

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

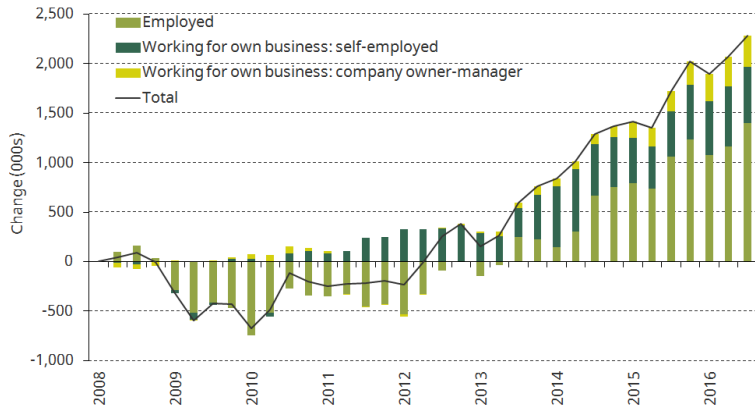
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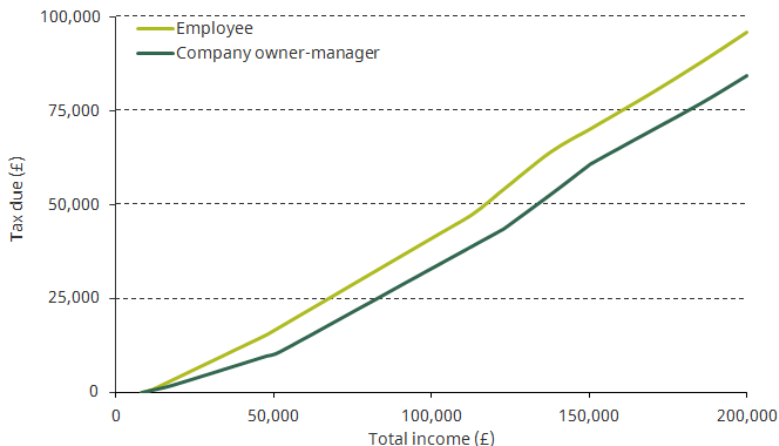
People working for their own business are fastest growing part of UK's workforce

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

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?

- depends on assumptions: Chetty (2009), Slemrod (1995), Slemrod and Yitzhaki (2002)
- 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

▶ Picture

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.

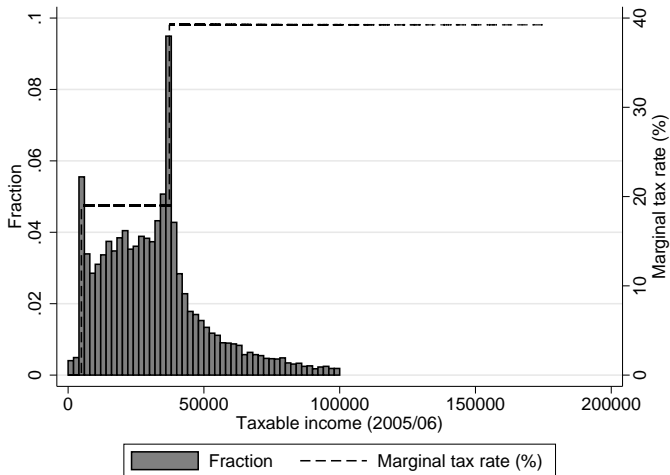
Agent faces piecewise progressive tax system during working life

- Higher rate taxpayers face lower rate in retirement

▶ Key assumptions

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 differ in ability & costs of long term income shifting

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

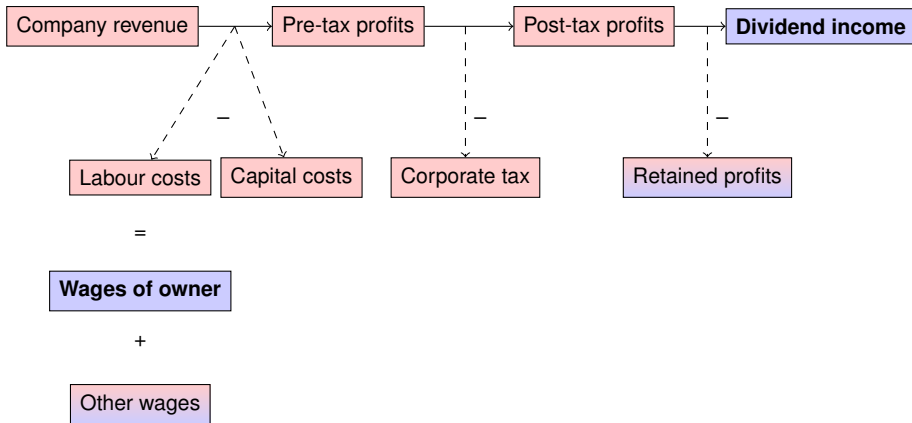
Means that bunch at threshold comprises three types of people:

