What Is Real and What Is Not in the Global FDI Network?

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Introduction

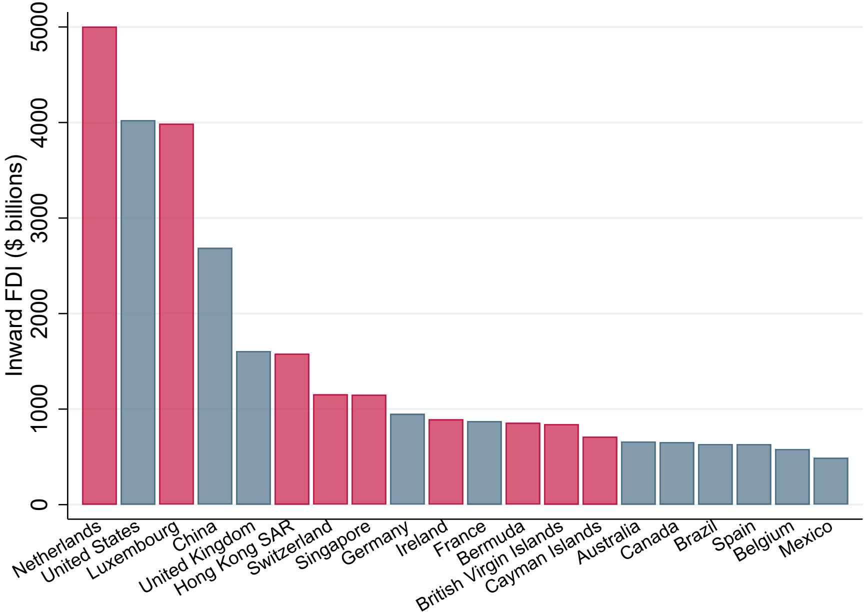
FDI is important dimension of economic integration
- enters common indexes of globalization
- widely believed to boost productivity and growth

However, FDI is not *only* about productive investment

Example: Luxembourg has inward FDI of $4 trillion
same as the U.S. or the five major EU economies combined

What is going on? Many tax avoidance strategies involve large nominal investments in offshore financial centers

Offshore financial centers play an outsized role in the global FDI network



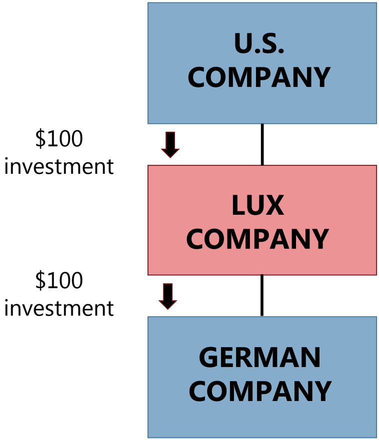
This paper

Define "Phantom FDI" as investment into empty shells
almost no employees and no substantial links to the local economy

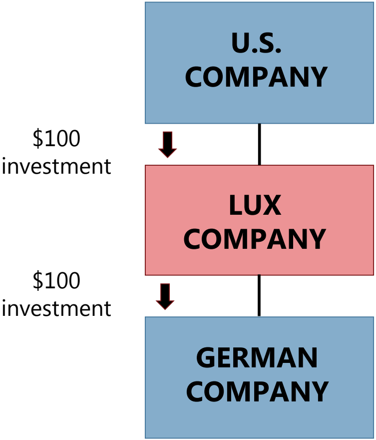
Our goal: Estimate global FDI network while separating "Phantom FDI" and "Real FDI"

Data sources:
- Coordinated Direct Investment Survey (CDIS) standard FDI statistics
- new OECD statistics on FDI into Special Purpose Entities ("SPEs")
- new OECD statistics on FDI by economy of ultimate investors
- ORBIS: global database with firm-level data

