Update on New BEA Measurements of the Impacts of Globalization

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Proof of concept: 2015 presentations

- April 21: Zicklin School of Business Research Seminar, Baruch College, New York

- June 19: Washington, DC Global Value Chains Meeting, Washington, DC

- June 23-26: International Input-Output Association, Mexico City, Mexico

- July 9: Group of Experts on National Accounts: Measuring Global Production, UNECE, Geneva, Switzerland

- July 16: EcoMod2015, Boston College, Chestnut Hill, MA

- Oct. 12-14: OECD Expert Group on Extended Supply-Use Tables, Paris

- Oct. 15-16: OECD Interagency Task Force on International Trade Statistics, Paris

- Oct. 19-21: OECD Technical Workshop on Foreign Direct Investment and Global Value Chains, Paris

- Nov. 2-4: Second Meeting of the APEC Technical Group on Measurement of TiVA in Shanghai, China

- Nov. 13: BEA Advisory Committee, Washington, DC

Supply-use tables: New for the United States

- Released in September, 2015 in BEA's *Survey of Current Business* and updated in November, 2015
  - http://bea.gov/scb/toc/0915cont.htm
- Estimates are at the 71-industry level detail and cover the period 1997-2014
- Estimates will continue to be revised and the time series extended during future annual revisions

Supply-use tables: Estimation methodology

- Rearrangement of make-use tables

- International standard for TiVA analysis

- Consistency in valuation:
  - Gross output and value added in basic price valuation
  - Imports in CIF (cost plus insurance and freight) valuation

Supply-use tables: Why do they matter?

- Consistency with the international standard

- Consistency among national tables is a prerequisite for linking

- Linking is a requirement for TiVA analysis

Firm-level heterogeneity: Proof of concept

Multinational		Non-multinational
Domestic owned	Foreign owned	
Based on BEA data	Based on BEA data	Based on tax data

Firm-level heterogeneity: Why Does it Matter?

- Current TiVA indicators assume firm homogeneity within industries

- But, even within narrowly defined industries, firms can have:

  - Different product choices

  - Different production technologies

- The homogeneity assumption affects TiVA measures

  - The foreign share of exports is likely to be under-estimated.

- Accounting for heterogeneity can reveal policy-relevant information on the contribution of different actors to global value chains

