Conectividad Marítima

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50 años RMT


Review
of maritime transport, 1968
UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT
Review
of maritime transport, 1980
UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT
Review
of maritime transport, 1970
(Review of current
and long-term aspects of maritime transport)
UNITED NATIONS
New York, 1971
UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT
Geneva
Review
of Maritime Transport
1990
UNITED NATIONS
New York, 1991
REVIEW
OF MARITIME
TRANSPORT
2010
2000
UNCTAD
UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT
UNCTAD
EMBARGO
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3 October 2018, 0700 GMT
(3 a.m. New York; 9 a.m. Geneva; 12.30 p.m. Delhi; 3 p.m. Hong Kong)
REVIEW OF MARITIME TRANSPORT 2018
REVIEW
OF MARITIME
TRANSPORT
2018
1968–2018
50
years
UNITED NATIONS

15 años LSCI

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UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT

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Reports | Table | Chart

Actions

Liner shipping connectivity index, annual

Other: MEASURE ▼ Index (Maximum 2004=100)

YEAR / ECONOMY	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Seychelles	4.88	4.93	5.27	5.29	4.49	4.90	5.16	6.45	6.50	8.08	8.07	8.01	8.37	8.07	8.01
Sierra Leone	5.84	6.50	5.12	5.08	4.74	5.56	5.80	5.41	7.40	5.15	5.64	8.30	7.80	7.86	8.34
Singapore	81.87	83.87	86.11	87.53	94.47	99.47	103.76	105.02	113.16	106.91	113.16	117.13	118.47	121.63	133.92
Slovenia	13.91	13.91	11.03	12.87	15.66	19.81	20.61	21.93	21.94	20.82	24.25	29.64	31.31	36.10	39.32
Solomon Islands	3.62	4.29	3.97	4.13	4.16	3.96	5.57	5.87	6.07	6.04	6.90	6.64	7.36	7.50	7.59
Somalia	3.09	1.28	2.43	3.05	3.24	2.82	4.20	4.20	4.34	4.20	5.45	5.43	8.03	8.24	7.96
South Africa	23.13	25.83	26.21	27.52	28.49	32.07	32.49	35.67	36.83	43.02	37.91	41.41	35.01	38.71	40.11
Spain	54.44	58.16	62.29	71.26	67.67	70.22	74.32	76.58	74.44	70.40	70.80	84.89	80.21	88.01	90.11
Sri Lanka	34.68	33.36	37.31	42.43	46.08	34.74	40.23	41.13	43.43	43.01	53.04	54.43	61.21	70.62	72.46

3 años Perfiles Marítimos

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MARITIME PROFILE: SPAIN

GENERAL INFORMATION FOR 2017

Population
46.354 Millions

GDP
1 311 937 Millions current US$

Merchandise trade [1]
672 252 Millions current US$

Coast/area ratio [2]
(e) 15 m/km²

Ship building [3]
46 923 GT

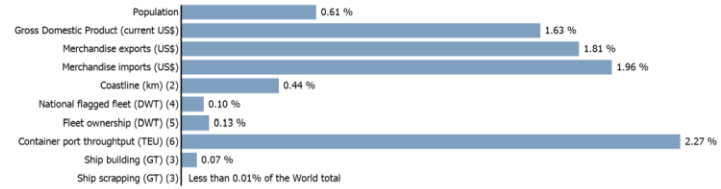
Ship scrapping [3]
432 GT

Fleet - National flag [4]
1 908 Thousands DWT

Fleet - Ownership [5]
2 347 Thousands DWT

Container port throughput [6]
17 065 000 TEU

WORLD SHARES FOR 2017



INTERNATIONAL MERCHANDISE TRADE

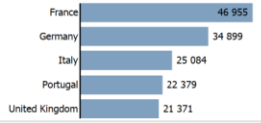
Total merchandise trade

(millions of US$)	2005	2010	2015	2017
Merchandise exports	192 644	254 418	282 274	320 063
Merchandise imports	288 786	327 016	311 851	352 188
Merchandise trade balance	-96 142	-72 598	-29 578	-32 125

+10.4 %
Merchandise exports growth rate in 2017

Export structure by product group in 2017
(as % of total exports)

Top 5 partners in 2017
(exports, millions of US$)



INTERNATIONAL TRADE IN TRANSPORT SERVICES

Services exports by main category [7]

(as % of total services)	2005	2010	2015	2017
Transport	-	-	13.1	(e) 12.8
Travel	-	48.2	47.9	(e) 49.1
Other services	-	-	35.8	(e) 34.9

+10.4 %
Transport services exports growth rate in 2017

Total trade in transport services [7]

(millions of US$)	2005	2010	2015	2017
Transport services exports	-	-	15 511	(e) 17 765
Transport services imports	-	-	13 315	(e) 14 704
Transport services trade balance	-	-	2 196	(e) 3 062

SPAIN

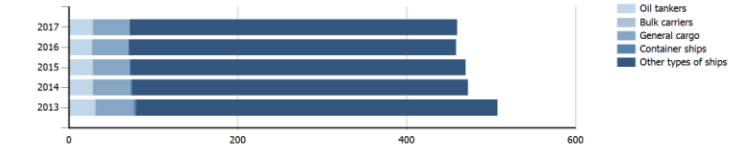
NATIONAL FLEET

Carrying capacity by type of ship [4]

(Thousands DWT)	2005	2010	2015	2017
Total fleet	2 655.0	2 554.7	1 836.1	1 908.3
Oil tankers	962.0	1 035.7	449.3	443.6
Bulk carriers	215.0	34.9	10.9	10.9
General cargo	338.0	207.6	177.8	186.5
Container ships	231.0	164.9	7.9	..
Other types of ships	909.0	1 111.7	1 190.2	1 267.3

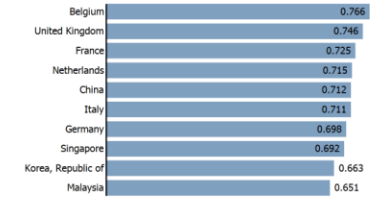
+4.8 %
Fleet growth rate in 2017

Fleet by type of ship [4]
(Number of ships)

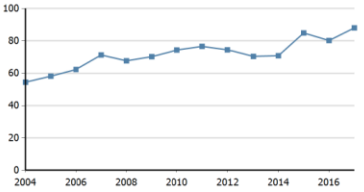


LINER SHIPPING CONNECTIVITY INDEX

Bilateral connectivity index - Top 10 partners in 2017 [8]
Can only take values between 0 (minimum) and 1 (maximum)



National connectivity index [8]
Maximum 2004=100 for China



Source: UNCTADstat (http://unctadstat.unctad.org)

Notes:

1 Sum of exports and imports.
2 Coastline length based on data calculated in 2000 from the World Vector Shoreline database at 1:250,000 scale.
3 Propelled seagoing merchant vessels of 100 GT and above. Source: Clarksons Research.
4 Propelled seagoing merchant vessels of 100 GT and above, on 1 January. Source: Clarksons Research.
5 Propelled seagoing merchant vessels of 1000 GT and above, on 1 January. Source: Clarksons Research.
6 TEU: Twenty Foot Equivalent Unit. Source: UNCTAD Secretariat, derived from various sources including Dynamar B.V. Publications, terminal operators and port authorities.
7 Statistics presented correspond to the 6th edition of the IMF Balance of Payments and International Investment Position Manual, 2009 (BPM6, 2009).
8 Source: UNCTAD Secretariat, generated from data provided by Lloyds List Intelligence.
e Estimated.

Symbols for missing values:

0 Zero means that the amount is nil or negligible
.. Not available or not separately reported
_ Not applicable
... Not available, including no quotation
Non-relevant calculation
- Not publishable
*** Negative accumulation of flows; Value included in regional and global totals

Abbreviations & acronyms:

DWT: Dead weight tons
GDP: Gross domestic product
GT: Gross tons
TEU: Twenty foot equivalent unit

- ¿Por qué medir conectividad?
- ¿Cómo medir conectividad?
- Tendencias claves y discusión
- 10 recomendaciones

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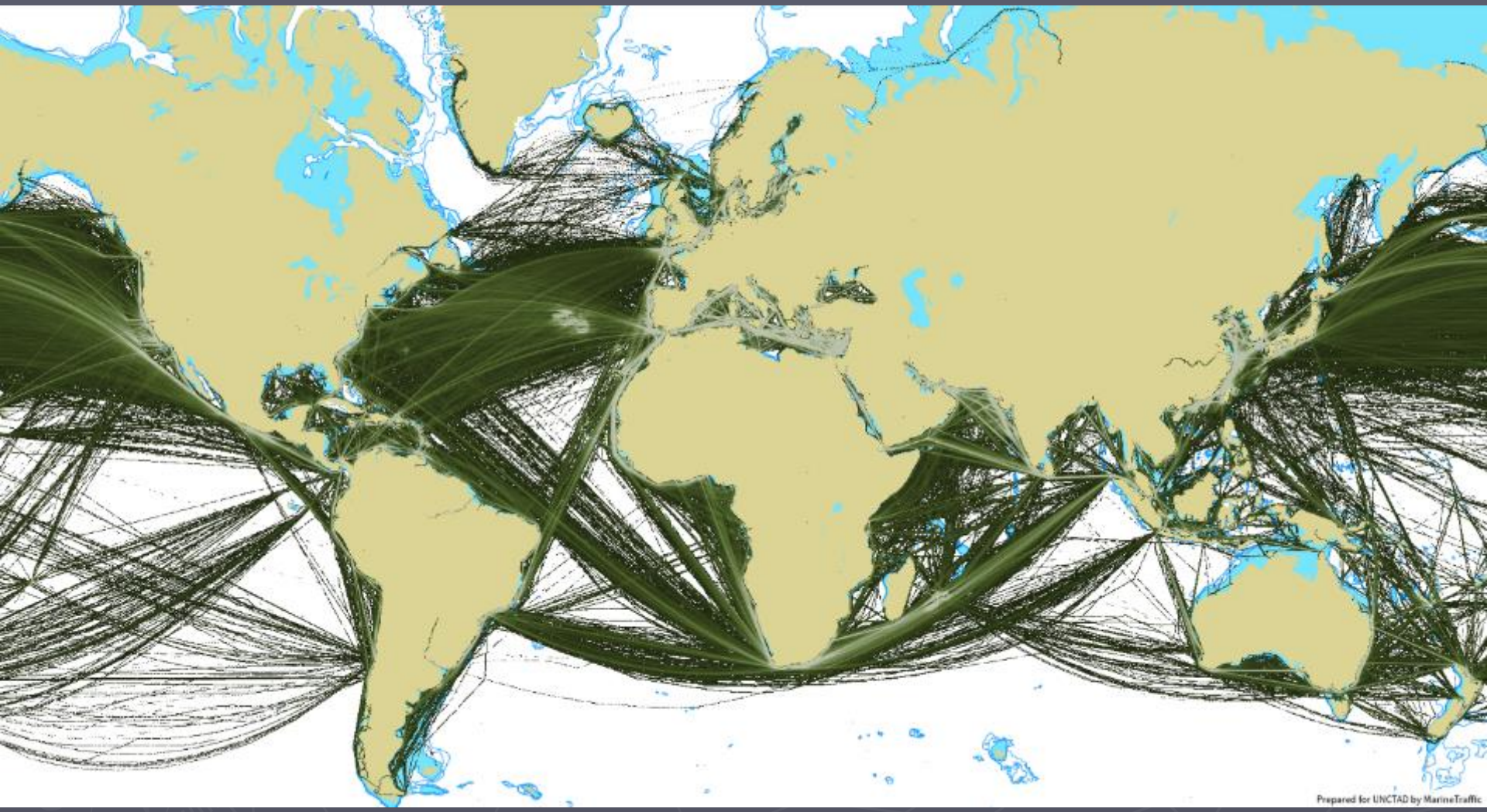
Why “connectivity”?

