Offshore Profit Shifting and Domestic Productivity Measurement

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Presentation Outline

- Slowdown in U.S. productivity
- This study
  - Hypothesis
  - Research design
  - Results
- Conclusions and discussion

Slowdown in U.S. Labor Productivity

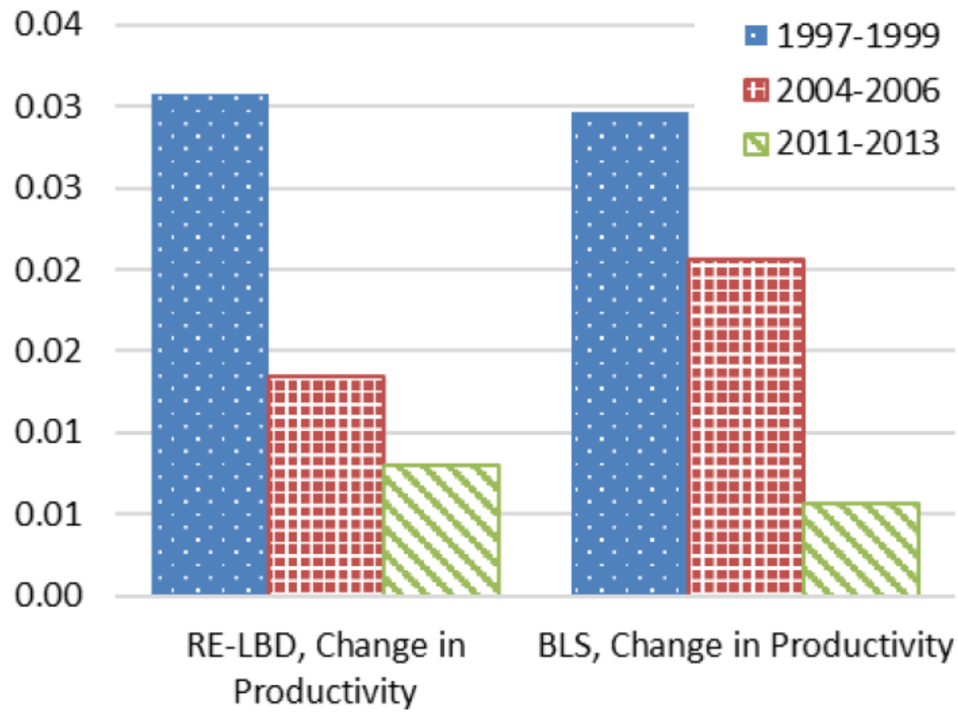


Figure A1: Annual Productivity Growth
BLS and author calculations from RE-LBD

Source: Decker, Haltiwanger, Jarmin, and Miranda (2017)

