East Asia in World Trade: The Decoupling Fallacy, Crisis, and Policy Challenges

Prema-chandra Athukorala
Australian National University
Prema-chandra.athukorala@anu.edu.au
Purpose/scope

Examine export performance of East Asia countries in the aftermaths of the global financial crisis against the backdrop of pre-crisis export patterns and

Consider lessons for growth strategies after the crisis

Point of departure: Decoupling thesis

‘East Asia has become a self-contained economic entity with potential for maintaining its own growth dynamism independent of extra-regional economic conditions’
The decoupling thesis is based on the traditional notion of horizontal specialization: international trade is an exchange of goods that are produced from start to finish in just one country.

It ignores the growing importance of global production sharing in world trade and East Asia’s especial role in this new form of international exchange.

Global production sharing
‘splitting of the production process into discrete activities which are then allocated across countries’

Alternative terms: international production fragmentation; vertical specialisation, slicing of the value chain, outsourcing,
Key message

- Given East Asia’s unique role in global production sharing, failure to distinguish between trade in parts and components (middle product) and trade in final goods can lead to misleading inferences about the nature and extent of intra-regional trade integration.

Why?

1. P&C trade and trade in related final goods (‘final trade’) are unlikely to follow the same geographic pattern.

2. The intra-regional trade ratio estimated by lumping together imports and exports tends to hide a significant asymmetry in regional trade patterns on import and export sides.

3. Parts and components (P&C) are double-counted because goods in process cross multiple international borders before getting embodied in the final product.
Country coverage

East Asia: Japan + Developing East Asia
Developing East Asia: South Korea, Taiwan (Taipei, China), Peoples’s Republic of China (PRC), Hong Kong, ASEAN
ASEAN: Indonesia, Malaysia, Philippines, Singapore, Thailand, Vietnam
    (Brunei, Cambodia, Myanmar, Lao PDR are not covered separately)

Comparators:
    NAFTA
    EU15
Data
Focus on manufacturing trade - SITC 5 though 8 net of SITC 68
Parts & components (P&C) are separated total trade at the 5-digit level
The list of P&C is not complete, so the estimates are an indicator of a reliable lower minimum

For details see Athukorala 2009c

Data source:
UN Comtrade database, based on SITC, Rev 3
Trade database of the Council of Economic Planning, Taipei (for Taiwan)
Structure

Pre-crisis trade patterns
- East Asia’s’ especial position in global production sharing and network trade
- The decoupling fallacy

Trade performance in the aftermath of the crisis

Policy options

Concluding remarks
Pre-crisis trade patterns

- A three-fold increase in East Asia’s share in world non-oil exports, from 11% to 33%, between 1969/70 to 2005/06.

- A sharp decline in the share of Japan, more than compensated by China’s trade expansion.

- Within Developing East Asia, market share gains are not limited only to China.

- A profound shift in the export structure away from primary products and towards manufacturing across all countries.

- Within manufacturing, growth is heavily concentrated in machinery and transport equipment (SITC 7), particularly in information and communications technology (ITC) products and consumer electronics in which global production sharing is concentrated (Network products).
Faster growth of trade in parts and components in East Asia:

<table>
<thead>
<tr>
<th></th>
<th>East Asia</th>
<th>World</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exports</td>
<td>34.1</td>
<td>27.1</td>
</tr>
<tr>
<td>Imports</td>
<td>42.1</td>
<td>23.7</td>
</tr>
</tbody>
</table>

East Asia’s share in world trade in parts and components has increased much faster (Figure 1)
Geographic composition of world exports of parts and components
Component intensity of intra-regional trade is much higher in East Asian (reflects cross border trade within regional production networks):

<table>
<thead>
<tr>
<th>Share of parts and components in intra-regional trade</th>
<th>East Asia</th>
<th>NAFTA</th>
<th>EU15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exports</td>
<td>47.6</td>
<td>28.8</td>
<td>22.0</td>
</tr>
<tr>
<td>Imports</td>
<td>51.7</td>
<td>36.3</td>
<td>22.1</td>
</tr>
</tbody>
</table>
China in East Asia Trade

- A rapid increase in parts and component imports by China from the rest of East Asia

But

- The share of final goods exports to East Asia in total manufacturing exports from China has declined sharply

(Table 4, Figure 2a & b)

China’s intra-regional trade is heavily concentrated in trade with Japan, Korea and Taiwan (Table 5)
Figure 2a: Parts and components in China’s Manufacturing exports, 1992 -2007
Figure 2b: Parts and components in China’s Manufacturing imports, 1992-2007

- P&C share in total imports
- P&C share in imports from East Asia
- East Asian share in total P&C imports
Intra-regional trade patterns

- Intra-regional trade shares based on total trade (the conventional measure of trade integration) are generally consistent with the view that East Asia has become increasingly integrated through merchandise trade. (Figure 3)
Figure 3: Intra-regional trade share in East Asia (total non-oil trade)
BUT

The increase in intra-regional trade ratio has emanated largely from rapid increase in intra-regional imports; intra-regional exports have persistently lagged behind intra-regional imports (Figure 4). Reflects the fact that goods assembled within regional production networks are disproportionately destined to extra-regional markets.

