Recent Patterns of International Trade
Changing Trade Patterns

- From 1950s to 1980s, trade dominated by flows between high-income countries – latter accounted for most of global GDP, and developing countries maintained high trade barriers

- Trade between US, Canada, Western Europe and Japan usually referred to as North-North trade

- Moving to world where South-South commerce (trade between developing countries), and North-South commerce (trade between developed and developing countries), overtaking North-North trade

- While high-income economies accounted for 80% of world trade in 1985, will account for less than 50% by middle of current decade
Emerging Economies and Trade

- Following financial crisis, sharp divide in economic performance of high-income vs. emerging economies
- US, EU and Japan slow to recover, while emerging economies such as China have fueled global recovery
- Rise of lower and middle-income countries two decades in making:
  - China’s transition accelerated in 1990s
  - India’s growth surge started after its 1991 reforms
- Huge global export shock: 1992-2008 average annual growth rate in exports - China (18%) and India (14%)
Emerging Economies and Trade

- 15 other countries* had annual growth rate in exports of 8% for 1992-2008

- During same period, low and middle-income countries saw share of global exports increase from 21 to 43%

- South-South trade driven by:
  - urbanization and industrialization in China and India creating demand for raw materials
  - lengthening of global production networks has resulted in increasing trade in parts and components

- Growth in North-South trade has rekindled interest in orthodox theories of international trade

* Brazil, Korea, Mexico, Russia, Argentina, Turkey, Indonesia, Poland, South Africa, Thailand, Egypt, Colombia, Malaysia, the Philippines, and Chile
## Trade Patterns

### Exports and Imports Relative to GDP by Regional Trading Partner

<table>
<thead>
<tr>
<th>Region</th>
<th>Trade Partner</th>
<th>Exports to partner relative to regional GDP (%)</th>
<th>Imports from partner relative to regional GDP (%)</th>
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<tbody>
<tr>
<td>Low-income</td>
<td>Low-income</td>
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<td>0.8</td>
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<tr>
<td>GDP/capita of $800 (2000)</td>
<td>Middle-income</td>
<td>4.5</td>
<td>6.0</td>
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<td></td>
<td></td>
<td>11.6</td>
<td>17.1</td>
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<td></td>
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<td>7.1</td>
<td>11.1</td>
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<td></td>
<td>China and India</td>
<td>1.1</td>
<td>1.8</td>
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<tr>
<td></td>
<td></td>
<td>8.3</td>
<td>10.7</td>
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<td></td>
<td></td>
<td>7.2</td>
<td>8.9</td>
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<tr>
<td>High-income</td>
<td></td>
<td>20.0</td>
<td>15.1</td>
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<tr>
<td></td>
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<td>31.8</td>
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</tr>
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<td>7.9</td>
</tr>
<tr>
<td>World</td>
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<td>26.3</td>
<td>23.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>55.0</td>
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<td>28.6</td>
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</table>

<table>
<thead>
<tr>
<th>Middle-income</th>
<th>Low-income</th>
<th>0.7</th>
<th>2.1</th>
<th>1.4</th>
<th>0.5</th>
<th>1.4</th>
<th>0.9</th>
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</thead>
<tbody>
<tr>
<td>GDP/capita of $800-10,000 (2000)</td>
<td>Middle-income</td>
<td>5.3</td>
<td>15.6</td>
<td>10.3</td>
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<td>10.3</td>
</tr>
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<td>2.2</td>
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<tr>
<td></td>
<td>World</td>
<td>25.1</td>
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<td>23.6</td>
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## Trade Patterns

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<table>
<thead>
<tr>
<th>Region</th>
<th>Trade Partner</th>
<th>1994</th>
<th>2008</th>
<th>% Change</th>
<th>1994</th>
<th>2008</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>China, India</td>
<td>Low-income</td>
<td>0.8</td>
<td>2.7</td>
<td>1.9</td>
<td>0.5</td>
<td>2.1</td>
<td>1.6</td>
</tr>
<tr>
<td>GDP/capita of $800 (2000)</td>
<td>Middle-income</td>
<td>9.5</td>
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<td>5.7</td>
<td>8.6</td>
<td>15.4</td>
<td>6.8</td>
</tr>
<tr>
<td></td>
<td>China and India</td>
<td>0.1</td>
<td>1.2</td>
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<td>0.1</td>
<td>1.2</td>
<td>1.1</td>
</tr>
<tr>
<td>China and India</td>
<td>High-income</td>
<td>14.3</td>
<td>25.3</td>
<td>11.0</td>
<td>9.8</td>
<td>14.1</td>
<td>4.3</td>
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<tr>
<td></td>
<td>World</td>
<td>24.8</td>
<td>44.4</td>
<td>19.6</td>
<td>19.0</td>
<td>32.7</td>
<td>13.7</td>
</tr>
</tbody>
</table>

Source: Hanson (2012)
Trade Patterns

- For low and middle-income countries, exports as share of regional GDP has grown sharply, e.g., 26 to 55% (low-income), 25 to 55% (middle-income), and 25 to 55% (China and India) – similarly for imports

