1. Background.
1.1. The initiative

- Joint OECD-WTO Initiative
- OECD: joint initiative between
  - Trade Analysts
  - Science, Technology and Industry Specialists
  - Statisticians
- Combines:
  - Trade perspective
  - Global Value Chains
  - New multi-purpose statistical information tool
1.2. Basic idea

• GVCs have become dominant feature of world economy

• Traditional data on gross exports and imports may create ‘misleading perceptions’ about role of trade

• Gross Trade statistics
  • typically reveal a low contribution to overall trade by the service sector (less than 25%), and
  • cannot reveal whose final consumers drive supply
  • cannot reveal where the creation of value-added (wages and profits) occurs

• TiVA tracks the direct and indirect flows of value added associated with international trade
2. The method.
2.1. Method

• **Input-Output tables show how goods and services flow through the economy**
  – Which industry produces what?
  – Who purchases production and imports?
    • Other industries, consumers, exports

• **Global IO table combines**
  – OECD: IO tables for 58 countries and 37 industries (more than 95% of world GDP)
  – Bilateral trade data for the flows
2.2. Method (contd.)

- Global IO Table for TiVA covers:
  - 34 OECD countries + Brazil, China, India, Indonesia, Russia, South Africa + RoW
  - 18 industries

- Dimensions: industries, countries, years

- Highly data intensive
2.3. A note of caution

• Estimates and assumptions necessary:
  – Inconsistencies in national bilateral trade data
  – Assumptions about similar behaviour of exporting and non-exporting firms within industries

• Results are ESTIMATES

• More work ahead on data
2.4. Key Indicators

- Composition of gross exports by industries:
  - domestic VA
    - Direct
    - Indirect
    - re-imported
  - foreign VA by source country;

- The services content of gross exports by exporting industry (broken down by foreign/domestic origin);

- Bilateral trade balances based on flows of value-added embodied in domestic final demand;

- Share of intermediate imports embodied in exports, as a percent of total intermediate imports.
3. What does the first release tell us?
3.1. No surprise: contents of domestic value-added rises with natural resource endowments and country size
3.2. Services matter, whether considered by country...

Services Value-Added: % of exports, 2009
3.3. …or by industry

Services share of gross exports in goods, all countries, 2009
3.4. Exports require imports

**Transport equipment**

**Electronics**
3.5. … a significant share of total intermediate imports is used in exports
3.6...and Value-Added often returns

![Bar chart showing Returned Domestic Value-Added as a percentage of total intermediate imports in 2009 for various countries. The chart shows China has the highest value-added returns, followed by the USA and Germany. The values vary from about 1% to 8%.](chart.png)
3.7. China – changes in balances

US-China VA trade deficit about 25% less than gross trade deficit.
3.8. Japan – changes in balances
value-added minus gross, USD millions, 2009

- China
- Korea
- Germany
- Canada
- United Kingdom
- Indonesia
- Rest Of the World
- Australia
- United States
3.9. US – changes in balances
value-added minus gross, USD millions, 2009

The graph shows the changes in balances (value-added minus gross) for various countries in 2009, measured in USD millions. The values range from approximately -60,000 to 47,000, with China showing a significantly higher positive value compared to other countries.
5. Way forward.
5.1. What’s ahead?

• Continued improvement in quality:
  – Reconciling gross trade goods and services inconsistencies in collaboration with NSOs
  – Better disaggregation of sectors, in particular with more detail on exporting and importing firms and their cost structures
  – Better data on services

• More countries, industries, years, indicators
5.2. What’s ahead?

• Comprehensive report on policy implications of GVCs at **OECD Ministerial Meeting May 2013**:  
  • Covering trade policy, investment policies and other domestic policies aimed at drawing benefits from engagement in GVCs.

• **Further ahead**
  • Trade in jobs
  • Trade in Income
5.3. Beyond TiVA

• Global IO – trade information system also for other policy questions, for instance:
  
  • environment: footprints
  • technology diffusion: embodied R&D etc
6.1. How to access information

