Eco L3 - Globalization, Inequality, and Redistribution

Lecture 6: Global profit shifting and tax competition

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Roadmap

- How capital taxes can be avoided in a globalized world
- The magnitude and revenue costs of profit shifting
- Tax competition for profits vs. capital

1 Residence vs. source taxation

To think about capital taxation in an open economy, key distinction is **residence** vs. **source** base capital taxation

- Residence: capital tax based on residence of owner of capital (or location of headquarter for firms)

- Most individual income tax systems are residence based (with credits for taxes paid abroad)

- Can only escape tax through evasion or changing residence

- Source taxation: capital income tax based on location of capital

- Most corporate income tax systems are source based

Three main consequences of source-based taxation:

- Profit shifting to low-tax countries

- Relocation of capital to low-tax countries

- Tax competition leading to equilibrium where tax rates are too low

2 International profit shifting

- Corporate taxes are to be paid where profits have been made
- Problem: easy to manipulate location of profits
  - Manipulating intra-group import / export prices (*transfer prices*)
  - Intra-group borrowing
  - Locating intangibles in tax havens

Transfer price manipulations

- Subsidiaries of a same group are supposed to compute their profits as if unrelated (*arm's length pricing*)

- In practice, relatively easy to manipulate transfer prices, and reference prices sometimes do not exist

- Sizable evidence that intra-group prices differs from arm's length prices (Clausing NTJ 2003)

Strategic location of debt and intangibles

- Booking assets in low-tax countries enables firms to deduct income in high-tax countries and earn interest & royalties in tax havens

- Transfer of intellectual property can be done through outright sale (Google 2003)

- Or cost sharing: offshore subsidiary contributes part of the cost of developing IP ($\rightarrow$ exports of rights to use IP from US to, eg, Ireland in US trade data)

Treaty shopping

- Anti-avoidance rules are supposed to limit ability of multinationals to shift profits: thin capitalization, controlled foreign corporations

- Can be avoided by exploiting inconsistency in tax laws across countries (*treaty shopping*)

- For instance, inconsistent definition of what a corporation is or where it is located

Microeconometric studies

- Large literature profit shifting using Orbis accounting micro-data

- Profit shifting is estimated by running
$log(\pi_{ic}) = \alpha + \beta(\tau_p - \tau_c) + \delta Firm_i + \gamma Country_c + \epsilon_{ic}$

- where π_{ic} denotes pre-tax profits booked by company i in country c, τ_c the tax rate in country c, τ_p the tax rate in the partner's country (eg, the parent country, see below), and $Firm_i$ and $Country_c$ firm and country controls.

Limits of Orbis

- Orbis provides accurate information about global consolidated profits
- But relies on info in public business registries to record the profits made by multinationals in their various subsidiaries
- No or very limited profit data available in countries with no public registry or no public income info in registry

Are the coverage gaps in Orbis a problem?

- β unbiased if semi-elasticity of profit shifting with respect to tax rate differentials is constant

- But evidence that shifting elasticity is nonlinear, with more responsiveness at lower tax rates than at higher ones

  - Dowd et al. (2017) using IRS tax data find tax semi-elasticities of 4.7 at corporate tax rates of 5% and 0.6 at tax rates of 30%

  - Bilicka (AER 2019) studies profit shifting out of UK using UK

tax data, and finds that accounting data underestimate true size of profit shifting relative to more comprehensive tax data.

- Can also lead to biased inferences about the location of shifted profits.

- E.g, If only high-tax countries have public registries, then one can find that all profit shifting takes place between high-tax countries...

- ... whereas this shifting may be second-order relative to the shifting to low-tax countries.