Hypothesis

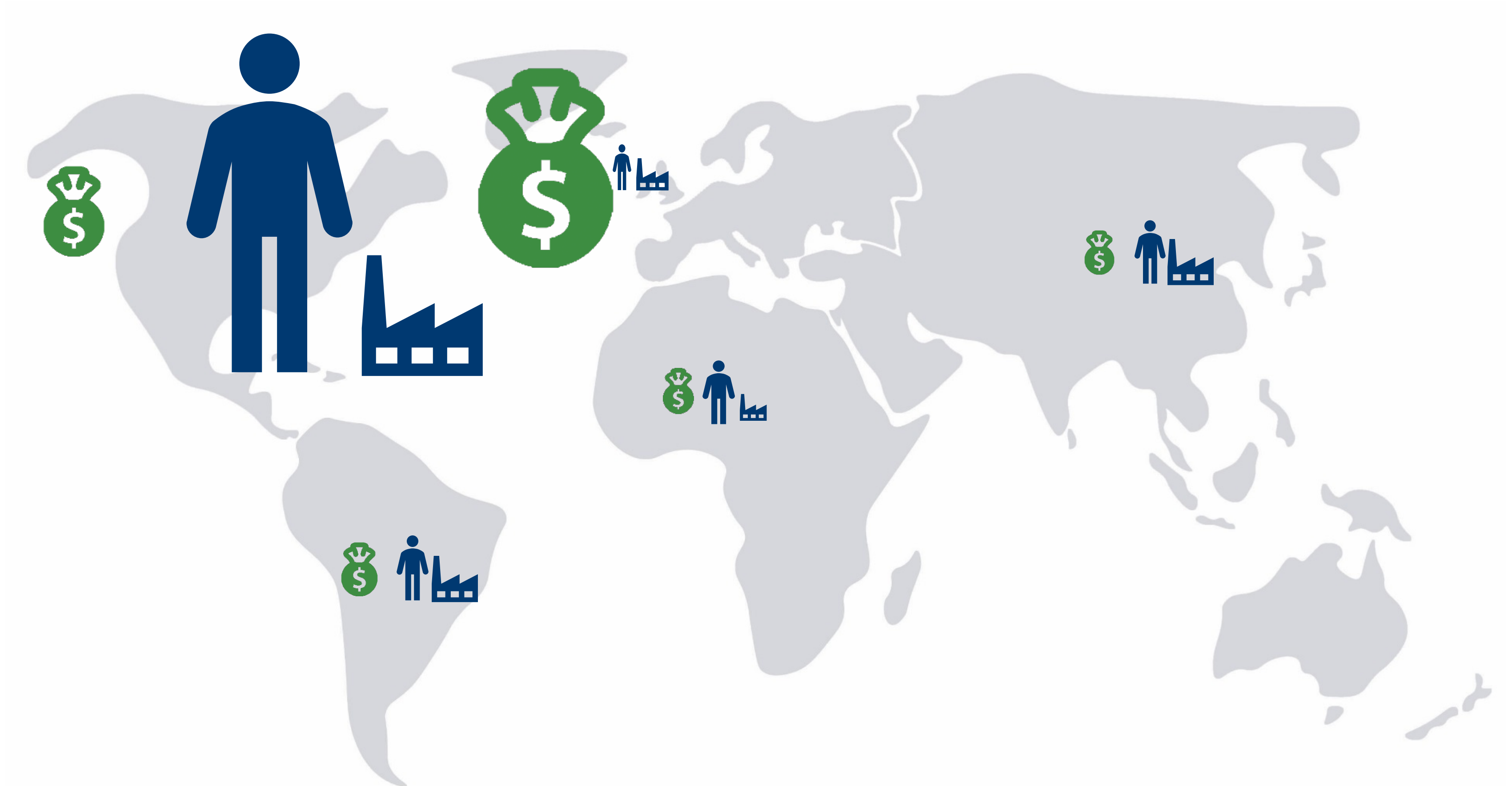
- Multinationals have moved ownership of some intangible assets from the United States to lower-tax locations
- This change has:
  - Raised measured output abroad
  - Lowered measured output in the United States
  - Contributed to the recent decrease in measurements of U.S. labor productivity

Strategic Movement of Intangible Assets

- Ownership of intangible assets transferred between units of multinationals should be valued at arm's-length prices, but may not be because of:
  - Unique assets
  - Information asymmetry between the firm and the tax authority
  - Legal contracting arrangements
    - E.g. Cost-sharing agreements

