The role of maritime connectivity and logistics services for the seafood value chain

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Maritime Transport Trends
Fish and Ships
Nets and Networks
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Figure 1.4 (b). Participation of developing economies in world seaborne trade, selected years (Percentage share in world tonnage)

<table>
<thead>
<tr>
<th>Year</th>
<th>Loaded</th>
<th>Unloaded</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>63</td>
<td>18</td>
</tr>
<tr>
<td>1980</td>
<td>58</td>
<td>26</td>
</tr>
<tr>
<td>1990</td>
<td>51</td>
<td>29</td>
</tr>
<tr>
<td>2000</td>
<td>53</td>
<td>37</td>
</tr>
<tr>
<td>2005</td>
<td>56</td>
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<td>2006</td>
<td>63</td>
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<td>2007</td>
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<td>2009</td>
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<tr>
<td>2010</td>
<td>60</td>
<td>56</td>
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<tr>
<td>2011</td>
<td>60</td>
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<tr>
<td>2012</td>
<td>60</td>
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<tr>
<td>2014</td>
<td>60</td>
<td>62</td>
</tr>
<tr>
<td>2015</td>
<td>60</td>
<td>62</td>
</tr>
<tr>
<td>2016</td>
<td>59</td>
<td>64</td>
</tr>
</tbody>
</table>

Old Scenario:
Developing countries exported large volumes of raw materials and imported high value (low volume) manufactured goods.
Today’s Scenario: Developing countries participate in globalized production. They also import raw materials and also export manufactured goods.
Globalized production of "maritime transport"

1. Building
2. Owning
3. Registration
4. Operation
5. Scrapping
6. Financing
7. Classification
8. Insurance services (P&I)
9. Seafarers
10. Container terminal operators
Globalized production of "maritime transport"

Korea and China 71% of GT
(RMT 2018, forthcoming)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Building</td>
</tr>
<tr>
<td>2.</td>
<td>Owning</td>
</tr>
<tr>
<td>3.</td>
<td>Registration</td>
</tr>
<tr>
<td>4.</td>
<td>Operation</td>
</tr>
<tr>
<td>5.</td>
<td>Scrapping</td>
</tr>
<tr>
<td>6.</td>
<td>Financing</td>
</tr>
<tr>
<td>7.</td>
<td>Classification</td>
</tr>
<tr>
<td>8.</td>
<td>Insurance services (P&amp;I)</td>
</tr>
<tr>
<td>9.</td>
<td>Seafarers</td>
</tr>
<tr>
<td>10.</td>
<td>Container terminal operators</td>
</tr>
</tbody>
</table>
Globalized production of "maritime transport"

Greece, Japan, China: 39% of dwt
(RMT 2018, forthcoming)
Globalized production of "maritime transport"

Panama, Marshall Islands, Liberia: 41% of dwt
(RMT 2018, forthcoming)
Globalized production of "maritime transport"

Denmark and Switzerland ~30% (RMT 2018, forthcoming)

1. Building
2. Owning
3. Registration
4. Operation (container ships)
5. Scrapping
6. Financing
7. Classification
8. Insurance services (P&I)
9. Seafarers
10. Container terminal operators
Globalized production of "maritime transport"

India, Bangladesh, China, Pakistan: 94%
(RMT 2018, forthcoming)

1. Building
2. Owning
3. Registration
4. Operation
5. Scrapping

6. Financing

7. Classification
8. Insurance services (P&I)
9. Seafarers
10. Container terminal operators
Globalized production of "maritime transport"

Financial and other services: UK, Scandinavia

1. Building
2. Owning
3. Registration
4. Operation
5. Scrapping
6. Financing
7. Classification
8. Insurance services (P&I)
9. Seafarers
10. Container terminal operators
Globalized production of "maritime transport"

Philippines, Indonesia, ...