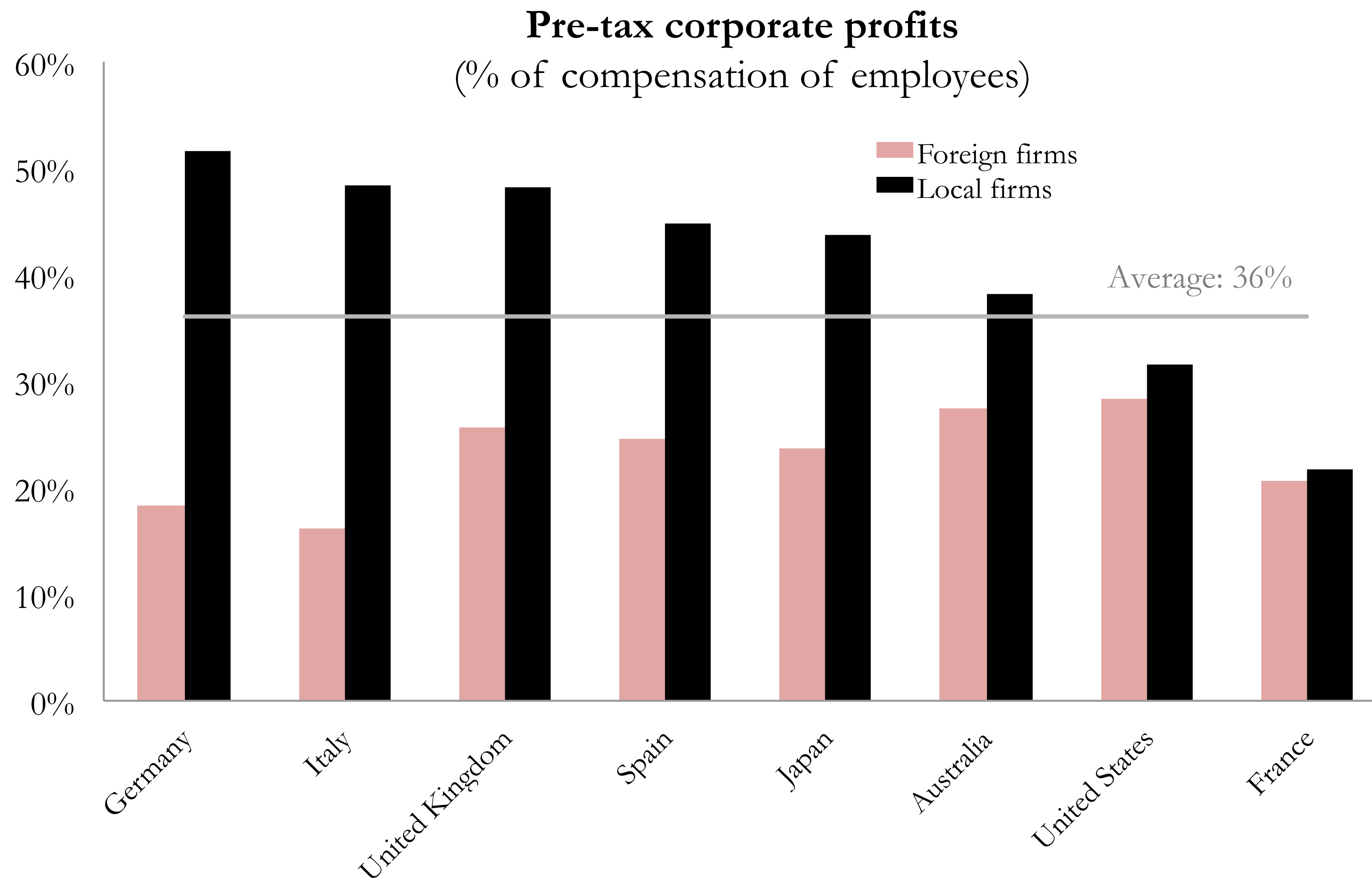
Macro evidence on profit shifting

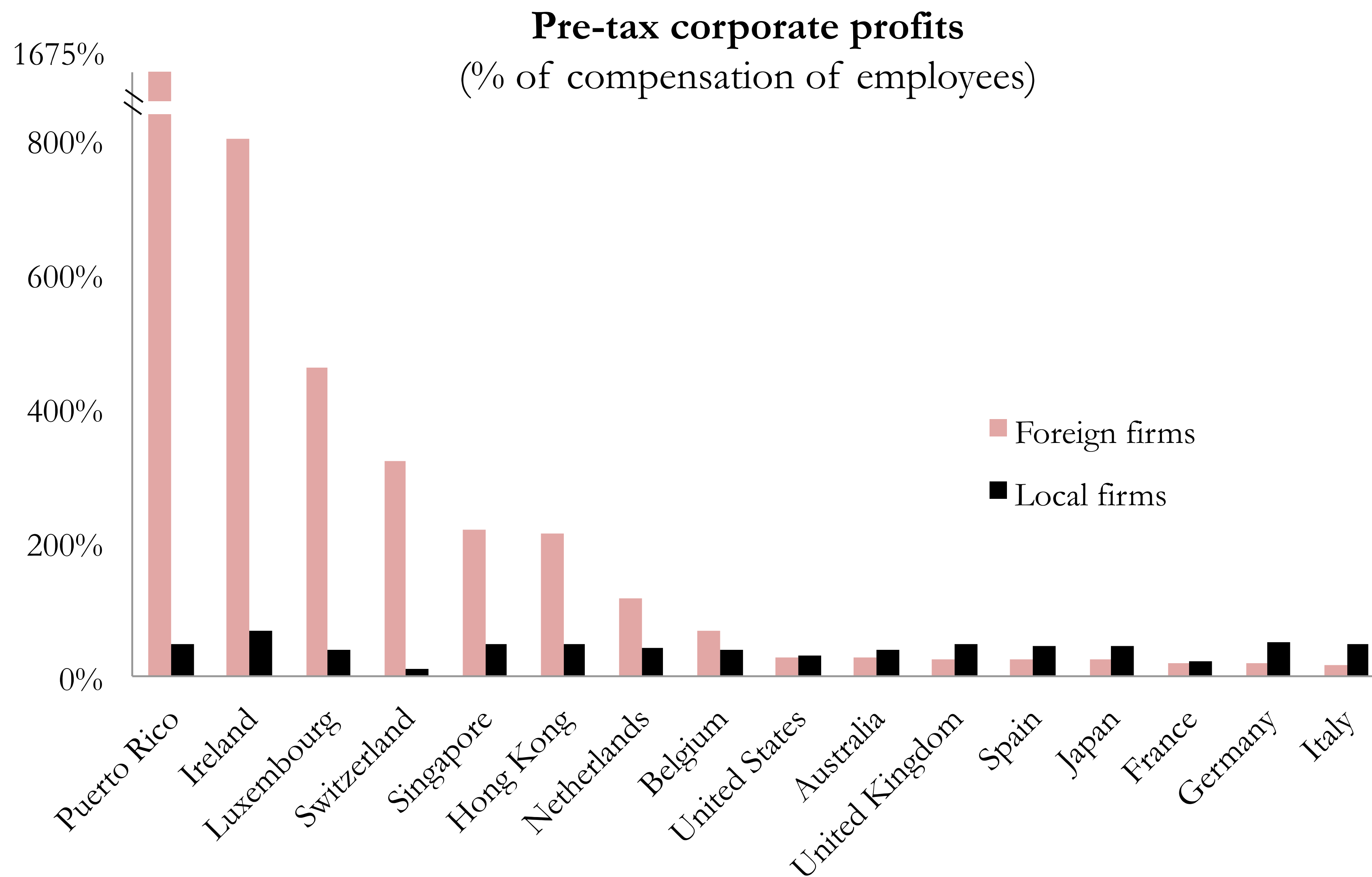
- Recent work takes a macro perspective to study profit shifting.
- Mostly uses US data hence focus on US multinationals (Clausing, 2009, 2016; Gravelle, 2009; Guvenen et al., 2018).
