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
U.S. Manufacturing Employment vs Real Value Added
(Annual Data)

Manuf Emp (000)  Real Value Added ($Bill)

Real Value Added ($Billion)

Log Scale

Employment (000)

Real Value Added ($Billion)
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 value-added 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