OECD TiVA Web Page
www.oecd.org/trade/valueadded

WTO Made in the World Initiative:
http://www.wto.org/miwi

For questions: Tiva.contact@oecd.org
6.2. Example by industry & country

Dataset: Trade in Value Added OECD-WTO

<table>
<thead>
<tr>
<th>Industry</th>
<th>Australia</th>
<th>Czech Republic</th>
<th>France</th>
<th>Germany</th>
<th>Japan</th>
<th>Korea</th>
<th>New Zealand</th>
<th>United Kingdom</th>
<th>United States</th>
<th>Brazil</th>
<th>China</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL: TOTAL</td>
<td>12.4</td>
<td>38.7</td>
<td>25.7</td>
<td>25.4</td>
<td>14.9</td>
<td>39.6</td>
<td>19.2</td>
<td>17.0</td>
<td>11.4</td>
<td>8.6</td>
<td>28.5</td>
</tr>
<tr>
<td>01T05: Agriculture, hunting, forestry and fishing</td>
<td>8.8</td>
<td>22.7</td>
<td>17.4</td>
<td>17.3</td>
<td>8.4</td>
<td>16.0</td>
<td>16.1</td>
<td>14.8</td>
<td>11.5</td>
<td>5.7</td>
<td>15.1</td>
</tr>
<tr>
<td>10T14: Mining and quarrying</td>
<td>9.2</td>
<td>20.0</td>
<td>18.4</td>
<td>12.7</td>
<td>12.2</td>
<td>15.0</td>
<td>10.0</td>
<td>10.7</td>
<td>8.3</td>
<td>7.7</td>
<td>31.2</td>
</tr>
<tr>
<td>15T16: Food products, beverages and tobacco</td>
<td>11.0</td>
<td>25.9</td>
<td>19.1</td>
<td>23.0</td>
<td>9.8</td>
<td>27.6</td>
<td>17.6</td>
<td>15.0</td>
<td>11.3</td>
<td>6.5</td>
<td>18.5</td>
</tr>
<tr>
<td>17T19: Textiles, textile products, leather and footwear</td>
<td>14.3</td>
<td>42.2</td>
<td>32.5</td>
<td>27.3</td>
<td>14.0</td>
<td>31.7</td>
<td>25.1</td>
<td>19.2</td>
<td>16.4</td>
<td>7.3</td>
<td>14.8</td>
</tr>
<tr>
<td>20T22: Wood, paper, paper products, printing and publishing</td>
<td>11.0</td>
<td>28.9</td>
<td>19.1</td>
<td>20.1</td>
<td>9.4</td>
<td>23.3</td>
<td>18.2</td>
<td>14.6</td>
<td>8.4</td>
<td>7.1</td>
<td>28.9</td>
</tr>
<tr>
<td>23T26: Chemicals and non-metallic mineral products</td>
<td>19.6</td>
<td>39.5</td>
<td>36.1</td>
<td>34.7</td>
<td>22.2</td>
<td>60.2</td>
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<td>20.9</td>
<td>14.5</td>
<td>36.4</td>
<td></td>
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<tr>
<td>27T28: Basic metals and fabricated metal products</td>
<td>22.5</td>
<td>39.5</td>
<td>29.1</td>
<td>35.1</td>
<td>21.3</td>
<td>43.0</td>
<td>22.9</td>
<td>25.0</td>
<td>14.1</td>
<td>10.2</td>
<td>29.7</td>
</tr>
<tr>
<td>29: Machinery and equipment, nec</td>
<td>25.2</td>
<td>33.3</td>
<td>25.2</td>
<td>23.0</td>
<td>11.9</td>
<td>30.9</td>
<td>22.3</td>
<td>23.5</td>
<td>14.4</td>
<td>10.0</td>
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<tr>
<td>30T33: Electrical and optical equipment</td>
<td>19.6</td>
<td>63.3</td>
<td>29.8</td>
<td>23.7</td>
<td>17.9</td>
<td>44.4</td>
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<td>25.5</td>
<td>10.8</td>
<td>15.0</td>
<td>37.5</td>
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<tr>
<td>34T35: Transport equipment</td>
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<td>46.8</td>
<td>40.9</td>
<td>32.2</td>
<td>14.6</td>
<td>35.2</td>
<td>36.3</td>
<td>31.7</td>
<td>19.2</td>
<td>14.3</td>
<td>29.5</td>
</tr>
<tr>
<td>50T55: Wholesale and retail trade; Hotels and restaurants</td>
<td>8.9</td>
<td>17.4</td>
<td>9.2</td>
<td>10.4</td>
<td>5.5</td>
<td>14.2</td>
<td>13.6</td>
<td>9.9</td>
<td>3.2</td>
<td>3.5</td>
<td>8.4</td>
</tr>
<tr>
<td>60T64: Transport and storage, post and telecommunication</td>
<td>9.0</td>
<td>16.2</td>
<td>12.5</td>
<td>20.9</td>
<td>7.8</td>
<td>36.4</td>
<td>24.5</td>
<td>10.5</td>
<td>8.8</td>
<td>5.2</td>
<td>24.6</td>
</tr>
<tr>
<td>65T67: Financial intermediation</td>
<td>2.2</td>
<td>12.8</td>
<td>6.4</td>
<td>8.8</td>
<td>3.5</td>
<td>9.0</td>
<td>7.6</td>
<td>7.9</td>
<td>6.2</td>
<td>3.5</td>
<td>8.8</td>
</tr>
<tr>
<td>70T74: Business services</td>
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<td>17.0</td>
<td>8.8</td>
<td>8.1</td>
<td>4.1</td>
<td>12.0</td>
<td>10.5</td>
<td>5.7</td>
<td>3.9</td>
<td>4.0</td>
<td>29.1</td>
</tr>
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</table>

Data extracted on 07 Jan 2013 18:17 UTC (GMT) from OECD.Stat
6.3. Example by indicator

Trade in Value Added OECD-WTO

Exports by Source

<table>
<thead>
<tr>
<th>Country</th>
<th>Australia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partner</td>
<td>Total</td>
</tr>
<tr>
<td>Time</td>
<td>2005</td>
</tr>
<tr>
<td>Variable</td>
<td>EXGR_DDCHS: Direct domestic industry value added share of gross exports</td>
</tr>
<tr>
<td>Industry</td>
<td></td>
</tr>
<tr>
<td>TOTAL: TOTAL</td>
<td>44.86</td>
</tr>
<tr>
<td>01T05: Agriculture</td>
<td>57.32</td>
</tr>
</tbody>
</table>
Thank you for your attention!