- Key US data source: detailed surveys of foreign activities of US multinationals
- Similar data recently released in other ctries (Torslov et al 2018)

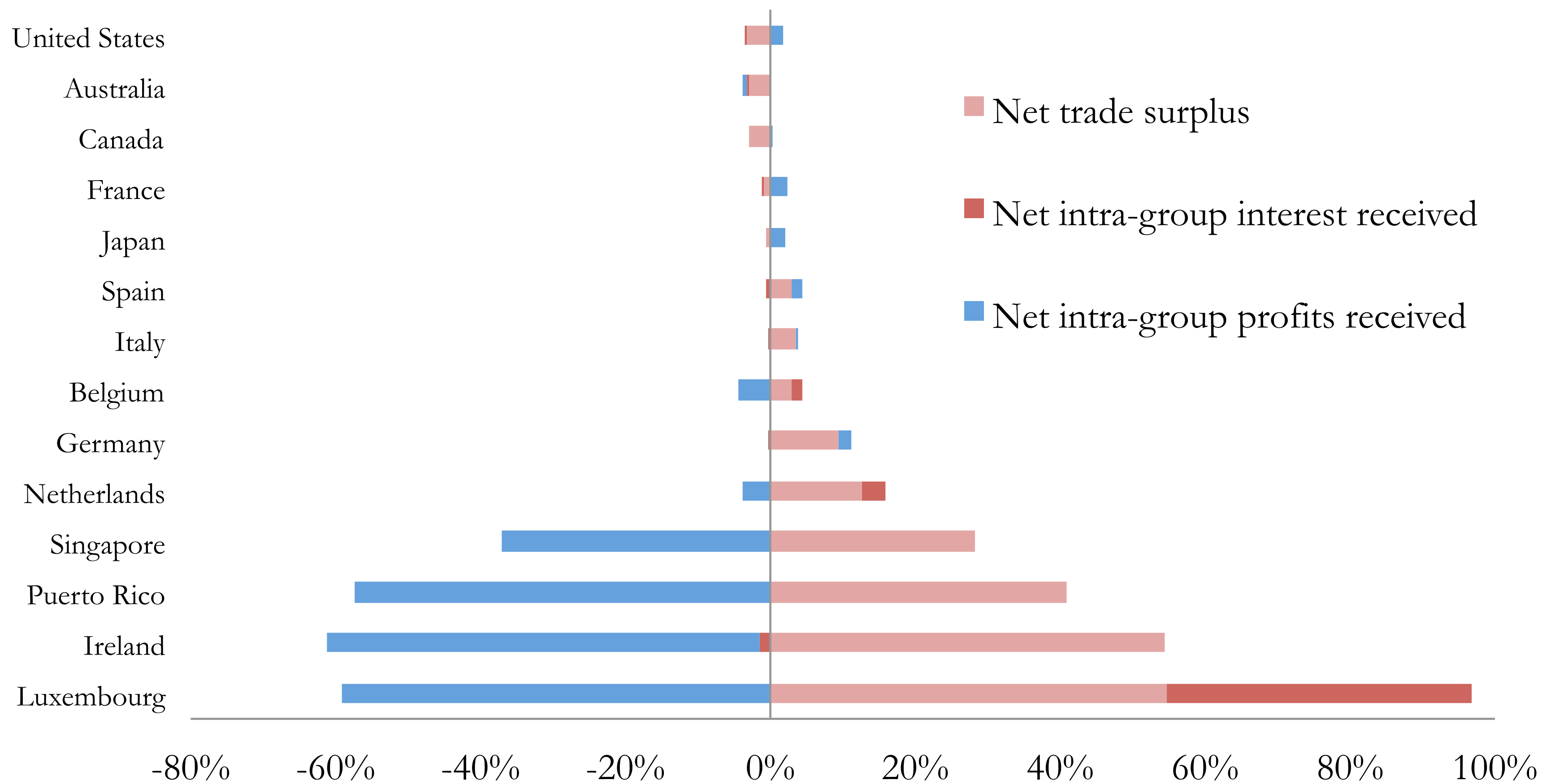
Global profit shifting: methodology (Torslov et al., 2018)

