# Discussion: Offshoring, Terms of Trade and the Measurement of U.S. Productivity Growth

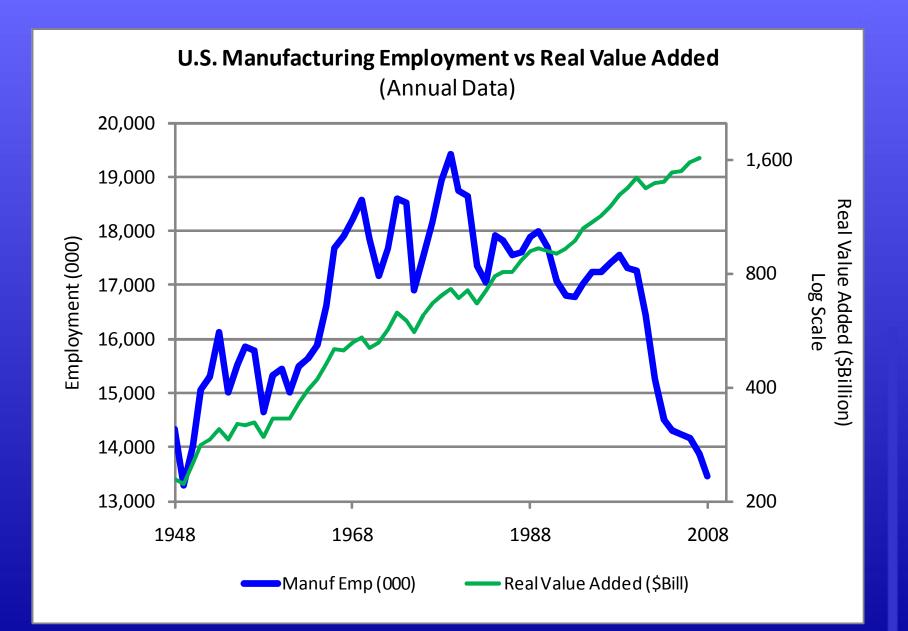
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### Disclaimer

 Any opinions and conclusions expressed herein are those of the author and do not necessarily represent the views of the U.S. Census Bureau.

### Review of Results

- Krugman (1997): "Productivity isn't everything, but in the long run it is almost everything."
- Productivity growth accelerated since 1995
- Particularly in manufacturing



### Review of Results

- Question: Is this productivity growth due to mismeasurement?
  - Of terms of trade/changes in tariff rates?
  - Of foreign input prices/offshoring?
- Under certain conditions, mismeasurement of these factors leads to mismeasurement of TFP
- Likely bias: TOT gains are understated; productivity gains are overstated

### Review of Results

- Mismeasurement accounts for 20 percent of observed productivity growth, 1995-2006
- Accounts for 15 percent of observed valueadded growth for U.S. manufacturing
- Affects national accounts and our evaluation of standard of living

### Comments

- I prefer firm-level source-switching estimates
  - Even in narrowly defined products, unclear whether inputs from advanced and developing are interchangeable
  - These are also the largest estimates
- Drawback is that sample shrinks considerably
- This gives a very good idea of international switching, but less from domestic to foreign

### **Another Data Source**

- Linked Transaction-Level Data (U.S. Census)
  - Developed by Jensen et al.
  - Transaction-level trade data
  - Linked to information on products produced and inputs consumed at manufacturers
- Quantifies firms' switching from domestic to foreign input sourcing
- And switching between foreign sources

## Toward a Solution

- Some useful information on the way:
  - Alterman (2009)
  - Feenstra and Jensen (2009)
  - Offshoring/outsourcing questions in Economic Census and Enterprise Surveys