A Hypothetical Reapportionment Example

Under separate accounting **Under reapportionment**

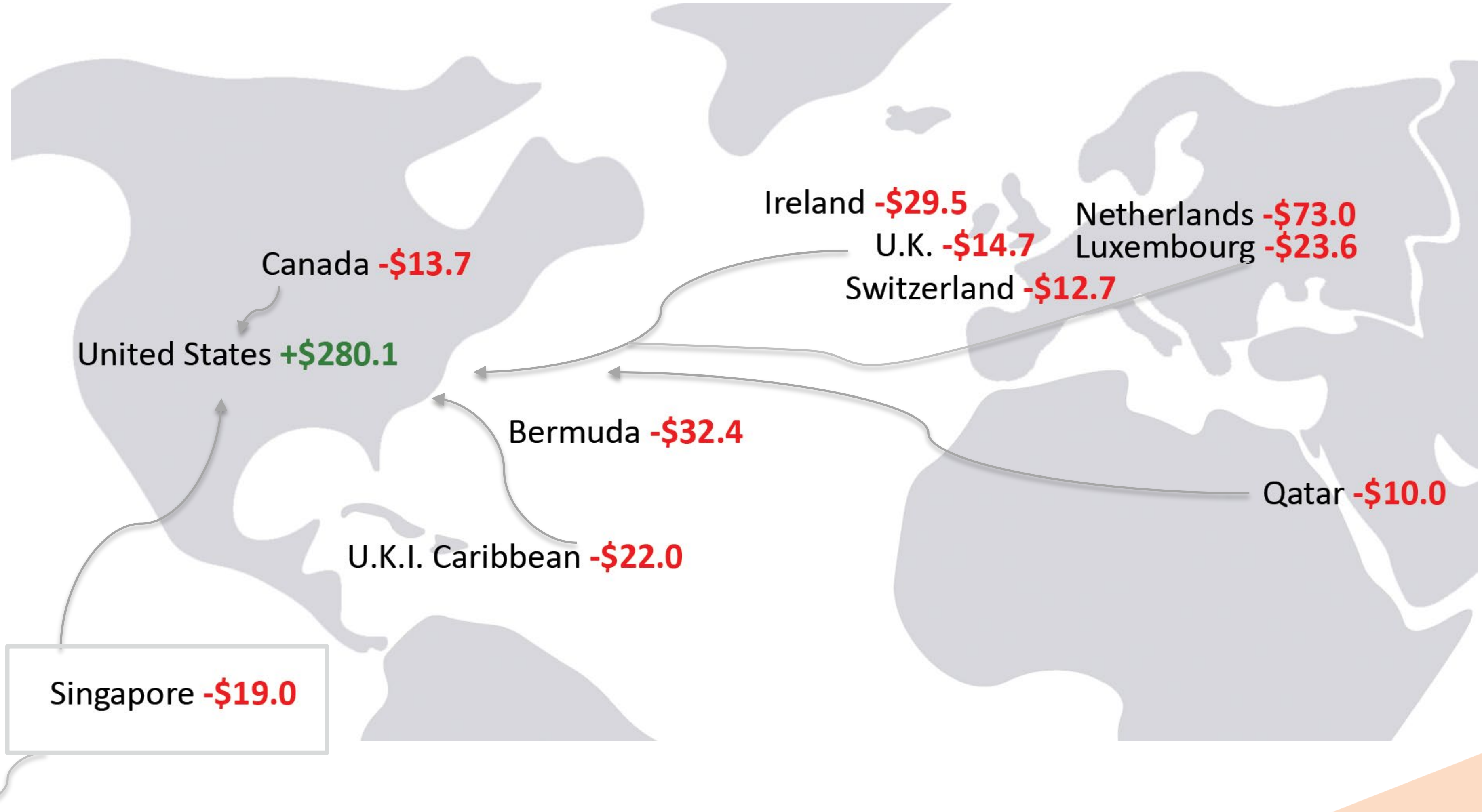


$ U.S. MNE measured profits from current production

U.S. MNE factors of production (proxied by employee compensation and unaffiliated sales by foreign affiliates)

Reapportionment of U.S. MNE Global Profits

2012 (Billions of dollars)