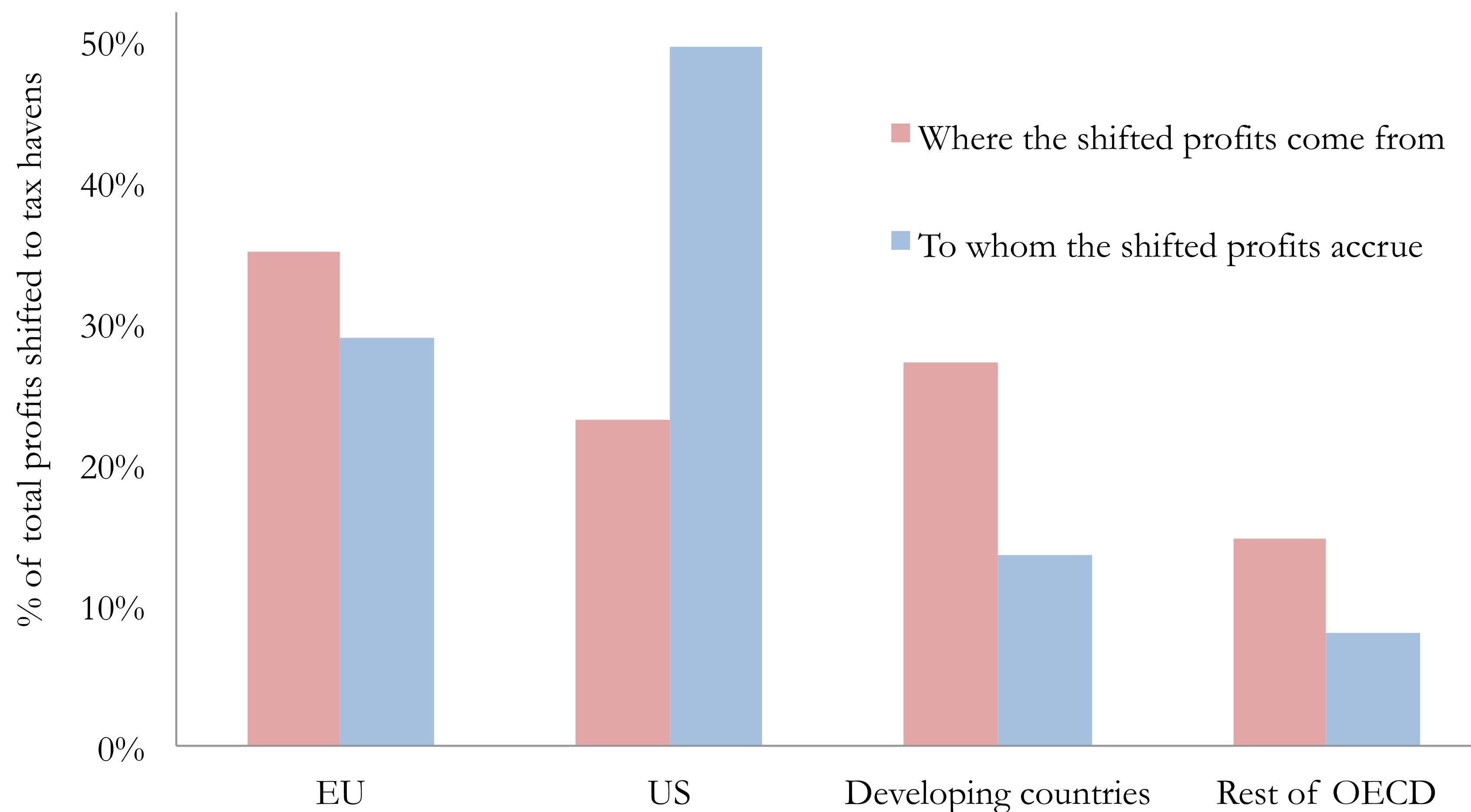
Idea: study capital share of local vs. foreign firms across the world. Striking global pattern:

- Foreign firms have lower α than local firms...
- ... Except in tax havens: hugely higher α
- Estimate of globally shifted profits: set profitability of foreign firms in havens equal to profitability of local firms in havens


Pre-tax corporate profits
(% of compensation of employees)
60%
50%
40%
30%
20%
10%
0%
Foreign firms
Local firms
Average: 36%
Germany
Italy
United Kingdom
Spain
Japan
Australia
United States
France


Pre-tax corporate profits
(% of compensation of employees)
1675%
800%
600%
400%
200%
0%
Foreign firms
Local firms
Puerto Rico
Ireland
Luxembourg
Switzerland
Singapore
Hong Kong
Netherlands
Belgium
United States
Australia
United Kingdom
Spain
Japan
France
Germany
Italy


Current account balance
(% of national income)
United States
Australia
Canada
France
Japan
Spain
Italy
Belgium
Germany
Netherlands
Singapore
Puerto Rico
Ireland
Luxembourg
Net trade surplus
Net intra-group interest received
Net intra-group profits received
-80%
-60%
-40%
-20%
0%
20%
40%
60%
80%
100%


Allocating the profits shifted to tax havens
50%
40%
30%
20%
10%
0%
% of total profits shifted to tax havens
Where the shifted profits come from
To whom the shifted profits accrue
EU
US
Developing countries
Rest of OECD

3 Tax competition

- Lower corporate tax rate $\rightarrow$ attracts capital from abroad $\rightarrow$ gives incentives to other countries to cut their own rate

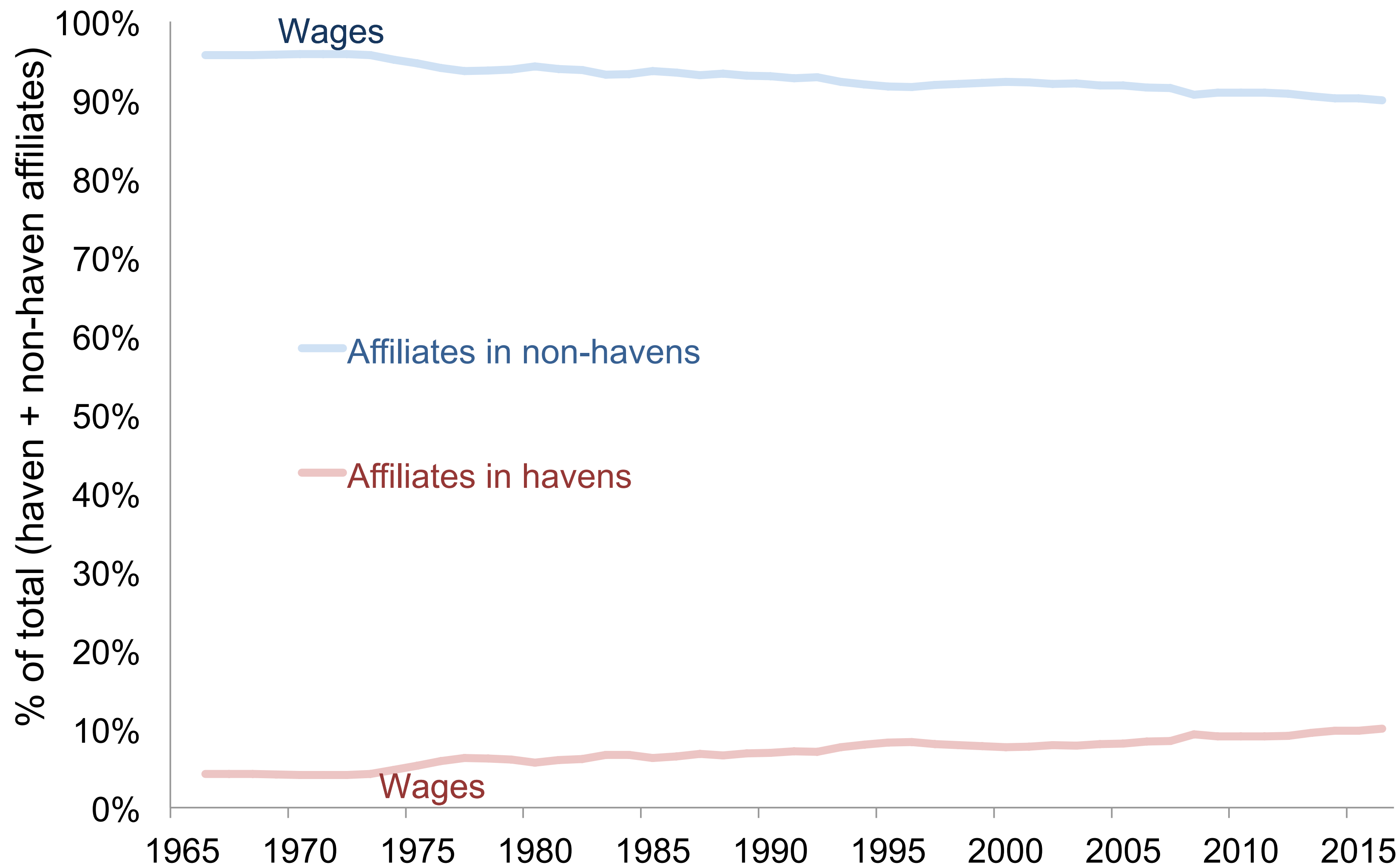
- Key driver behind global decline in corporate tax rates (49% on average globally in 1985 vs. 24% today)

