



Transporte marítimo y puertos: competencia en el sector y desafíos para la regulación

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Cooperación Económica y Técnica

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Transporte marítimo y puertos: Competencia en el sector y desafíos para la regulación



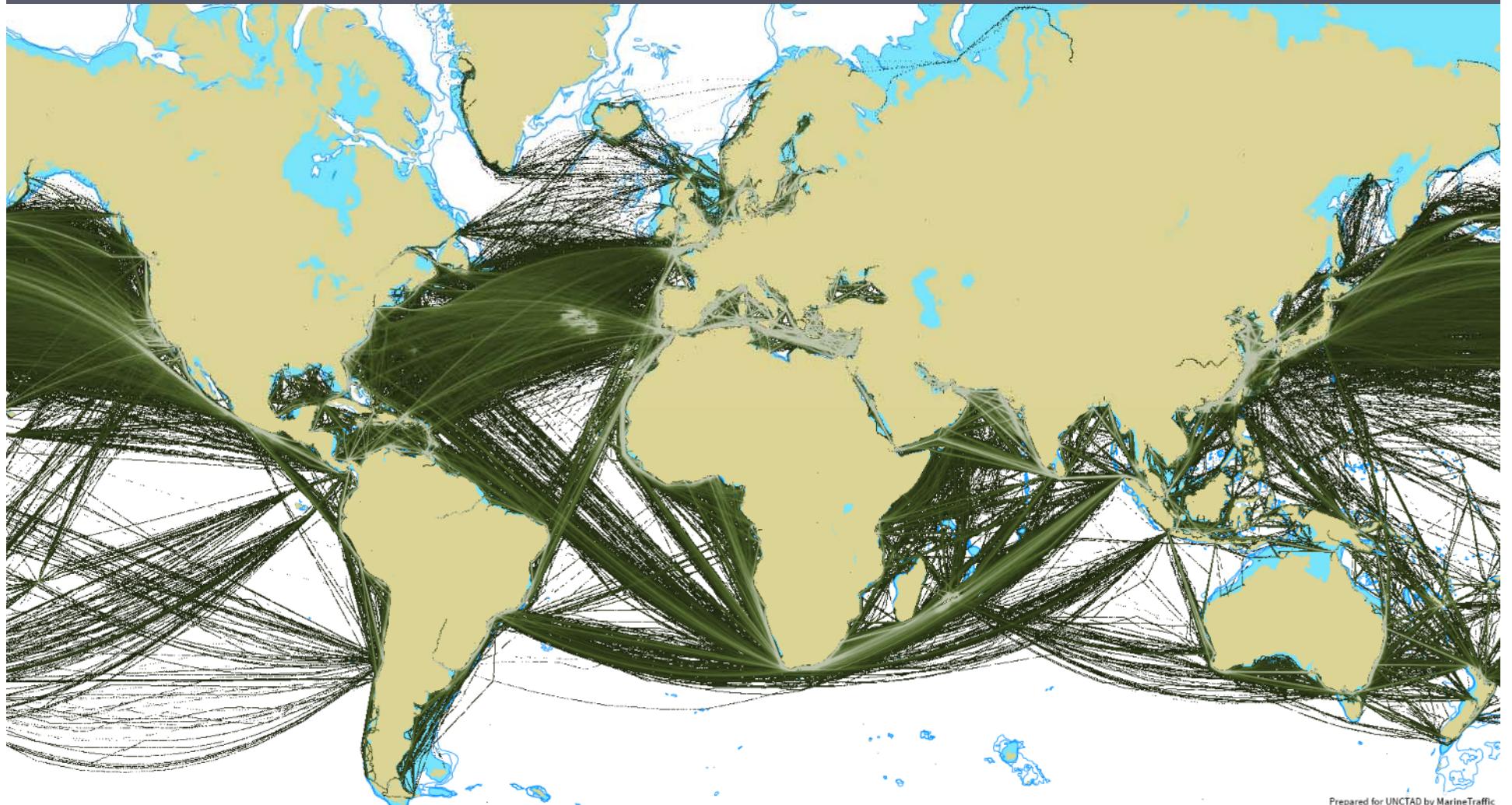
SELA, Octubre 2018, Jan.Hoffmann@UNCTAD.org

Example: “Hoffmann Shipping”:

- ▶ Owner: German
- ▶ Flag: Antigua and Barbuda
- ▶ Freight agent: Netherlands
- ▶ Seafarers: Poland
- ▶ Crewing agent: Cyprus
- ▶ Cargo: Turkey
 - ▶ to Canada
- ▶ Fuel: Spain
- ▶ Insurance: United Kingdom
- ▶ Shipyard: Portugal
- ▶ Captains' favourite drink:
Ireland



Figure 6.1. Density map of container ship movements



Prepared for UNCTAD by MarineTraffic

Source: Prepared for UNCTAD by Marine Traffic.

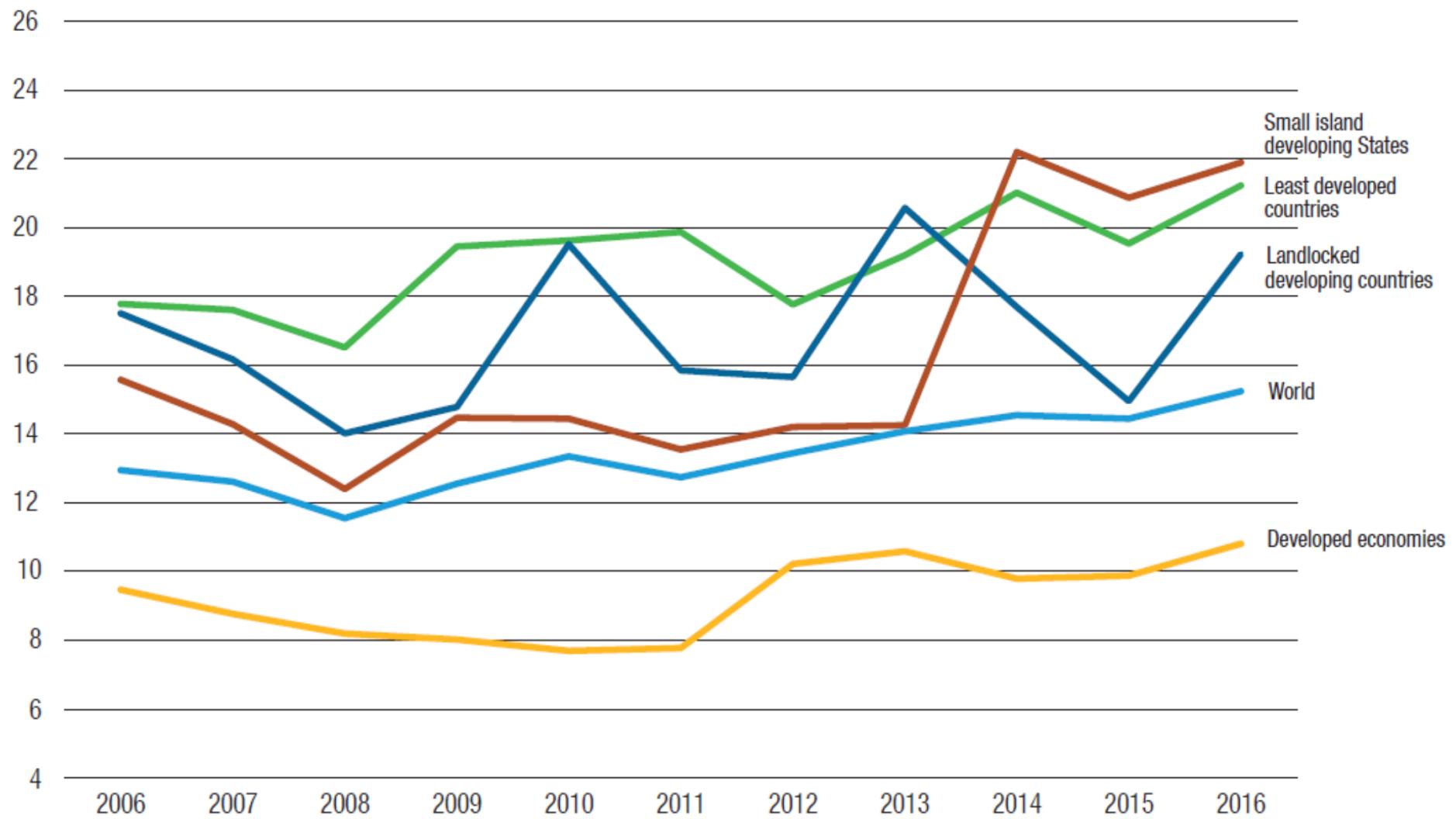
Note: Data depict container ship movements in 2016.

