be attributed to the Republic's unusually large corporate tax receipts, which are €2.5 billion higher than comparators in per capita terms. In the absence of corporate tax receipts, the Republic's capital taxation would be approximately €557 lower per capita than the peer-weighted average, amounting to a gap of €2.6 billion.

**Table 10 Per Capita Receipts from Taxes on Capital 2015, €**

|                                              | Capital and Business<br>Income Taxes | Taxes on Stocks<br>(wealth) | Total Taxes on<br>Capital | Total Taxes<br>Less Corporate<br>Tax Receipts |
|----------------------------------------------|--------------------------------------|-----------------------------|---------------------------|-----------------------------------------------|
| Luxembourg                                   | 6665                                 | 3107                        | 9772                      | 5695                                          |
| Denmark                                      | 2420                                 | 1638                        | 4057                      | 2800                                          |
| Belgium                                      | 2317                                 | 1569                        | 3886                      | 2656                                          |
| United Kingdom                               | 2061                                 | 1734                        | 3795                      | 2810                                          |
| France                                       | 2146                                 | 1397                        | 3544                      | 2676                                          |
| <b>Ireland</b>                               | <b>2311</b>                          | <b>818</b>                  | <b>3129</b>               | <b>1630</b>                                   |
| Austria                                      | 2440                                 | 476                         | 2916                      | 1991                                          |
| Sweden                                       | 2262                                 | 621                         | 2883                      | 1522                                          |
| Finland                                      | 2102                                 | 585                         | 2688                      | 1857                                          |
| Germany                                      | 1893                                 | 467                         | 2360                      | 1477                                          |
| Netherlands                                  | 1649                                 | 678                         | 2327                      | 1236                                          |
| Peer Weighted Average                        | 2054                                 | 1096                        | 3150                      | 2187                                          |
| Rep. Ireland gap to<br>average (per capita)  | -258                                 | 278                         | 21                        | 557                                           |
| Implied gap to average<br>(total) € Billions | -1.2                                 | 1.3                         | 0.1                       | 2.6                                           |

Sources: [Eurostat \(2017\) Population on 1 January Age and Sex](#), [Eurostat \(2017\) Taxation trends in the European Union](#).  
Author's calculations.

## 5.2 Capital Taxes Decomposed

Taxation trends in Europe (Eurostat, 2017) further decomposes the subcategory “*Capital and Business Income Taxes*” by payer. “*Tax paid on the income and profits of corporations*” is comprised of corporation taxes including those on holding gains. “*Taxes on the Income of Households*” and “*Taxes on the Income and social contributions of the self-employed*” refers to personal taxes on income and holdings gains levied on capital (mainly dividend and interest income) and entrepreneurial activity, along with the social contributions of the self employed.

Ireland’s above trend tax take on “*Capital and Business Income Taxes*” is entirely explained by a comparative excess of tax receipts from “*Tax paid on the Income and profits of corporations*” amounting to a gap of €522 per capita, or €2.4 billion in total.<sup>12</sup> Capital and Business income tax paid by households and the self-employed, however, show substantial deficits relative to the peer weighted average, totaling €1.2 billion euro. Although some of the constituent tax headings are incomplete in the Eurostat data, this deficit appears to be driven by lower receipts under “*Compulsory actual social contributions by the self-employed*” and “*Other Taxes on income n.e.c*”.

**Table 11 Per Capita Receipts from Taxes on Capital and Business Income 2015, €**

| Country                                  | Tax on income and profits of Corporations | Taxes on income of Households | Tax on income and social contributions of the Self-employed | Total |
|------------------------------------------|-------------------------------------------|-------------------------------|-------------------------------------------------------------|-------|
| Ireland                                  | 1499                                      | 354                           | 458                                                         | 2311  |
| Peer Weighted Average                    | 977                                       | 417                           | 660                                                         | 2054  |
| Rep. Ireland gap to average (per capita) | -522                                      | 63                            | 202                                                         | -258  |
| Implied gap (total) Billions €           | -2.4                                      | 0.3                           | 0.9                                                         | -1.2  |

Sources: [Eurostat \(2017\) Population on 1 January Age and Sex](#), [Eurostat \(2017\) Taxation trends in the European Union](#). Author’s calculations.