A stylized corporate group structure

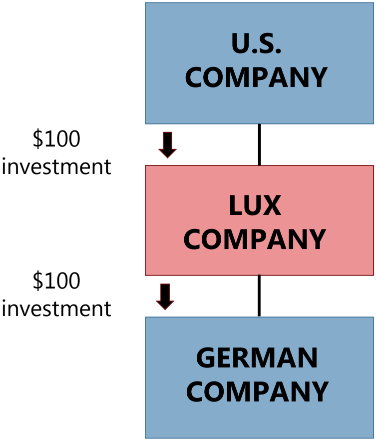


Standard FDI statistics confound "Real" and "Phantom" FDI



Standard FDI Statistics:
$100 FDI in Lux from US
$100 FDI in Germany from Lux
➔ $200 FDI globally
➔ No US-Germany FDI link

Our goal is to measure "Phantom" FDI and real investment links



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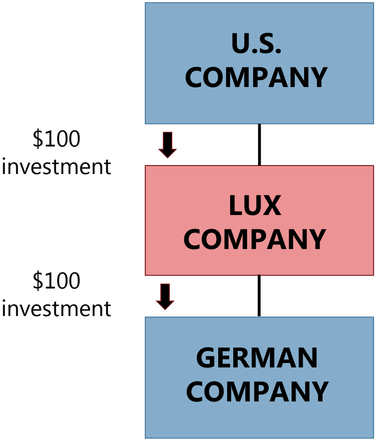
Our New FDI Database:
$100 "Real FDI" in Germany from US
$100 "Phantom FDI" in Lux
➔ $100 "Real FDI" globally
➔ $100 "Phantom FDI" globally

Our database also yields measures of *exposure* to tax avoidance opportunities



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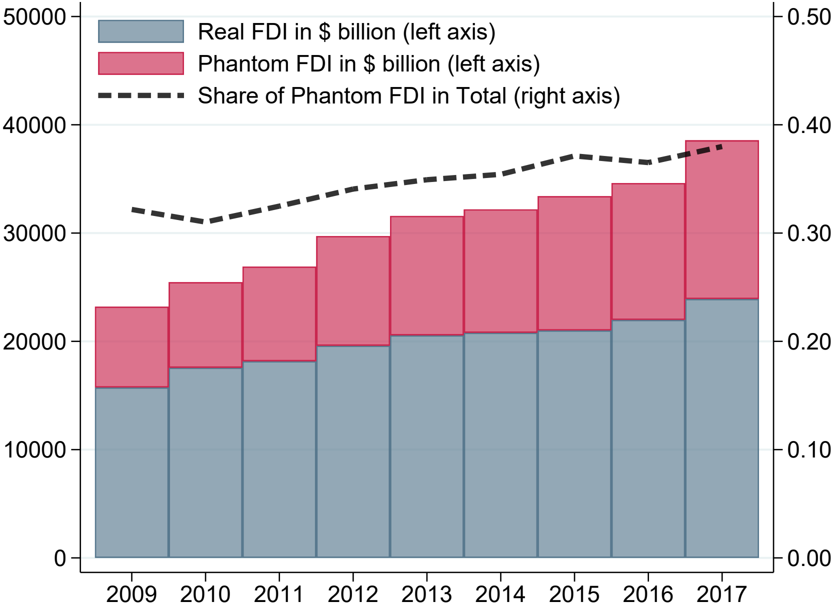
Our tax avoidance indicators
$100 US exposure from outward FDI
$100 German exposure from inward FDI

"Phantom" FDI is around $15 trillion (around 40% of Total FDI)



Method

STEP #A: complete network of standard FDI data

Use inward FDI reported by 122 countries to *Coordinated Direct Investment Survey* (CDIS)

Use mirror outward FDI when inward FDI is not available in CDIS

- Cayman Islands does not report inward FDI from Canada
- Canada reports outward FDI to Cayman Islands for $34 billion
- We set inward FDI in Cayman Islands from Canada at $34 billion