Figure 6.1. Density map of container ship movements

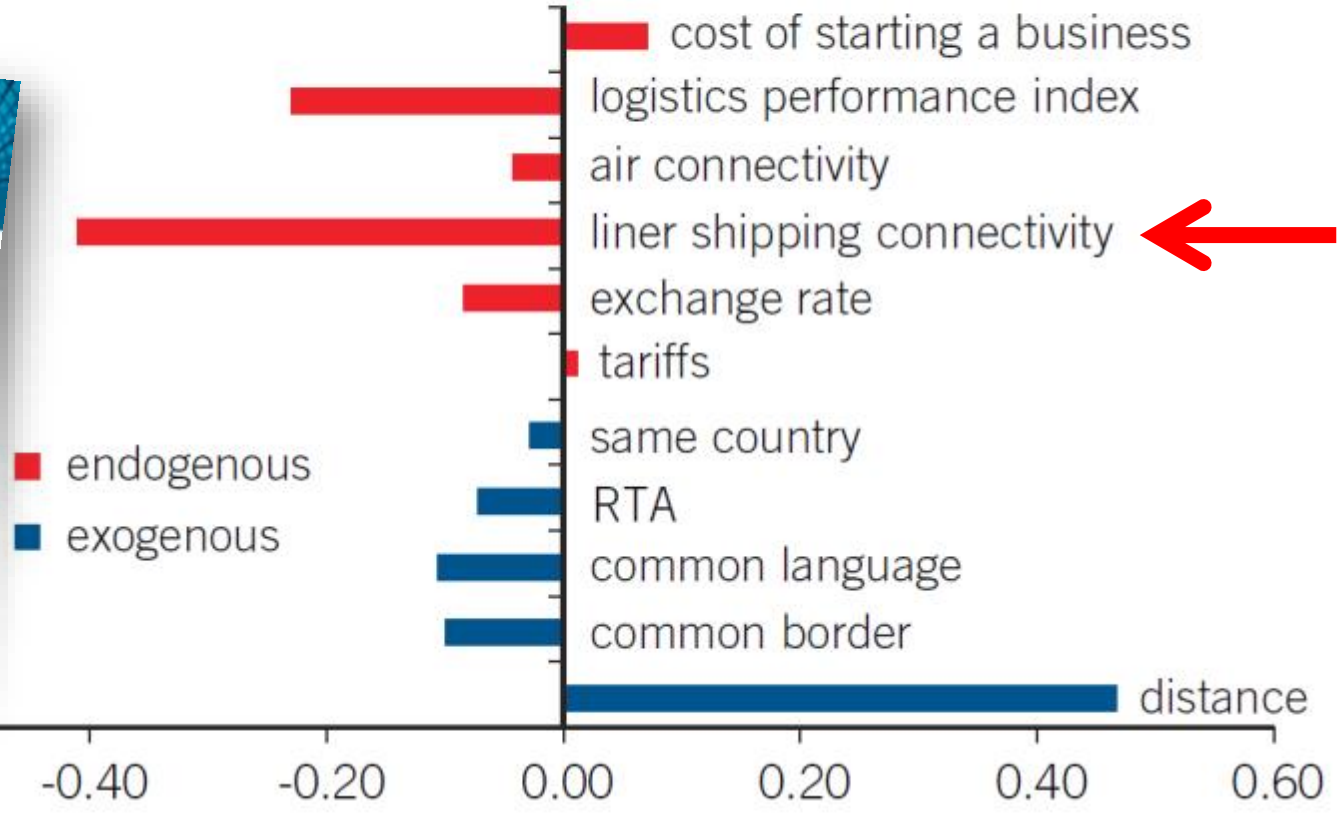


Source: Prepared for UNCTAD by Marine Traffic.
Note: Data depict container ship movements in 2016.

Higher Liner Shipping Connectivity leads to lower trade costs

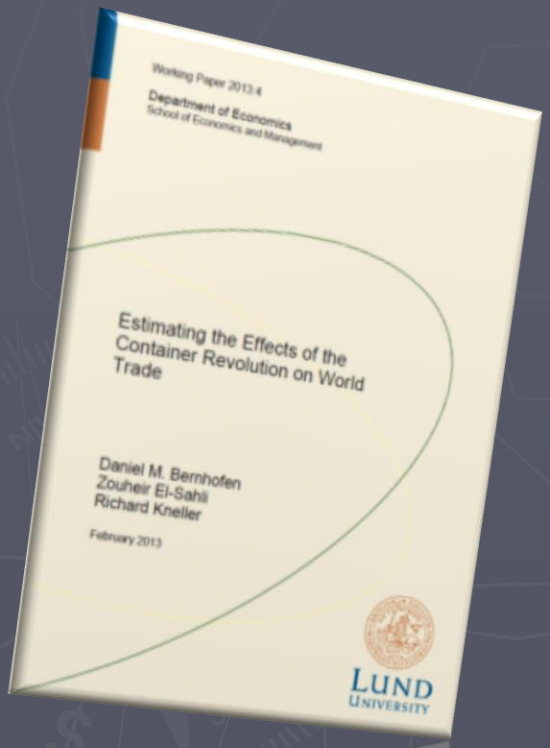
Figure 1. Relative Impact of Different Sources of Trade Costs

(normalized regression coefficients ["betas"] against the indicator measuring the cost component)



(Arvis et al, 2013)

Introducing containerization leads to more trade



(Bernhofen et al, 2013)

The Economist

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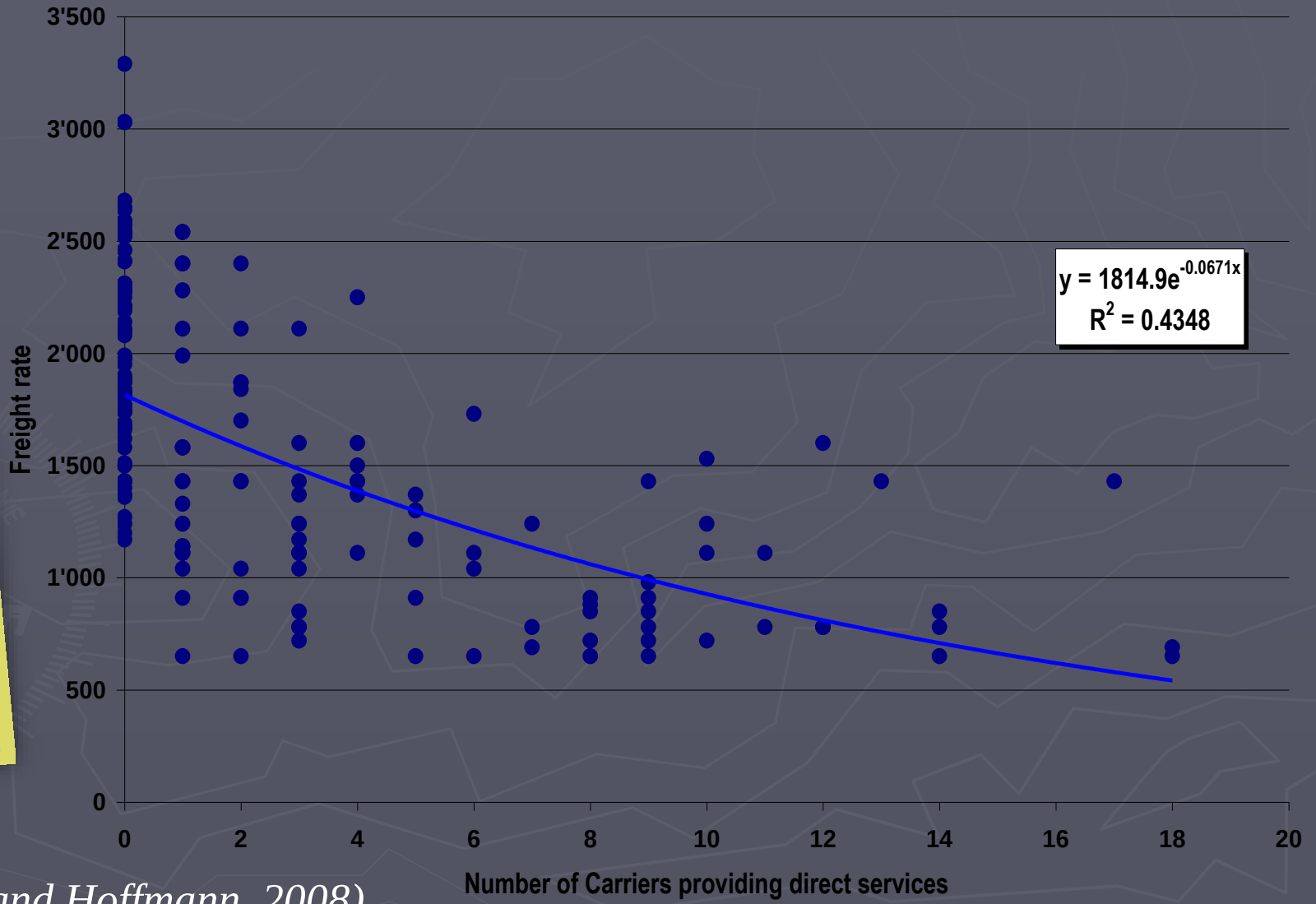
Free exchange

The humble hero

Containers have been more important for globalisation than freer trade

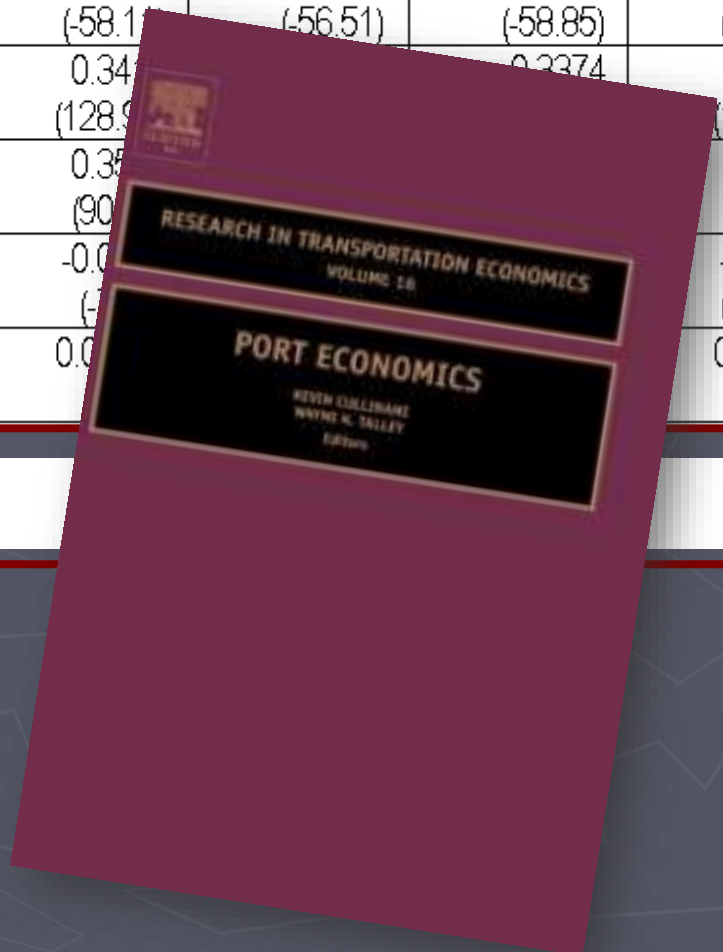
Better connectivity leads to lower freight rates



(Wilmsmeier and Hoffmann, 2008)

More liner services lead to lower maritime transport costs

Variable	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12	Model 13
Observations	N = 75 928	N = 75 928	N = 75 928	N = 75 928	N = 75 928	N = 35 438	N = 73 818
$TONS_k$	-0.0863 (-57.65)	-0.0863 (-57.67)	-0.0869 (-58.1	-0.0846 (-56.51)	-0.0874 (-58.85)	-0.0632 (-29.15)	-0.0857 (-57.00)
$VALUEPERTON_k$	0.3422 (128.74)	0.3416 (128.82)	0.34 (128.9	0.3374	0.4665 (113.19)		0.3447 (129.16)
$DISTANCE_{ij}$	0.3716 (95.80)	0.3698 (97.26)	0.3 (90		0.3380 (55.36)		0.1769 (30.28)
$BILATERALVOLUME_{ij}$	-0.0100 (-4.46)	-0.0109 (-5.53)	-0.0 (-		-0.0794 (-23.74)		0.0256 (10.91)
$BALANCEROUTE_{ij}$	0.00020 (1.73)	0.00027 (2.40)	0.0		0.00082 (5.06)		0.00228 (14.31)
$LINERSERVICES_{ij}$							-0.1129 (-32.60)



(Wilmsmeier et al 2006)


