Estimating the Direct and Indirect Tax Contributions of Households in Ireland

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Outline

1. Introduction
2. Research Questions & Objectives
3. Data
4. Direct Taxation
5. Indirect Taxation
6. Some Results
7. Next Steps
1. Introduction

- ‘Taxpayers’ & Income tax
- Households contribute to the exchequer in a number of ways
  - Direct Tax
    - income tax, PRSI, USC
    - apparent if often misunderstood
    - progressive
  - Indirect Tax
    - VAT, excise, local taxes and charges
    - less apparent
    - regressive
    - big % of exchequer income (€10.7bn; 21.4% in 2014)

Table A1: Estimated Composition of Taxation Revenues, 2014

<table>
<thead>
<tr>
<th></th>
<th>2014</th>
<th>2014%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income tax</td>
<td>17,045</td>
<td>33.9%</td>
</tr>
<tr>
<td>VAT</td>
<td>10,740</td>
<td>21.4%</td>
</tr>
<tr>
<td>Social Insurance</td>
<td>10,236</td>
<td>20.4%</td>
</tr>
<tr>
<td>Excise duties</td>
<td>4,815</td>
<td>9.6%</td>
</tr>
<tr>
<td>Corporation tax</td>
<td>4,380</td>
<td>8.7%</td>
</tr>
<tr>
<td>Stamp duties</td>
<td>1,475</td>
<td>2.9%</td>
</tr>
<tr>
<td>Local taxes/charges</td>
<td>550</td>
<td>1.1%</td>
</tr>
<tr>
<td>CGT</td>
<td>400</td>
<td>0.8%</td>
</tr>
<tr>
<td>CAT</td>
<td>380</td>
<td>0.8%</td>
</tr>
<tr>
<td>Customs</td>
<td>255</td>
<td>0.5%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>50,276</strong></td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>

Source: Calculated from Department of Finance, Budget 2014 (C15, C30)
Note: This table updates Collins (2011:91)
2. Research Q & Objectives

- **Research Questions/Objectives**
  - Quantify the overall contribution of households
  - Offer a more informed insight into tax contributions across the income distribution and among various groups
  - Budget 2012 and VAT increase
  - Limited consideration of effects of: VAT, Excise, levies
  - VAT break extensions
  - VAT reform possibilities
  - Medium-term: options for tax reductions

- **Building on other Research**
  - CSO reports; Madden, Barrett and Wall, Leahy et al

3. Data

- Only one possible source for a study like this
- Household Budget Survey
- Latest
  - Released March/October 2012 (8th edition)
  - Period August 2009 – September 2010
  - 5,891 households
  - Controls for non-response etc
  - ISSDA and CSO
- CPI basket = objective
  - Income – a bi-produce; not as good as SILC
  - Expenditure – only comprehensive source
4. Direct Taxation

- Income + Social Insurance Contributions
- Average figures:
  - Gross Income = €53,577
  - Tax & SI = €7,360
  - Disposable Income = €46,217

- Progressive across the income distribution
  - reflecting the structure of the income tax and SI system
  - Graph as a % of Gross income (effective rates)
5. Indirect Taxation

- The challenging part of the research
  - 538 expenditure items/categories
  - from bread to Christmas crackers…
  - establish a VAT rate for each
  - most straightforward, but some assumptions using representative products
  - very useful Revenue Commissioners VAT guide

- Excise duties
  - alcohol and tobacco
  - alcohol = assumptions re. representative prices per litre
  - includes carbon tax

- Other indirect taxes
  - air travel tax; insurance levies; NORA, TV Licence Fee, Vehicle Tax…

- Leaving out:
  - Property tax (not there in 2009/10…)
  - WEE (in base price)
  - VRT
  - Local utility charges (not clearly a tax…)
A Few Worked Examples