Firm-level heterogeneity: Multinational firms account for bulk of trade
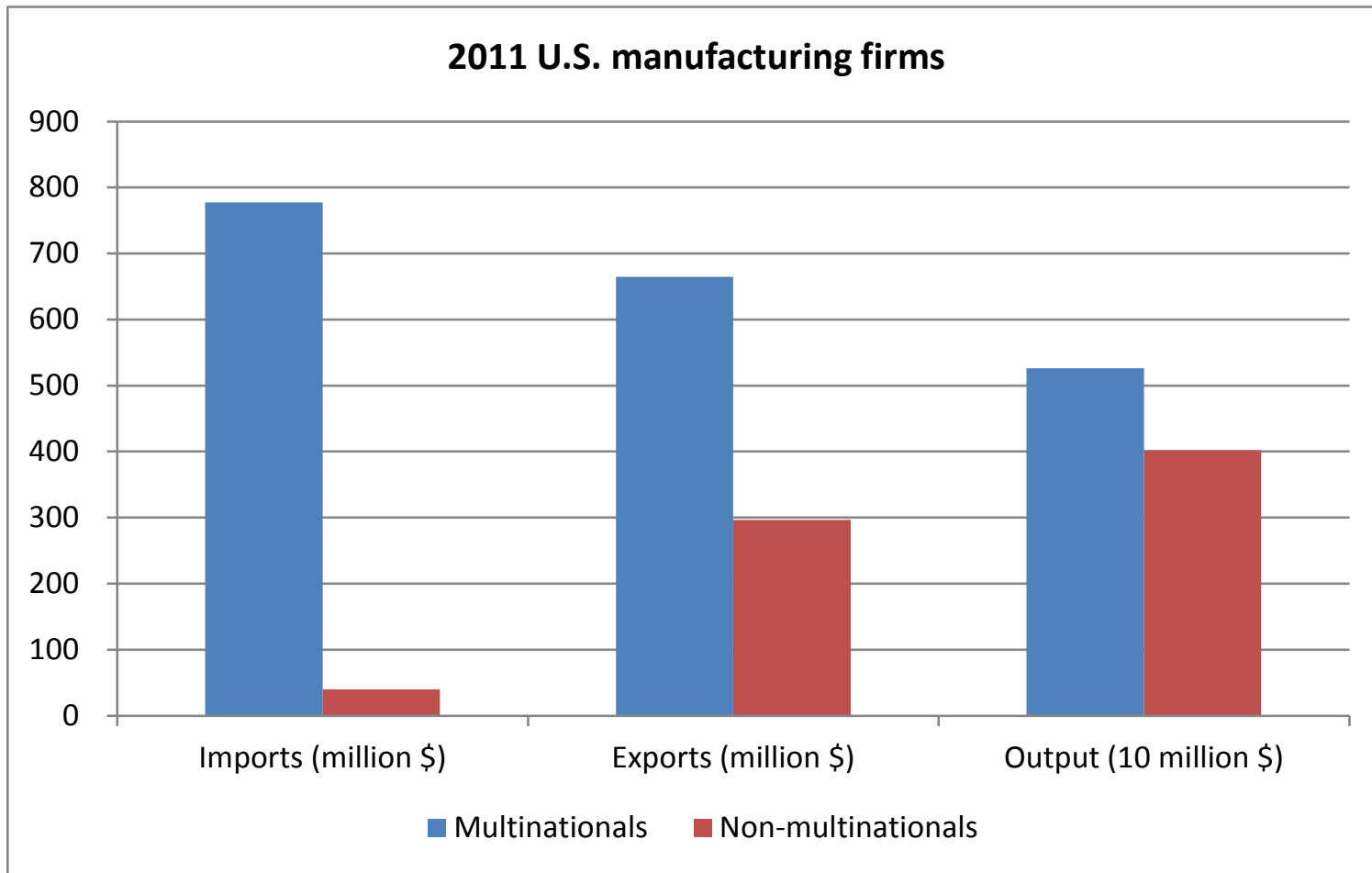
2011 U.S. manufacturing firms

Source: James J. Fetzer and Erich H. Strassner, ,"Identifying Heterogeneity in the Production Components of Globally Engaged Business Enterprises in the United States"
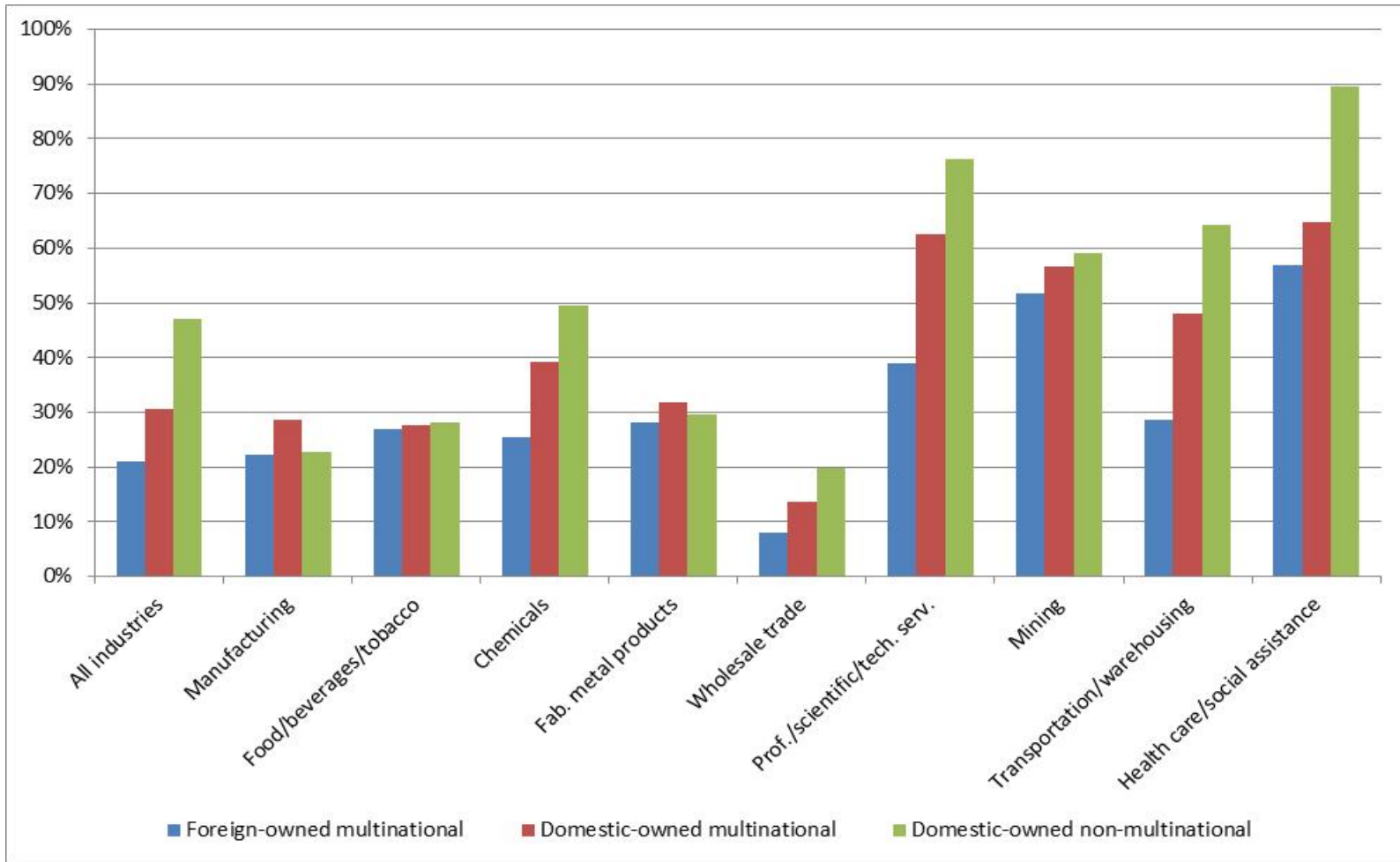
Firm-level heterogeneity: Multinational heterogeneity

