Do Multinationals Shift Profits out of Developing Countries? - New Evidence -

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Research Objective
Provide causal evidence on existence and extent of worldwide tax and/or else incentivized profit-shifting i.e. out of developing countries

Motivation
Rising evidence on tax motivated profit-shifting in developed countries BUT Lack of empirical and causal evidence including developing countries with lower fiscal capacity and higher dependence on corporate tax revenue than developed countries

Contribution
- Multi-directional shifting in global sample
- Lower effective/statutory tax rates combined with other shifting incentives: more developed, better credit rated (fear of inflation), less corrupt (fear of expropriation), parent firm destination

Identification Strategy
- Firms maximize worldwide profits & minimize worldwide tax burden (assuming taxes to be paid are collected)
- + earnings shocks forwarded to lower, but not to higher tax affiliates

Earnings Shocks - Reported pre-tax profit is post-shifting profit
Shifting firm’s profit proxied by weighted profitability of comparable firms (>10 firms in same economic region and/or industry)

Main shifting directions tested:
- Any Affiliate → Lower Taxed Country, tax haven, better credit rated, less corrupt, parent firms county
- Developing, higher tax, worse rated affiliate → developed, lower tax, better rated affiliate

Results

Dependent Variable: log pre_tax_profit in thUSD Dest
<table>
<thead>
<tr>
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<th>(1)</th>
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<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
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<tbody>
<tr>
<td>D_LowStatutoryTaxDest*</td>
<td>-0.00269***</td>
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<tr>
<td>log_exp_pre_tax_pre_shifting_profit_shift</td>
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<tr>
<td>D_TaxHavenParent*</td>
<td>-1.28e-08</td>
<td>(2.82e-08)</td>
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<td>D_DevelopingCountryDest**DevelopingCountryDest*</td>
<td>-0.08816**</td>
<td>(0.00246)</td>
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<tr>
<td>D_LowerAvEffTaxDevelopedBetterRatedParent*</td>
<td>0.00753</td>
<td>(0.00718)</td>
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<td>D_LowerAvEffTaxDevelopedBetterRatedParent*</td>
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<td>(0.00115)</td>
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<td>-0.0548</td>
<td>(0.0683)</td>
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<tr>
<td>log_TotalAssetsthUSDDest</td>
<td>0.0118***</td>
<td>(0.00272)</td>
<td>0.0114***</td>
<td>0.00428</td>
<td>-0.0032***</td>
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<td>(0.000734)</td>
<td>(0.000757)</td>
<td>(0.00541)</td>
<td>(0.000709)</td>
<td>(0.00543)</td>
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<td>Observation</td>
<td>5,486,775</td>
<td>5,486,775</td>
<td>5,486,775</td>
<td>199,661</td>
<td>4,509,215</td>
<td>3,629</td>
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<td>R-squared</td>
<td>0.212</td>
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<td>0.204</td>
<td>0.162</td>
<td>0.721</td>
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<td>Number of combinationID</td>
<td>1,139,462</td>
<td>1,139,462</td>
<td>1,139,462</td>
<td>55,810</td>
<td>922,795</td>
<td>990</td>
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</table>

Fixed Effects Panel Data Difference in Difference Model:  
\[ \log a_t = a_0 + a_1 \log a_t + a_2 \log \tilde{\pi}_st + a_3 (D_{tax}a_t \log \tilde{\pi}_st) + a_4 x_{at} + \rho t \]

Methodology:
Big 4 accounting firms, local authorities

Data
Firm-Level Data - Orbis Database (Bureau van Dijk)
Yearly unconsolidated data 2006-2015 (unbalanced panel)

Sample
26,551 parents, 83,264 foreign subsidiaries, 2,382,103 comparable firms

Sample Observations
- 26,551 parents, 83,264 foreign subsidiaries, 2,382,103 comparable firms
- Robust standard errors in parentheses (clustered at subsidiary level) *** p<0.01, ** p<0.05, * p<0.1
- Model (4) restricted to developing country and (5) to developed country affiliates, A4 models include year FE, destination 2-digit NACE industry-year FE and combinationID FE (Model (6) used subsidiary FE instead)

Potential Explanations

Orbis Data:
- Neither complete nor representative BUT best data available
- Only last year’s ownership structure known
- Current results restricted to only 1st subsidiary level & (very) large & medium-sized, active firms with unconsolidated accounts

Methodology:
- No or too few comparable firms for unique firms
- Shifting among affiliates in same industry excluded

Future Research:
- New Evidence -
- Rising evidence on tax motivated profit-shifting in developed countries
- BUT Lack of empirical and causal evidence including developing countries with lower fiscal capacity and higher dependence on corporate tax revenue than developed countries
- Multi-directional shifting in global sample
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