- ▶ Costos del transporte internacional
- ▶ Consolidación entre las líneas navieras
- ▶ América Latina y el Caribe:
La situación en el 2018



- 
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**Figure 3.5. Transport and insurance costs of international trade, 2006–2016
(Percentage share of value of imports)**

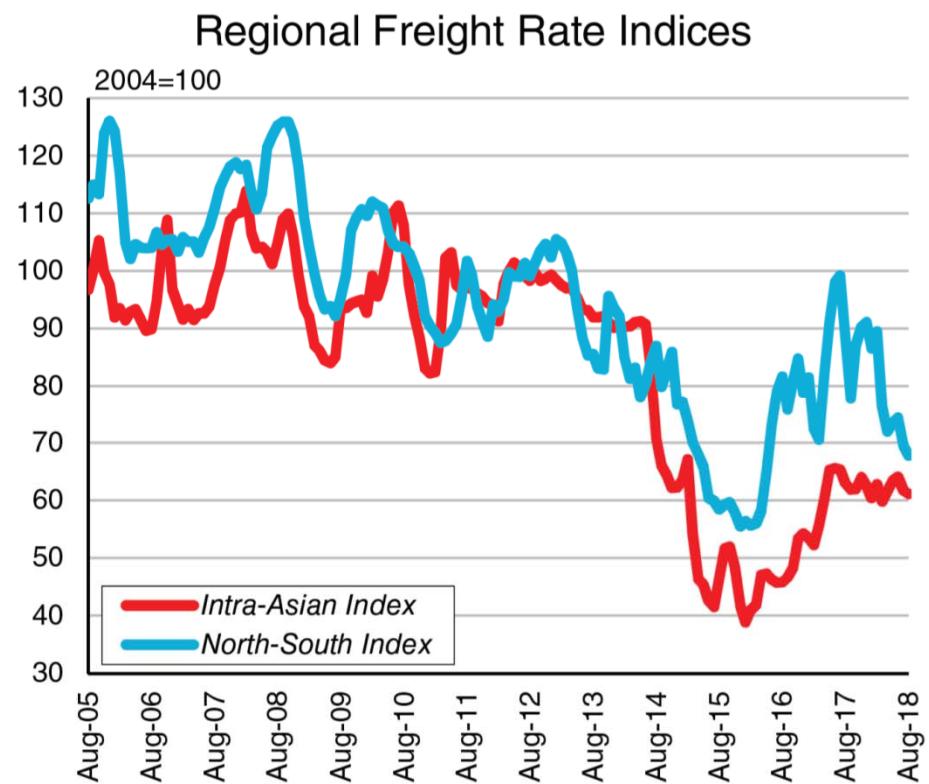
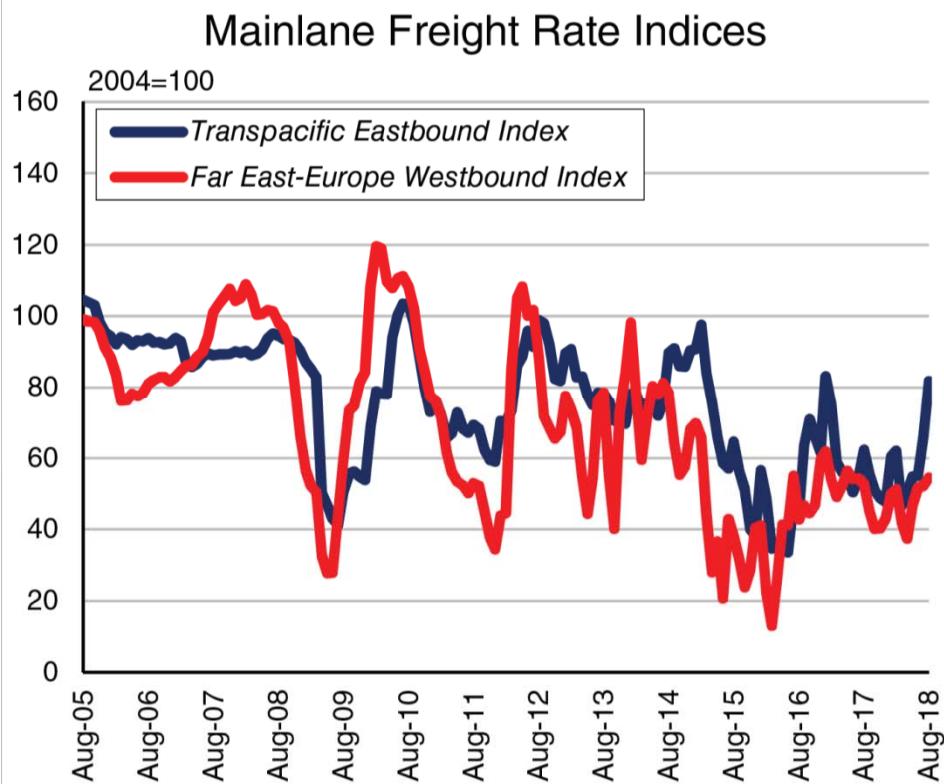


Source: UNCTAD secretariat calculations.

Note: All modes of transport; the least developed countries grouping includes 48 countries for all periods up to 2016.

Source: UNCTAD RMT 2017

Different trends on different routes

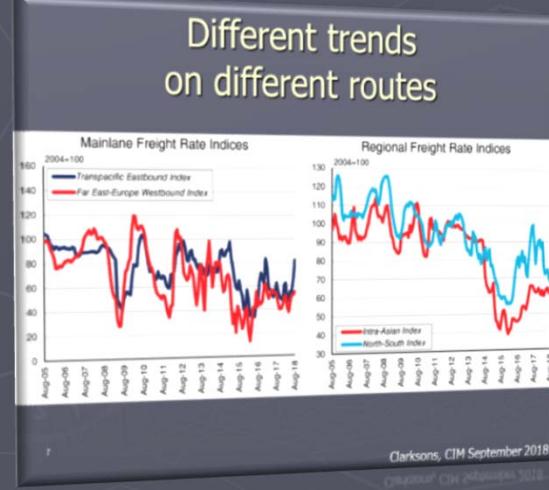
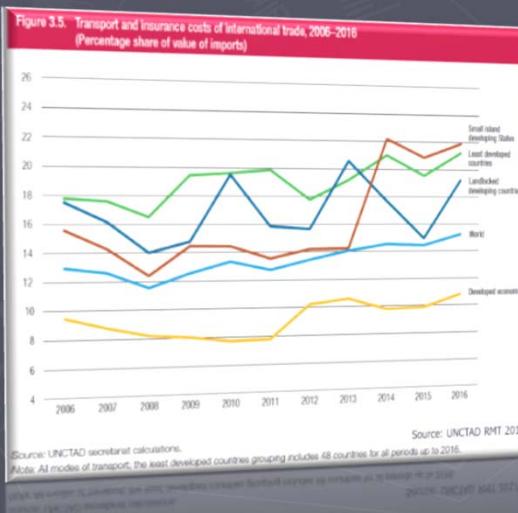


Container freight rates from China

North-South Freight Market	\$/TEU			\$/ TEU Freight Rate		
	Avg.	Avg.	Avg.	2018	2018	2018
	2016	2017	2018*	May	Jun	Jul
Shanghai - South America	1,647	2,679	2,009	1,927	1,875	1,673
<i>% change y-o-y</i>	271%	63%	-26%	-38%	-47%	-54%
Shanghai - Australia/New Zealand	526	677	917	830	733	736
<i>% change y-o-y</i>	10%	29%	87%	104%	110%	82%
Shanghai - West Africa	1,187	1,770	1,778	1,875	2,207	2,046
<i>% change y-o-y</i>	-18%	49%	-10%	-16%	-11%	-20%
Shanghai - South Africa	580	1,155	905	803	796	586
<i>% change y-o-y</i>	-15%	99%	-18%	-30%	-37%	-59%