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

- ¿Por qué medir conectividad?
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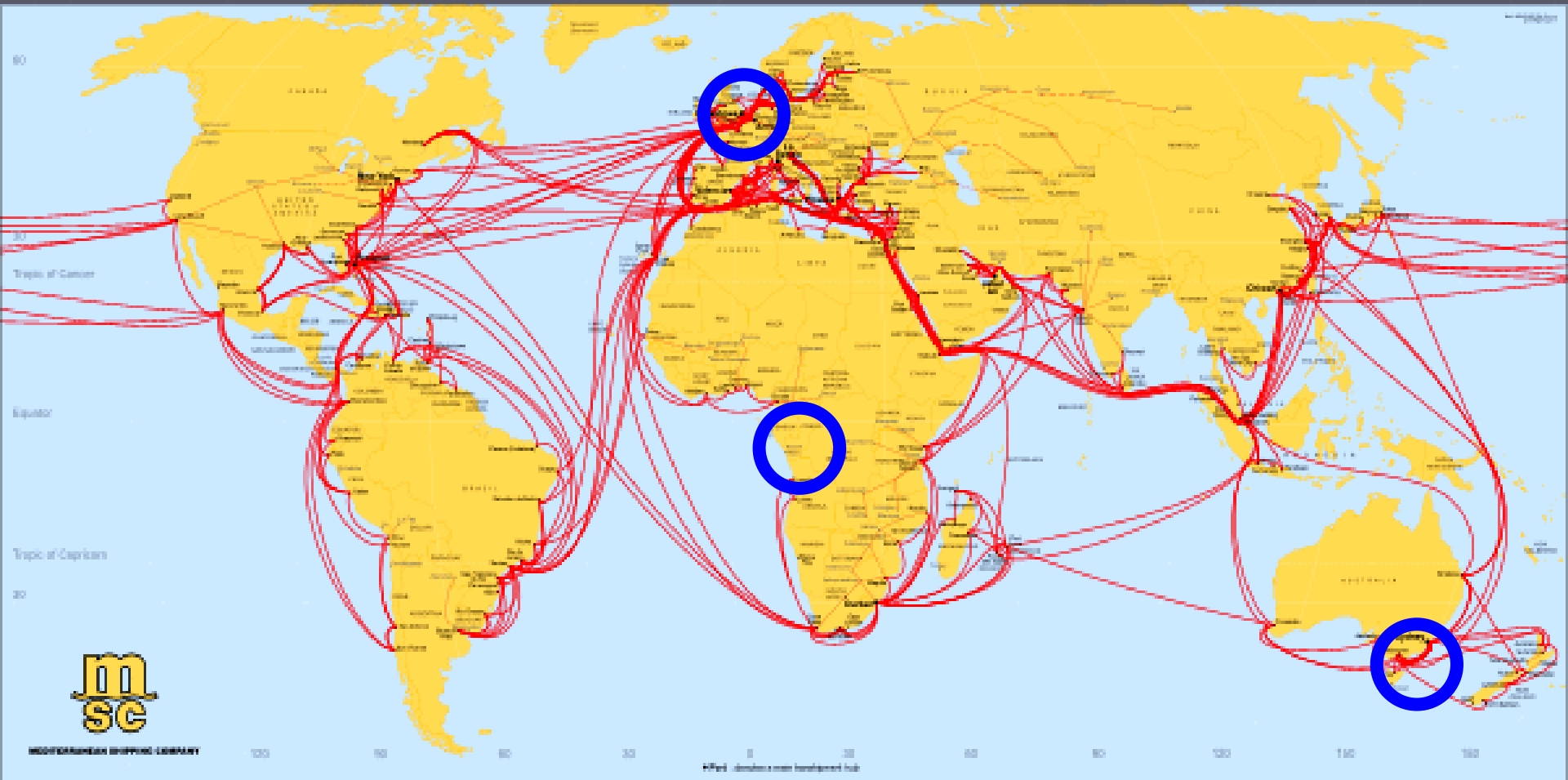
- Tendencias claves y discusión
- 10 recomendaciones

"Connectivity"

1) Per country – in a "point"
2) Per route – between pairs of countries

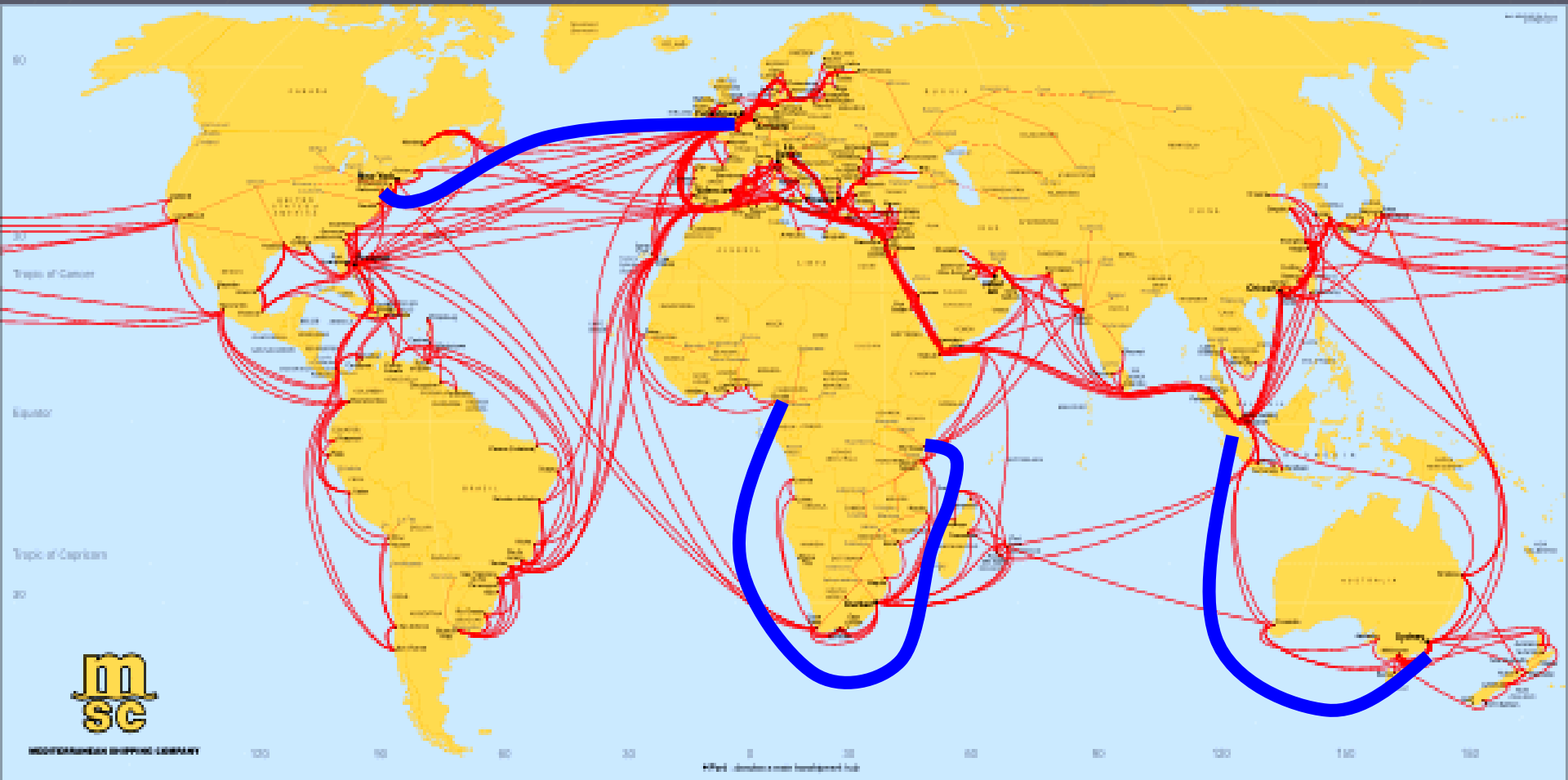
"Connectivity"

1) Per country – in a "point" (159)
2) Per route – between pairs of countries



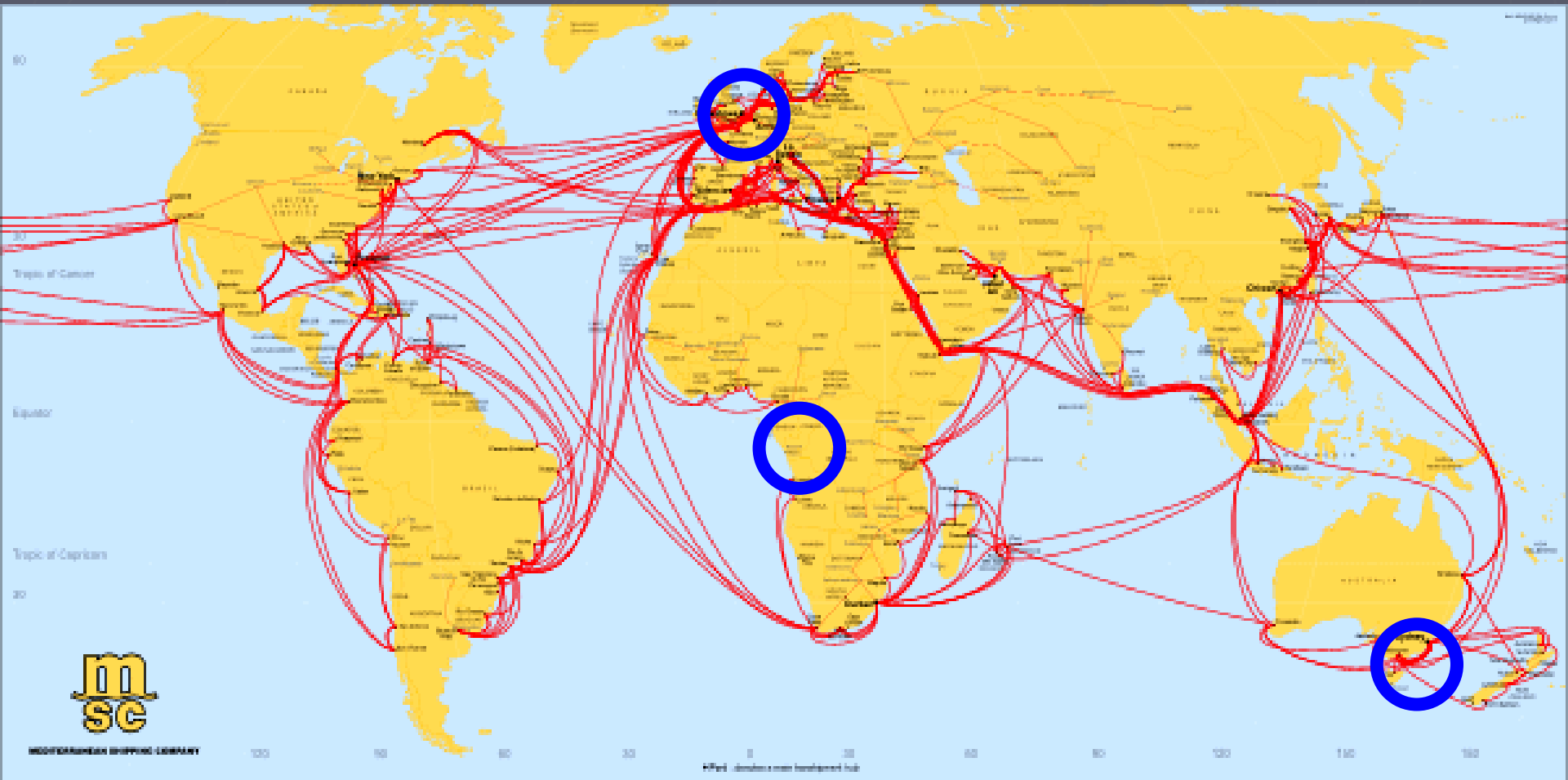
"Connectivity"

1) Per country – in a "point" (159)
2) Per route – between countries (159*158/2=12561)



"Connectivity"

1) Per country – in a "point" (159)
2) Per route – between pairs of countries



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: *MDS Transmodal*

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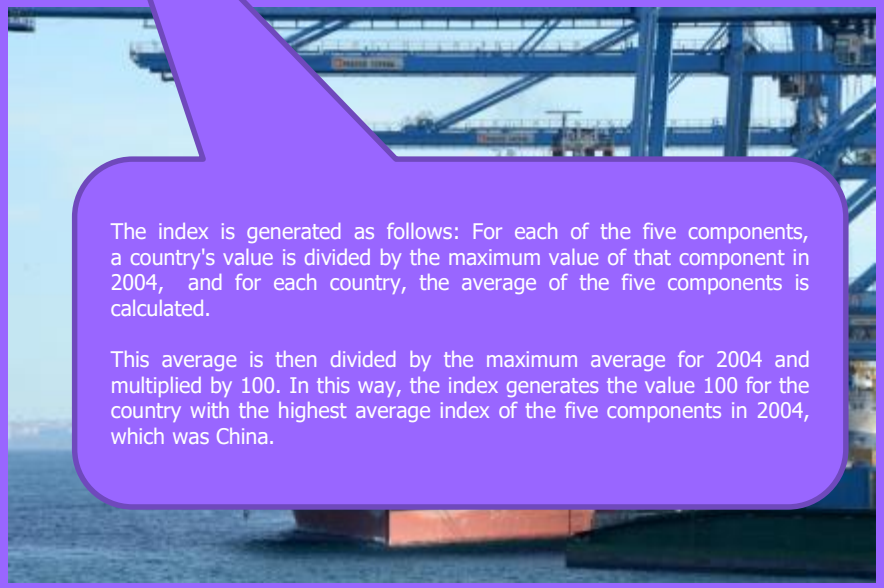


