



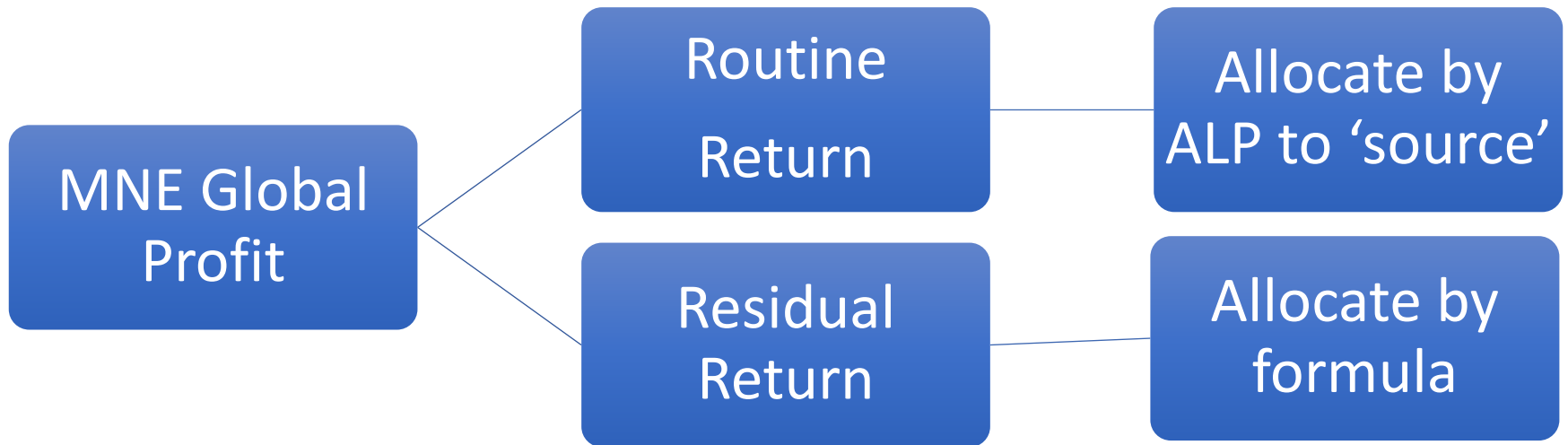
EXPLORING GLOBAL RESIDUAL PROFIT ALLOCATION

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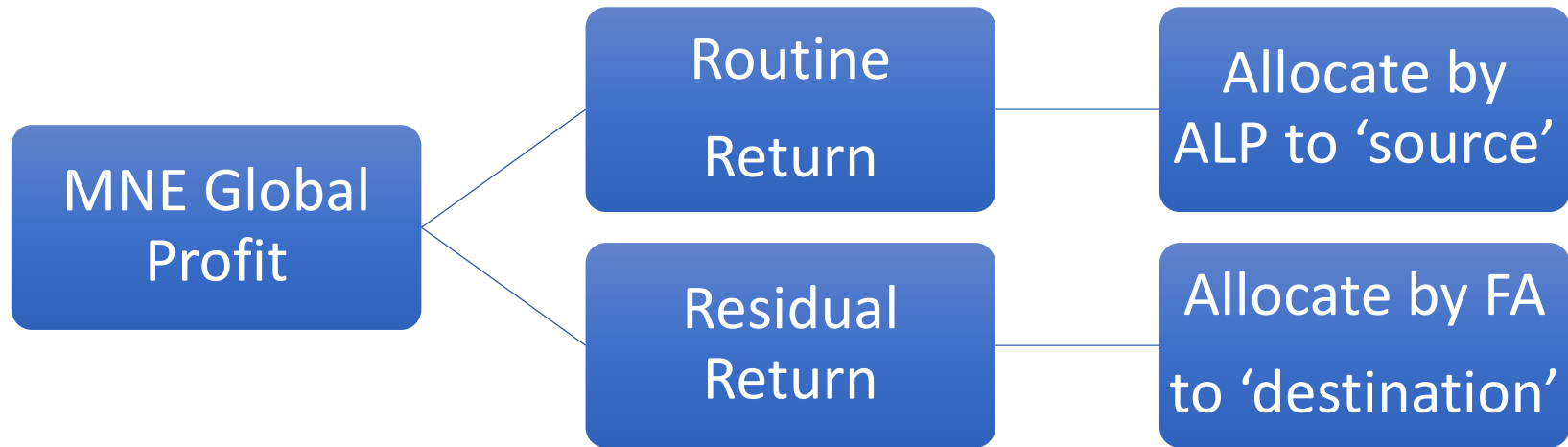
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Residual Profit Allocation: the basic idea



e.g. by user participation
or marketing intangibles
(OECD, 2019)

