Income Shifting and Responses to Tax: Evidence from Company Owner-Managers

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People working for their own business are fastest growing part of UK’s workforce

Number of owner-managers has doubled

Source: Figure 7.2 of the IFS Green Budget 2017, https://www.ifs.org.uk/publications/8872
Company owner-management is most tax advantaged legal form in UK

Notes: Figure shows tax rates for 2016-17. Source: Figure 7.4 of the IFS Green Budget 2017, https://www.ifs.org.uk/publications/8872
Company owner-managers very responsive
Have lots of flexibility in how to take income

Tax advantages:

- Dividends almost always more lightly taxed than salary
- Generous capital gains treatment (‘Entrepreneurs’ Relief’)

Clear evidence that they respond to tax incentives

- Follow optimal strategy of paying a small salary
- Also bunch at kinks in tax schedule
- Shift income in response to policy change

Bunch at allowance
Bunch at kinks
Dividend timing
Contribution - Empirical results

Investigate how company owner-managers respond to tax

- Use bunching at kinks in nonlinear tax schedules
- Distinguish changes in real activity from intertemporal income shifting
- Advance over previous work because of new data link
How to tax returns to capital and labour?
- lower rates on capital to boost investment/entrepreneurship
- but promotes avoidance and inequality

How to tax volatile incomes?
- company wrapper allows income to be smoothed

What is the Elasticity of Taxable Income sufficient for?
- recent work to unpack: le Maire and Schjerning (2013), Harju and Matikka (2016)
Model of income shifting and effort choices

Build on previous bunching work (Saez (2010), Chetty et al. (2011), Kleven (2016), Einav et al. (2016))

- Specifically le Maire and Schjerning (2013)

Develop model to capture key features of environment + choices:

- income volatility
- short and long term income shifting

Purpose of model:

- what can we identify from observed bunching?
- what does this mean for welfare/tax design?
Agents choose:

- **effort**: (or “real” activity) each period, which generates income, but has a disutility cost
- **“short term shifting”**: retain/withdraw profits in each period to adjust taxable income during working life
- **“longer term shifting”**: retain profits to withdraw in a final period, which has some cost

Income is subject to fluctuations outside the agent’s control.

Agent faces piecewise progressive tax system during working life

- Higher rate taxpayers face lower rate in retirement
Kink in tax schedule at higher rate threshold

What is driving bunching?

Notes: Distribution truncated above £100,000 due to data disclosure requirements.

Source: Calculations based on HMRC administrative datasets.
Agents’ behaviour

Agents differ in ability & costs of long term income shifting

- affects whether & when to bunch and
- using what mechanism (effort v shifting)

Means that bunch at threshold comprises three types of people:

- Consistent bunchers - real response
- Consistent bunchers - other response, including long run shifting
- Sometimes buncher - use short term income shifting to smooth year-to-year income volatility
Linked administrative data

- Data on the company side
  - firm accounts (firm ownership, financial position, investment)
  - corporate tax return (turnover, profits/losses etc.)

- Data on the personal side
  - self assessment record (income by component, basic characteristics)

- Using new link for company directors
  - Sample of 113,000 owner-managers over 2001-12 for an average of 4 years
  - mainly business services, plumbing, electrical fittings
Measures of owner-manages’ income

Company revenue → Pre-tax profits → Post-tax profits → Dividend income

- Labour costs
- Capital costs
- Corporate tax
- Retained profits

Wages of owner = 

Other wages
Measures of owner-manages’ income

Company revenue → Pre-tax profits → Post-tax profits → Dividend income

- Labour costs
- Capital costs
- Corporate tax
- Retained profits

Wages of owner = dividend income + wages + Other wages

Annual taxable income = dividend income + wages
Measures of owner-manages’ income

- Company revenue → Pre-tax profits → Post-tax profits → Dividend income
- Labour costs → Pre-tax profits
- Capital costs → Pre-tax profits
- Corporate tax → Post-tax profits
- Retained profits → Dividend income

Annual taxable income = dividend income + wages

Annual total income = annual taxable income + retained profits
## Types of bunchers

<table>
<thead>
<tr>
<th></th>
<th>Bunches in:</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Annual taxable</td>
<td>Average taxable</td>
<td>Average total</td>
<td></td>
</tr>
<tr>
<td>Sometimes buncher</td>
<td>yes</td>
<td>no</td>
<td>no</td>
<td></td>
</tr>
<tr>
<td>Consistent buncher (other response)</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td></td>
</tr>
<tr>
<td>Consistent buncher (real response)</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td></td>
</tr>
</tbody>
</table>
Bunching at the higher rate threshold