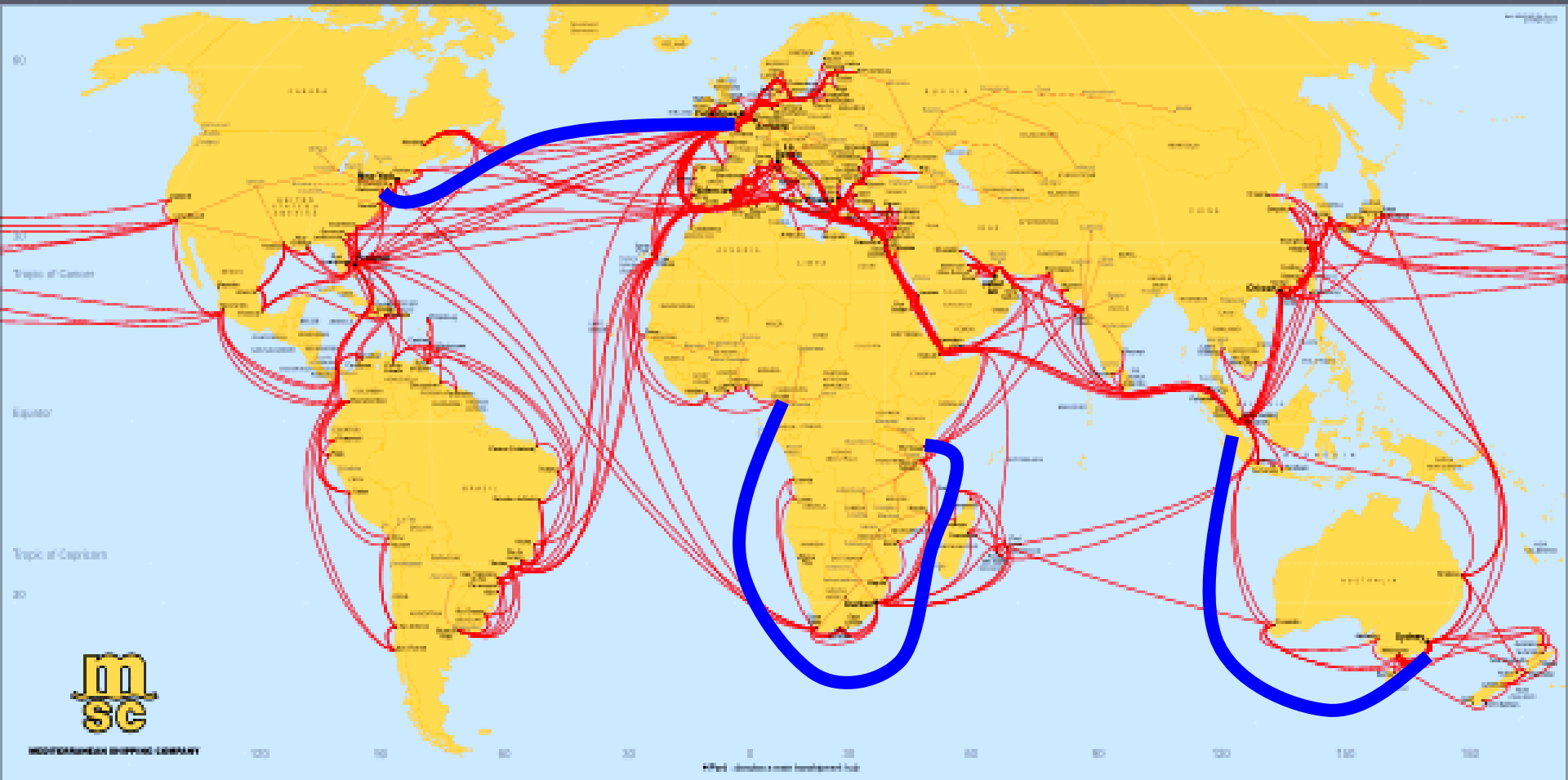
Source for components: *MDS Transmodal*

May 2018 fleet deployment	Total number of services	Total number of ships scheduled on the services	Total number of operators	Max ship capacity (TEU)	Deployed annual capacity (TEU)
Slovenia	13	52	11	12 915	1 854 046
Solomon Islands	10	22	9	2 080	222 954
Somalia	7	14	5	2 394	467 373
South Africa	30	180	21	11 016	5 378 431
South Korea	253	1 084	68	19 343	45 189 257
Spain	**156**	**646**	**57**	**18 778**	**23 177 707**
Sri Lanka	59	354	36	18 441	14 922 215
St Kitts & Nevis	3	8	3	1 116	130 156
St Lucia	4	13	4	1 394	204 766
St Vincent	4	12	4	1 282	192 254
Sudan	3	9	4	5 368	469 270
Suriname	8	20	8	1 577	280 199
Sweden	32	69	21	19 343	2 569 110

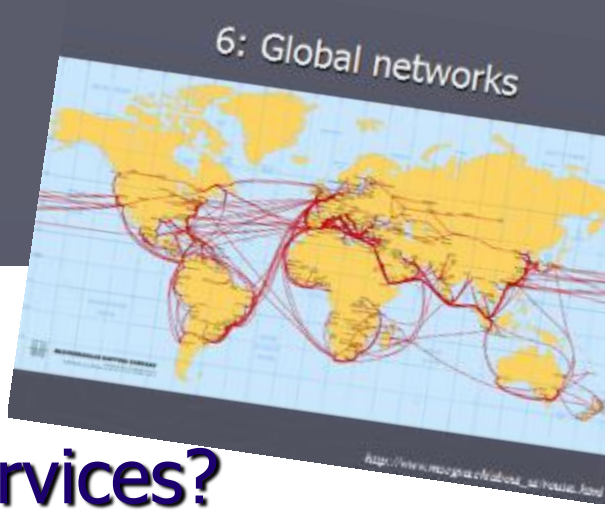
Source for components: *MDS Transmodal*

"Connectivity"

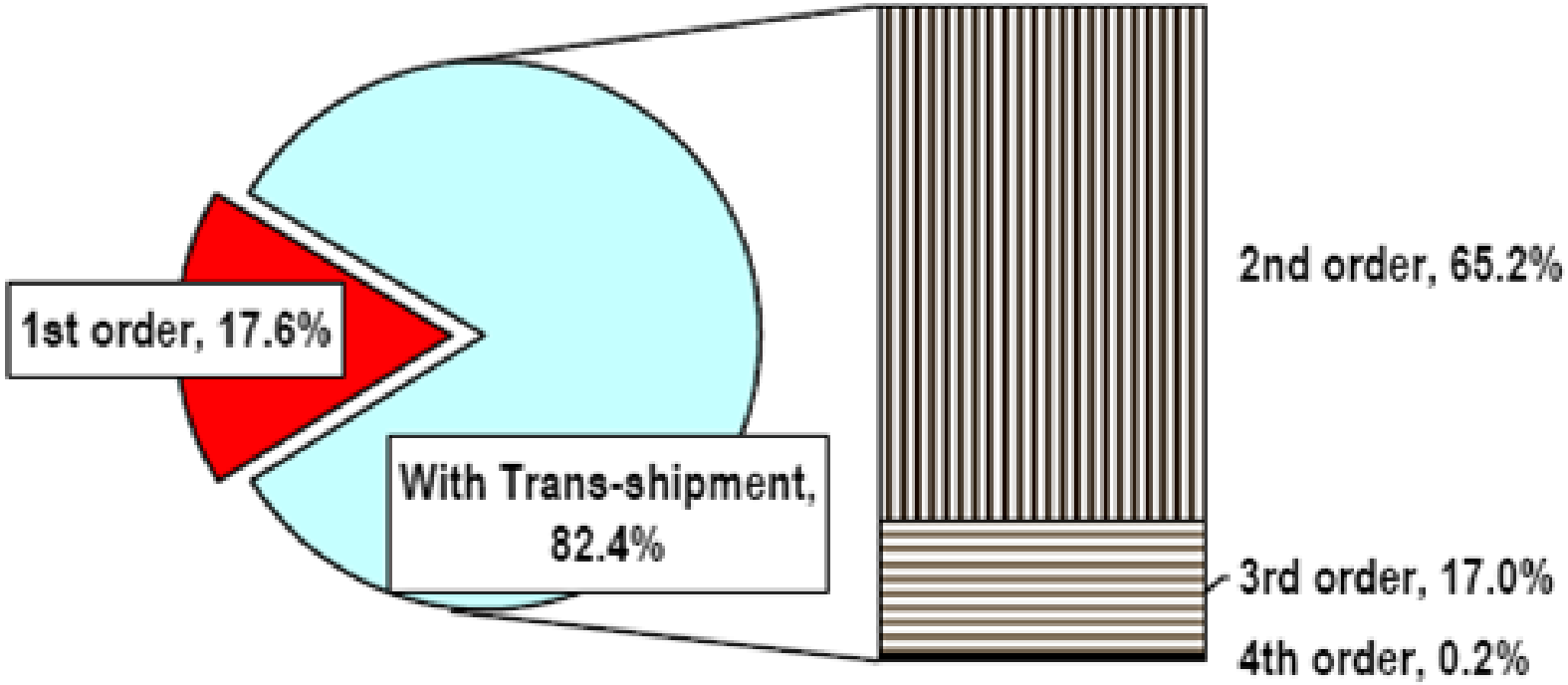
1) Per country – in a "point" ✓
2) Per route – between countries (12561)



Networking



Out of 162 x 161 pairs of countries:
How many are connected by direct services?

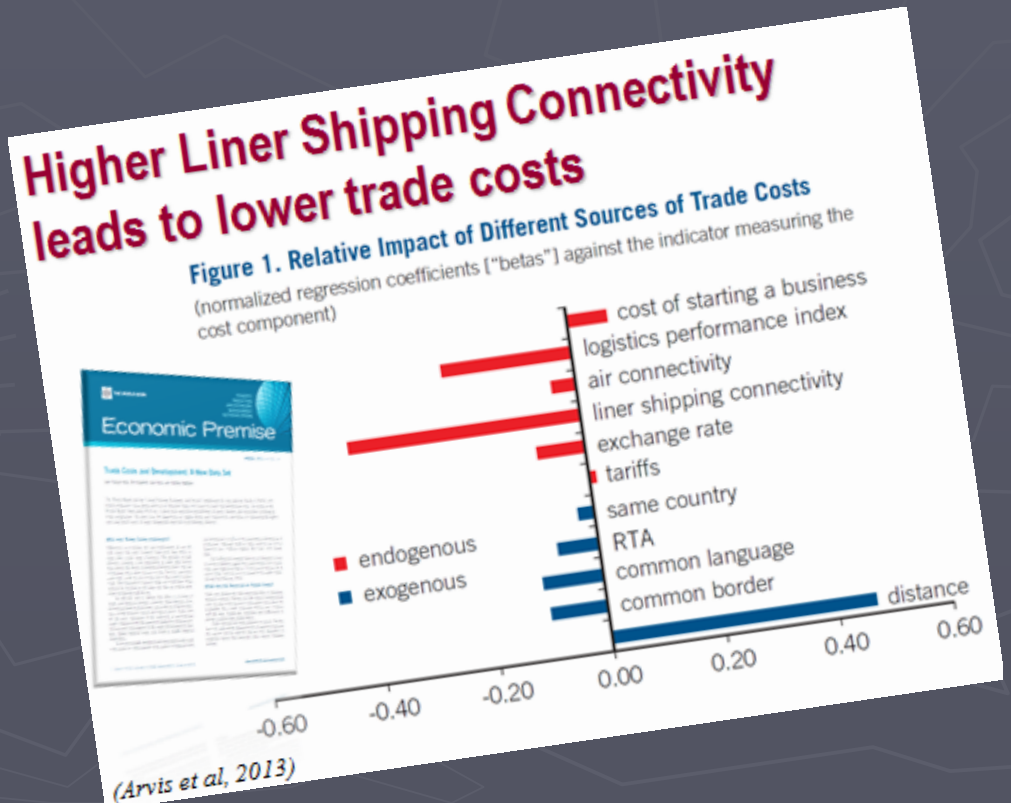


Source: UNCTAD, based on data from Containerization International

Ways to measure bi-lateral connectivity (1)

- Use national-level data:

  e.g. geometric average of country-level LSCI



Ways to measure bi-lateral connectivity (2)

- Direct connectivity:
  - Number of companies (competition)
  - Number of services (transport options)
  - Largest ship (infrastructure)