- 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

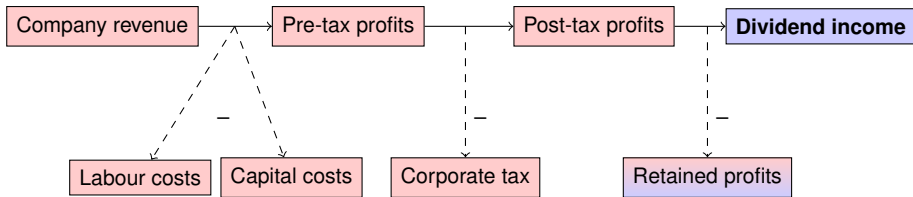
- Data on the company side
 - firm accounts (firm ownership, financial position, investment)
 - corporate tax return (turnover, profits/losses etc.)
- Data on the personal side
 - self assessment record (income by component, basic characteristics)
- Using new link for company directors
 - Sample of 113,000 owner-managers over 2001-12 for an average of 4 years
 - mainly business services, plumbing, electrical fittings

► Industries

Measures of owner-managers' income



Measures of owner-managers' income



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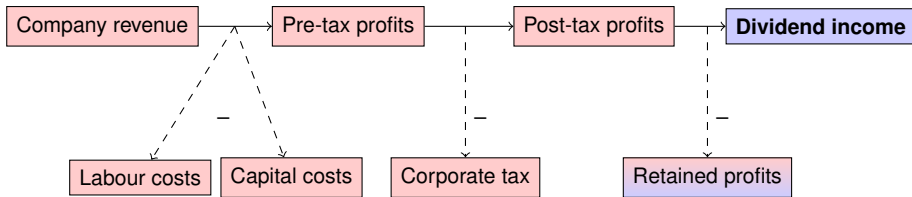
Wages of owner

Annual taxable income = dividend income + wages

+

Other wages

Measures of owner-managers' income



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Wages of owner

Annual taxable income = dividend income + wages

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Other wages

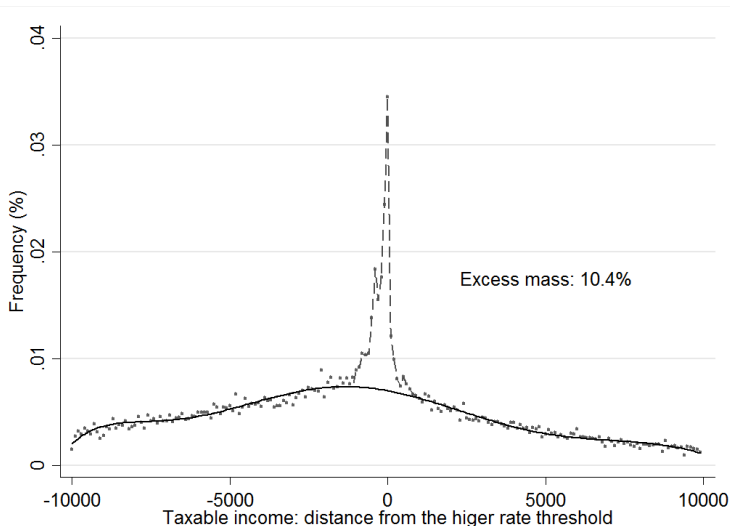
Annual total income = annual taxable income + retained profits

Types of bunchers

	Bunches in:		
	Annual taxable	Average taxable	Average total
Sometimes buncher	yes	no	no
Consistent buncher (other response)	yes	yes	no
Consistent buncher (real response)	yes	yes	yes