Reapportionment of GDP and GNP

In our reapportionment of profits …

Some profits currently recorded here

Consumption

+ **I**nvestment

+ **G**overnment spending

+ **E**xports ← Are moved here

- **I**mports

U.S. GDP

GDP

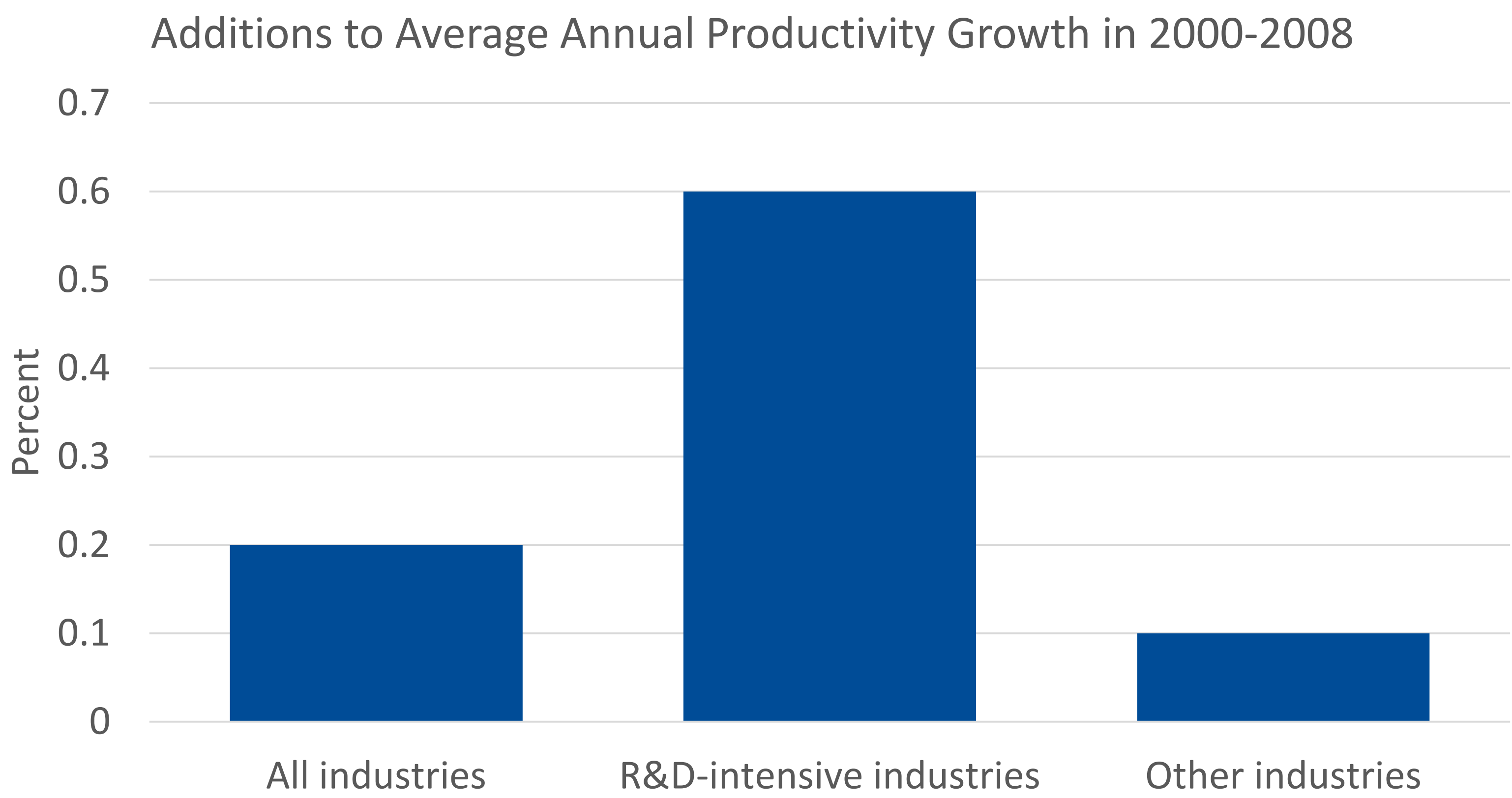
+ Receipts of income (on direct and portfolio investment) from ROW

- Payments of income to ROW

U.S. GNP

ROW = Rest of world

Reapportionment: Productivity Results



- Reapportionment reduces, but does not eliminate, the slowdown in measured U.S. labor productivity

Conclusions and Discussion

- Growing role of intangible capital and MNEs in the global economy has an increasing potential to affect measured value added
- Possible solutions (Moulton and van de Ven 2018)
  - Formulary apportionment (Guvenen et al. 2017)
    - Pro: Apportions output away from SPEs in countries of convenience
    - Con: Some output/income may be apportioned to countries where MNE activities have a low knowledge-intensity
  - Allocate IP income of SPEs of MNEs to their parent company (Rassier 2017)
    - Pro: Apportions output away from SPEs in countries of convenience
    - Con: Allocating all of the output to the home country ignores the synergies that are often created between domestically produced IP and access to local assets/customers in foreign host countries (see the following quote)

A Relevant Quote

"Direct investment is a feasible and likely choice when a domestic firm has some unique, monopolistic advantage, and (i) the advantage can be transferred abroad within the firm at little or no additional cost, (ii) it is a continuing, changing advantage and/or is in some other way inseparable from the firm's ongoing operations, and **(iii) the profit from the unique advantage is closely tied to local production or marketing techniques**."

Thomas N. Gladwin and Ian H. Giddy, "A Survey of Foreign Direct Investment Theory," The University of Michigan, Graduate School of Business Administration Working Paper #86 (November 1973): 14.

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