STEP #B: split Total FDI into "Phantom" FDI and "Real" FDI

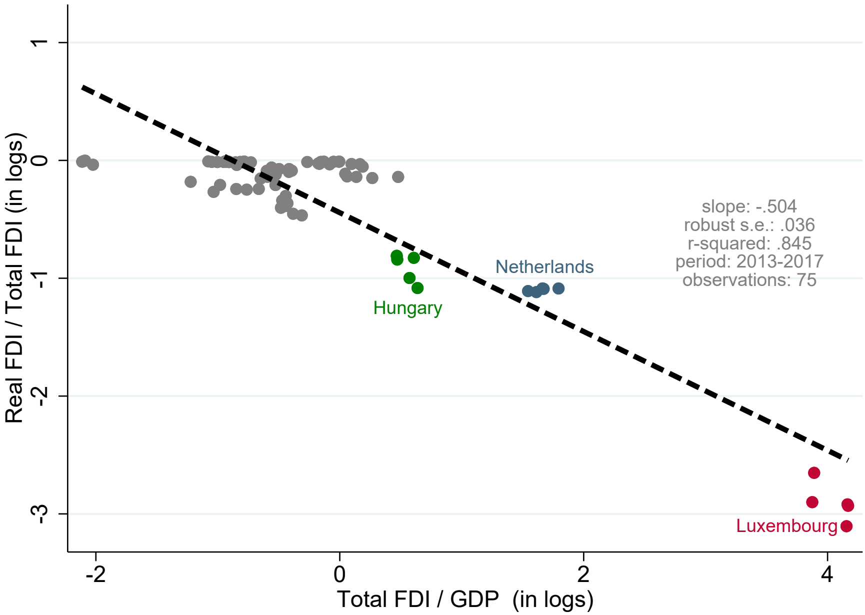
How can we estimate the split between Phantom and Real FDI for economies that do not report this?

Intuitive idea: When FDI is *large* relative to GDP, only a *small* share of it is is Real FDI

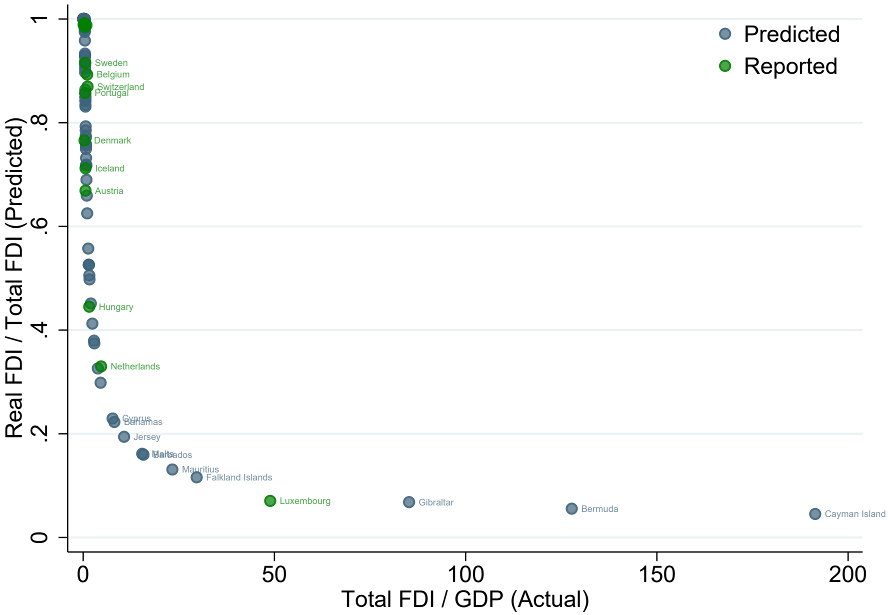
(1) Estimate structural relation between
- **"FDI intensity"** (FDI/GDP)
- **"Real FDI share"** (Real FDI/Total FDI)
for reporting economies

