Panel Discussion: GVC Measurement Methodology – Challenges and Prospects

Francisco Moris, Ph.D.

7 May 2021

National Center for Science and Engineering Statistics

Social, Behavioral and Economic Sciences

National Science Foundation

Outline: Global Value Chains and Intangibles Measurement

I. Methodology session in context: USA and int'l work
II. Session papers: Where the papers fit in the GVC data space
III. Measurement challenges & opportunities
IV. Principles & integrative framework for "*methodological research agenda*" on GVCs and intangibles

I. Session in Context – Globalization & Intangibles

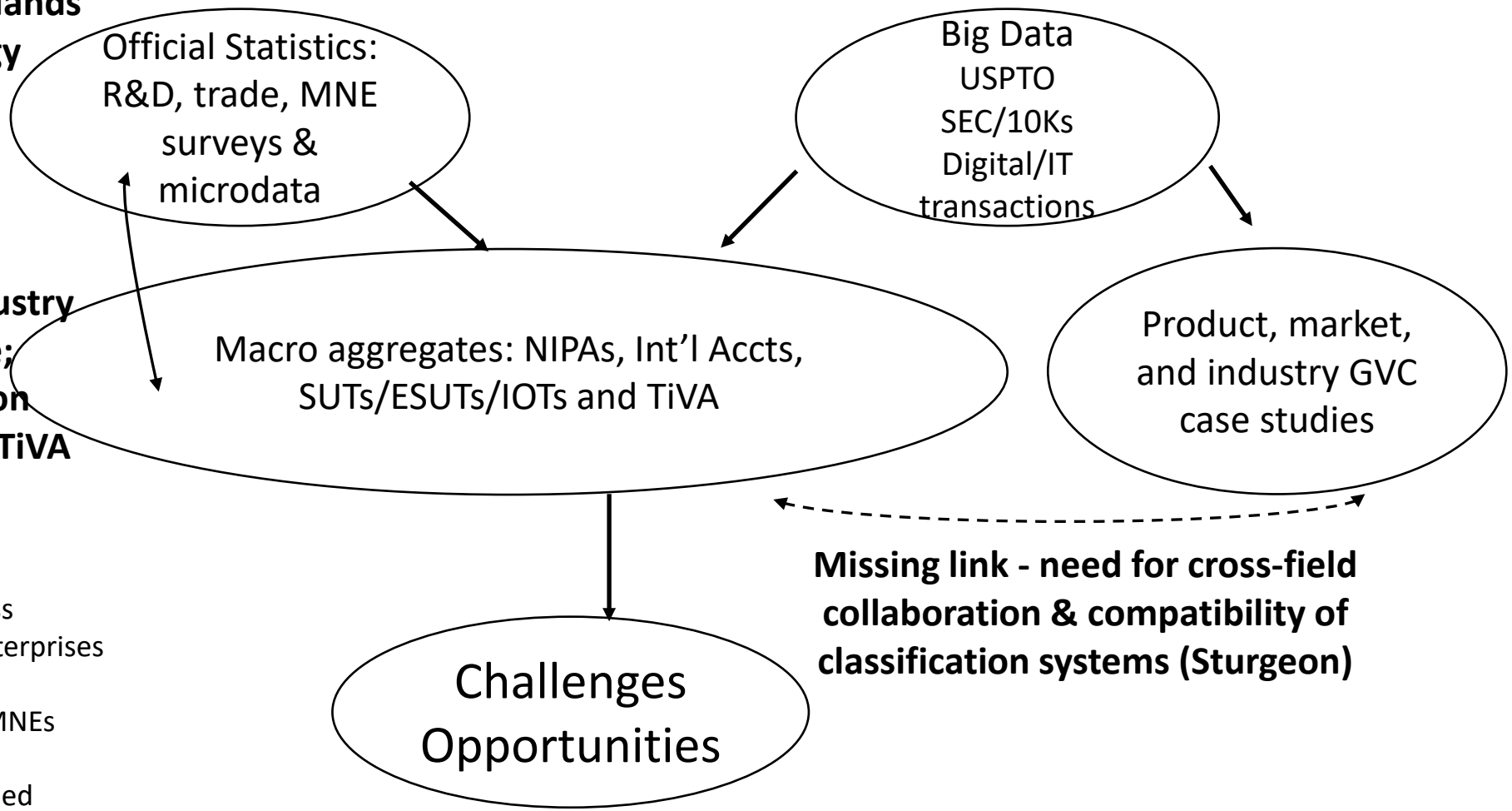
- NBER "*International Trade in Services and Intangibles in the Era of Globalization*" (2006, 2009)
- NAPA-Upjohn-BEA "*Measurement Issues Arising from the Growth of Globalization*" (2009, 2010)
- Sloan-Upjohn "*Measuring Globalization: Better Trade Statistics for Better Policy*" (2013, 2015)
- CRIW/NBER "*The Challenges of Globalization in the Measurement of National Accounts*" (2018, 2020)