“*Tax on Capital Stock*” show a significant deficit relative the peer average. This category includes wealth taxes, charges levied on inheritances, real estate taxes, professional licencing and some taxes attached to products or production itself (Eurostat, 2017). This deficit amounts to €1.3 billion when scaled to Ireland’s population in 2015, or €278 per person. The largest subcomponents with complete data sets are “*Taxes on Financial and Capital Transactions*”, “*Taxes on the use of fixed assets*”, “*Current Taxes on Capital*” “*Taxes on land, buildings and other structures*”

<sup>12</sup> The discrepancy between peer weighted “*Tax Paid on the income and profits of Corporations*” and corporate receipts is due to the difference in classification in France, where additional revenues are counted under this category in addition to those counted under “*Taxes on the income or profits of corporations including holding gains*”. This discrepancy amounts to a difference of approximately 7% in the French case.

and “*Capital Taxes*”. Ireland shows a relative excess in receipts under the categories “*Taxes on Financial and Capital Transactions*” and “*Taxes on the use of fixed assets*” which amount to a combined sum of €0.2 billion. “*Taxes on the use of fixed assets*” constitutes the majority of this gap and relates to taxes levied on equipment used by firms for production purposes.

**Table 12 Per Capita Receipts from Taxes on Capital Stock 2015, €**

| Country                                  | Taxes on financial & capital transactions | Taxes on the use of fixed assets | Current Taxes on Capital | Taxes on land buildings & other structures | Capital taxes | Total Tax on Stocks of Capital |
|------------------------------------------|-------------------------------------------|----------------------------------|--------------------------|--------------------------------------------|---------------|--------------------------------|
| Ireland                                  | 161                                       | 61                               | 47                       | 379                                        | 87            | 818                            |
| Peer Weighted Average                    | 152                                       | 29                               | 273                      | 460                                        | 116           | 1096                           |
| Rep. Ireland gap to average (per capita) | -9                                        | -32                              | 225                      | 81                                         | 30            | 278                            |
| Implied gap (total) Billions €           | 0.0                                       | -0.1                             | 1.0                      | 0.4                                        | 0.1           | 1.3                            |

**Sources:** [Eurostat \(2017\) Population on 1 January Age and Sex](#). [Eurostat \(2017\) Taxation trends in the European Union](#).

Author's calculations.

**Notes:** “*Taxes on land, buildings and other structures*” does not include Finland due to the absence of data under this heading. Similarly, Sweden is not included in the peer weighted calculation of “*Current Taxes on Capital*” per capita. In both cases, averages are re-weighted accordingly.

This is, however outweighed by the shortfall in taxes collected under the headings of “*Taxes on land, buildings and other structures*” and “*Capital Taxes*” of approximately €0.5 billion, mostly occurring under the former. This generally relates to taxes levied on firms for use of land and buildings. “*Capital taxes*” are comprised of inheritance and estate taxes, and show a total gap of approximately €0.1 billion. The largest shortfall, however, occurs under “*Current Taxes on Capital*”, which shows a gap of €225 per capita, or over €1.0 billion which encompasses property taxes paid by households and net wealth taxes.

## **6. Tax Reform for Inclusive Economic Growth**

As pointed out in the introduction to this paper, tax and social revenue in Ireland do not appear to be commensurate with a number of social needs and spending gaps attached to long run development (McDonnell and Goldrick-Kelly, 2017). It is often posited that rectifying these gaps would imperil growth for the sake of equity. It should be pointed out that the two concerns aren't inherently mutually exclusive. The growth rate is not a monotonic function of the tax rate. In general, as Jones and Manuelli (2005) argue, there is no growth when taxes are too low (not enough public goods are provided) or too high (the private returns to capital accumulation are too low).

Gale and Samwick (2014) argue that the net impact on growth of income tax levels is ambiguous theoretically and they point to estimates suggesting the actual effect is small. Indeed the report of the LSE Growth Commission (2013) in the UK points out that: 'there is no reliable evidence that the growth potential of an economy is limited by the size of the government over the wide range we see in OECD countries.' Huge shifts in taxes in the US since 1870 have been accompanied by no observable shift in growth rates. Hungerford (2012) finds that higher tax rates have not been associated with higher or lower real per capita GDP growth rates to any significant degree in the US. Gale and Samwick (2014) do point out, however, that a revenue neutral shift towards base broadening (i.e. eliminating tax expenditures and using the additional resources to reduce headline rates) would be beneficial to economic growth. Overall the current state of knowledge is that theoretical models have ambiguous implications about the effects of taxes on growth (Jones and Manuelli, 2005).

Economic growth must be inclusive if it is to translate into quality of life improvements for all in society. The IMF (2015) highlights the link between rising inequality and the fragility of growth. They estimate that lower net inequality (i.e. after taxes and transfers) is robustly correlated with faster and more durable growth. The fund also estimates that redistribution is generally benign in terms of its impact on growth and that the combined direct and indirect effects of redistribution are on average pro-growth. Arguments that redistribution is bad for growth therefore appear to have little if any empirical grounding.

On the other hand OECD staff determined in a 2008 paper that there is evidence to suggest that taxes on property, wealth and passive income have minimal negative consequences for economic growth and are highly redistributive. Taxes on land and immovable property appear to be particularly pro-growth.