Bunching at the higher rate threshold

Annual taxable income - includes all bunchers

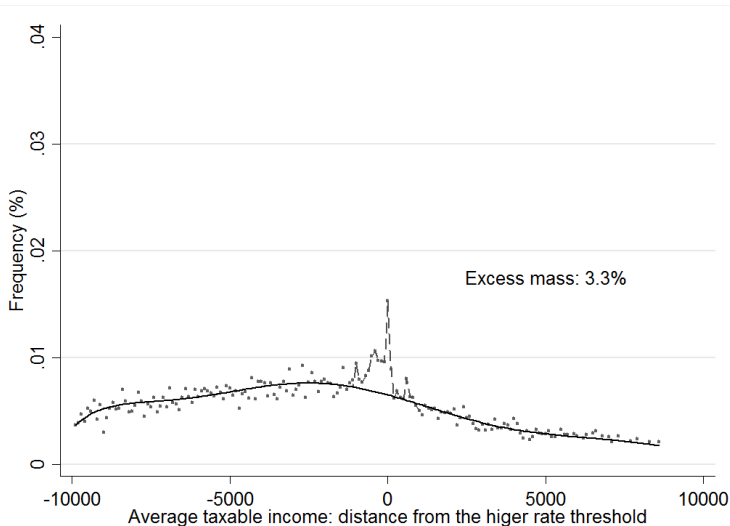


Notes: Bin width is £100. Counterfactual density estimated using higher order polynomial.

Source: Calculations based on HMRC administrative datasets.

Bunching at the higher rate threshold

Average taxable income - just the “consistent bunchers”

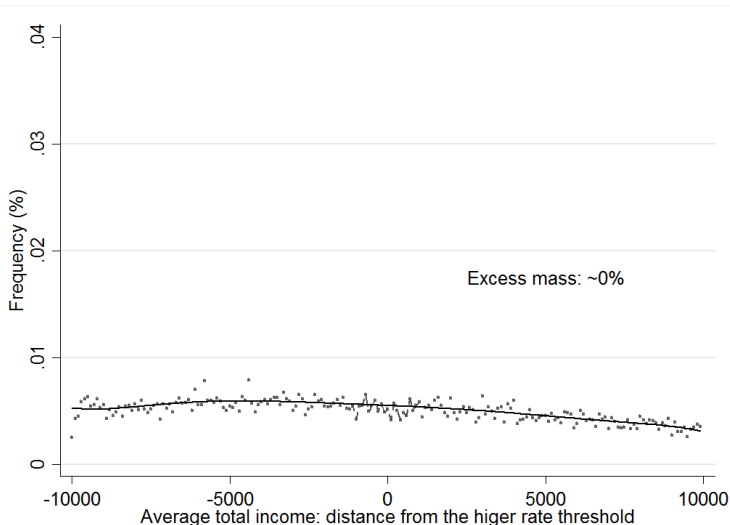


Notes: Bin width is £100. Counterfactual density estimated using higher order polynomial.

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.

Punchline: income shifting explains a lot

Elasticities

Income measure	Elasticity
Annual taxable income	0.112
Average taxable income	0.039
Average total income	-0.009

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

What can we identify?

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

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

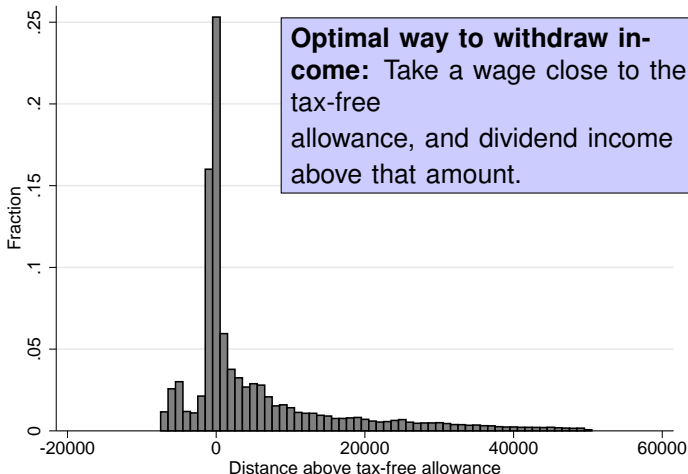
Use new admin data link to decompose overall ETI for owner-managers