Residual Profit Allocation: the basic idea



Based on unitary taxation, so would substantially eliminate opportunities for ***profit shifting***

But what about its ***efficiency*** and ***revenue*** effects?

- Is it less distortive to investment than the current system?
- What about the scale and distribution of routine and residual profits?
- All essential to evaluate RPA proposals

Cost of Capital under Global RPA

Worldwide after-tax profit for an MNE under RPA:

$$(1 - W(\tau, k))(F(K) - rK) - r \sum_i t_i k_i$$

Cost of Capital under Global RPA

Worldwide after-tax profit for an MNE under RPA:

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Routine profit

Cost of Capital under Global RPA

Worldwide after-tax profit for an MNE under RPA:

$$(1 - W(\tau, k))(F(K) - rK) - r \sum_i t_i k_i$$

The diagram illustrates the decomposition of the worldwide after-tax profit equation. A blue bracket under the term $(F(K) - rK)$ is labeled "Residual profit" in a box below. A blue arrow points from the top of this bracket to a box labeled "Routine profit" above the entire equation.

Cost of Capital under Global RPA

The worldwide after-tax profit for an MNE under RPA:

$$(1 - W(\tau, k))(F(K) - rK) - r \sum_i t_i k_i$$

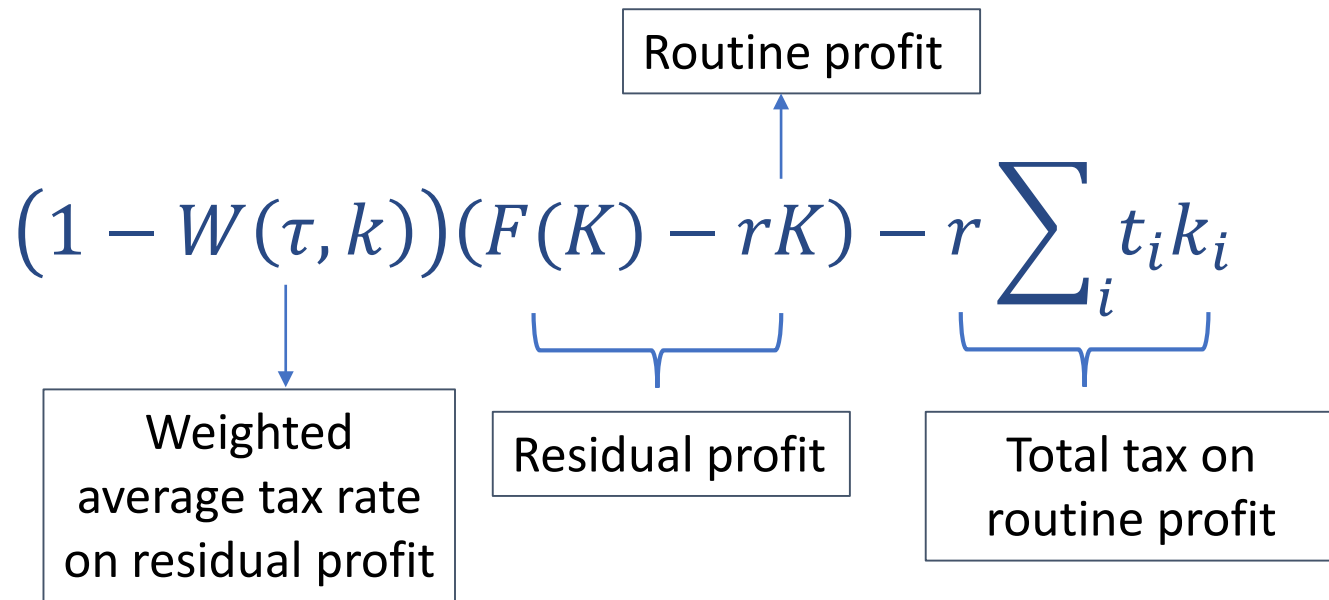
Weighted average tax rate on residual profit