1. Building
2. Owning
3. Registration
4. Operation
5. Scrapping
6. Financing
7. Classification
8. Insurance services (P&I)
9. Seafarers
10. Container terminal operators
Globalized production of "maritime transport"

Hong Kong, Netherlands, Singapore, UAE: ~ 30%

1. Building
2. Owning
3. Registration
4. Operation
5. Scrapping
6. Financing
7. Classification
8. Insurance services (P&I)
9. Seafarers
10. Container terminal operators
MARITIME PROFILE: SRI LANKA

GENERAL INFORMATION FOR 2016

- Population: 20.798 Millions
- GDP: 81 322 Millions current US$
- Merchandise trade: 29 493 Millions current US$
- Ship building: 3 383 GT
- Ship scrapping
- Fleet - National flag: 276 Thousands DWT
- Fleet - Ownership: 67 Thousands DWT
- Container port throughput: 4 907 915 TEU

WORLD SHARES FOR 2016

<table>
<thead>
<tr>
<th>Category</th>
<th>World Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>0.28 %</td>
</tr>
<tr>
<td>GDP</td>
<td>0.11 %</td>
</tr>
<tr>
<td>Merchandise exports (US$)</td>
<td>0.06 %</td>
</tr>
<tr>
<td>Merchandise imports (US$)</td>
<td>0.12 %</td>
</tr>
<tr>
<td>Coastline (km)</td>
<td>0.17 %</td>
</tr>
<tr>
<td>National flagged fleet (DWT)</td>
<td>0.02 %</td>
</tr>
<tr>
<td>Fleet ownership (DWT)</td>
<td>Less than 0.01% of the World total</td>
</tr>
<tr>
<td>Container port throughput (TEU)</td>
<td>0.73 %</td>
</tr>
<tr>
<td>Ship building (GT)</td>
<td>Less than 0.01% of the World total</td>
</tr>
<tr>
<td>Ship scrapping (GT)</td>
<td>Not available or not separately reported</td>
</tr>
</tbody>
</table>
Maritime Transport Trends
Fish and Ships
Nets and Networks
Logistics of fish

► Fishing

Density of fishing vessels, 2016
Logistics of fish

► Fishing

► Transshipment

Port

High seas
Logistics of fish

- **Fishing**
- **Transshipment**
- **Shipping**
Logistics of fish

- Fishing
- Transshipment
- Shipping

- Container
- Reefer ships
- Port
- High seas
The trend: Containerization of reefer cargo

► In 1980: One Third was containerized
► Today: Three Quarters are containerized
Refrigerated cargo flows, 2000 - 2015
conventional ships / containerised

Source: Dynamar (2016)
Why tranship in a port?

► Option to containerize
► Option for more value added services
► Option for better controls by authorities (quotas, quality, …)
Maritime Transport Trends
Fish and Ships
Nets and Networks
Fishing vessels

Density of vessel movements, 2016

Source: Prepared for UNCTAD by Marine Traffic.
Container ships

Density of vessel movements, 2016

Source: Prepared for UNCTAD by Marine Traffic.
Fishing vessels

Source: Prepared for UNCTAD by Marine Traffic.

Density of vessel movements, 2016
Container ships

Density of vessel movements, 2016

Source: Prepared for UNCTAD by Marine Traffic.
Fishing vessels

Source: Prepared for UNCTAD by Marine Traffic.
Introducing containerization leads to more trade

(Bernhofen et al, 2013)
Higher Liner Shipping Connectivity leads to lower trade costs

(Arvis et al., 2013)
Source: UNCTAD Liner Shipping Connectivity Matrix
Today’s container shipping

► Ever larger ships
► Extremely low freight rates
► Idle fleet
Why is this a problem?
Why is this a problem?

1) Total logistics costs may actually go up
Why is this a problem?

2) It’s a game:
Unless old ships are scrapped, the oversupply will remain, or rather, increase, as carriers build new and larger ships.
Why is this a problem?

3) Potential oligopolies in small markets
Maritime Transport Trends

Fish and Ships

Nets and Networks
The role of maritime connectivity and logistics services for the seafood value chain

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