• Item: Children’s (15 years or under) clothing accessories
• Annual Spending: €1.21
• Assumes that 6 years are free (under 11 years old)
• Assumes that 31% of the time the clothes were charged at 21.5% VAT and that 64% of the time they were charged at 21% VAT – changed in Jan 2010
• =(((€1.21/11)*5)/121)*21*64%)+(((€1.21/11)*5)/121.5)*21.5*36%
• = Annual VAT of €0.10

• Item: Cigarettes
• Annual Spend: €514.52
• Average Price per Packet: €8.55
• Packets Bought: 514.52/8.55 = 60.18
• Taxation as a % of price (€8.55) = 78.48%
• = 61.17% in Excise and 17.31% in VAT
• Excise = €314.73 & VAT = €89.06
• Total Tax = €403.80
6. Some Results

- Graphs showing these, by decile and overall
  1. VAT
  2. Excise
  3. Other Indirect (levies + others)
  4. Total Indirect Taxes (1+2+3)
  5. Indirect taxes as a % of total tax contribution
  6. Total Household Tax Contributions (Direct + Indirect)
Table 3: Nominal Values of various Indirect Taxation sources by decile, 2009/10

<table>
<thead>
<tr>
<th>Decile</th>
<th>VAT £</th>
<th>Excise £</th>
<th>Levies £</th>
<th>Other Indirect £</th>
<th>Total Indirect £</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bottom</td>
<td>1,601.20</td>
<td>800.50</td>
<td>38.75</td>
<td>265.42</td>
<td>2,705.86</td>
</tr>
<tr>
<td>2</td>
<td>1,666.53</td>
<td>849.81</td>
<td>42.92</td>
<td>293.14</td>
<td>2,852.40</td>
</tr>
<tr>
<td>3</td>
<td>2,118.63</td>
<td>1,183.57</td>
<td>51.37</td>
<td>392.34</td>
<td>3,745.91</td>
</tr>
<tr>
<td>4</td>
<td>2,451.71</td>
<td>1,274.09</td>
<td>67.85</td>
<td>473.73</td>
<td>4,267.38</td>
</tr>
<tr>
<td>5</td>
<td>2,846.97</td>
<td>1,458.33</td>
<td>80.99</td>
<td>546.26</td>
<td>4,931.65</td>
</tr>
<tr>
<td>6</td>
<td>3,378.53</td>
<td>1,682.30</td>
<td>107.56</td>
<td>668.68</td>
<td>5,837.07</td>
</tr>
<tr>
<td>7</td>
<td>3,796.87</td>
<td>1,689.36</td>
<td>128.78</td>
<td>703.83</td>
<td>6,318.83</td>
</tr>
<tr>
<td>8</td>
<td>4,386.07</td>
<td>1,811.01</td>
<td>148.99</td>
<td>769.22</td>
<td>7,115.30</td>
</tr>
<tr>
<td>9</td>
<td>4,921.15</td>
<td>1,898.38</td>
<td>167.72</td>
<td>863.93</td>
<td>7,851.19</td>
</tr>
<tr>
<td>Top</td>
<td>6,439.14</td>
<td>2,125.49</td>
<td>215.73</td>
<td>1,022.56</td>
<td>9,802.92</td>
</tr>
<tr>
<td>State</td>
<td>3,360.16</td>
<td>1,477.12</td>
<td>104.95</td>
<td>599.82</td>
<td>5,542.05</td>
</tr>
</tbody>
</table>

Note: Other indirect taxes include vehicle tax and television licence.
Table 4: Indirect Taxation sources by decile, 2009/10 as % Gross Income