Residual profit


Routine profit

Cost of Capital under Global RPA

The worldwide after-tax profit for an MNE under RPA:



Cost of Capital under Global RPA

$$METR_i^{RPA} = \frac{(1 - \tau_i)m_i}{(1 - W)} + \frac{\partial W}{\partial k_i} \frac{(F - rK)}{1 - W}$$


- m_i : $METR_i$ under the current system, with no profit shifting
- $METR_i^{RPA} > m_i$ iff $\tau_i < W$: so METR increases for low-tax countries
- For high-tax countries, ambiguous and ultimately an empirical question

Cost of Capital under Global RPA

$$METR_i^{RPA} = \frac{(1 - \tau_i)m_i}{(1 - W)} + \frac{\partial W}{\partial k_i} \frac{(F - rK)}{1 - W}$$

- Only vanishes with fixed W
- Otherwise even the rent part of the RPA is distorting
- Now also depends on profitability as captured in $(F - rK)$

Redistribution of CIT Revenue

Given by the model as:

$$D_i^{RPA} - D_i$$

$rk_i + W\Pi^R(k)$

current/observed CIT revenue in each country

+ additional assumption, can also infer the extent of revenue change due to elimination of profit shifting

So what do we know from the data?

Consolidated accounts for the world's largest 10,000 MNEs, year 2017 (S&P Capital IQ)

- to assess the scale of routine vs.. residual profits on a consolidated basis

Aggregate fixed capital stock in the corporate sector for 41 countries, year 2017 (UNCTAD)

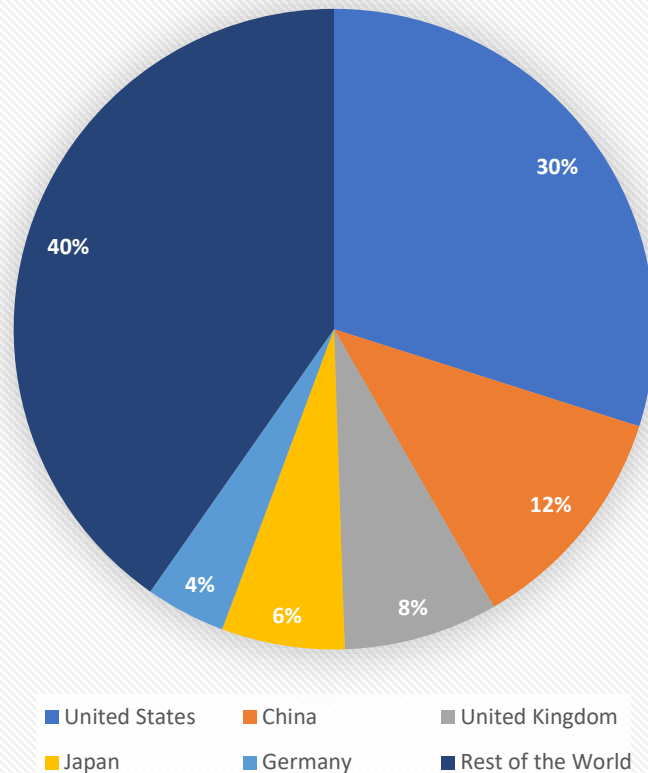
- to infer the scale of routine profit in each country

Aggregate fixed capital stock, CIT revenue, proxy for destination-based sales for 125 countries, year 2017 (UNCTAD, WB, IMF WoRLD, GFS)