- 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

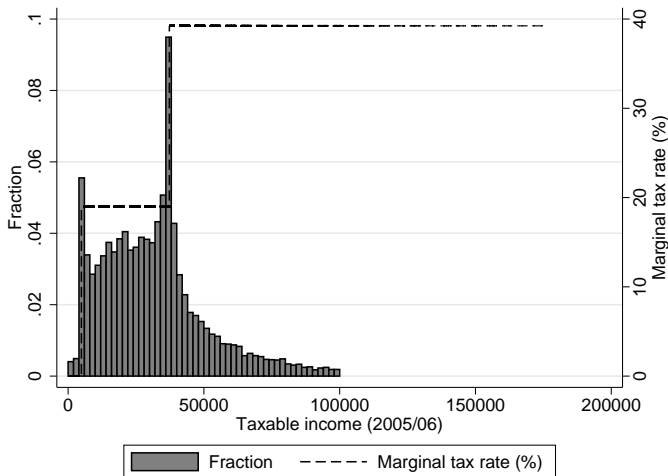
Many follow the optimal tax strategy for payment of salary



Calculations based on HMRC administrative datasets.

Company owner-managers are responsive to tax

And bunch at higher rate threshold



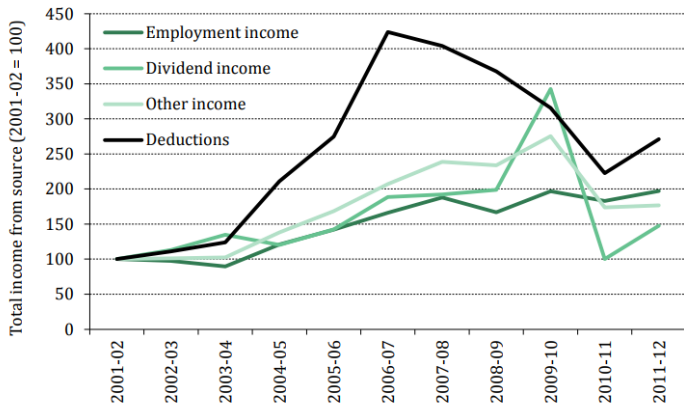
Notes: Distribution truncated above £100,000 due to data disclosure requirements.

Source: Calculations based on HMRC administrative datasets

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)

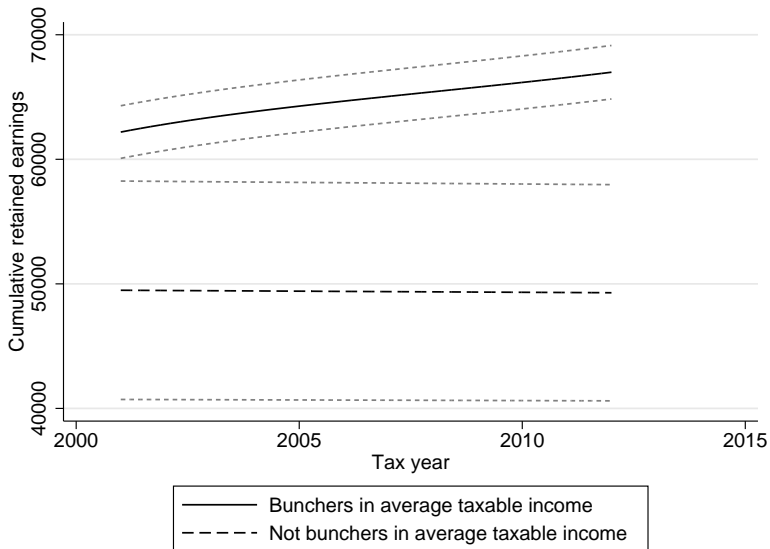


Source: Authors' calculations using SA103 data from 2001-02 to 2011-12 of responses to changes in income tax rates on top incomes in the UK: a panel analysis. *IFS Working Paper W17/13*.

	Total income	Taxable income
Business activities not otherwise classified	51,837	46,371
Business and management consultancy	57,663	52,471
Software consultancy and supply	56,030	47,911
Construction and civil engineering	53,722	41,711
Architectural, engineering and technical consultancy	51,706	41,231
Other computer related activities	49,150	42,171
Other service activities	46,663	42,881
Accounting, book-keeping, auditing; tax consultancy	39,424	35,881
Letting of own property	54,666	64,821
Installation of electrical wiring and fittings	43,244	33,711
Other construction work	51,337	38,151
Plumbing	40,495	30,651
Other building completion	40,472	31,931
Other human health activities	48,780	42,721
Other classification	61,413	45,891

Notes: Average shown for firms within each industry over the period 2001-2012.

Across tax base, longer term shifting?



Source: Calculations based on HMRC administrative datasets.