Maritime Transport Connectivity

WTO, Geneva, February 2017, Jan.Hoffmann@UNCTAD.org
2 types of shipping

**Container**
- “Liner shipping”
- Networks
- Cargo of many owners on one ship
- Compare to TPG

**Bulk**
- “Tramp shipping”
- Point-to-Point
- Cargo of one single owner on one ship
- Compare to taxi
Shipping Networks
Trends and trade costs
Policy implications
Shipping Networks
Trends and trade costs
Policy implications
Why “connectivity”?
Higher Liner Shipping Connectivity leads to lower trade costs

Figure 1. Relative Impact of Different Sources of Trade Costs
(normalized regression coefficients [“betas”] against the indicator measuring the cost component)

- cost of starting a business
- logistics performance index
- air connectivity
- liner shipping connectivity
- exchange rate
- tariffs
- same country
- RTA
- common language
- common border

(Arvis et al, 2013)
Introducing containerization leads to more trade

(Bernhofen et al, 2013)
Better connectivity leads to lower freight rates

\[ y = 1814.9e^{-0.0671x} \]

\[ R^2 = 0.4348 \]

(Wilmsmeier and Hoffmann, 2008)
More liner services lead to lower maritime transport costs

(Wilmsmeier et al 2006)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 7</th>
<th>Model 8</th>
<th>Model 9</th>
<th>Model 10</th>
<th>Model 11</th>
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<td>N = 75,928</td>
<td>N = 75,928</td>
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<td>-0.1129 (32.50)</td>
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</table>
More trade
  -> More shipping supply
  -> More competition
  -> lower freights
  -> More trade
Better services
-> More trade
-> More income to finance infrastructure
-> Better services
Lower Transport Costs

- More trade
- Economies of scale
- Lower Transport Costs
To capture a country’s connectivity...

UNCTAD developed the Liner Shipping Connectivity Index – **LSCI** – using the following 5 components:

- Companies
- Services
- Largest ship
- Number of ships
- TEU

Source for components: *Lloyds List Intelligence*
To capture a country’s connectivity…

UNCTAD developed the Liner Shipping Connectivity Index – **LSCI** – [http://stats.unctad.org/lsci](http://stats.unctad.org/lsci)

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Shipping Networks

Trends and trade costs

Policy implications
Long term trend in transport costs

Freight costs in % of goods’ value

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<th>Region</th>
<th>1980s</th>
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<th>2000s</th>
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<td>Developing Asia</td>
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<tr>
<td>Developed economies</td>
<td>7.4</td>
<td>7.3</td>
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</tbody>
</table>
What explains shipping connectivity?

► Geography
► Port efficiency and trade facilitation
► Volume
Not so good news for Small Economies

- Imbalances
- Economies of scale
- Competition
- Distance
- Port efficiency & Trade Facilitation
Global fleet deployment (country averages)

- Ever larger ships
- Extremely low freight rates
- Idle fleet

Source: UNCTAD Review of Maritime Transport 2016 (forthcoming) based on data from Lloyds List Intelligence and CI-Online

Graph showing changes in ship size from 2004 to 2016 for liner companies, average ship size, and ship size maximum.
Shipping Networks

Trends and trade costs

Policy implications
Today’s container shipping
Today’s container shipping

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

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

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

b) 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?

c) Potential oligopolies in small markets
Recommendations

1. Facilitate transit
Seaports and transit cargo

The good news:
An increasing awareness that transit trade is good for the transit countries!

► It is good for my own ports’ business.
► It is good for my own importers and exporters, because it helps improve shipping connectivity.
Facilitating transit trade and its transport

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Inland connections

- Infrastructure
- Transit facilitation
- Competition
  e.g. trucking markets
Recommendations

1. Facilitate transit
2. Facilitate competition
Liner shipping networks

► Seek to benefit from competition and economies of scale
► Avoid unnecessary restrictions
Inter-port competition

Need to facilitate transit!
Recommendations

1. Facilitate transit: More cargo for your port
2. Facilitate competition
3. Continue with port reforms
Port reform

- Strengthen the private sector
- Strengthen the public sector
Recommendations

1. Facilitate transit: More cargo for your port
2. Facilitate competition
3. Continue with port reforms
Shipping Networks

Trends and trade costs

Policy implications