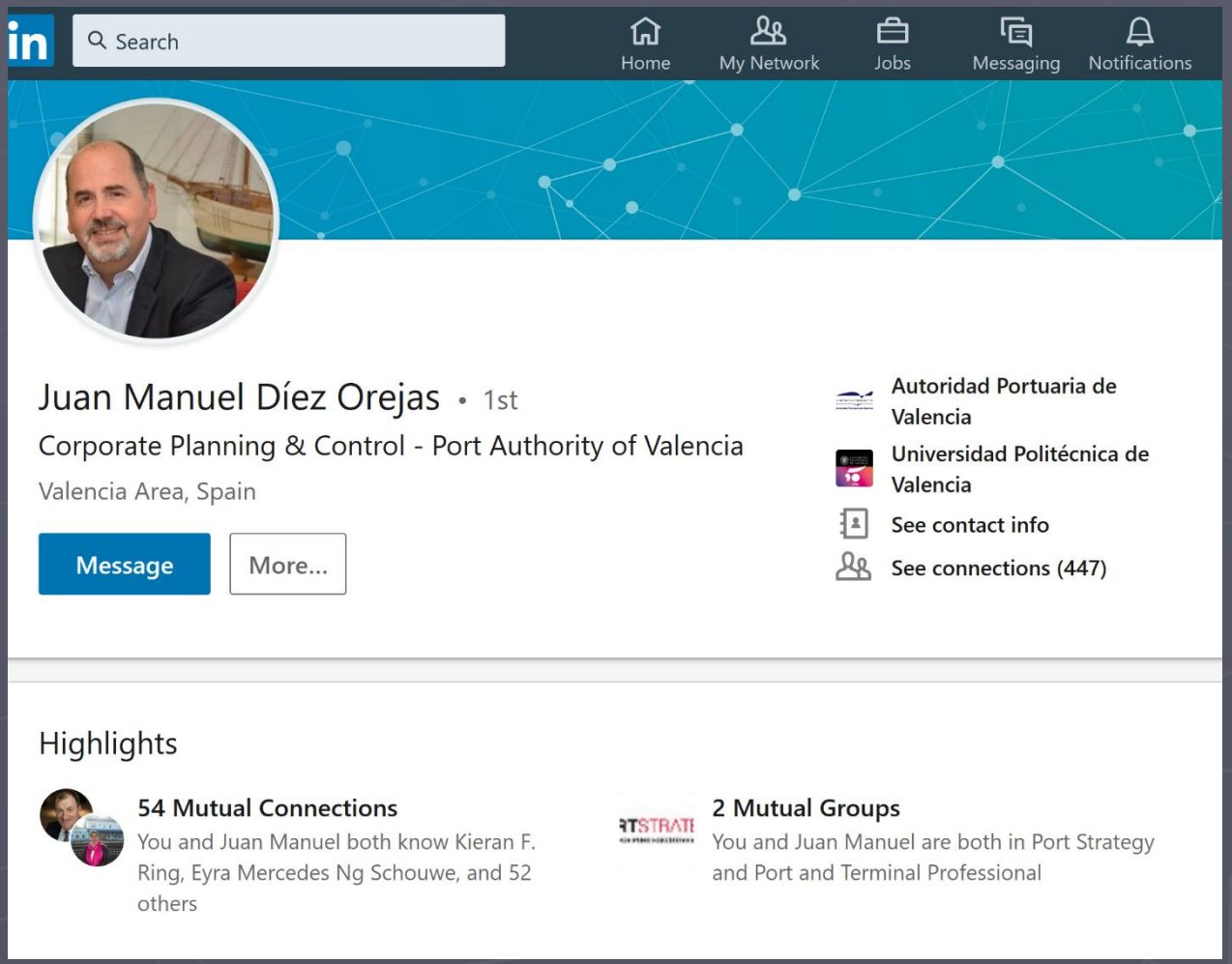
Ways to measure bi-lateral connectivity (3)

- Position in network:

  e.g. Number of options to get from A to B with one (or two) transshipment(s)
  -> number of common connections

Ways to measure bi-lateral connectivity (3)

- Position in network:



Ways to measure bi-lateral connectivity (4)

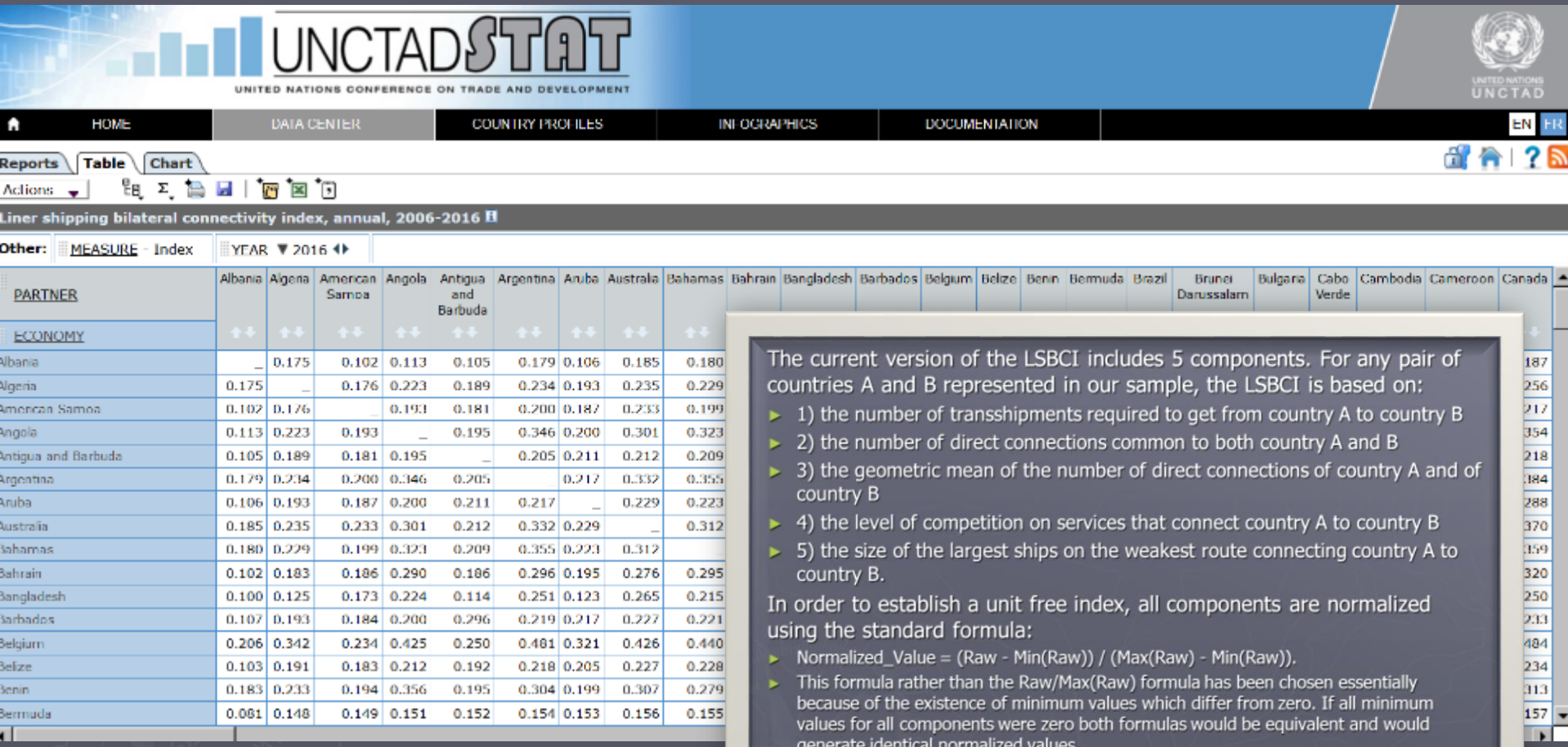
- Combine with distance:

  e.g. what's the shortest distance to get from A to B with transshipments (if there is no direct service)

Ways to measure bi-lateral connectivity (…)

- Combinations of the above…
  - e.g. Largest ship on connections with transshipoment (Max-Min)
  - Level of competition on routes with transshipment
  - (…)

UNCTAD LSBCI



PARTNER ECONOMY	Albania	Algeria	American Samoa	Angola	Antigua and Barbuda	Argentina	Aruba	Australia	Bahamas	Bahrain	Bangladesh	Barbados	Belgium	Belize	Benin	Bermuda	Brazil	Brunei Darussalam	Bulgaria	Cabo Verde	Cambodia	Cameroon	Canada
Albania	_	0.175	0.102	0.113	0.105	0.179	0.106	0.185	0.180														187
Algeria	0.175	_	0.176	0.223	0.189	0.234	0.193	0.235	0.229														256
American Samoa	0.102	0.176	_	0.193	0.181	0.200	0.187	0.233	0.199														217
Angola	0.113	0.223	0.193	_	0.195	0.346	0.200	0.301	0.323														354
Antigua and Barbuda	0.105	0.189	0.181	0.195	_	0.205	0.211	0.212	0.209														218
Argentina	0.179	0.234	0.200	0.346	0.205	_	0.217	0.332	0.355														384
Aruba	0.106	0.193	0.187	0.200	0.211	0.217	_	0.229	0.223														288
Australia	0.185	0.235	0.233	0.301	0.212	0.332	0.229	_	0.312														370
Bahamas	0.180	0.229	0.199	0.323	0.209	0.355	0.223	0.312															359
Bahrain	0.102	0.183	0.186	0.290	0.186	0.296	0.195	0.276	0.295														320
Bangladesh	0.100	0.125	0.173	0.224	0.114	0.251	0.123	0.265	0.215														250
Barbados	0.107	0.193	0.184	0.200	0.296	0.219	0.217	0.227	0.221														233
Belgium	0.206	0.342	0.234	0.425	0.250	0.481	0.321	0.426	0.440														484
Belize	0.103	0.191	0.183	0.212	0.192	0.218	0.205	0.227	0.228														234
Benin	0.183	0.233	0.194	0.356	0.195	0.304	0.199	0.307	0.279														313
Bermuda	0.081	0.148	0.149	0.151	0.152	0.154	0.153	0.156	0.155														157

The current version of the LSBCI includes 5 components. For any pair of countries A and B represented in our sample, the LSBCI is based on:

- 1) the number of transshipments required to get from country A to country B
- 2) the number of direct connections common to both country A and B
- 3) the geometric mean of the number of direct connections of country A and of country B
- 4) the level of competition on services that connect country A to country B
- 5) the size of the largest ships on the weakest route connecting country A to country B.

In order to establish a unit free index, all components are normalized using the standard formula:

- Normalized_Value = (Raw - Min(Raw)) / (Max(Raw) - Min(Raw)).
- This formula rather than the Raw/Max(Raw) formula has been chosen essentially because of the existence of minimum values which differ from zero. If all minimum values for all components were zero both formulas would be equivalent and would generate identical normalized values.
- The LSBCI is computed by taking the simple average of the five normalized components. As a consequence, the LSBCI can only take values between 0 (minimum) and 1 (maximum). As to the first component, we simply take its complement to unity that is 1-Normalized_Value to respect the correspondence between higher values and stronger connectivity.