A 2013 paper by OECD staff considered the impact of fiscal policy on welfare outcomes (economic

growth and equity) and with these objectives in mind constructed a hierarchy of 17 fiscal consolidation instruments (Table 13). The Table shows that spending on *education* and spending on *childcare and family resources* are the most beneficial fiscal instruments in terms of balancing long-run equity and growth while *business and other subsidies* are the least beneficial. The OECD's hierarchy of fiscal instruments makes clear that there is a strong case for increasing taxes on wealth (inheritances, gifts, net wealth, property, land) for redistributive purposes as well as for more directly growth enhancing reasons.

**Table 13 Balancing Equity and Growth: Hierarchy of Fiscal Instruments**

| Rank | Instrument                   | Rank | Instrument                          | Rank | Instrument                            |
|------|------------------------------|------|-------------------------------------|------|---------------------------------------|
| 1    | Education                    | 6=   | Non-environmental consumption taxes | 10=  | Personal income taxes                 |
| 2    | Childcare/Family             | 8=   | Sale of goods & services            | 10=  | Recurrent taxes on immovable property |
| 3=   | Health services (in kind)    | 8=   | Other gov. consumption              | 15=  | Pensions                              |
| 3=   | SSCs                         | 10=  | Unemployment benefits               | 15=  | Other property taxes                  |
| 5    | Capital investment           | 10=  | Environmental taxes                 | 17   | Business & other subsidies            |
| 6=   | Sickness/disability payments | 10=  | Corporate income taxes              |      |                                       |

**Source:** Cournède, Goujard and Pina (2013) Reconciling Fiscal Consolidation with Growth and Equity in OECD Journal: Economic Studies – Volume 2013

**Notes:** Hierarchy considers impact of fiscal instruments on growth and equity objectives – tax instruments are shaded. Rank 1 represents the fiscal instrument with the most beneficial welfare outcome arising from expansion – i.e. from increasing spending or from reducing the tax. Put differently, the lower ranked a tax is the more growth and equity friendly it is.

In general, it appears that taxes on property, wealth and passive income have minimal negative consequences for long-run economic growth and, if designed properly, are highly progressive. In particular, recurrent property taxes tend to be strongly pro-growth relative to other forms of taxation. In addition, the distribution of wealth is more concentrated than the distribution of income, and wealth inequality grows over time in the absence of progressive taxation and the taxation of acquired wealth (see McDonnell, 2013). Given the discrepancy in per capita revenue between the Republic and peer countries there is a very strong case for increasing taxes on capital stocks. The largest two single sub categorical shortfalls of €1.0 billion and €0.4 billion in “*Current Capital Taxes*” and “*Taxes on land, buildings and other structures*” point to specific shortfalls in recurrent taxes on immovable property for households (mostly in the form of residential property taxes) and firms as well as recurrent net wealth taxes incident on individuals/corporations. While these taxes have proven difficult to implement politically, they may provide a means by which local democratic governance (which is comparatively diminutive

in the case of the Republic of Ireland) may be bolstered. Well-designed property taxes can also capture speculative gains from rezoned developments (Collins, 2015). There may however, be some room to reduce some taxes within this category that weigh on productive capital formation, such as taxes on production, provided this tax is recovered elsewhere.

In addition to taxes on assets there is a strong case for gradually phasing out much of the system of tax expenditures. NERI (2015) pointed out that tax expenditures damage growth by distorting resource allocation, by creating inefficiencies in production and consumption and by diverting economic activity toward rent-seeking behaviour. Foregone revenue associated with tax expenditures are substantial, with the nine largest headings showing a cumulative total of €5.3 billion which, as the Tax Strategy Group (2017) notes, represents an underestimate given gaps in the data for other tax headings. Tax expenditures also tend to favour high-income households so their elimination has positive equity implications. For example, Collins and Hughes (2016) point out that the bulk of the benefits of pension related tax breaks – the largest single tax expenditure heading at approximately €2.4 billion (Department of Finance, 2017b) - go to high income households and find that over half the value of the tax break in 2013 went to the top 10 per cent of earners. Finally, by weakening the tax base these reliefs necessitate higher tax contributions from households not in a position to benefit from the reliefs.

On the other hand increasing consumption taxes, which are already generally high in the Republic compared to peer countries, is problematic because these taxes do not take into account ability to pay and therefore have a disproportionately negative impact on the well-being of lower income households (Collins, 2014).

Overall, the most substantial revenue deficit is in the area of labour taxation - specifically social contributions. In addition, maximum effective rates of taxation (income tax and employee social contributions) are significantly below OECD and comparator averages for low and average wage single earners and couples. Eliminating the revenue deficit with peer countries means generating substantially more revenue from social contributions in particular. The per capita deficit - amounting to €11 billion over the population - more than accounts for the total relative shortfall in tax and social security contributions of €8.1 billion. This occurs at all social contribution levels, but the gap is largest for social contributions from employers. Additional gaps occur with respect contributions from employees and the non-employed (which encompasses those in receipt of social payments, pensions and the self-employed).