- Lower trade growth for high-income countries, e.g., 17 to 26% in case of exports

- Change in trade pattern involves much larger South-South trade flows over period 1994-2008:
  - share of exports from low to low and middle-income countries rose from 24 to 42%
  - share of exports from middle-income to low and middle-income countries rose from 33 to 46%
South–South Trade

- Key explanation put forward for growth in South-South trade is expansion of multistage global production networks
- Offshoring of production allows firms to fragment manufacturing across borders by locating specific production stages in countries with lowest cost
- Consequently, gross trade flows (total exports) may overstate net trade flows (exports minus intermediates), i.e., expansion of South-South trade is statistical artifact
- While double-counting is part of story, there is evidence of increased specialization by emerging economies for global markets
North–South Trade

- In 1980s and 1990s, due to dominance of high-income countries in global trade, orthodox models of trade (Ricardian/Heckscher-Ohlin) went out of fashion.

- Specifically could not explain observed *intra-industry trade* among high-income countries, i.e., two-way trade in similar products between similar countries, e.g., the French export cars and import German cars.

- Changed in past decade where growth in countries such as China and India suggest differences in technology/resources are strong motivations for trade.

- Hanson (2012) suggests there has been return to notion of *comparative advantage*.
North–South Trade

Following Hanson (2012), non-oil exports can be grouped into nine categories:

i. agriculture and food (land-intensive)
ii. minerals/other raw materials (mineral-intensive)
iii. apparel, footwear, and textiles (labor-intensive)
iv. metals/metal products (capital-intensive)
v. chemicals (capital-intensive)
vi. machinery (capital-intensive)
vii. electronics/electrical machinery (labor-intensive)
viii. transportation equipment (capital-intensive)
ix. other manufactures (labor-intensive)
North–South Trade

- International specialization follows perceived patterns of *comparative advantage* - see figures

  a) **Low-income countries**: positive net exports in three resource or labor-intensive sectors: agriculture, raw materials, and apparel and shoes

  b) **China and India**: positive net exports in three labor-intensive sectors: apparel, shoes and electronics, and other manufactures

  c) **Middle-income countries**: negative net exports in three capital-intensive sectors: chemicals, machinery, and transportation equipment

  d) **High-income countries**: positive net exports in three capital-intensive sectors: chemicals, machinery, and transportation equipment
Sector Trade Shares of GDP

A: Low-income countries

Source: Hansen (2012)
Sector Trade Shares of GDP

B: China and India

Source: Hansen (2012)
**Sector Trade Shares of GDP**

**C: Middle-income countries**

- **1994**
  - Food, agriculture
  - Raw materials
  - Apparel, shoes
  - Metals
  - Chemicals
  - Machinery
  - Electronics
  - Transport equipment
  - Other manufacturing

- **2008**
  - Food, agriculture
  - Raw materials
  - Apparel, shoes
  - Metals
  - Chemicals
  - Machinery
  - Electronics
  - Transport equipment
  - Other manufacturing

Source: Hansen (2012)
Sector Trade Shares of GDP

D: High-income countries

Source: Hansen (2012)
Trade Patterns

- Growing South-South trade along lines of comparative advantage, i.e., resource-poor emerging economies importing from resource-rich emerging economies

For low-income countries 70% of agricultural export growth and 73% of raw materials growth due to shipments to low-/middle-income countries

- Low-income countries send most of their output of clothing and shoes to high-income countries

- Middle-income countries export diverse set of goods: agriculture (Argentina and Brazil); metals (Russia, Korea, South Africa, and Chile); electronics (Korea, Malaysia, Thailand, and Philippines); transportation equipment (Korea, Mexico, Poland, and Turkey)
Trade Patterns

- 50% of middle-income export growth to low-/middle-income countries, except automobiles
- China and India accounted for more than 25% of exports of raw materials and electronics from middle-income countries – reflects need for iron ore, copper, other minerals, and deepening of production networks
- China and India distinct among low-/middle-income countries for being reliant on high-income markets to absorb their exports
- High-income countries absorbed over 70% of China’s export growth in apparel, footwear, and other manufactures, and over 55% in electronics (China) and metals (India)
Dynamics in Specialization

- Middle-income countries moved from specializing in apparel and footwear in 1994 to electronics by 2008
- Consistent with middle-income countries accumulating human and physical capital pushing them out of labor-intensive into more capital-intensive goods
- Low-income countries such as Bangladesh and Vietnam are filling the space vacated by middle-income countries in apparel
- Large changes in specialization have also occurred in countries such as China (see figure)
Dynamics in Specialization

China’s Top Export Products

Source: Hansen (2012)
Dynamics in Specialization

- China not just switching from assembling shoes to assembling computers, but manufacturing more technologically advanced goods and accounting for more value-added, e.g., Huawei (mobile phones) and Lenovo (laptops).

- Some doubt China’s export strength in electronics is due to comparative advantage, but rather to industrial policy (Rodrik, 2006) – but Hanson (2012) argues stock of human capital would indicate specialization is not unwarranted.

- China has increased supply of educated labor, attracted investment by multinational firms, and improved transport and communications – it likely has increasing comparative advantage in electronics.