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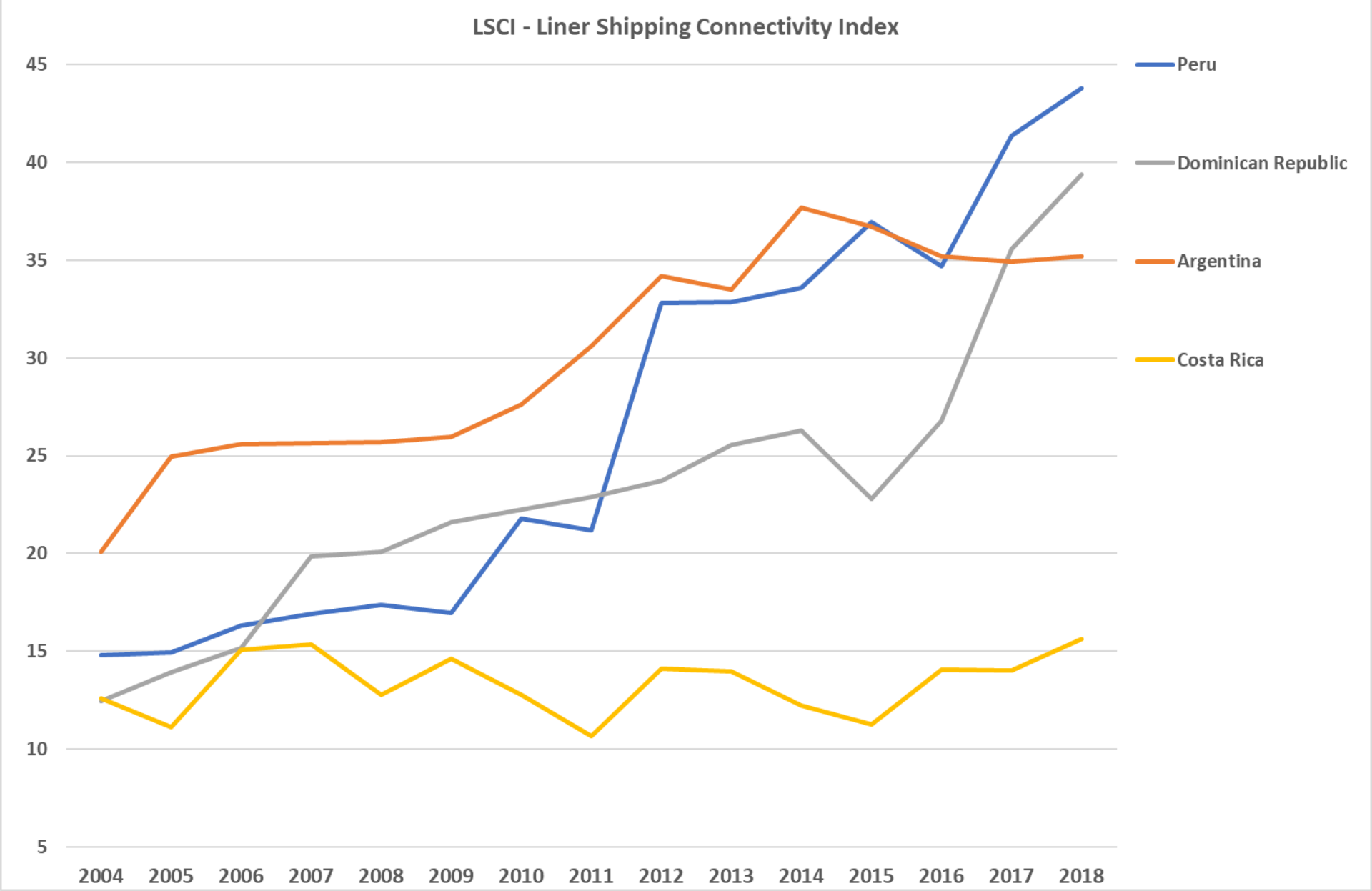
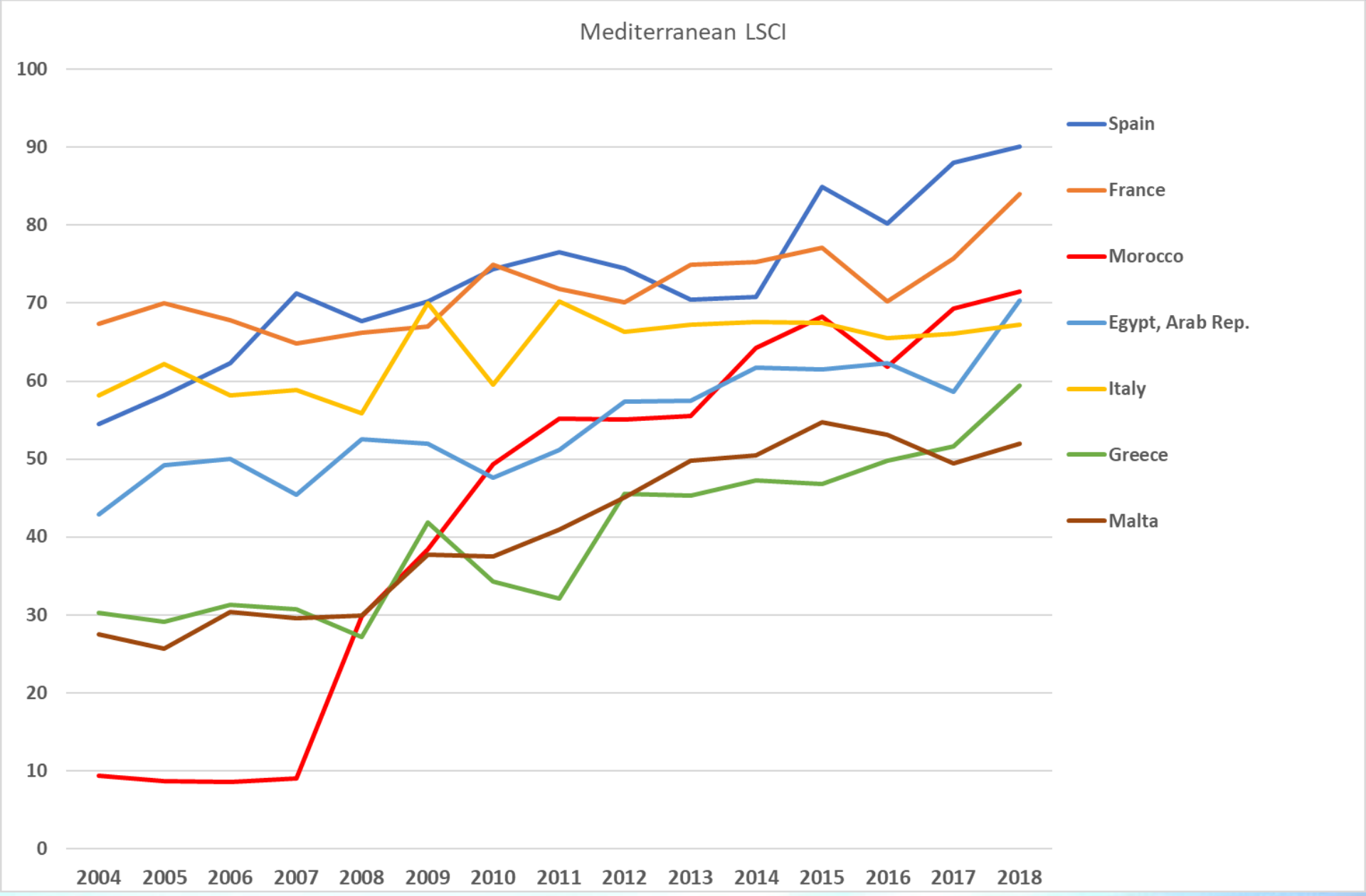
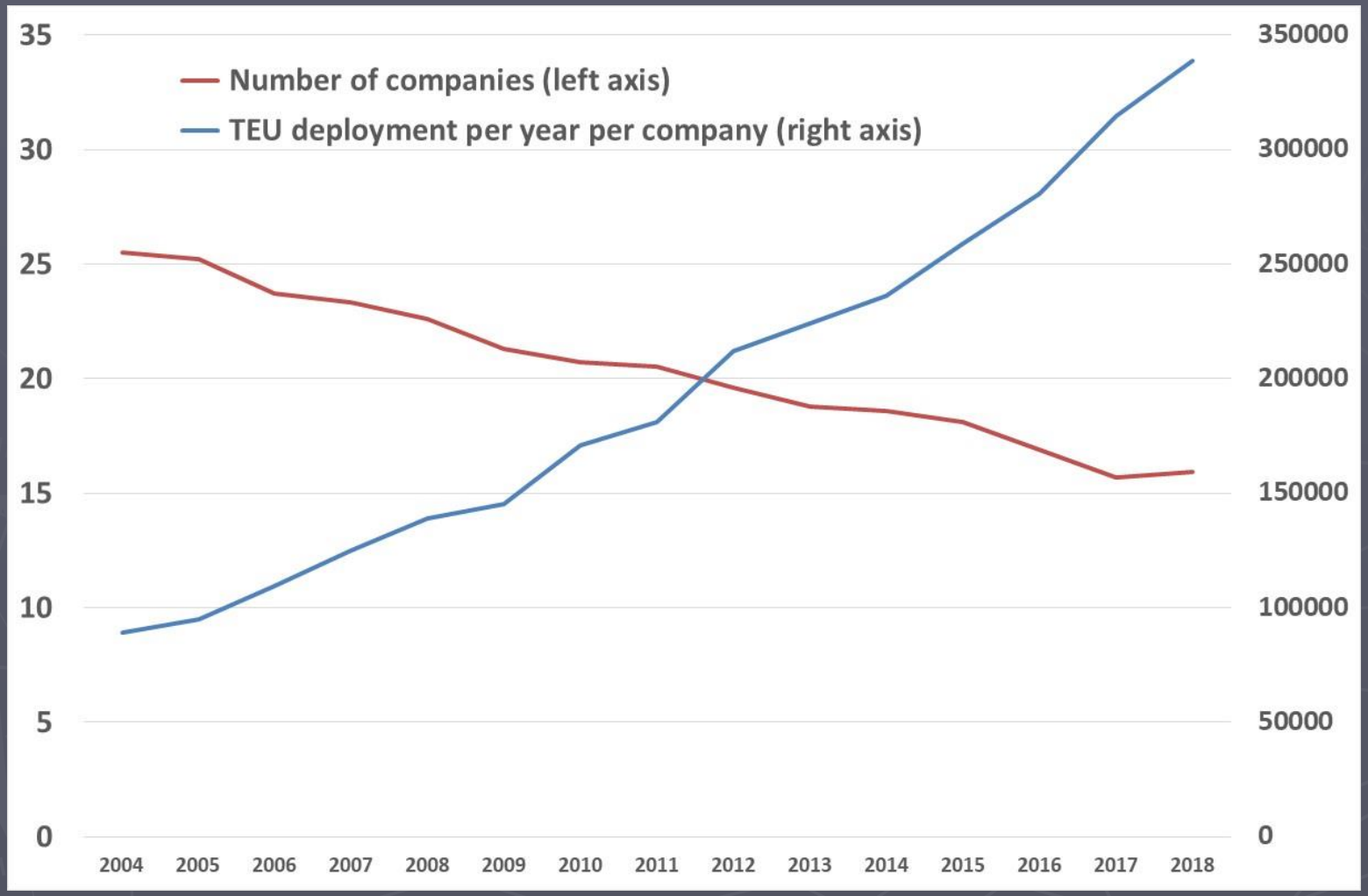
- ¿Cómo medir conectividad?
- **Tendencias claves y discusión**
- 10 recomendaciones



UNCTAD LSCI generated with data from MDS Transmodal - www.mdst.co.uk

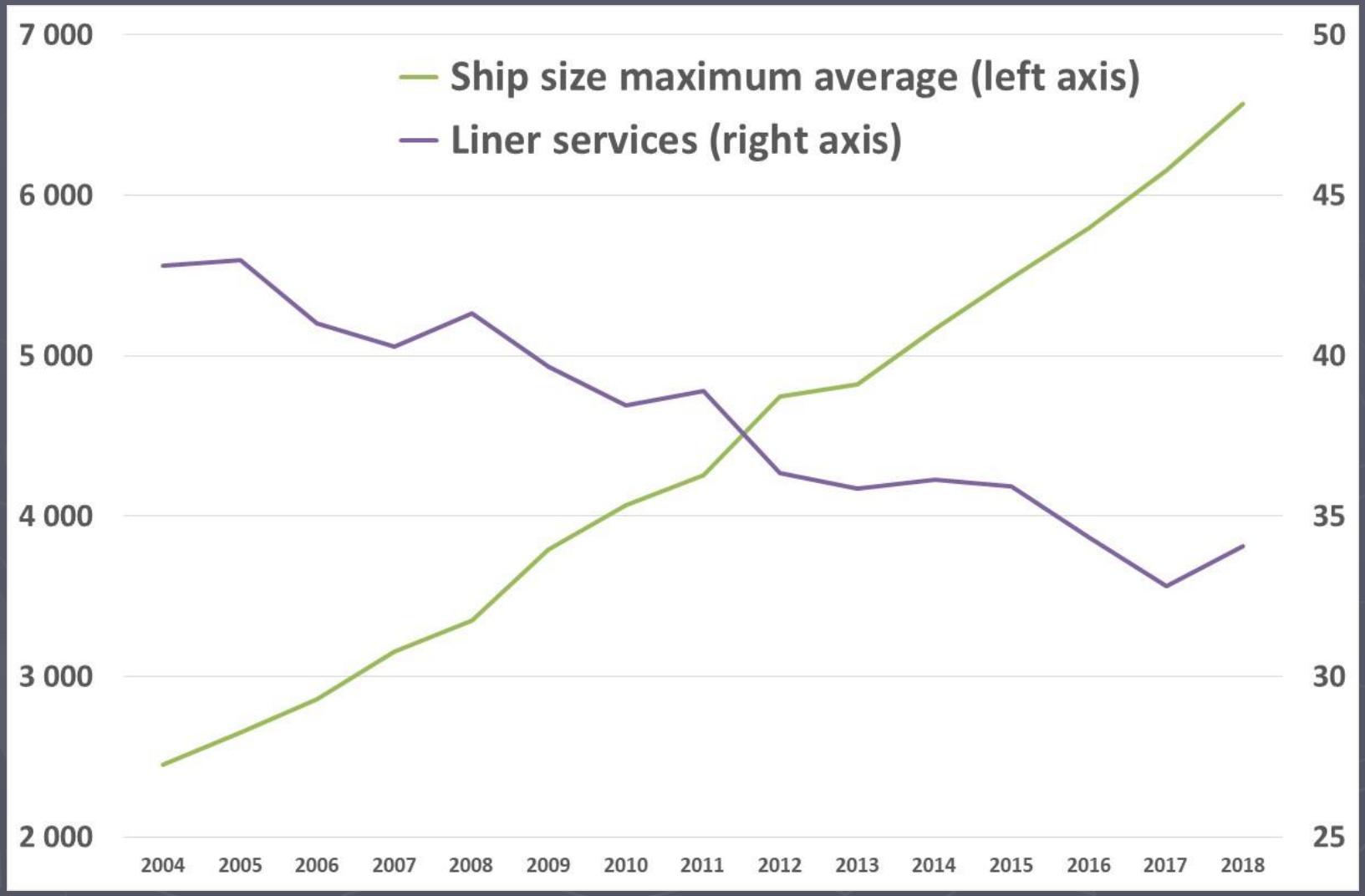

Mediterranean LSCI
100
90
80
70
60
50
40
30
20
10
0
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
Spain
France
Morocco
Egypt, Arab Rep.
Italy
Greece
Malta