Session in Context – Globalization & Intangibles: international manuals

- 2008 SNA: R&D as investment, national/international accounts; BEA/NCSES R&D Satellite Account & BEA NIPA 2013 Comprehensive Revision
- 2009 Balance of Payments (BOP) and International Investment Position Manual (BPM6); Table 10.4. Treatment of Intellectual Property
- 2010 Handbook on Deriving Capital Measures of Intellectual Property Products; chapter 2 R&D; chapter 4 Software/Databases
- 2010 Manual on Statistics of International Trade in Services (MSITS) – FATS and R&D Services; Annex: EBOPS (Extended BOP Services)
- 2011 Impact of Globalisation on National Accounts; chapter 7 on IPPs
- 2015 Guide to Measuring Global Production; chapter 4 on IPPs
- 2015 OECD Frascati Manual; new R&D globalization chapter

II. Session papers in the GVC-data space

Statistics Netherlands GVC methodology work (Lemmers)



BEA-BLS KLEMS Industry statistics & VA trade; NCSES-BEA project on intangibles in SUTs/TiVA (Samuels)

Missing link - need for cross-field collaboration & compatibility of classification systems (Sturgeon)

IB International Business
MNEs Multinational enterprises
SUTs Supply-Use Tables
ESUTs Extended SUTs/MNEs
IO Input-Output
TiVA Trade in Value Added

III. Measurement challenges

Even though 'R&D' definition is based on Frascati in the SNA and in other manuals, there are practical issues for any survey or macro aggregate dealing with globalization and intangibles:

- Organizational complexity: not only MNEs but global production arrangements (Guide Measuring Global Production 2015 UNECE)
- IPP production (supply) vs. use and ownership – joint production & use of intangibles obscures 'who' benefits and 'where'; (BPM6 exchanges/transfers & Guide Measuring Global Production 2015)
- Classification: what is the focus of the transaction- current-year 'R&D'? IPP charges from past R&D? or other intangible? Is it property income or payment for services? (Nadim Ahmad IPP chapter #7.21 in 2011 UNECE Handbook).
- Valuation: how close is the reported value to arms-length transaction (OECD transfer price guidance)

Opportunities

- Intra-country collaboration

among national statistical agencies (R&D, national accounts, trade/FDI, employment) and with administrative/Big data centers (patent or trade agencies; web transactions)

  - survey development
  - concordance of business/MNE registers
  - large scale data linking & integrated business statistics programs
  - IPPs in national & international accounts aggregates

- International collaboration: bilateral/regional or within int'l orgs
  - Implementing IPP material in cited globalization manuals
  - Classification systems: three-way concordance among MSITS/EBOPS 2010, CPC (Product Classification), and new Business Functions platform
  - WGs related to SNA research agenda

IV. Principles and integrative framework – methodological research agenda on GVCs and intangibles

- Future work may build on international research agendas & collaboration (OECD, IMF, WTO, UN Statistics Division, UNECE)
- Explore consensus on priorities & feasibility for different challenges – possible integrative framework:

Principles and integrative framework – methodological research agenda on GVCs and intangibles (2)

Domains: / Issues: *priorities/timeframe*	R&D/STI indicators (e.g. MNE IPPs)	Services trade/ GVCs (outsourcing, intra-MNE flows)	SNA/NIPA aggregates (SUTs/TiVA)
* Challenges and Research Questions			
high-medium-low			
* Possible Methods			
high-medium-low			
* Implementation issues			
near-medium-long term feasibility			