<table>
<thead>
<tr>
<th>Decile</th>
<th>VAT</th>
<th>Excise</th>
<th>Levies</th>
<th>Other Indirect</th>
<th>Total Indirect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bottom</td>
<td>16.19%</td>
<td>8.10%</td>
<td>0.39%</td>
<td>2.68%</td>
<td>27.37%</td>
</tr>
<tr>
<td>2</td>
<td>10.53%</td>
<td>5.37%</td>
<td>0.27%</td>
<td>1.85%</td>
<td>18.02%</td>
</tr>
<tr>
<td>3</td>
<td>9.30%</td>
<td>5.20%</td>
<td>0.23%</td>
<td>1.72%</td>
<td>16.45%</td>
</tr>
<tr>
<td>4</td>
<td>8.32%</td>
<td>4.33%</td>
<td>0.23%</td>
<td>1.61%</td>
<td>14.49%</td>
</tr>
<tr>
<td>5</td>
<td>7.77%</td>
<td>3.98%</td>
<td>0.22%</td>
<td>1.49%</td>
<td>13.46%</td>
</tr>
<tr>
<td>6</td>
<td>7.38%</td>
<td>3.67%</td>
<td>0.23%</td>
<td>1.46%</td>
<td>12.75%</td>
</tr>
<tr>
<td>7</td>
<td>6.65%</td>
<td>2.96%</td>
<td>0.23%</td>
<td>1.23%</td>
<td>11.06%</td>
</tr>
<tr>
<td>8</td>
<td>6.14%</td>
<td>2.54%</td>
<td>0.21%</td>
<td>1.08%</td>
<td>9.96%</td>
</tr>
<tr>
<td>9</td>
<td>5.34%</td>
<td>2.06%</td>
<td>0.18%</td>
<td>0.94%</td>
<td>8.53%</td>
</tr>
<tr>
<td>Top</td>
<td>4.16%</td>
<td>1.37%</td>
<td>0.14%</td>
<td>0.66%</td>
<td>6.33%</td>
</tr>
<tr>
<td>State</td>
<td>6.27%</td>
<td>2.76%</td>
<td>0.20%</td>
<td>1.12%</td>
<td>10.34%</td>
</tr>
</tbody>
</table>

Note: Table A11 in the appendix presents another set of comparisons benchmarked against disposable income. It displays similar results.

Chart 6: Total Indirect Taxes as a % of Total Tax Paid, by decile
Comments on these results:
- Indirect taxation is regressive
- Judging tax contributions by income tax only = very misleading
- Total tax contributions: U-Shaped across the income distribution
- Implications for our understanding of policy options and impacts

Table 5: Direct, Indirect and Total Household Taxation as % Gross Income

<table>
<thead>
<tr>
<th>Decile</th>
<th>Direct</th>
<th>Indirect</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bottom</td>
<td>0.30%</td>
<td>27.37%</td>
<td>27.67%</td>
</tr>
<tr>
<td>2</td>
<td>0.77%</td>
<td>18.02%</td>
<td>18.79%</td>
</tr>
<tr>
<td>3</td>
<td>1.20%</td>
<td>16.45%</td>
<td>17.65%</td>
</tr>
<tr>
<td>4</td>
<td>2.70%</td>
<td>14.49%</td>
<td>17.19%</td>
</tr>
<tr>
<td>5</td>
<td>4.67%</td>
<td>13.46%</td>
<td>18.13%</td>
</tr>
<tr>
<td>6</td>
<td>8.54%</td>
<td>12.75%</td>
<td>21.29%</td>
</tr>
<tr>
<td>7</td>
<td>11.19%</td>
<td>11.06%</td>
<td>22.25%</td>
</tr>
<tr>
<td>8</td>
<td>13.50%</td>
<td>9.96%</td>
<td>23.46%</td>
</tr>
<tr>
<td>9</td>
<td>16.56%</td>
<td>8.53%</td>
<td>25.09%</td>
</tr>
<tr>
<td>Top</td>
<td>22.91%</td>
<td>6.33%</td>
<td>29.24%</td>
</tr>
</tbody>
</table>

State 13.74% 10.34% 24.08%

Note: See table A12 in the appendix for the corresponding nominal amounts.
7. Next Steps

• …suggestions welcome
• Incorporate:
  o Household size/equivalisation
  o Other household categories
  o VAT simulations
    • VAT 9% rate
    • Distributive impact of the increase to 23%
    • Altering certain rates and categories
    • Retentions of the 0% / Exempt rates
  o Integrate into NERI micro model

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