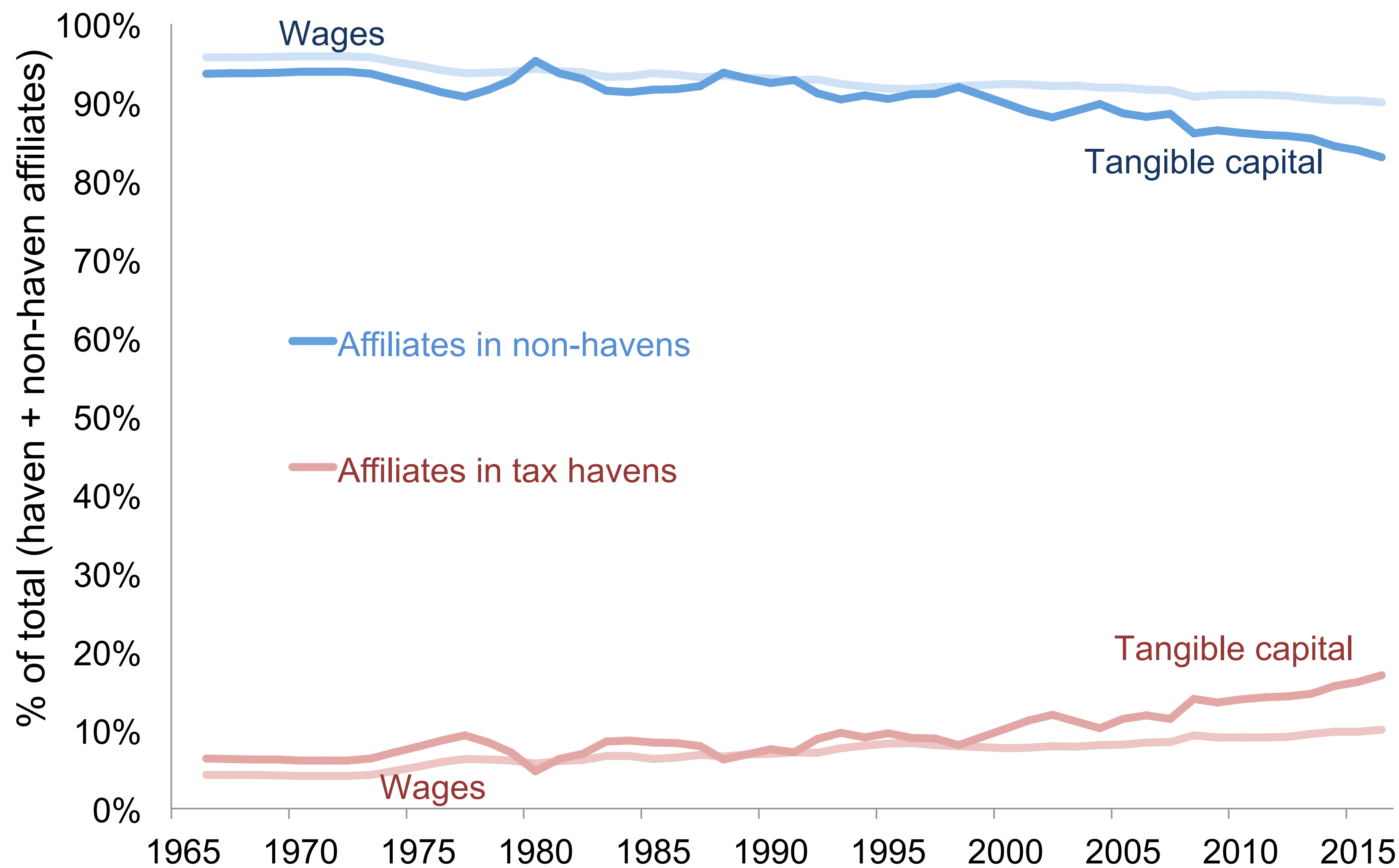
- Similar issues between sub-national govs. (such as US states). Difference: Federal gov. can help coordinate