Annual taxable income - includes all bunchers

Excess mass: 10.4%

Notes: Bin width is £100. Counterfactual density estimated using higher order polynomial.
Source: Calculations based on HMRC administrative datasets.
Bunching at the higher rate threshold

Average taxable income - just the “consistent bunchers”

Excess mass: 3.3%

Notes: Bin width is £100. Counterfactual density estimated using higher order polynomial.
Source: Calculations based on HMRC administrative datasets.
Bunching at the higher rate threshold

Average total income - just the “consistent bunchers” who are real responding

Notes: Bin width is £100. Counterfactual density estimated using higher order polynomial.
Source: Calculations based on HMRC administrative datasets.
Company owner managers’ annual taxable income is very responsive but

- much of this is explained by short term income shifting...
- ...and not real reductions in business activity.

Initial evidence that consistent bunchers are long-term shifting

Accumulation of retained profits
ETI has been influential in the design of tax policy.

- elasticity of annual taxable income not sufficient for evaluating the DWL of marginal increase in tax rate
- but the elasticities of average taxable and average total income are

For other counterfactual analyses, may need a structural approach:

- imposes more assumptions, but can make stronger claims
Summary

Model of agents with two types of heterogeneity
- show how observed ETI will relate to underlying structural parameters
- and relate this to DWL of tax changes

Use new admin data link to decompose overall ETI for owner-managers
- show that short-run income shifting is important part of overall response
- also evidence of longer run shifting - more work to do here

Mechanisms matter for policy design
Company owner-managers are responsive to tax
Many follow the optimal tax strategy for payment of salary

**Optimal way to withdraw income:** Take a wage close to the tax-free allowance, and dividend income above that amount.

Calculations based on HMRC administrative datasets.
Company owner-managers are responsive to tax
And bunch at higher rate threshold

Notes: Distribution truncated above £100,000 due to data disclosure requirements.

Source: Calculations based on HMRC administrative datasets.

H. Miller (IFS)

Income shifting and owner-managers

9 November 2017
Introduction of the 50p top rate, 2010

**FIGURE 6**

*Trends in different income sources and deductions for group with incomes greater than £150,000, 2001–02 to 2011–12 (2001–02 = 100)*

<table>
<thead>
<tr>
<th>Industry</th>
<th>Total income</th>
<th>Taxable income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business activities not otherwise classified</td>
<td>51,837</td>
<td>46,379</td>
</tr>
<tr>
<td>Business and management consultancy</td>
<td>57,663</td>
<td>52,478</td>
</tr>
<tr>
<td>Software consultancy and supply</td>
<td>56,030</td>
<td>47,913</td>
</tr>
<tr>
<td>Construction and civil engineering</td>
<td>53,722</td>
<td>41,711</td>
</tr>
<tr>
<td>Architectural, engineering and technical consultancy</td>
<td>51,706</td>
<td>41,237</td>
</tr>
<tr>
<td>Other computer related activities</td>
<td>49,150</td>
<td>42,174</td>
</tr>
<tr>
<td>Other service activities</td>
<td>46,663</td>
<td>42,880</td>
</tr>
<tr>
<td>Accounting, book-keeping, auditing; tax consultancy</td>
<td>39,424</td>
<td>35,884</td>
</tr>
<tr>
<td>Letting of own property</td>
<td>54,666</td>
<td>64,821</td>
</tr>
<tr>
<td>Installation of electrical wiring and fittings</td>
<td>43,244</td>
<td>33,712</td>
</tr>
<tr>
<td>Other construction work</td>
<td>51,337</td>
<td>38,150</td>
</tr>
<tr>
<td>Plumbing</td>
<td>40,495</td>
<td>30,658</td>
</tr>
<tr>
<td>Other building completion</td>
<td>40,472</td>
<td>31,931</td>
</tr>
<tr>
<td>Other human health activities</td>
<td>48,780</td>
<td>42,725</td>
</tr>
<tr>
<td>Other classification</td>
<td>61,413</td>
<td>45,898</td>
</tr>
</tbody>
</table>

Notes: Average shown for firms within each industry over the period 2001-2012.
Source: Calculations based on HMRC administrative datasets.
Across tax base, longer term shifting?

Source: Calculations based on HMRC administrative datasets.