See the East Asia – EU15 contrast, Figure 5
Figure 4: Intra-regional trade share in East Asia: Non-oil, Exports, Imports and trade (Exports + Imports)
Figure 5: Intra-regional trade share in EU15: Non-oil, Exports, Imports and trade (Exports + Imports)
Intra-regional trade shares become smaller and the asymmetry in intra-regional shares between imports and exports is much sharper when reported trade data are adjusted for trade in parts and components. Clearly, the region’s dependence of the rest of the world for its trade expansion has increased over the time. (Table 6, Figure 6) (Here the focus is on manufacturing trade which account for over 90% of total East Asian non-oil trade)
Figure 6: Intra-regional share in East Asian manufacturing trade: Final (total – parts and components)
Determinants of East Asia’s especial role in network trade

What explains East Asia’s ‘especial’ role in network trade?

(1) Relatively low wages in latecomers to export-oriented industrialization in East Asia and significant wage differentials among countries in the region (Table 4) (China’s hourly production wage is just 3% of that of USA!)

(2) Favourable business climate (trade and investment policy regimes, infrastructure provision etc.) that has contributed to lower cost of maintaining ‘services links’ within production networks

(3) ‘First-comer’ advantages: the tendency of MNEs to become embodied in host countries over time
‘market thickness’ and ‘agglomeration’ benefits: success breeds success

The emergence of China as the premier low-cost assembly centre that has boosted components production/assembly in other countries in the region

Econometric evidence: Athukorala 2009c
Trade performance in the aftermath of the global financial crisis

- A sharp contraction in world trade following the onset of the global financial crisis (at a faster rate than in the Great Depression) (Figure 7)

- Trade contraction experienced by the East Asian countries has been even faster (Figure 8, Table 9)
Figure 7: Volume of world trade: The Great Depression vs Current Crisis (Source: Eichengreen and O’Rourke 2009)
Figure 8: Growth of merchandise trade, January 2008 – Nov 2009 (Y-O-Y, %)

(a) Exports
Figure 8: Growth of merchandise trade, January 2008 – Nov 2009 (Y-O-Y, %)

Import growth, January 2008 – July 2009 (Y-
- Trade contraction is remarkably synchronised among countries in East Asia, on both import and export sides

- China has failed to provide a cushion giants this export contraction as postulated by the decoupling thesis.
  - China’s imports from countries in the region have contracted at a much faster rate compared to exports, an indication of destocking of imported parts and components by assembly firms in China
- Taiwan and Korea and Japan (the major parts and component suppliers to China) have suffered the highest rates of contraction in exports to China compared to the other countries in the region.

- Trade in product categories with high concentration of global production sharing has contracted at a faster rate (Chinese data).

- In sum, trade performance during the crisis runs counter to the so-called ‘decoupling’ hypothesis.
Has global production sharing played a role?
The evidence (summarised above) suggests so, but, as yet data are not available to systematically delineate the impact while controlling for the other factors at work:
- Contraction of trade credit
- Greater share of consumer durables in contemporary world trade
- Advances in communication technology operating though inventory adjustment and just-in-time production/procurement practice.
Policy options

- Rebalancing growth
  - engineering a structural shift in aggregate demand away from exports and towards domestic demand

- Devising strategies to fight new protectionism

- A region wide FTA (proposed by some ADB economists)

- Better macroeconomic management to reduce vulnerability to future crises
  (To be discussed in Session II)
Conclusions

- The degree and intensity of participation of East Asian economies in global production sharing is much greater compared to countries in other parts of the world.

- China has integrated into regional/global production networks as the premier centre of final assembly.

- Consequently, the regions dependence on the rest of the world for its trade expansion has increased over time:
  - remarkably synchronized nature of trade contraction following the onset of the GFC
  - China’s failure to act as a cushion for the rest against global trade contraction

(Bottom line: Decoupling or globalization, but not both)

- The rise of global production sharing has strengthened the case for a global, rather than a regional approach to policy making (to be discussed in Session II).