Developing a New System of Extended International Accounts: Implications and Challenges

Steve Landefeld

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Response to UNSC 2014 Charge

• Pull together a multitude of measurement challenges in the area of trade and globalization through:
  – Creation and coordination of an overarching measurement framework
  – That addresses measurement challenges associated with trade, financial, environmental, and social integration around the globe.
Response to UNSC 2014 Charge

– Special attention to integration, data gaps, best practices, conceptual development, resources, coordination, data collection and sharing, and the protection of confidentiality.

– Specific challenges include the measurement of value-added, income, and employment from global production chains, intra-firm trade, foreign ownership and control, manufacturing services, and transfers of intellectual property
Overview

• Existing international statistics have not kept up with globalization
  – Remain invaluable, but need extension to improve understanding and public policy
  – Critical need to “look-through” complex global production and financial transactions

• Based on:
  – SNA and BPM
  – Integration and reconciliation
  – New accounting concepts and measures including global supply and use tables and integrated real and financial accounts
Accelerating Globalization

• Firms maximize production efficiency and minimize global tax burdens by organizing across national boundaries
  – Advances in technology and communication and reductions in shipping costs have accelerated pace of global production.
  – Increased international trade, global growth, and productivity, but have caused significant problems for the measurement of economic activity.
Value-Added Trade

• Increasing globalization has led to increasing volume of double counting in both the real and financial sector.
  – Traditional trade measures count gross flows as exports and imports each time they cross international borders
  – Gross flows often do not reflect the value-added of the exporting country in the production of the goods or services.
FIGURE 1: Gross vs. Value-Added Trade Flows

United States → China: Exports: $100m Intermediate Inputs

China → United Kingdom: Exports: $110m

United Kingdom → United States: Value Added: $10m

Value-added: $100m
Integrated Financial Accounts

• Similarly, in the financial sector, increasing complexity and the global nature of financial transactions has resulted in a system where official statistics can provide a misleading picture of the ultimate cross-country financial risk.
Figure 2 BOP Financial Flows vs. Ultimate Creditor/Debtor

United States → UK

- Increase in U.S. Liabilities: $100b bond

UK → Germany

- Increase in U.K. Liabilities: $100b bond
- Value Added: $6b commission

Germany → United States

- Ultimate Debtor: $100b increase in U.S. liabilities to Germany
Architecture for Extended System of International Accounts

• Core of National and Balance of Payments Accounts:
  – Consistent with SNA and BPM
  – Complete accounts including balance sheets
  – Integrated, reconciled, and internally and externally consistent (UN Guidelines for Integrated Economic Statistics, SNA, BPM, etc)

• Integrated global supply and use and real and financial accounts
  – Trade in value added accounts (Income and employment)
  – Integrated real and financial accounts (Ultimate beneficial owner or ultimate creditor/debtor)
Encouraging Trade, Data, Growth, and Competiveness Through More Relevant and Accurate Data

• Better target public policy and inform public perceptions
  – Drilling down beneath gross-counterparty trade and investment flows provides a more accurate, and relevant picture of the underlying pattern of economic activity across countries.
  – A fuller picture of the critical dependencies and benefits that arise from global production and trade provides an improved basis for public understanding of the dynamics of global trade and investment and for public policy.
## iPhone Study

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
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<tbody>
<tr>
<td>Value of inputs from U.S. shipped to China (included in U.S. exports)</td>
<td>$10.75</td>
</tr>
<tr>
<td>Value of inputs shipped to China from other countries</td>
<td>$161.71</td>
</tr>
<tr>
<td>Manufacturing costs to China</td>
<td>$6.50</td>
</tr>
<tr>
<td>Wholesale value of iPhone shipped to U.S. (included in U.S. imports)</td>
<td>$179</td>
</tr>
<tr>
<td>Retail value of iPhone sold in U.S. stores (included in PCE)</td>
<td>$499</td>
</tr>
</tbody>
</table>
Incomplete Picture of Dependencies and of “Lost” Jobs, Incomes, and Taxes

• Exporting jobs to China? (OECD estimates)
  – China's bilateral trade with the United States 1/3 smaller on a value-added basis than on official gross flows
  – One third of the content of China's exports comes from foreign inputs.

• Assembly and processing of electronic components and products contributed to rise in the foreign content of Chinese exports from 12 percent in 1995 to 33 percent in 2009
Incomplete Picture of Dependencies and of “Lost” Jobs, Incomes, and Taxes

• Large range on foreign content of countries exports, but significant across countries (OECD).
  – At the upper end -- with foreign content of roughly 40 percent or more -- are Luxembourg, Singapore, Slovakia, Ireland, and Taiwan.
  – At the lower end -- with foreign content of roughly 10 percent or less -- are such countries as the United States, Brazil, Russia, and Saudi Arabia.
Importance of Global Trade to Domestic Non-Export Industries

• Services account for over half of total value-added exports for the United States, the United Kingdom, France, Germany and Italy (OECD).
  – Includes management, design, R&D, logistical, legal, financial, and other services that are inputs into exports.

• Also, significant domestic transportation, wholesaling, advertising, and financing services involved in selling imported final goods and services imports.
  – Based on the average services margin on U.S. domestic goods, domestic services could account for 15% of the final retail value of imported goods.
What Numbers Will and Will Not Change with Value-Added Estimates?

