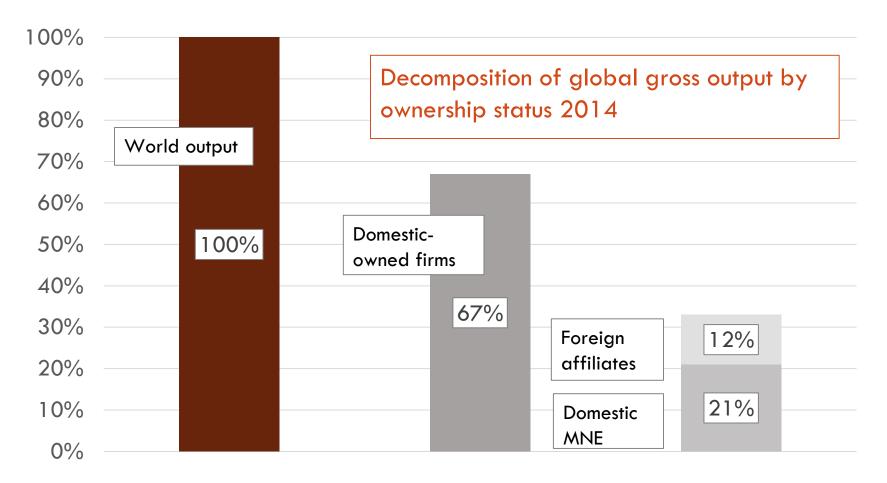
## - HOW BIG IS THE PROBLEM?

IPE Forum: Tax me if you can?! Tax havens and multinational enterprises in the EU Berlin, 24/01/2019

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## How important is activity of MNE?

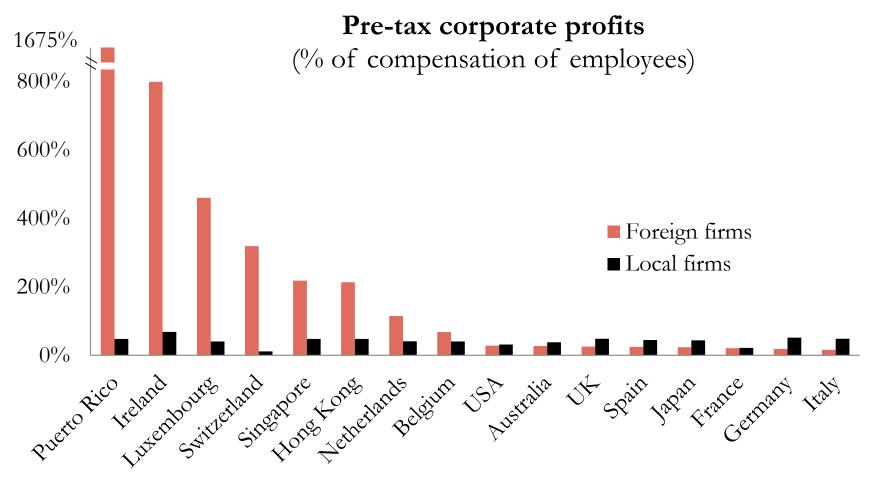


Source: OECD (2018)

## Typical channels of profit shifting

- □ Transfer mis-pricing
- Interest rates
- Royalties and license fees

## How to measure profit shifting?



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 (Tørsløv 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 at al. 2015)
  - OECD: 0.2% of GDP (Crivelli et al. 2016)
- Much lower estimates based on firm-level data
  - **EUR** 1 bn.  $\approx$  0.4% (Huizinga et al. 2008)
  - Heckemeyer & Overesch (2013)

# German-based affiliates of multinational enterprises (MiDi Sample)

Year	Share of affiliates with tax haven* investors		
1999	39%		
2001	40%		
2003	41%		
2005	42%		
2007	44%		
2009	43%		
2011	44%		
2013	45%		
2015	45%		

- 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**

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

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