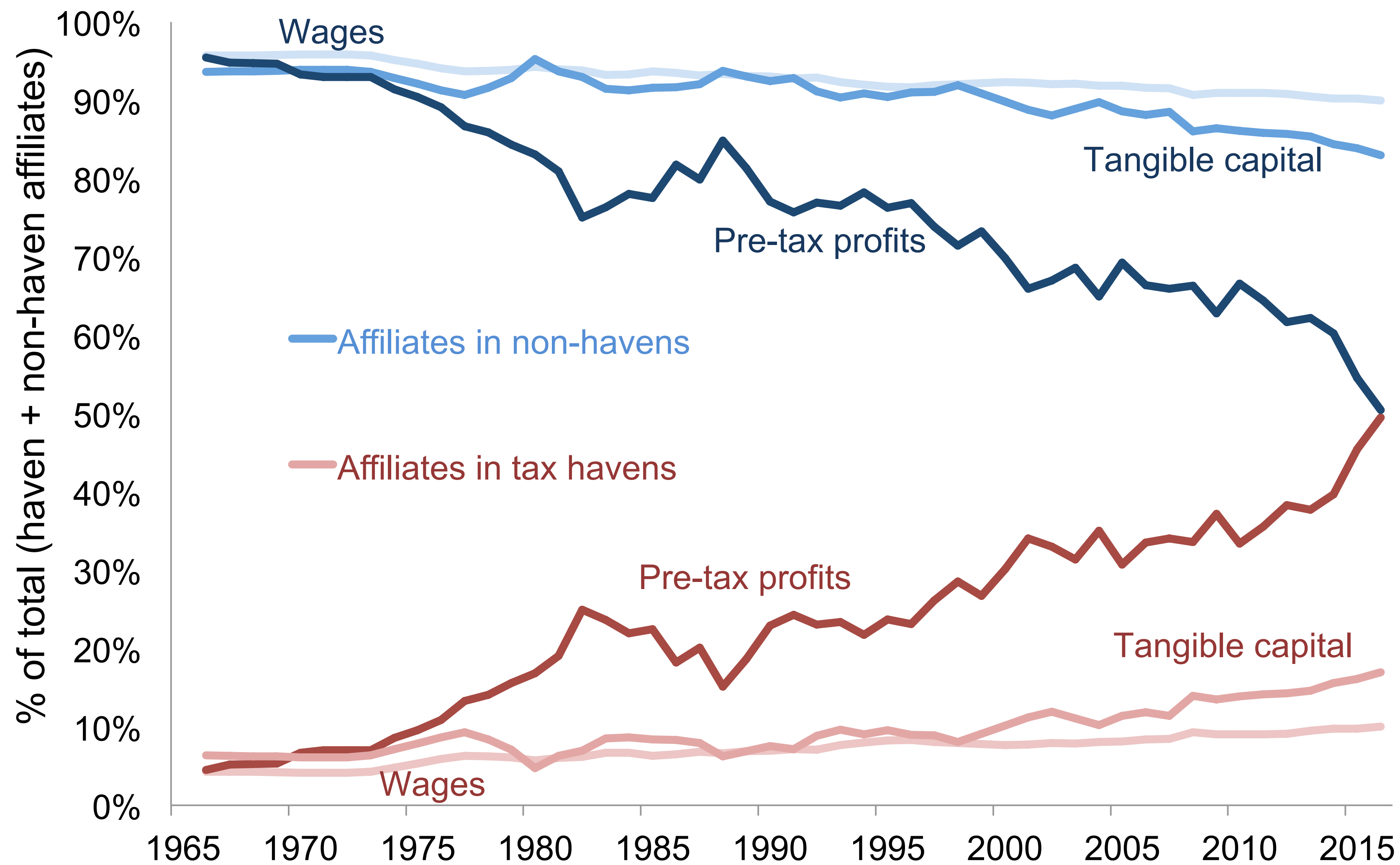
Capital mobility vs. profit shifting: the case of US multinationals

Quantitatively, how does capital mobility and profit shifting compare?

