Estimating profit shifting in South Africa using firm-level tax returns

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Motivation

- **Multinational enterprises (MNEs) can exploit international tax differences by redistributing reported profits from high tax countries to low tax countries** – this is commonly known as profit shifting

Example: MNE operating in Cayman Island and SA	
Scenario 1: No profit shifting	
Corporate tax SA: 28%	*Corporate tax CI: 0%*
Earnings: 100 USD	*Earnings: 0 USD*
Tax bill: 28 USD	*Tax bill: 0 USD*
Scenario 2: All profits shifted to Cayman Island	
Corporate tax SA: 28%	*Corporate tax CI: 0%*
Reported earnings: 0 USD	*Reported earnings: 100 USD*
Tax bill: 0 USD	*Tax bill: 0 USD*

- The global tax loss is estimated to be hundreds of billions of dollars (Zucman 2014, OECD 2015, UNCTAD 2015)
- **Profit shifting may be particularly acute in developing countries**
  - Lack tax revenue (low fiscal capacity)
  - Corporate tax revenue constitutes a larger share of total tax revenue (UNCTAD 2015)
  - Lack institutions to monitor & regulate MNE behaviour (OECD 2014)
- **However, little is known about this issue in a developing country context**
- South Africa is an interesting case as it has anti-avoidance legislation on par with developed countries

Research Aim

To estimate the profit shifting responses to tax incentives in South Africa

Baseline method

- Imagine one South African firm is owned by a parent in Mauritius (CIT rate is 15%) & another South African firm is owned by a parent in Germany (CIT rate is 30%)
- If the subsidiary with the Mauritian parent reports lower profits than the German-owned subsidiary, this indicates profit shifting
- We thus ask the question: After controlling for number of employees, assets and industry, does a lower parent tax rate imply lower profitability in South African subsidiaries?

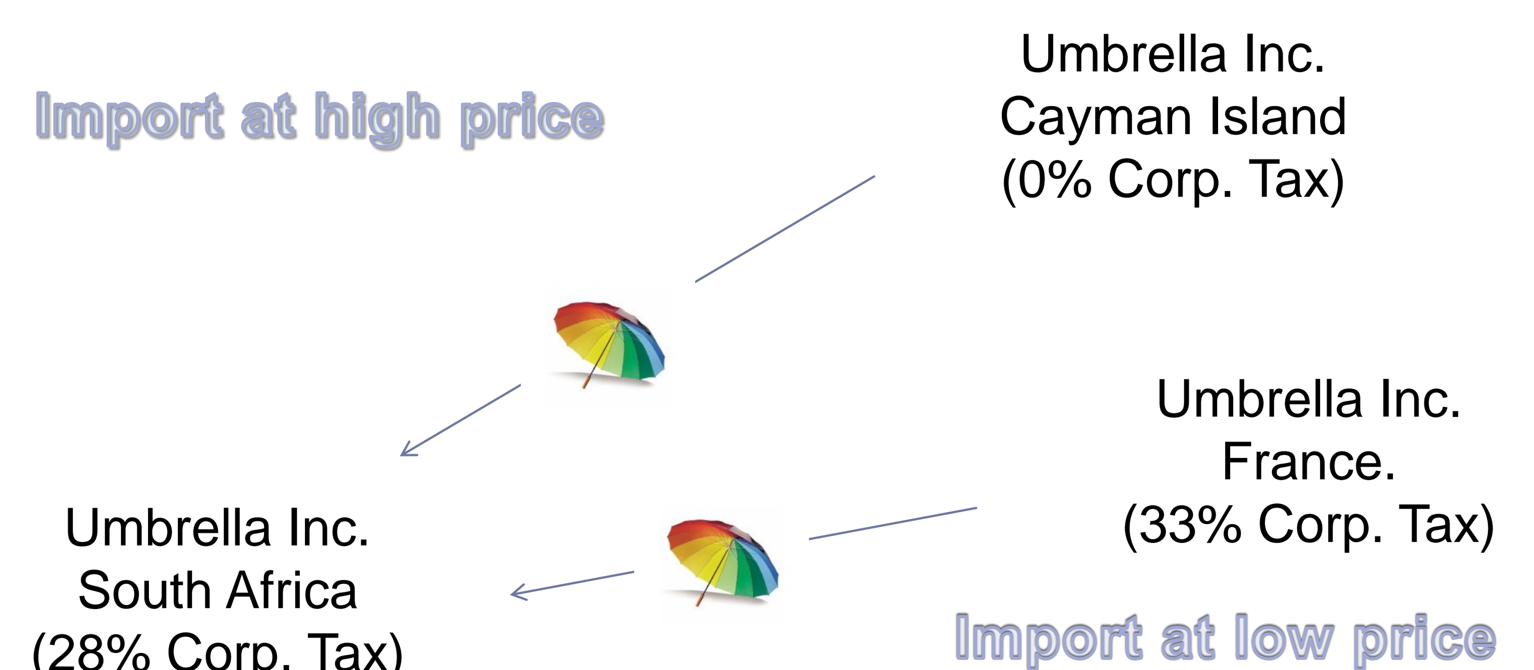
$$\log(\text{taxable profits}_i) = \alpha + \beta_1 \log(\text{capital}_i) + \beta_2 \log(\text{labor}_i) + \beta_3(\text{Parent tax rate}) + \gamma X_i + \varepsilon_i$$

Baseline results

- **We predict that a 10 pct. pts. lower parent tax rate will imply that the South African subsidiary shifts 17 percent of its taxable profits to the parent**
- This profit shifting response is roughly twice as large as the one measured in developed countries
- This response implies that, on average, roughly 7 percent of South African subsidiaries' taxable profits are shifted to low tax parents (conservative estimate)

Future work: Estimating the transfer (mis)pricing of goods

- Firms have an incentive to lower the price on products flowing from a high tax country to a low tax country, vice versa
- We observe firms importing the same product from the same country but to both related and unrelated firms
- We can thus test if firms systematically mis-price goods consistent with profit shifting behaviour: Preliminary results indeed indicates this.



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