Introducing increased social contributions for employers has the potential to raise substantial revenues, as demonstrated in Table 14. While classically, taxes that increase labour unit costs

tend to be discouraged on employment grounds (OECD, 2007), these effects can be ameliorated provided revenues are hypothecated to expenditure measures that increase labour supply and hence, employment. Such measures could include state programmes to provide training to workers to rectify potential skills mismatches. Well-designed programmes can boost long-run economic growth by reducing structural unemployment and promote human capital formation (McDonnell, 2015). Similarly, the receipts associated with enhanced employer PRSI could fund childcare programmes, which encourage labour force participation among second earners and single parents and rectify what has been identified as a key barrier to labour force participation in Ireland (OECD, 2016). This measure could also begin to address gendered inequities occurring in Ireland, as high childcare costs disproportionately impact women's labour market access (ICTU, 2016). Negative employment effects can also be reduced if charges are gradated and progressive (OECD, 2007).

**Table 14 Revenue associated with Increased Rates of Employer PRSI, € millions**

| Increase in Employer PRSI | Yield from Increase in 8.5% Lower Rate | Yield from Increase in 10.75% Higher Rate | Increased Yield |
|---------------------------|----------------------------------------|-------------------------------------------|-----------------|
| 1%                        | 36                                     | 683                                       | 719             |
| 2%                        | 72                                     | 1366                                      | 1438            |
| 5%                        | 181                                    | 3416                                      | 3597            |

Source: [Kildarestreet.com](http://Kildarestreet.com) -Written Answers, Thursday, 13 July 2017

Ireland does show a per capita deficit in relation to employee PRSI, however, as shown earlier, this deficit is in aggregate balanced out by income related taxes on employees. In the longer term, revenue raising reforms to the employee PRSI system could fund additional benefits such as pensions. A substantial gap occurs however, in both social contributions and total labour taxes incident on the non-employed which includes contributions by the self-employed. Increasing PRSI rates among self-employed individuals and directly linking these increases to enhanced protections not currently available to PRSI S payments, may encourage entrepreneurship and innovation by lessening the opportunity costs of self-employment (Davies, 2013). As Taft (2015) points out, a number of other states with higher rates of social contributions for the self-employed also have as high (or higher) rates of self-employment as a proportion of the workforce as the Republic which demonstrates that the macroeconomic effects of higher benefits depend on the weighted trade-offs between higher payments and enhanced protections.

Finally, sustainable quality of life improvements are incompatible in the long-run with environmental degradation, and, as such, economic policy must always account for environmental costs and benefits. There is evidence of some shortfall within environmental taxes

under the headings of “*Energy Taxes*” and “*Pollution and Resource Taxes*” amounting to approximately €0.1 billion relative to the peer weighted average. These taxes include taxes levied on fossil fuel emissions, waste management and tax linked to extraction of resources. While other taxes on vehicle ownership, and transport services outweigh these shortfalls, there is at least a case in favour of increasing environmental taxes in order to help meet our carbon emission targets.

## 7. Conclusion

This paper has identified a number of revenue gaps in the broad areas of *labour* tax and *capital* tax headings, particularly acute around social contributions (especially for employers) and a number of taxes tied to capital stocks, such as property tax. As outlined in the previous section, these taxes could be tied to specific measures that mollify potential employment impacts. The collection of these revenues could (and should) be attached to a transformation in the public provision system, to something more like that present in the rest of Western Europe. These revenues could be used, or could free revenues to address, expenditure deficits which imperil long run sustainable and inclusive economic growth in areas such as education, research and development and infrastructure spending – as identified in McDonnell and Goldrick-Kelly (2017). Social crises in housing and in health could also be addressed given additional revenues at around comparator European levels.

In the context of upcoming budgets, this paper points to a needed general direction of travel that does not appear to be commensurate with current planning. The last several budgets have seen an erosion in the tax base (despite buoyant revenues associated with Ireland's economic recovery). Of particular relevance in this case are cuts in the USC (some of the most recent, it should be noted, are not incorporated into aggregate statistics from 2015 presented here) with more planned for Budget 2018, and forthcoming budgets. A rate cut of 1 per cent amounts to a cut of close to €0.9 billion (Revenue, 2017). In light of deficits in expenditures associated with long run economic growth and public services that are considered key components of living standards elsewhere in Europe, this stance appears to constitute a false economy of little direct benefit to the economy, far outweighed by the opportunity costs associated with those lost revenues.

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