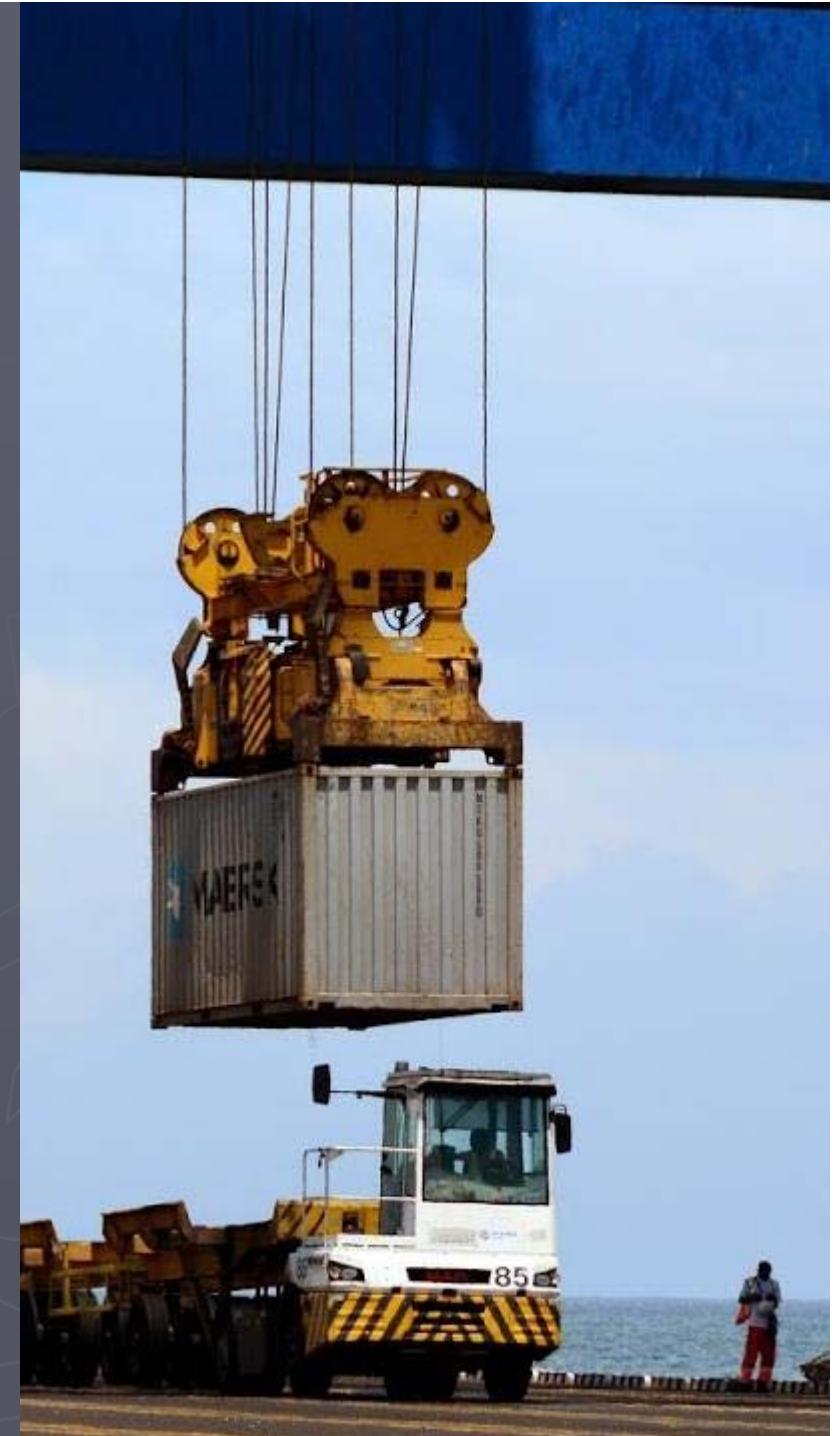
Source: Clarksons Research, CIM September 2018

¿Qué es lo que explica estas diferencias? (perspectiva del usuario)



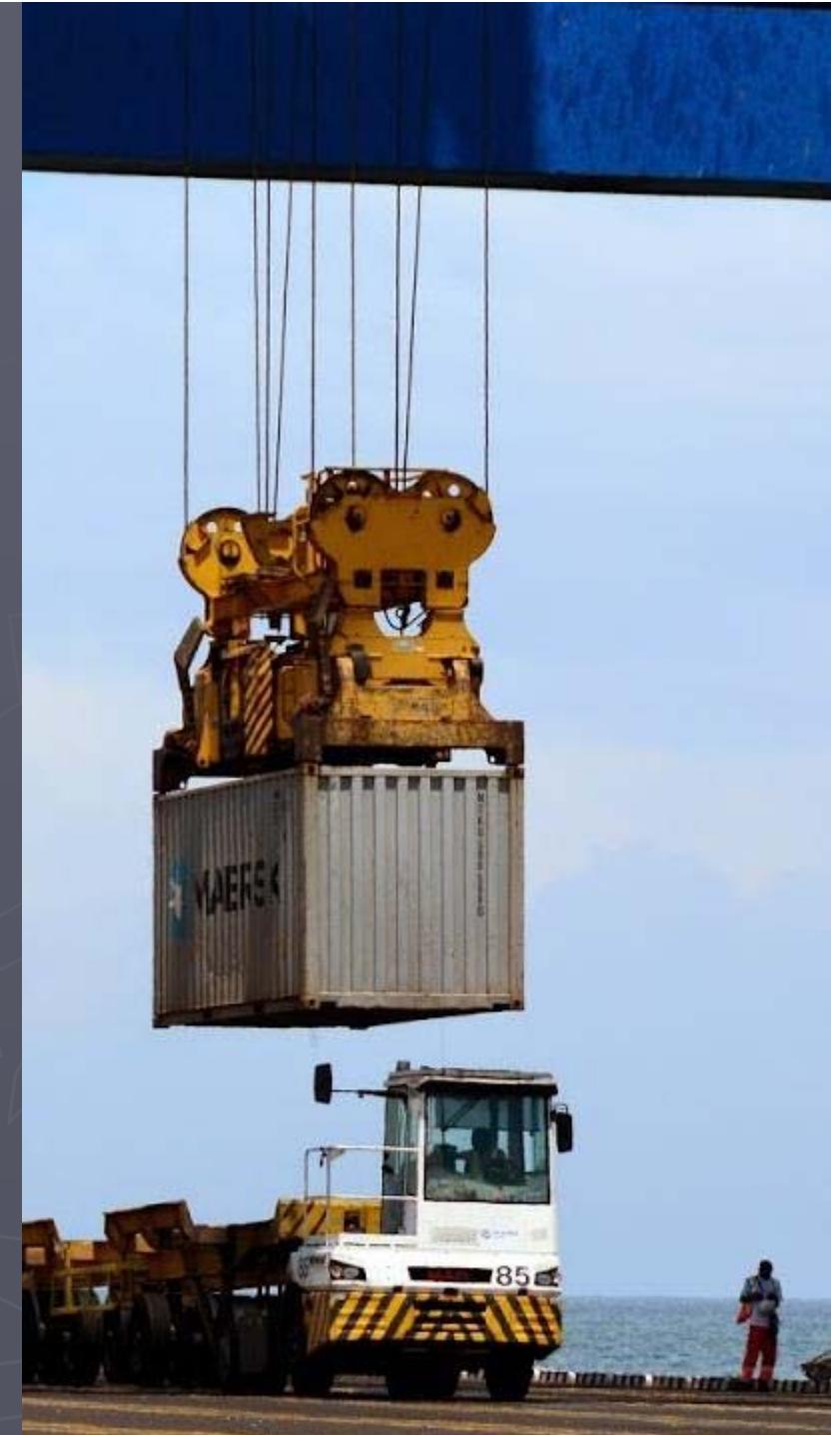
Differences in freight costs depend on...