Menos empresas – más economías de escala



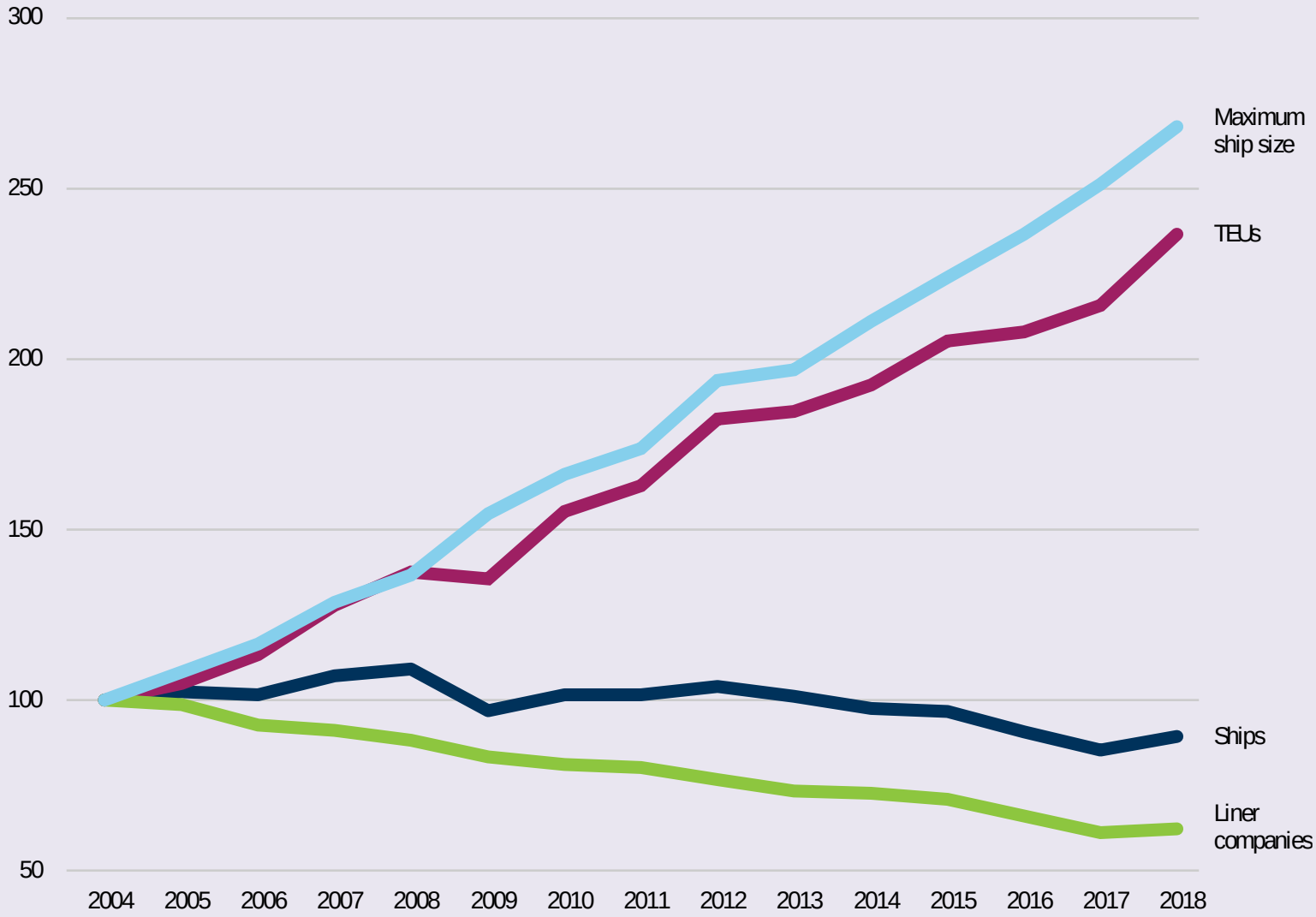
Promedio por país. Source: UNCTAD RMT 2018, based on data from MDS Transmodal

Buques más grandes – menos servicios



Promedio por país. Source: UNCTAD RMT 2018, based on data from MDS Transmodal

Tendencia en la asignación de buques portacontenedores (2004 = 100)



UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT

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POLICY BRIEF

MARKET CONSOLIDATION IN CONTAINER SHIPPING: WHAT NEXT?

Over the past two years, a wave of market consolidation has transformed the global container shipping industry, leading to mergers and acquisitions between container lines, a reshuffling of shipping alliances and the expansion of shipping companies into port operations. There is potential for more consolidation, which raises the question as to the implications for market concentration levels, and whether the industry is becoming an oligopoly on certain routes.

Consolidation activity in 2016–2018 reflects the industry's efforts to cope with the difficult market conditions faced since the 2008 global financial crisis. For many years, container shipping has struggled with low freight rates, dwindling earnings and poor financial returns.

There are clearly two sides to the container market consolidation story. By consolidating and joining alliances, container lines can expect to reduce costs, better manage ship capacity and enhance efficiency. These, in turn, benefit shippers, if on a given route the savings achieved by container lines translate into lower rates and improved service offerings. On the other hand, shippers, trade and ports can be negatively affected, if on a given route, consolidation results in reduced competition, constrained supply, market power abuse, and higher rates and prices. These trends call for systematic and regular monitoring and assessment of consolidation trends in container shipping.

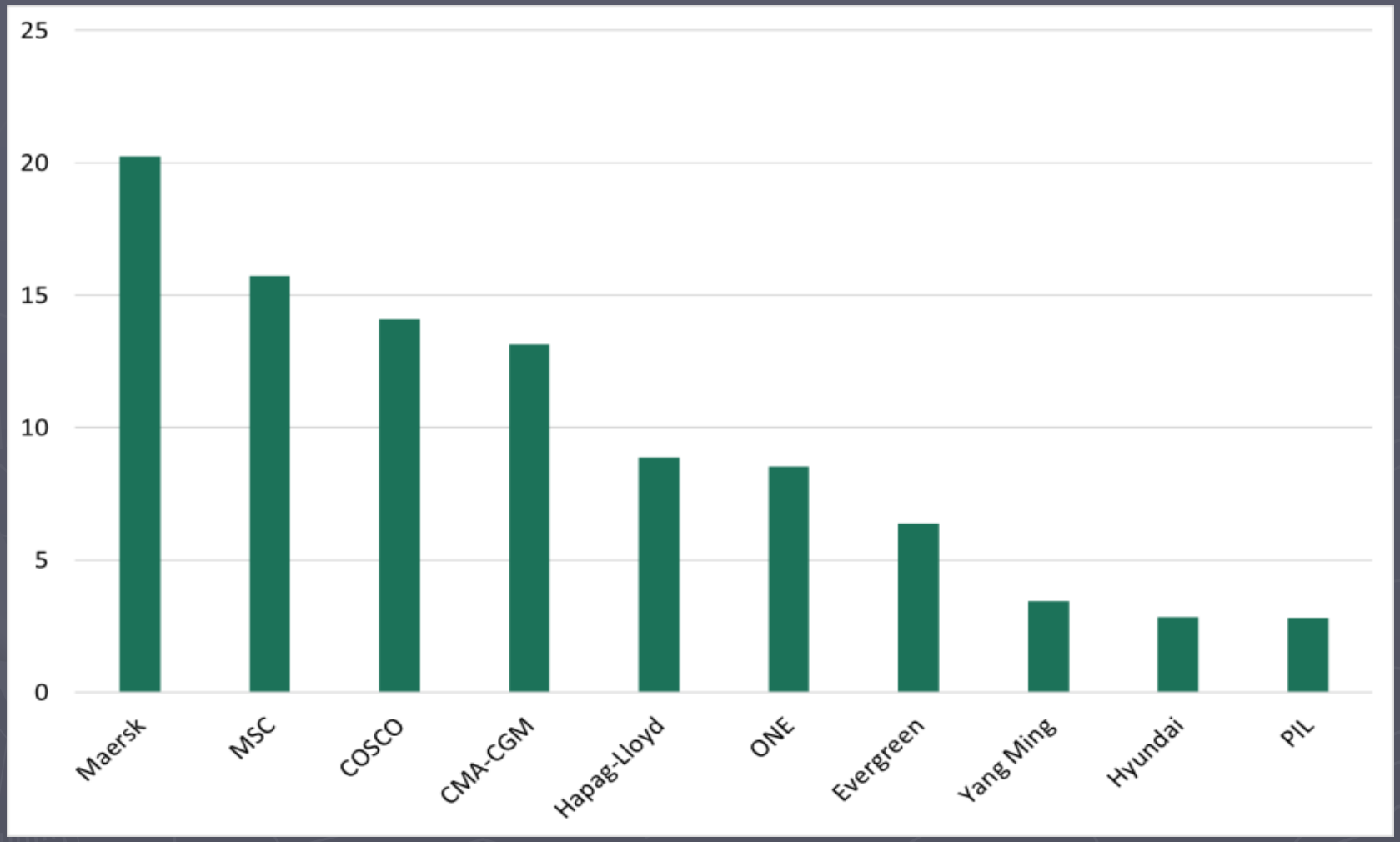
Growing container shipping market consolidation

Since 2016, the global container shipping industry, which handles about 60 per cent of seaborne merchandise trade in terms of value, witnessed a series of developments leading to major market consolidation.[1] Container lines conducted various mergers and acquisitions and formed larger strategic shipping alliances groupings where member container lines cooperate on strategic issues. This consolidation activity resulted in greater market concentration, with a handful of container lines dominating the market. As of January 2018, the top 15 container lines accounted for just over 70 per cent of all container ship capacity. Six months later, in June, the top 10 controlled almost 70 per cent of capacity, reflecting the completed operational integration of the new mergers.

Between 2004 and 2018, the number of companies providing services per country

[1] This policy brief draws mainly upon the information, data and analysis reported in the UNCTAD publication, Review of Maritime Transport 2018. Relevant references and sources are available at http://unctad.org/RMT. Accessed 13 September 2018.

Top 10 navieros



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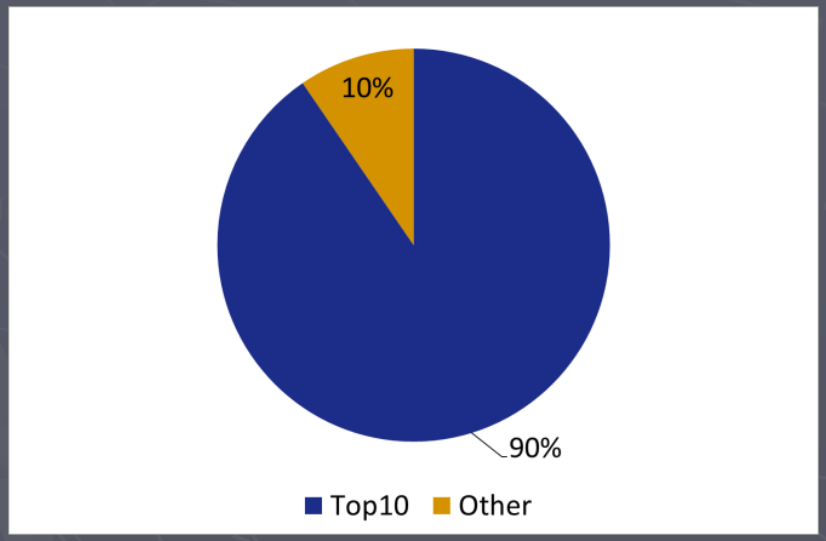
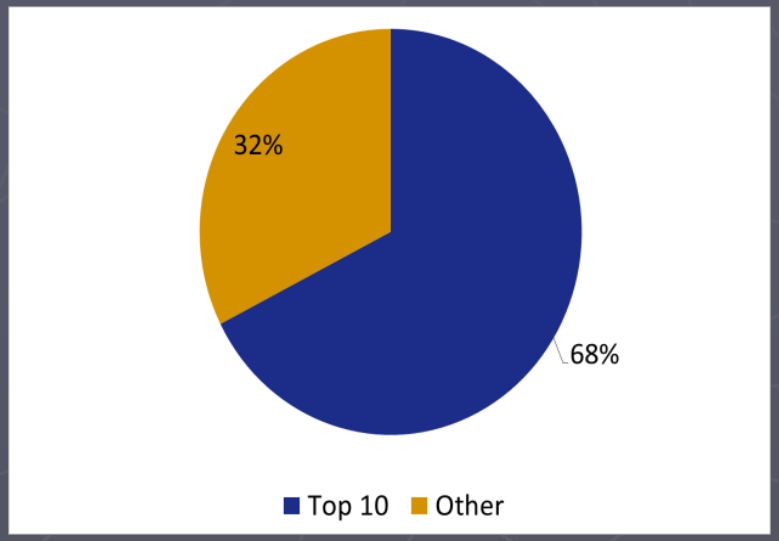
Capacidad top 10