Output supply and use for all private industries, 2011 (percentage of total output)		Multinational		Non-multinational
		Domestic-owned	Foreign-owned	
Output supply	Intermediates	69	79	53
	Value Added	31	21	47
Output use	Exports of goods	6	9	3
	Other final uses	94	91	97

Firm-level heterogeneity: Import share of exports

Output supply and use for manufacturing , 2011 (millions of $)		(current method) All firms	(future method)		
			Multinational		Non-multinational
			Domestic-owned	Foreign-owned	
Output supply	Domestic intermediates and imported services	6,146	2,189	886	3,071
	Imported goods	817	482	295	40
	Value Added	2,320	1,072	337	911
Output use	Exports of goods	961	465	200	296
	Other final uses	8,322	3,278	1,319	3,725
Output		9,283	3,743	1,519	4,022
	Import share of exports*	9%	13%	19%	1%
	*Equals import share of output				

Firm-level heterogeneity:
Value added as a share of output
BEA
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U.S. DEPARTMENT OF COMMERCE

Source: James J. Fetzer and Erich H. Strassner, ,"Identifying Heterogeneity in the Production Components of Globally Engaged Business Enterprises in the United States"

- Reasonable results from enterprise-level proof-of-concept analysis

- Multinational/ownership type appears to capture firm heterogeneity

- Results foreshadow long-run challenges
  - e.g., Larger difference in value added for some industries compared to others

Firm-level heterogeneity: Long-run linking project

- Data sets to be linked
  - Census Bureau
    - Economic censuses (and annual surveys)
    - Trade in goods
  - BEA
    - Activities of multinational enterprises
    - Trade in services
- Interagency agreement
- BEA & Census economists starting soon to link data

Next steps

- Joint project with U.S. International Trade Commission (USITC) to prepare extended SUTs (2016)

- Enhanced supply-use tables:

  - Consistent with international standard industrial classification (ISIC)

  - Separate domestic and import use tables valued at basic prices

- Begin Census-BEA linking project-(5 year project)

- Continue international engagement:

  - OECD Expert Group on Extended Supply-Use tables

  - Asia-Pacific Economic Cooperation TiVA project

  - North America Initiative with Canada and Mexico (2018)