- 1) Distances
- 2) Economies of scale
- 3) Imbalances
- 4) Type and value of goods
- 5) Competition
- 6) Port characteristics

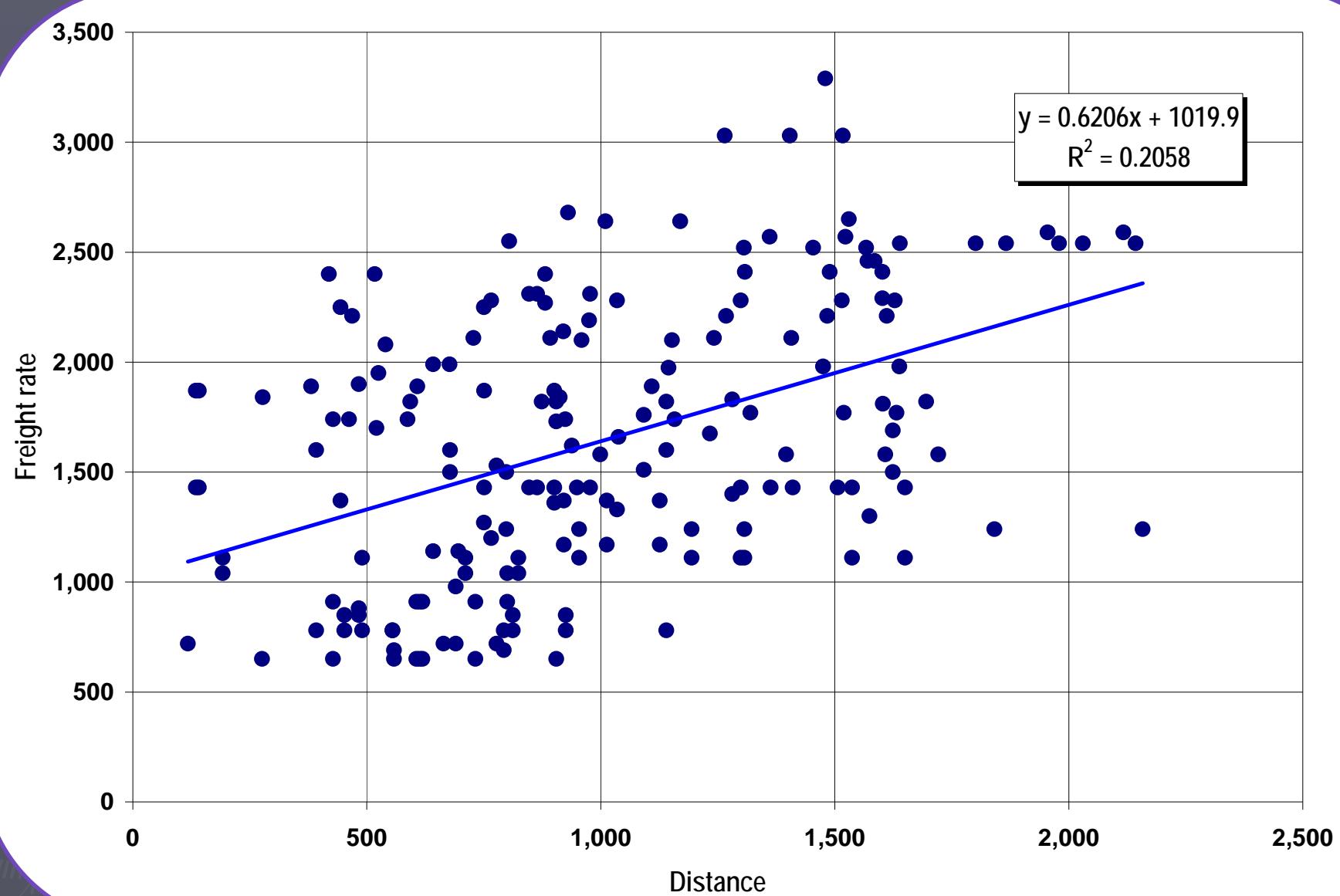


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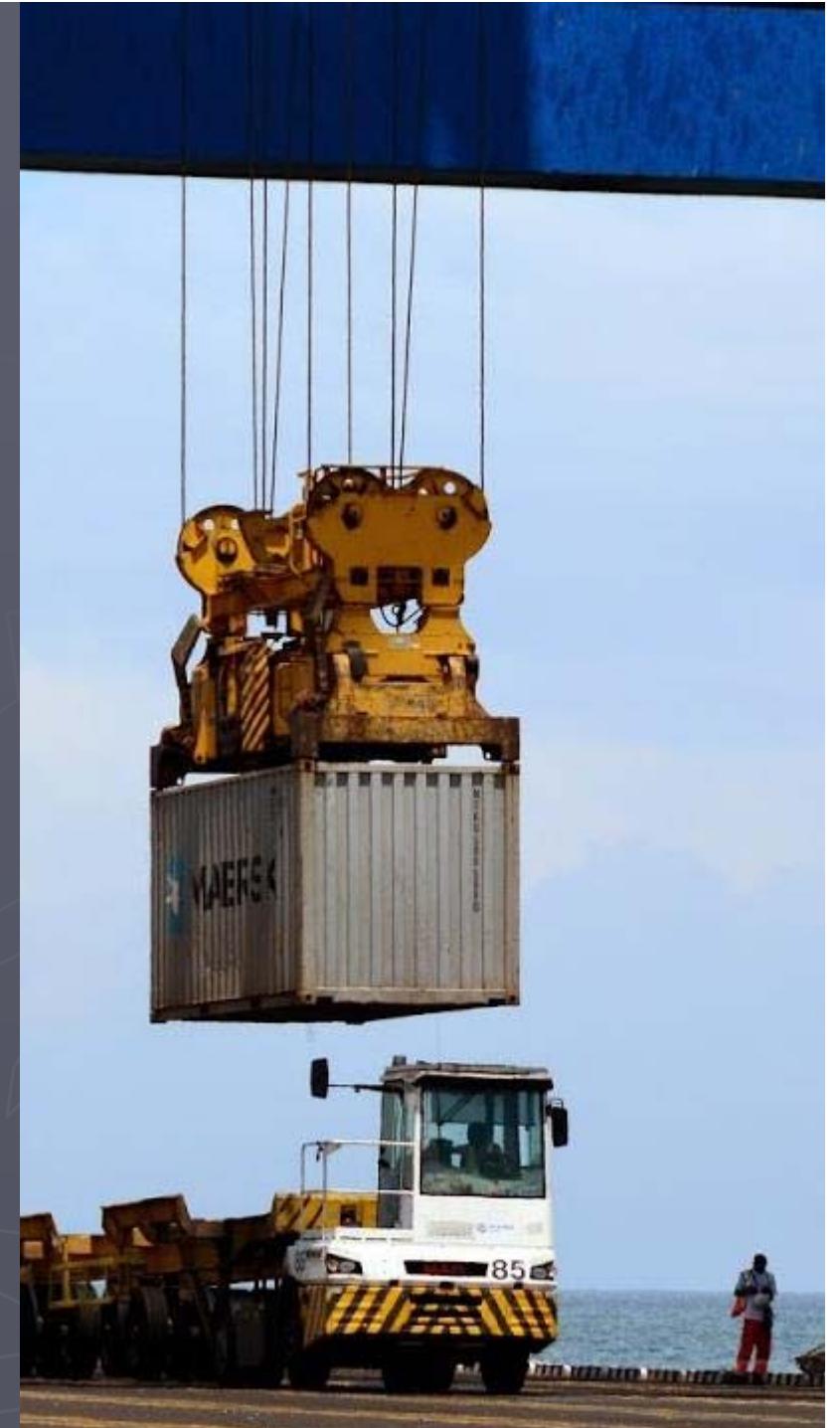
Freight rates and Distance in the Caribbean