- Wright-Zucman (2018) study profits, wage, capital, rates of returns, and taxes of US multinationals back to 1966
  - Using BEA of activities of US multinationals
  - Data Annual since 1982, every 5 years back to 1966


% of total (haven + non-haven affiliates)
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Wages
Affiliates in non-havens
Affiliates in havens
Wages
1965
1970
1975
1980
1985
1990
1995
2000
2005
2010
2015


Wages
Tangible capital
Affiliates in non-havens
Affiliates in tax havens
Tangible capital
Wages
% of total (haven + non-haven affiliates)
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
1965
1970
1975
1980
1985
1990
1995
2000
2005
2010
2015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100%
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1965
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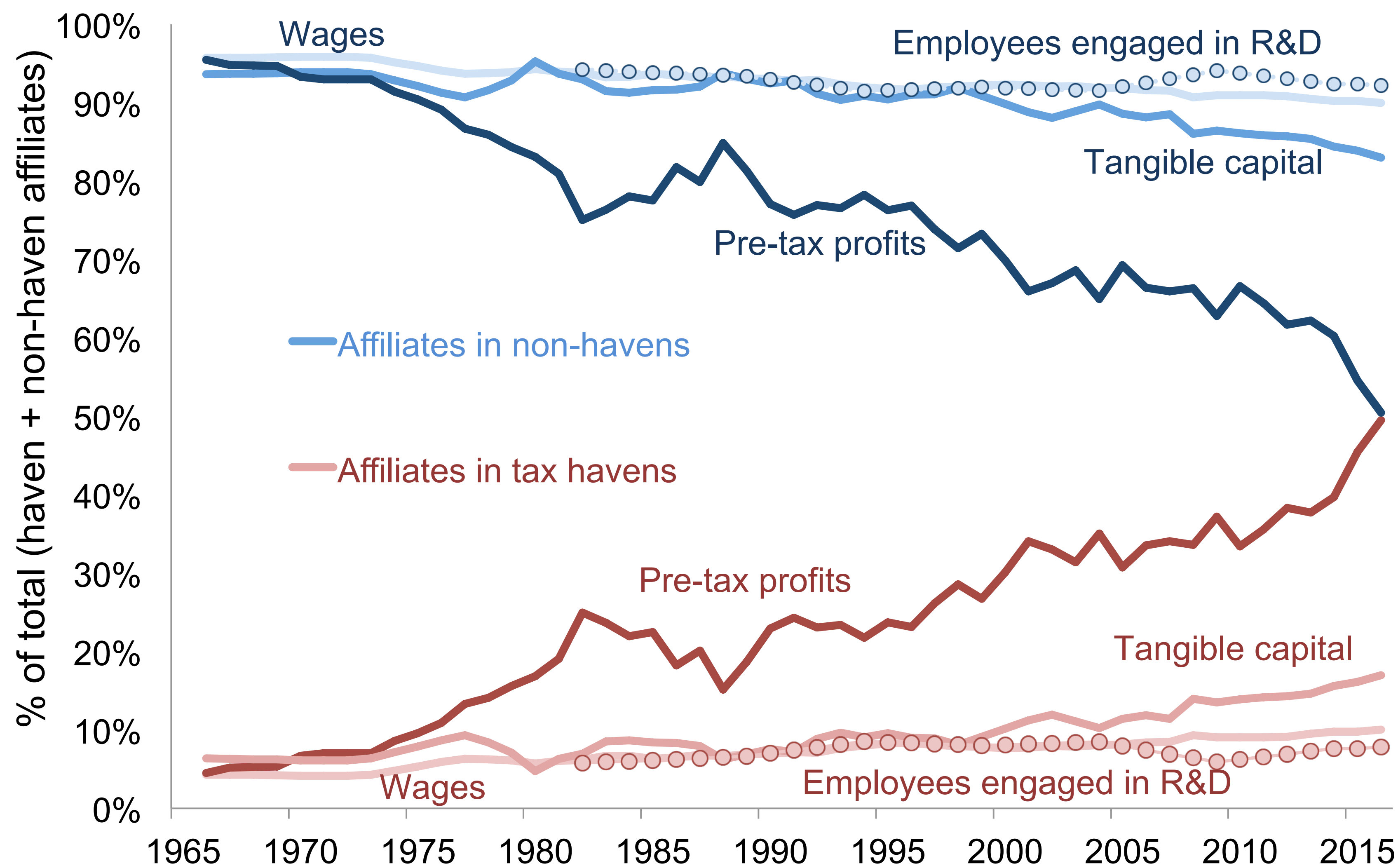
1975
1980
1985
1990
1995
2000
2005
2010
2015
Wages
Tangible capital
Pre-tax profits
Affiliates in non-havens
Affiliates in tax havens
Pre-tax profits
Tangible capital
Wages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0%
1965
1970
1975
1980
1985
1990
1995
2000
2005
2010
2015
Wages
Employees engaged in R&D
Tangible capital
Pre-tax profits
Affiliates in non-havens
Affiliates in tax havens
Pre-tax profits
Tangible capital
Wages
Employees engaged in R&D