(2) Extrapolate to non-reporting economies

Very strong structural relationship between FDI/GDP and Real/Total FDI



We extrapolate this structural relationship to all other economies



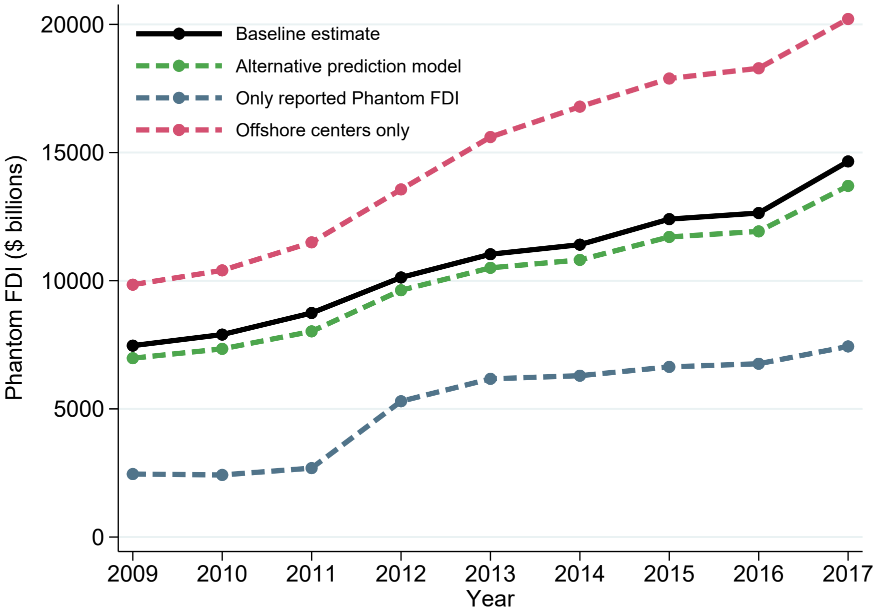
STEP #C: allocate "Real" FDI to ultimate owner economies

Use new OECD FDI data when available: some countries themselves allocate FDI to ultimate investor economies

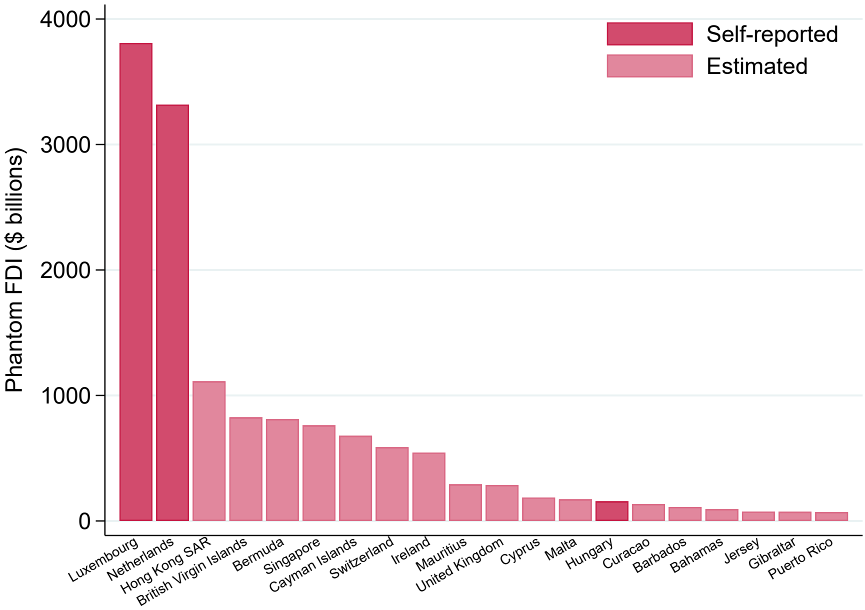
Estimate from ORBIS firm-level data when not reported:
- **standard stat**: FDI in Spain from immediate owners in US: $23 billion
- Orbis: FDI in Spain from immediate owners in US: $13 billion
- Orbis: FDI in Spain from ultimate owners in US: $29 billion
- **our estimate**: FDI in Spain from ultimate owners in US: $50 billion
(23 billion $\times$ 29/13 = 50 billion)