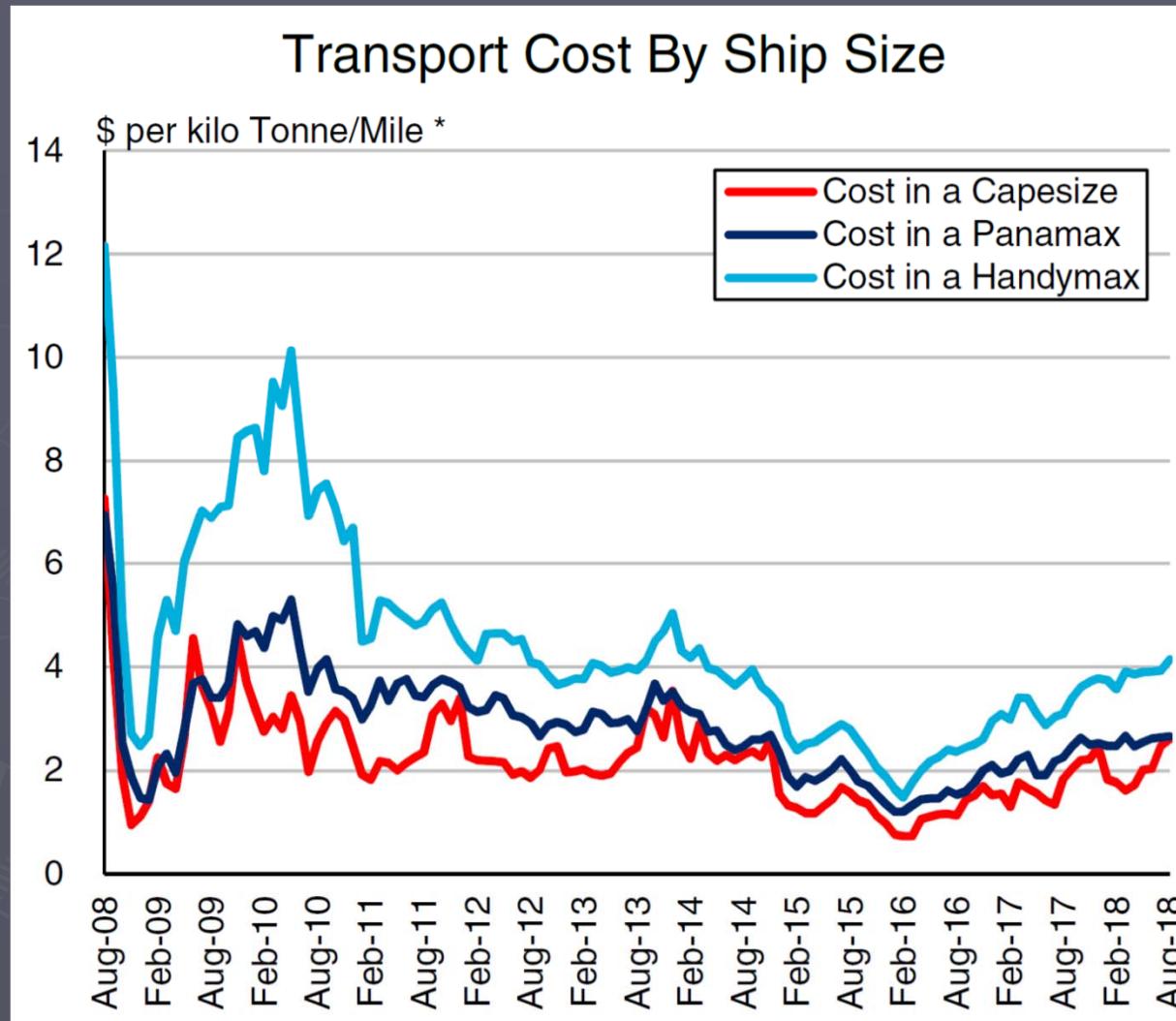
Source: Hoffmann, Wilmsmeier, MEL 2008

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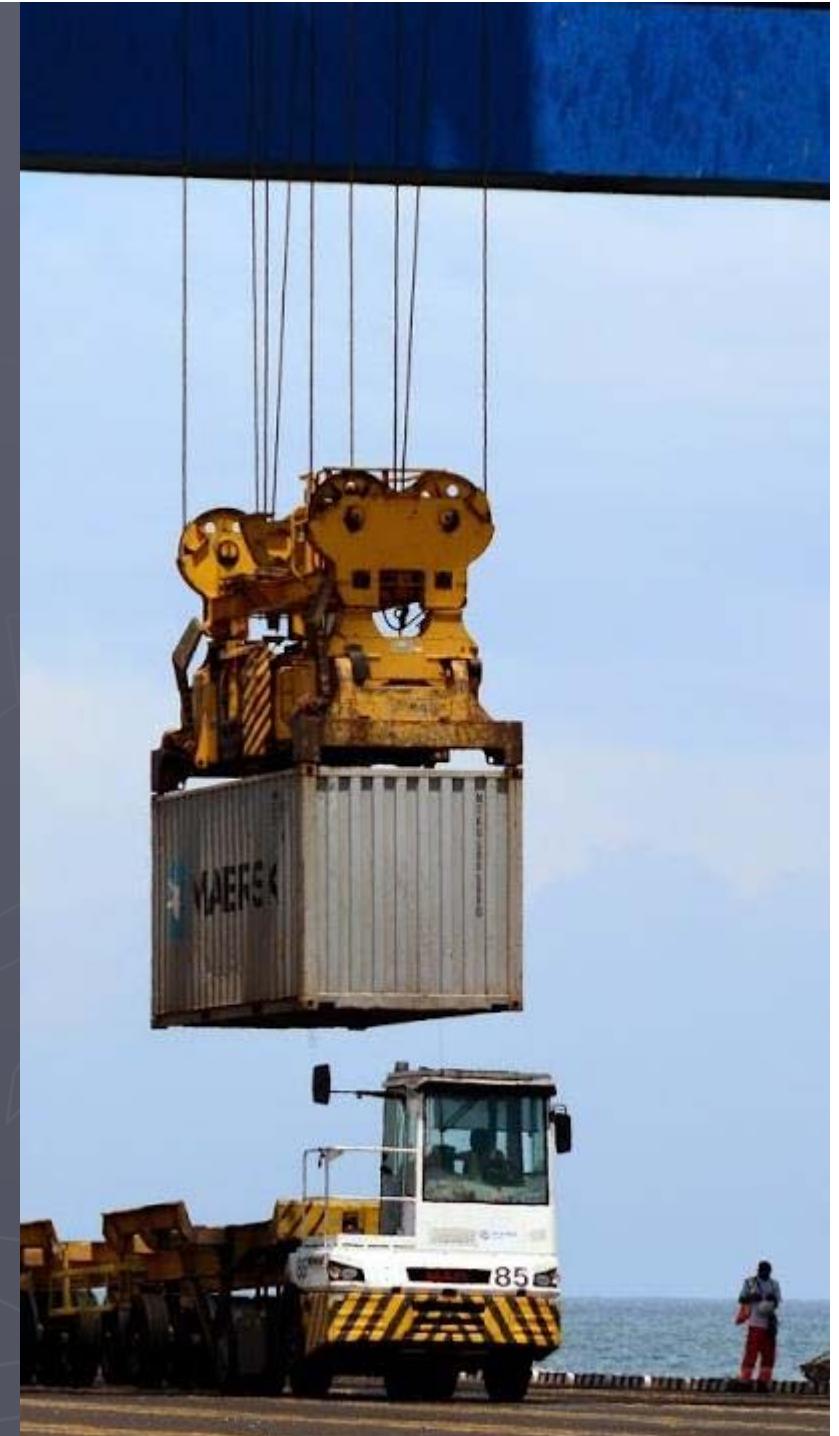
Economies of scale



Clarksons Research, Dry Bulk Monthly, septiembre 2018

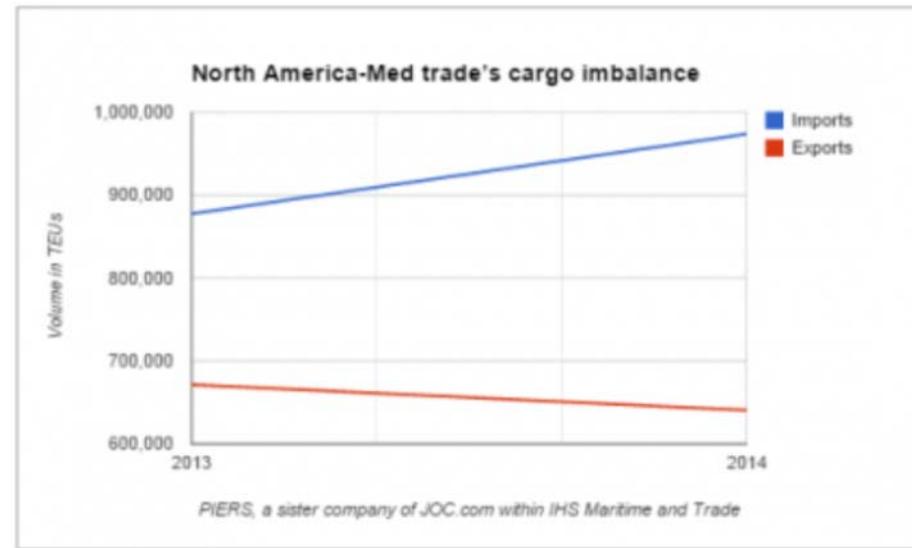
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Imbalances

Eastbound utilization crept up to 38.2 percent in December from the previous month's low of 37.2 percent but the all-in rate charged by forwarders for spot cargo from New York to Genoa dipped by 8 percent to \$1,120 per FEU.