2019



2014



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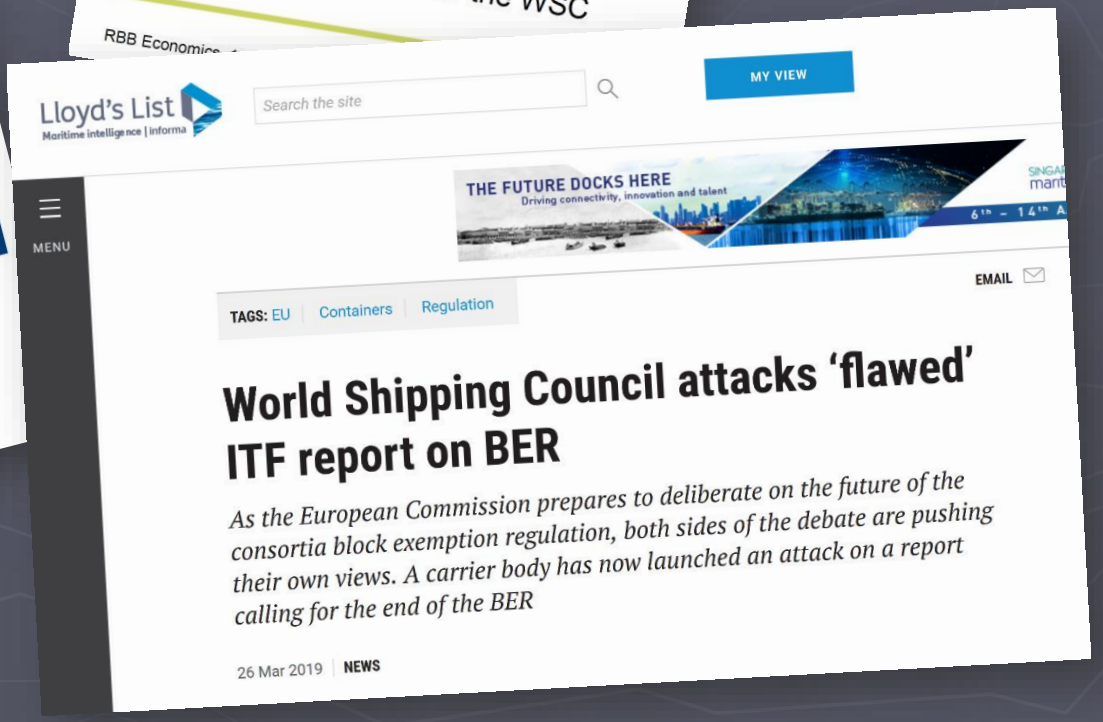
Alianzas

- Controversia



Concentración en Alianzas

Miembros de 3 Alianzas

	2014Q1	2019Q1	% change
Number of services	150	285	90.0%
Number of ships per service	8	9	8.5%
Average ship size (TEU)	5,933	7,823	31.8%
Average round trip (days)	66	64	-3.0%

Otros

	2014Q1	2019Q1	% change
Number of services	431	223	-48.3%
Number of ships per service	7	5	-23.0%
Average ship size (TEU)	4,453	3,040	-31.7%
Average round trip (days)	63	68	7.9%

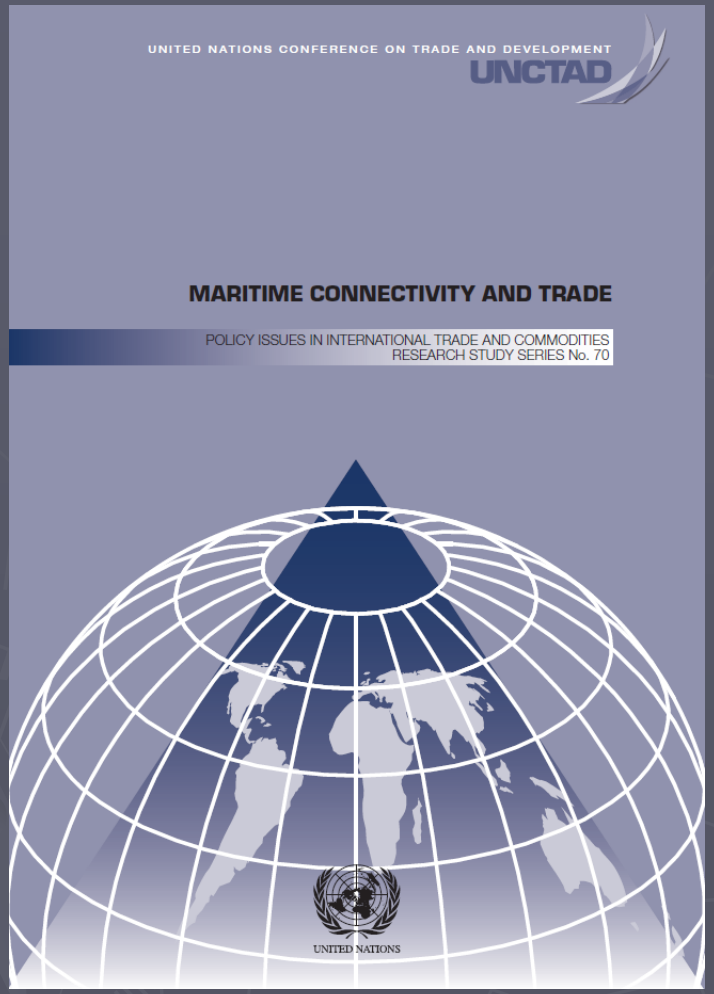
MDS Transmodal Containership Databank, February 2019

- ¿Por qué medir conectividad?
- ¿Cómo medir conectividad?
- Tendencias claves y discusión
- 10 recomendaciones

UNCTAD recomienda

¿Qué se puede hacer para mejorar la conectividad marítima?

10 recommendaciones



#1: Mejorar pronósticos

Incluir la conectividad marítima en los planes y modelos comerciales.

- A la hora de negociar acuerdos, preparar políticas comerciales o planificar inversiones en infraestructuras de transporte, los estudios y previsiones pueden mejorar considerablemente si se incluyen datos sobre las redes de transporte marítimo

#2: Conectividad digital

Oportunidades de la nuevas tecnologías

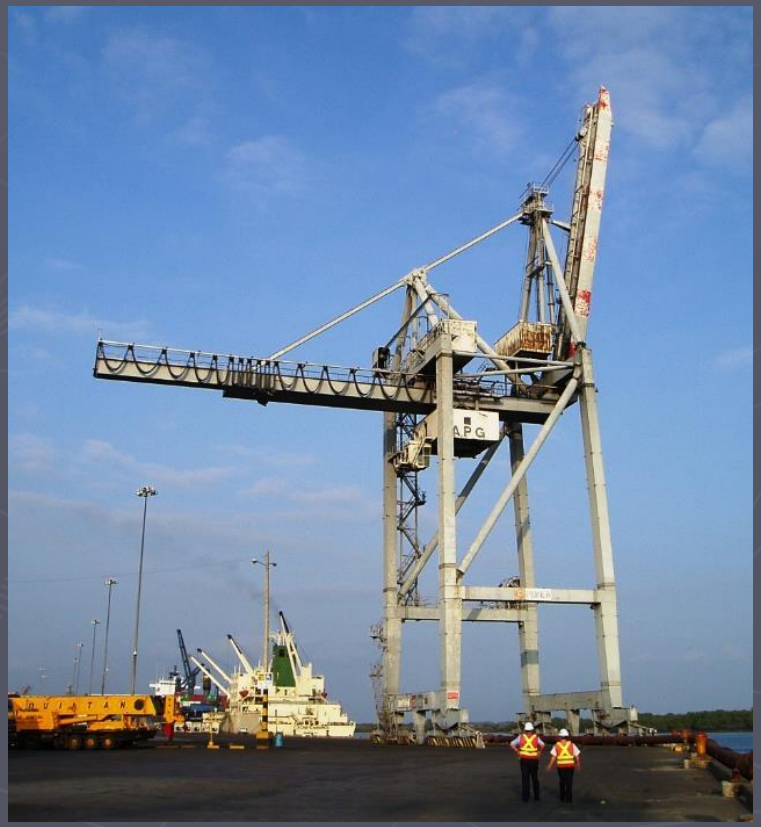
- Las tecnologías de redes modernas ofrecen oportunidades de seguimiento de la carga y los buques y muchos otros avances digitales que pueden contribuir a mejorar la conectividad marítima.

#3: Cabotage

Promover la vinculación de los servicios marítimos nacionales, regionales e intercontinentales

- La limitación de los mercados de cabotaje a nivel nacional o regional puede generar ineficiencias innecesarias y dar lugar a una pérdida de conectividad marítima

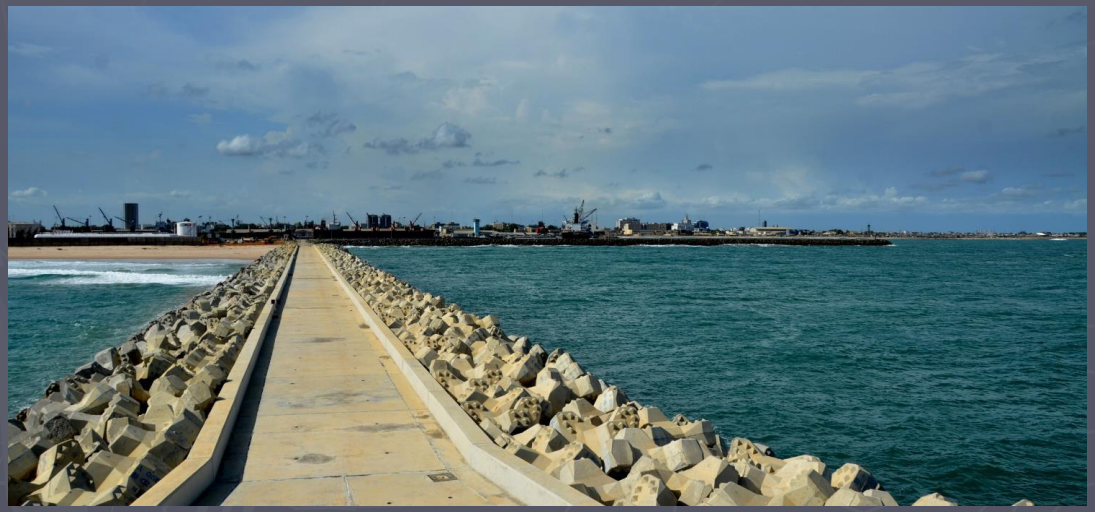
#4: Coordinación regional



Son los mismos buques que llegan.

- No todos los países pueden albergar el mayor puerto central de distribución de la región. En el caso de los puertos situados en una misma ruta, tiene sentido planificar conjuntamente las inversiones portuarias.

#5: Modernizacion portuaria



Inversión en infraestructuras, tecnologías, procesos, y recursos humanos

- Dichas inversiones pueden darse en forma de alianzas público-privadas, ya que en los últimos decenios la mayoría de los puertos de uso público como las terminales de contenedores han sido objeto de una concesión o han contado con otro tipo de participación del sector privado.

#6: Que compitan los puertos

Las presiones competitivas incitarán a los operadores portuarios a maximizar su eficiencia y a transmitir los beneficios a sus clientes, expedidores y navieras.

#7: Plataformas de collaboración

Establecer comités de facilitación

#8: Facilitar del tránsito

Conectividad marítima se benificia de un hinterland más amplio

#9: Sean Fuertes !

La conectividad no lo es todo. Responder a las presiones de las navieras de línea para que se invierta en los puertos capacitándolos para acoger a buques cada vez más grandes, especialmente en el contexto de las operaciones de transbordo, puede que no compense el gasto extra.

#10: Ser realista

Va a ser cada vez más dificil para los mercados más pequeños

The RMT package

The RMT

… is complemented by:

- On-line statistics

  http://stats.unctad.org/Maritime
- Maritime country profiles

  230 two-page summaries
- Teaching and advisory services

  http://unctad.org/TLB
- Blogs and quarterly news

  http://unctad.org/transportnews

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- ¿Cómo medir conectividad?
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Conectividad Marítima

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