• Value-added measures will not change overall trade balances but will change bilateral balances.
  – Will lower bilateral trade deficits with countries near the end of the value-added processing chain and those assembling final goods and services
  – Also will lower with neighbouring countries that are the conduit for trade.
  – Will raise with countries further up the supply chain that provide inputs to countries involved in final assembly and processing

• Value-added estimates, by eliminating double-counting of trade, will also lower total exports and imports
Trade and Investment Policy

• Examples where value-added data would help
  – EU trade sanctions against footwear made in Asia when as much as 80% of the valued-added from Asian-made footwear estimated to originate in EU.
  – More extreme U.S. concerns over trade with China and “offshoring”
    • U.S. value added in Chinese imports, other country value-added in Chinese imports; and
    • U.S. domestic services value-added in final sales of imports
Unfair Trade Practices Cases, IP Protection, Subsidies, and Guaranteed Loans

• Significant costs:
  – Direct costs to government and taxpayers, higher costs to importers, and higher prices of imported goods for consumers.
  – Costs can only be justified if there is a significant economic harm
    • As illustrated by examples and OECD and other estimates, gross trade flows incomplete guide, especially for specific industries and products, of these costs.
Tax Policy

• Large value-added benefits to parent-company countries and domestic non-traded goods sectors (services) ignored in static tax analysis.
  – Changes in tax law that ignored these benefits might not only reduce (rather than raise) net domestic tax receipts, but lower domestic production and employment.

• Integrated financial accounts and formulary accounting would also improve ability to “look through” transactions and identify true geography of economic benefits.
  – Over 40% of U.S. Foreign Direct Investment through tax havens
Financial, Regulatory, and Macro Policy

– Lessons of Financial Crisis (EU underestimate of U.S. subprime exposure)
– Lessons of the Great Recession (Macro-prudential policy)
– Setting long-term targets for inflation, sustainable growth, and productivity: Addressing globalization measurement biases
Other Policies and Uses that Would Benefit from Extended International Accounts

• Environmental and Energy Policies

• Critical Materials, Food Safety, and National Security

• Business and Financial decisions
Improving the Accuracy and Efficiency of the Existing System of Economic Accounts

• Maximizing “Bang for the Buck”
  – Improving existing core statistics and basis for global supply and use, value-added, financial and other extended international accounts
  – Standardizing, harmonizing, reconciling, centralizing, using common forms, classification, and business registers, data matching (micro and aggregate), using “big data”
  – Moving from indirect estimates to direct survey collection
  – Resolving key measurement problems
<table>
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<tr>
<th>Global phenomenon</th>
<th>National accounts items most affected</th>
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<tbody>
<tr>
<td>Arrangements within MNEs, including transfer pricing</td>
<td>Allocation of Gross value added (GVA)/GDP across countries; international trade in goods and services; investment income and financial flows</td>
</tr>
<tr>
<td>FDI relationships</td>
<td>Investment income and financial flows; i.i.p.</td>
</tr>
<tr>
<td>Special purpose entities (SPEs)</td>
<td>GDP in relation to GNI, International trade in services; investment income and financial flows; i.i.p.</td>
</tr>
<tr>
<td>Goods sent abroad for processing</td>
<td>GVA/GDP; international trade in goods and services</td>
</tr>
<tr>
<td>Merchanting</td>
<td>International trade in goods (and possibly services)</td>
</tr>
<tr>
<td>IPPs</td>
<td>GVA/GDP; capital formation; international trade in assets and related services</td>
</tr>
<tr>
<td>Quasi-transit trade</td>
<td>GVA/GDP; international trade in goods</td>
</tr>
<tr>
<td>International labour movement and remittances</td>
<td>GDP; GNI; gross national disposable income; international transfers</td>
</tr>
<tr>
<td>Ownership of property abroad</td>
<td>International trade in services; investment income and financial flows; i.i.p.</td>
</tr>
<tr>
<td>Internet trading</td>
<td>International trade in goods and services; household consumption</td>
</tr>
<tr>
<td>Limitations of national data collections</td>
<td>Imports, import prices, GDP/GVA, and Productivity</td>
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**Table 1 Globalization factors and the most affected main national accounts items**

*Source: UNECE, Eurostat, and OECD, The Implications of Globalization on National Accounts, United Nations, 2011*
Improving the Accuracy and Efficiency of the Existing System of Economic Accounts

• Increases in Costs and Respondent Burden
  – Getting maximum bang for the buck; incremental approach
  – Convincing users and policymakers

• Harmonizing official economic statistics, government, business, and financial accounting systems

• Expanding outreach programs
  – Addressing concerns of trade sensitive sectors
Developing a Work Program for A New Extended System of International Accounts

• Concepts and Scope:
  – Resolving key issues relating to scope and supplementary accounts
    • Focusing on global supply and use tables and consolidated financial accounts

• Methods:
  – Reconciling and improving core source data
  – Expanding, reconciling, and refining existing indirect VA estimates
  – Beginning work on harmonizing accounting standards, data exchanges, common registers, use of big data, and direct VA data collections
Developing a Work Program for A New Extended System of International Accounts

• Organizing for Implementation:
  – Incentives and relative strengths
  – Representative country participation and key country leadership key
  – Strong management component
Questions for Discussion

• What should the scope for a new extended system of international accounts?

• What priority should be accorded to a new extended system of international accounts relative to other needed efforts to maintain and update the existing sets of economic accounts?

• Given respondent burden and resource constraints, what is the best way to proceed in developing an extended set of international accounts?
  – Should the focus be on direct survey estimates or indirect estimates using expanded supply and use tables?
  – Are indirect estimates good enough for most policy uses?
Questions for Discussion

• Is it realistic to think that efforts to develop expanded international accounts can be integrated with efforts to improve the existing Trade, Balance of Payments, and National Accounts?

• What is the best strategy for rolling out, and garnering support for, an extended system of international accounts?