//
coupled with a \$100 per FEU U.S. peak season surcharge.

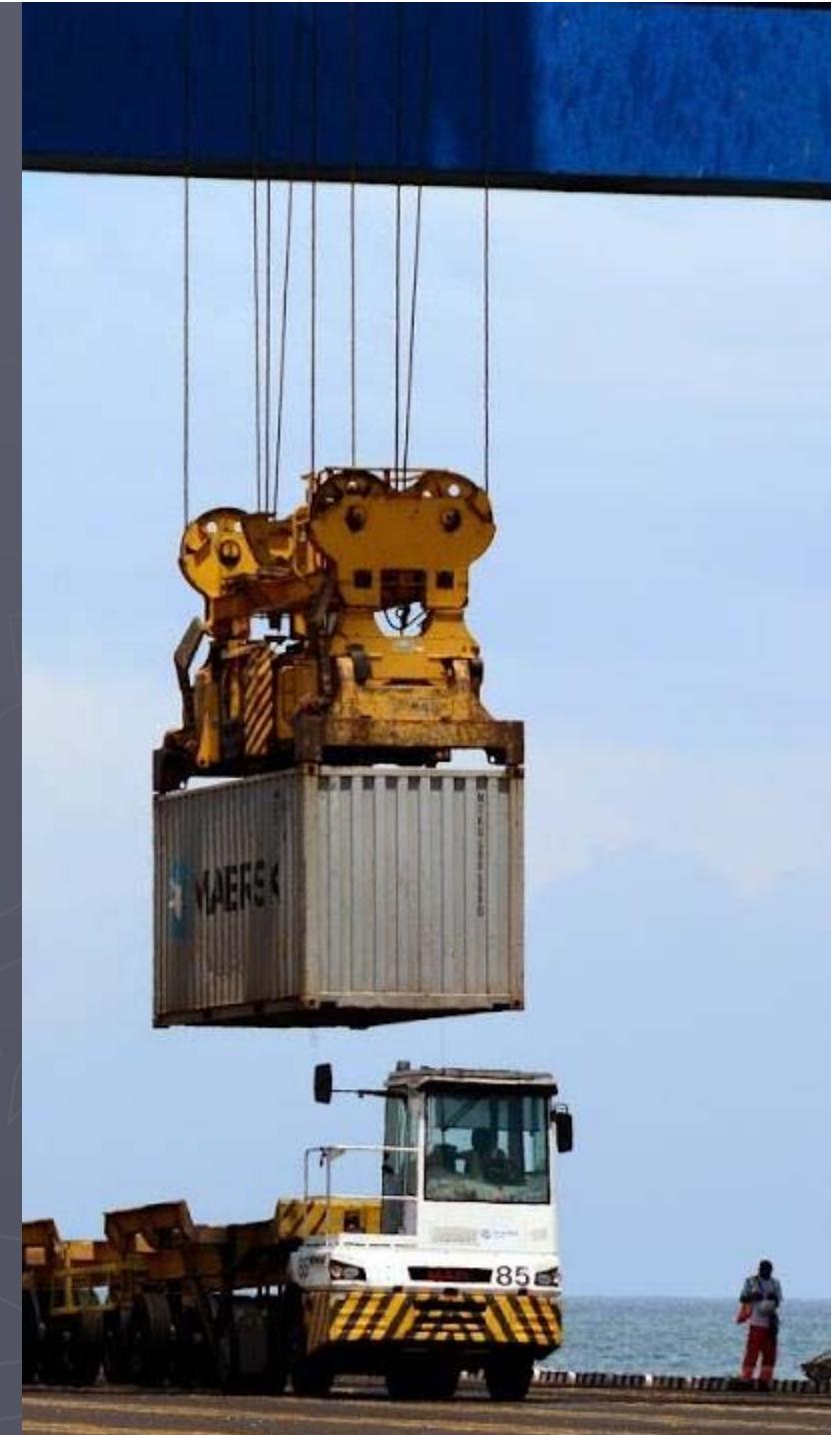
Several carriers are implementing general rate increases on April 1 in a bid to shore up the market.

Hapag-Lloyd plans \$200 per 20-foot containers and \$300 per FEU from the Mediterranean to the U.S. East Coast and is also implementing a "cost recovery initiative" of \$14 per TEU on the return leg. Maersk Line is applying a GRI of \$300 per container on the westbound leg



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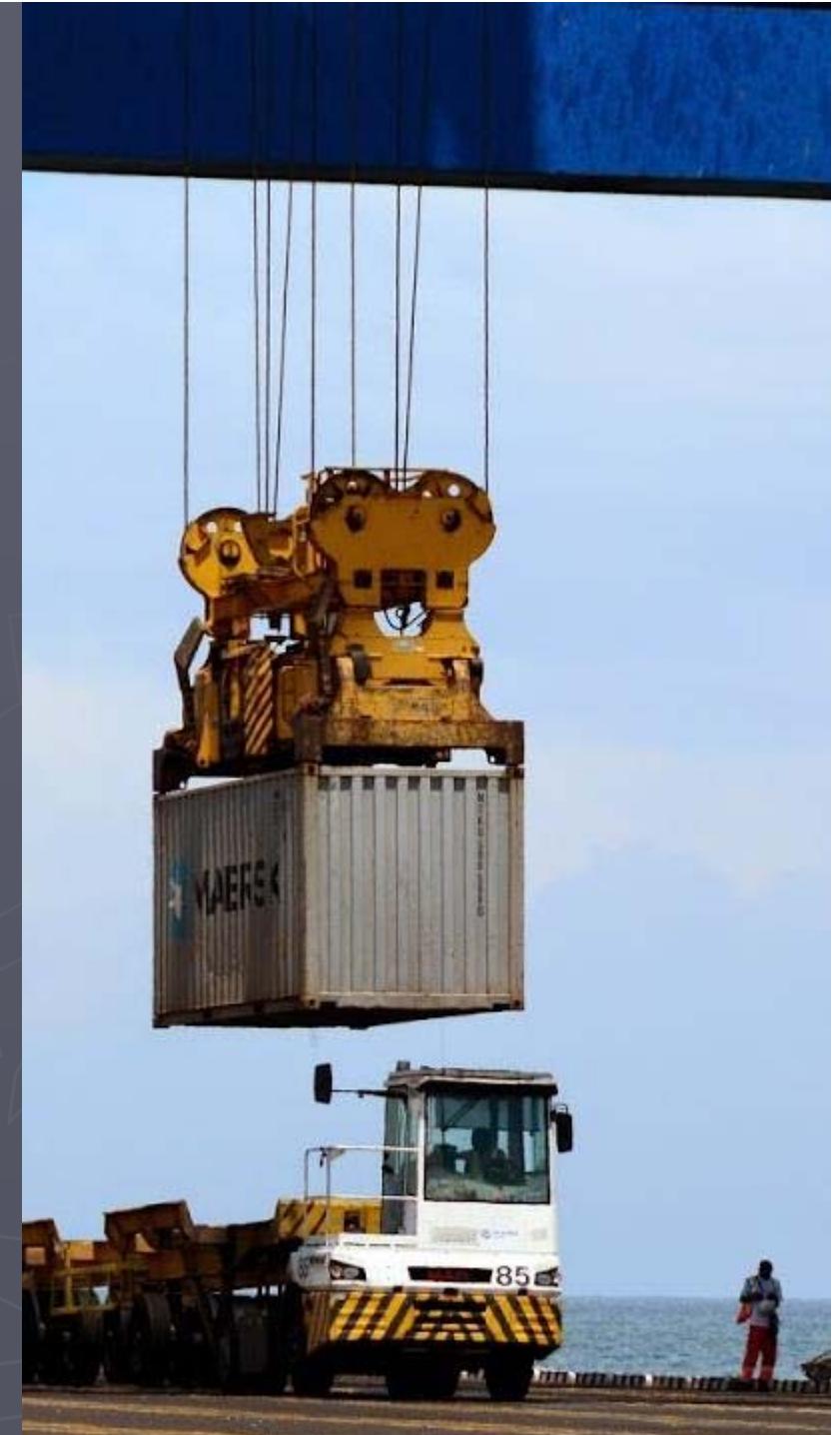
Merchandise type and value