Findings

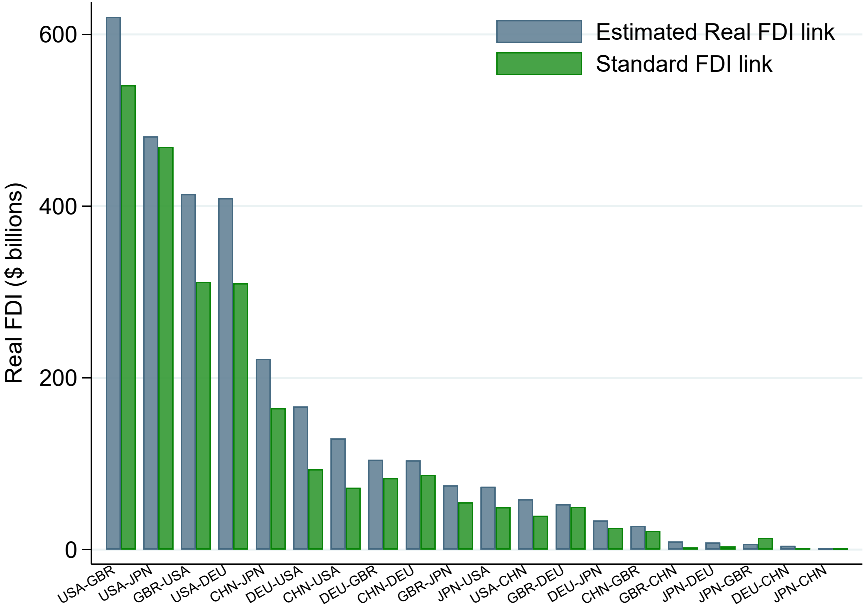
Some uncertainty but the order of magnitude is right



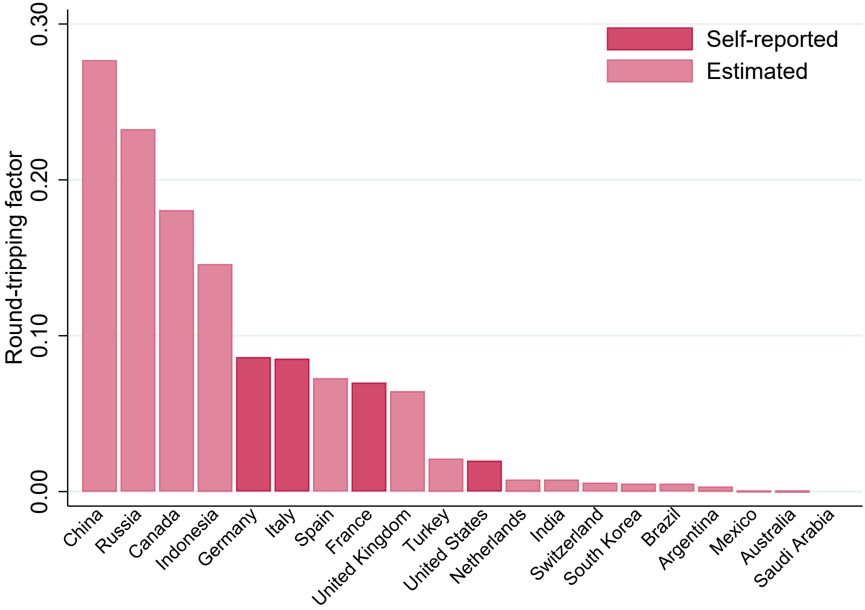
Major recipients of "Phantom" FDI are offshore financial centers



