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UNCTAD’s LSCI
– data – uses – correlations –

by

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Ad Hoc EM
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- UNCTAD Liner Shipping Connectivity Index LSCI
- The data we have so far
- Possible usages
Containerization of trade, and access to containerized transport services are important determinants of countries’ trade competitiveness.

How can we measure this?

- UNCTAD Liner Shipping Connectivity Index (LSCI)
- The data we have so far
- Possible usages
"Connectivity"
1) Per country – in a “point”
2) Per route – between pairs of countries
“Connectivity”

1) Per country – in a “point” (159)

2) Per route – between countries (159*158/2 = 12561)

Example: Italy’s connections (fleet deployment)

86 direct connections
UNCTAD’s “Liner Shipping Connectivity Index” (LSCI): An indicator for the supply of liner shipping services

5 Components (from Lloyds List Intelligence):

- Ships
- TEU capacity
- Shipping companies
- Services
- Maximum ship sizes
“Maritime connectivity”

Trends in the LSCI’s 5 components
Trends in the LSCI’s 5 components

Number of companies
- 2004: 22
- 2012: 5,462

Largest Ship (TEU)
- 2004: 2,812
- 2012: 17

Size of largest container ship (TEU)
- 2004: 22
- 2012: 17

Number of companies
- 2004: 0
- 2012: 6,000

Total TEU deployed
- 2004: 549,960
- 2012: 549,960

Number of ships deployed
- 2004: 139
- 2012: 139
Trends

Liner Shipping Connectivity Index (LSCI)

- China
- Republic of Korea
- Japan
- Russian Federation

Trends

- Panama
- Colombia
- Chile
- Peru
- Ecuador

UNCTAD Liner Shipping Connectivity Index LSCI

The data we have so far

Possible usages

Data for research – country level

For nine years (2004-2012):
  The five components of the LSCI (159 countries)
  plus the published LSCI

Source for underlying data: Lloyds List Intelligence (formerly Containerization International On-line www.ci-online.co.uk)
Direct connectivity?
Out of 159 x 158 pairs of countries:
How many are connected by direct services?
Data for research – country level

► The number of trading partners with which a country has direct shipping connections

► The number of trading partners with which a country has connections that require one / two / three transhipment.

Data for research – the Matrix
Data for research – the Matrix

- Four components of the LSCI (all except number of services) per pair of country (12561 pairs)

Data for research – the Matrix

- For each pair of coastal countries:
  **The maritime distance** between the major container ports.
Data for research – the Matrix

► The number of common connections

UNCTAD Calculations. Source for underlying data: Lloyds List Intelligence

► UNCTAD Liner Shipping Connectivity Index LSCI

► The data we have so far

► Possible usages
What can we do with this data

1. Observe **trends** in the shipping network, levels of competition, and individual countries’ access to liner shipping services.
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1. Observe **trends** in the shipping network, levels of competition, and individual countries’ access to liner shipping services.
2. Use the data as **explanatory variable** in gravity models, or for models about transport costs and trade competitiveness.

What can we do with this data

1. Observe **trends** in the shipping network, levels of competition, and individual countries’ access to liner shipping services.
2. Use the data as **explanatory variable** in gravity models. Use the data as explanatory variable for other models about transport costs and trade competitiveness.
3. Try to explain the data, i.e. what are the **determinants of “connectivity”** (development, trade volumes, geography, port performance...).
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