- ▶ Increase the value by 1% implies an increase of transport and insurance costs by around 0.3 – 0.4%



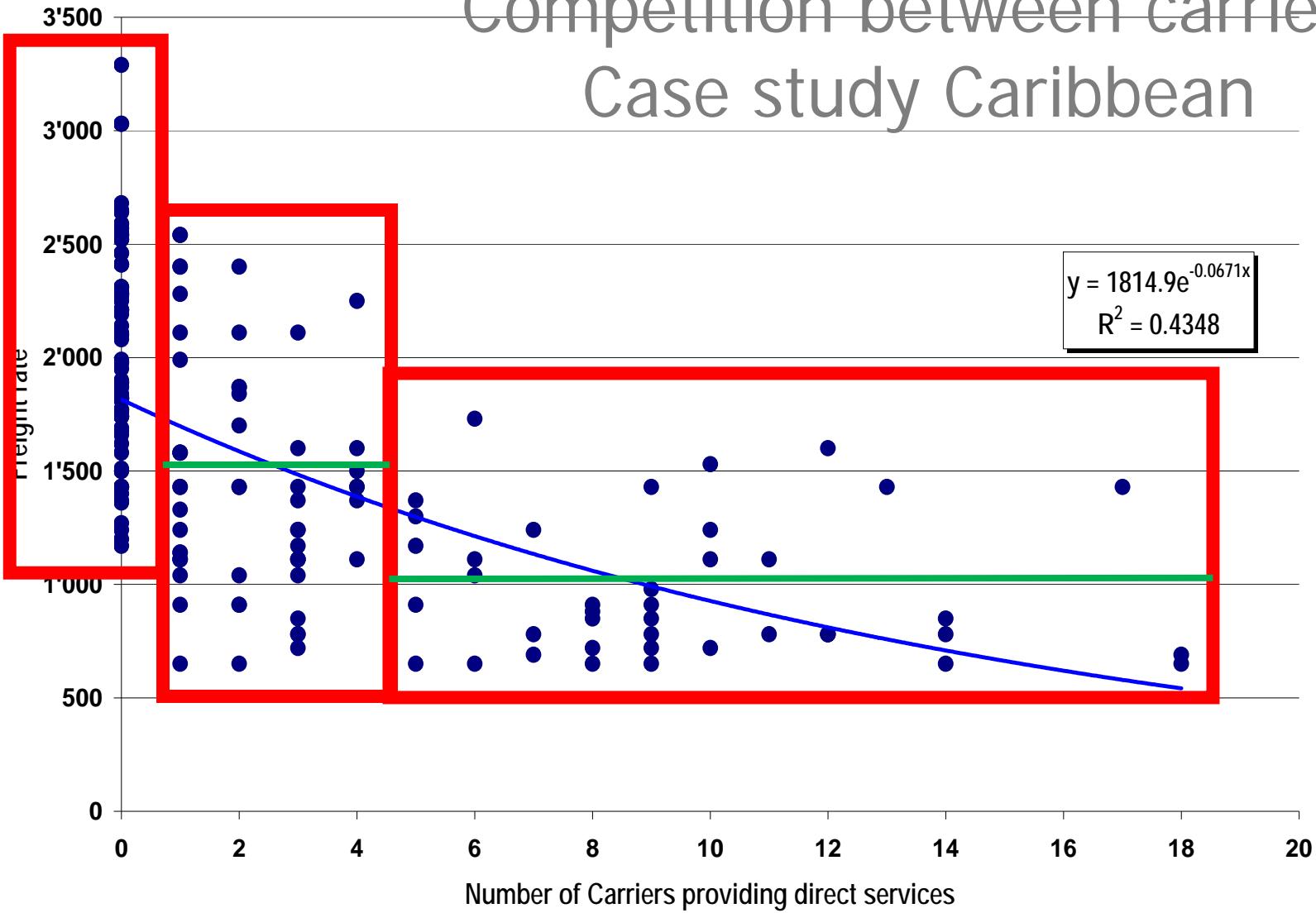
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Competition between carriers

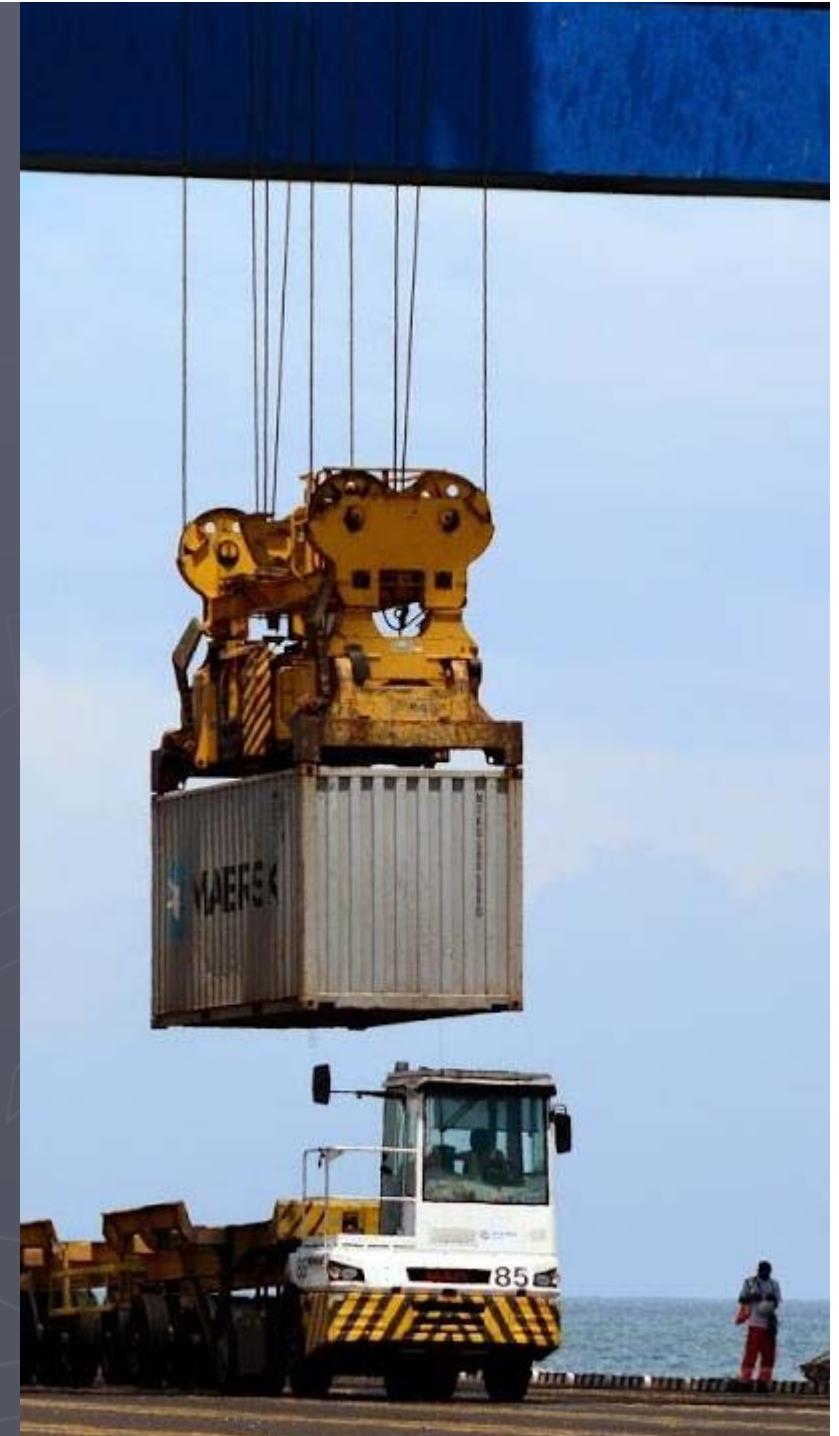
Case study Caribbean



Source: Hoffmann, Wilmsmeier, MEL 2008

Differences
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Dependent variable: maritime transport costs per tonne of containerizable cargo