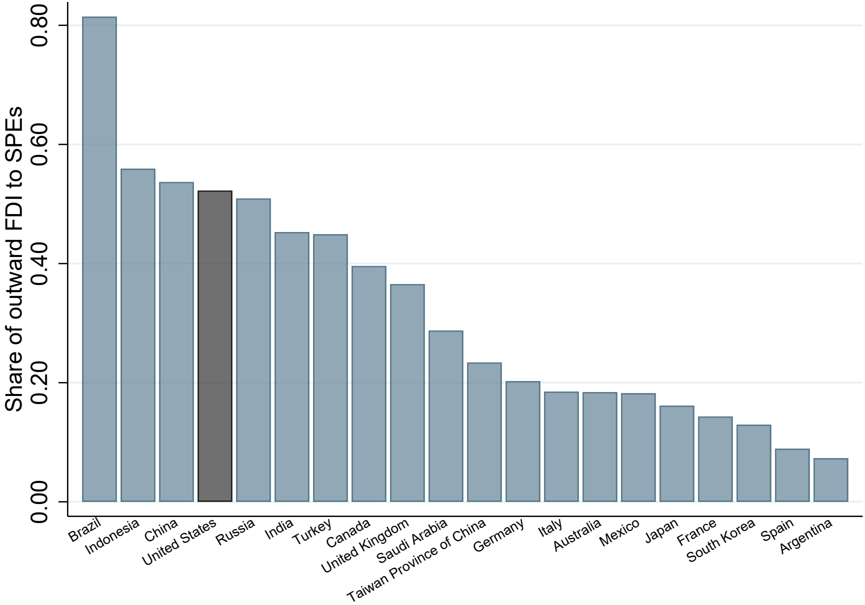
Real factors have 25% more power explaining Real FDI links



"Round-tripping" modest in Europe but large in China and Russia



Exposure to tax avoidance opportunities through outward FDI into SPEs



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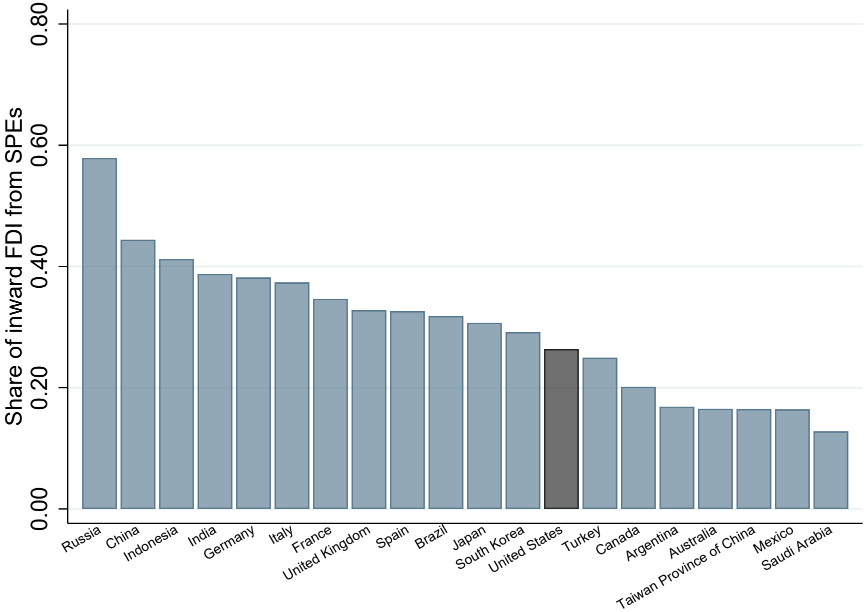

Conclusion

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"Phantom" FDI and "Real" FDI are confounded in standard FDI statistics:
- cannot assess the strength of real economic ties
- cannot gauge tax-motivated FDI into empty shells

We estimate that:
- "Phantom" FDI accounts for 40% of Total FDI globally
- vast majority of "Phantom" FDI is into OFCs
- suggestive of tax avoidance