- to assess changes in CIT revenue if moving to destination-based RPA

Scale of Global Residual Profits

by Country of Headquarters,
at Cost Mark-up of 7.5%

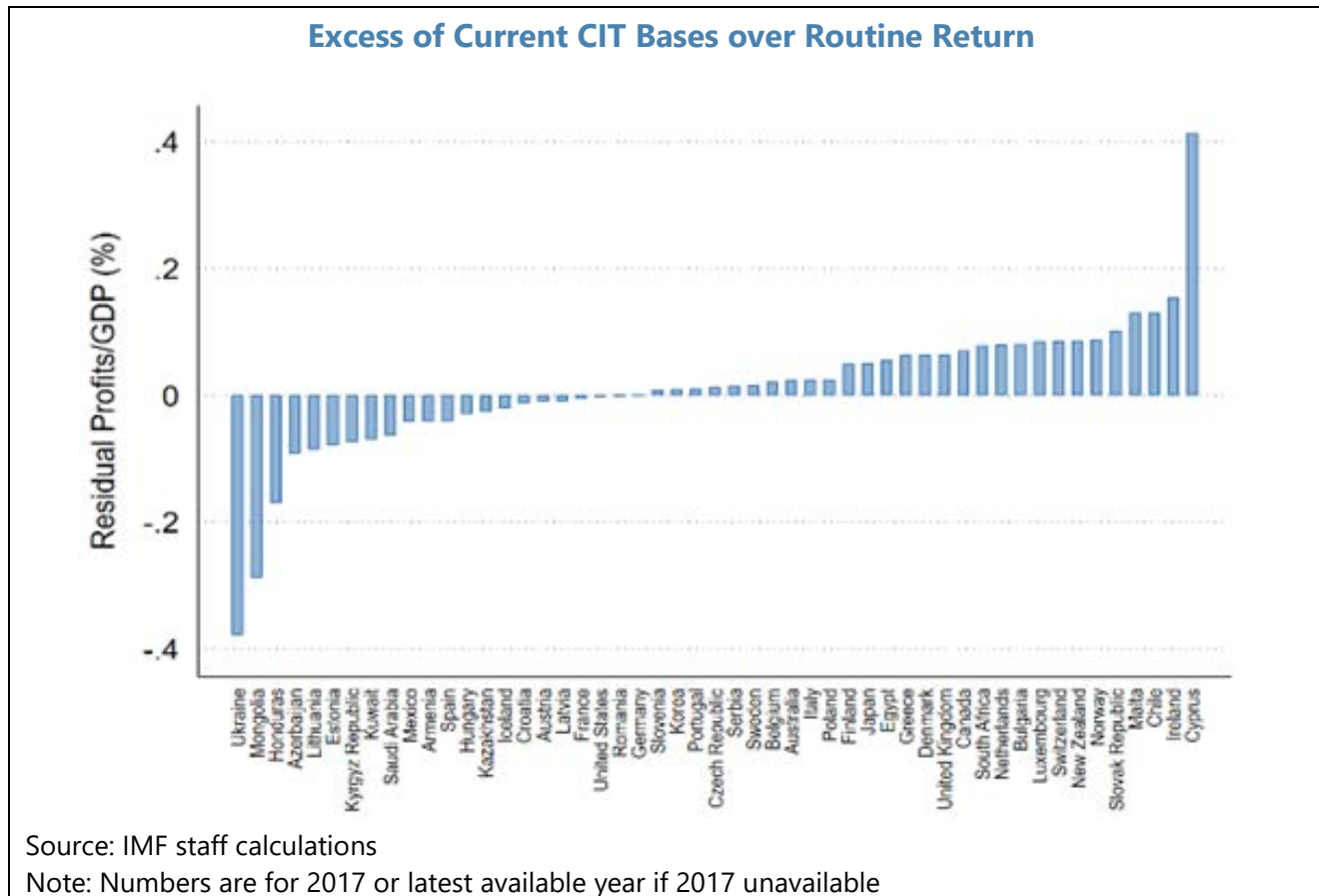


With assumed routine return
of 10 % of fixed assets or
7.5% cost mark-up:

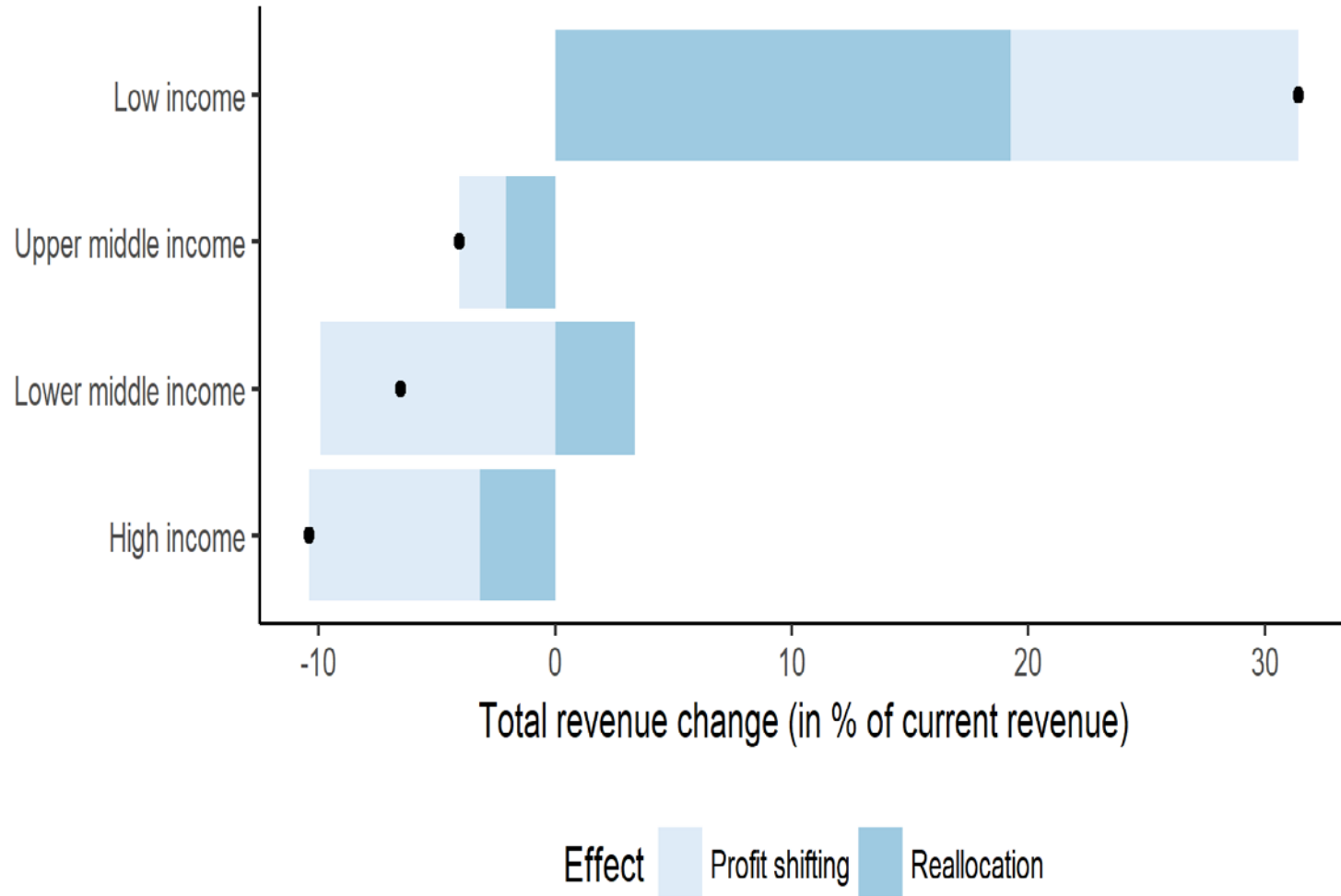
- Residual \approx 30% of total profit
- 30-40% firms report residual $<$ 0
- Large variation across sectors
- 30% of all residual is concentrated in top 1% firms
- 40% of global residual is concentrated in U.S.-based MNEs

Scale of Routine Profits

With assumed routine return of 10 % of fixed assets:



Revenue Impact of A Destination Sales-Based RPA



Next Steps

Summary:

- Eliminates profit shifting
- Retains inefficiency for investment
- Routine element of RPA attractive for low-income countries

Next Steps:

- Quantifying country-specific $METR_i^{RPA}$
- How/whether residual profits change over time
- Revenue effects under different weighting schemes