CORPORATE PROFIT SHIFTING – HOW BIG IS THE PROBLEM?

IPE Forum: Tax me if you can?! Tax havens and multinational enterprises in the EU
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How important is activity of MNE?

Decomposition of global gross output by ownership status 2014

Source: OECD (2018)
Typical channels of profit shifting

- Transfer mis-pricing
- Interest rates
- Royalties and license fees
How to measure profit shifting?

Pre-tax corporate profits
(% of compensation of employees)

Source: Tørsløv et al. 2018
How to measure profit shifting?

- **Studies based on macro data**
  - gap between corporate profits derived from the national accounts and the corporate tax base or payments from the national tax statistics (Bach 2013, Dover et al. 2015)
  - inconsistencies in the distribution of profits and corporate activity across countries based on international investment positions and national accounts (Tørslev et al. 2018).

- **Studies based on micro data**
  - compare foreign affiliates’ profits in low and high tax jurisdictions based on firm-level data and derive semi-elasticities of profits with respect to the tax rate differentials (Huizinga et al. 2008)
  - Most studies based on firm-level data do not extrapolate results to estimates on revenue loss.
Estimated revenue losses for the EU

- Estimated revenue losses due to corporate tax avoidance based on macro data:
  - EU: 16-22% of corporate tax revenue per year (Tørsløv et al. 2018)
  - EU: EUR 50-70 bn. per year ≈15-21% in 2013 (Dover et al. 2015)
  - OECD: 0.2% of GDP (Crivelli et al. 2016)

- Much lower estimates based on firm-level data
  - EUR 1 bn. ≈ 0.4% (Huizinga et al. 2008)
  - Heckemeyer & Overesch (2013)
German-based affiliates of multinational enterprises (MiDi Sample)

<table>
<thead>
<tr>
<th>Year</th>
<th>Share of affiliates with tax haven* investors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>39%</td>
</tr>
<tr>
<td>2001</td>
<td>40%</td>
</tr>
<tr>
<td>2003</td>
<td>41%</td>
</tr>
<tr>
<td>2005</td>
<td>42%</td>
</tr>
<tr>
<td>2007</td>
<td>44%</td>
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<tr>
<td>2009</td>
<td>43%</td>
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<tr>
<td>2011</td>
<td>44%</td>
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<tr>
<td>2013</td>
<td>45%</td>
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<tr>
<td>2015</td>
<td>45%</td>
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- Microdatabase Direct Investment (Deutsche Bundesbank)
- Sample: Unbalanced panel of 3000-6000 firms, 1999-2015

* Based on Gravelle's list + Netherlands; Source: Godar (2018)
Methodology

- estimate semi-elasticity of reported profits with regard to statutory foreign tax rates
  - Nominal and effective tax rates
  - Sub-group of affiliates with tax haven investors (potential non-linear relationship between profits and foreign tax rates)
- alternative identification strategy
  - the first-time appearance of a tax-haven investor reduces the reported profits
- Extrapolate results to macro level
## Results for Germany

<table>
<thead>
<tr>
<th>Tax incentive variable</th>
<th>Estimated effect %</th>
<th>Share of profits shifted %</th>
<th>Revenue loss based on AETR1 bn EUR</th>
<th>Share in total corporate income tax revenues %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statutory tax rate</td>
<td>3.6</td>
<td>10.5</td>
<td>2.8</td>
<td>5.3</td>
</tr>
<tr>
<td>Treatment dummy</td>
<td>-61</td>
<td>21.4</td>
<td>5.6</td>
<td>10.7</td>
</tr>
</tbody>
</table>

Source: Godar (2018)
References

- Bach, S. (2013), Has German Business Income Taxation Raised Too Little Revenue Over the Last Decades?, DIW Discussion Paper No. 1303