Variable	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12	Model 13
Observations	N = 75 928	N = 35 438	N = 73 818				
TONS _k	-0.0863 (-57.65)	-0.0863 (-57.67)	-0.0869 (-58.11)	-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)	0.3416 (128.94)	0.3408 (128.38)	0.3374 (127.73)	0.4665 (113.19)	0.3447 (129.16)
DISTANCE _{ij}	0.3716 (95.80)	0.3698 (97.26)	0.3542 (90.31)	0.3716 (92.47)	0.3890 (96.81)	0.3380 (55.36)	0.1769 (30.28)
BILATERALVOLUME _{ij}	-0.0100 (-4.46)	-0.0109 (-5.53)	-0.0161 (-7.97)	-0.0075 (-3.31)	-0.0322 (-13.70)	-0.0794 (-23.74)	0.0256 (10.91)
BALANCEROUTE _{ij}	0.00020 (1.73)	0.00027 (2.40)	0.00047 (4.25)	0.00051 (4.31)	0.00022 (-1.80)	0.00082 (5.06)	0.00228 (14.31)

“Maritime transport costs”
 = ocean freight, surcharges, and THC in importing country



Wilmsmeier, Hoffmann, Sanchez, in: Porteconomics, 2006

Dependent variable: maritime transport costs per tonne of containerizable cargo

Variable	Model 7	Model 8
Observations	N = 75 928	N = 75 928
TONS _k	-0.0863 (-57.65)	-0.0863 (-57.67)
VALUEPERTON _k	0.3422 (128.74)	0.3416 (128.82)
DISTANCE _{ij}	0.3716 (95.80)	0.3698 (97.26)
BILATERALVOLUME _{ij}	-0.0100 (-4.46)	-0.0109 (-5.53)
BALANCEROUTE _{ij}	0.00020 (1.73)	0.00027 (2.40)
PORTINFRA _i	-0.0333 (-9.92)	
PORTINFRA _j	-0.0497 (-10.76)	
PORTINFRA _{ij}		-0.2444 (-13.51)



Better port infrastructure reduces maritime transport costs

Dependent variable: maritime transport costs per tonne of containerizable cargo

Variable	Model 7	Model 8	Model 9
Observations	N = 75 928	N = 75 928	N = 75 928
TONS _k	-0.0863 (-57.65)	-0.0863 (-57.67)	-0.0869 (-58.11)
VALUEPERTON _k	0.3422 (128.74)	0.3416 (128.82)	0.3416 (128.94)
DISTANCE _{ij}	0.3716 (95.80)	0.3698 (97.26)	0.3542 (90.31)
BILATERALVOLUME _{ij}	-0.0100 (-4.46)	-0.0109 (-5.53)	-0.0161 (-7.97)
BALANCEROUTE _{ij}	0.00020 (1.73)	0.00027 (2.40)	0.00047 (4.25)
PORTEFIG _{ij}			-0.3835 (-17.65)



\$ Better (perceived) port efficiency reduces maritime transport costs

Dependent variable:
maritime transport costs per tonne of containerizable cargo



Model 11	Model 12	Model 13
N = 75 928	N = 35 438	N = 73 818
-0.0874 (-58.85)	-0.0632 (-29.15)	-0.0857 (-57.00)
0.3374 (127.73)	0.4665 (113.19)	0.3447 (129.16)
0.3890 (96.81)	0.3380 (55.36)	0.1769 (30.28)
-0.0322 (-13.70)	-0.0794 (-23.74)	0.0256 (10.91)
0.00022 (-1.80)	0.00082 (5.06)	0.00228 (14.31)
0.0038 (2.00)		
-0.0562 (-32.00)		

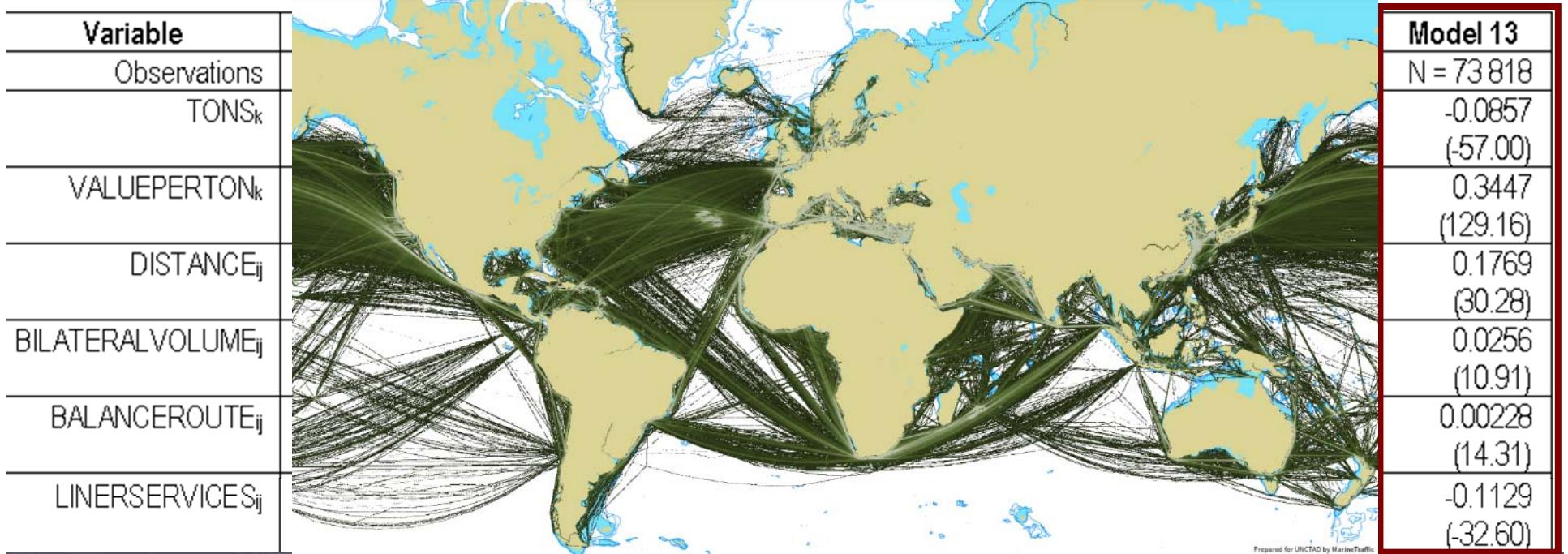
\$ **Port privatization in the exporting country reduces maritime transport costs**

Dependent variable: maritime transport costs per tonne of containerizable cargo

Variable		Model 12	Model 13
Observations		N = 35 438	N = 73 818
TONS _k		-0.0632 (-29.15)	-0.0857 (-57.00)
VALUEPERTON _k		0.4665 (113.19)	0.3447 (129.16)
DISTANCE _{ij}		0.3380 (55.36)	0.1769 (30.28)
BILATERALVOLUME _{ij}		-0.0794 (-23.74)	0.0256 (10.91)
BALANCEROUTE _{ij}		0.00082 (5.06)	0.00228 (14.31)
CUSTOMSDELAY _i		0.0512 (4.32)	
CUSTOMSDELAY _j		0.0074 (0.80)	

\$ **Trade facilitation** in the importing country
reduces maritime transport costs

Dependent variable: maritime transport costs per tonne of containerizable cargo

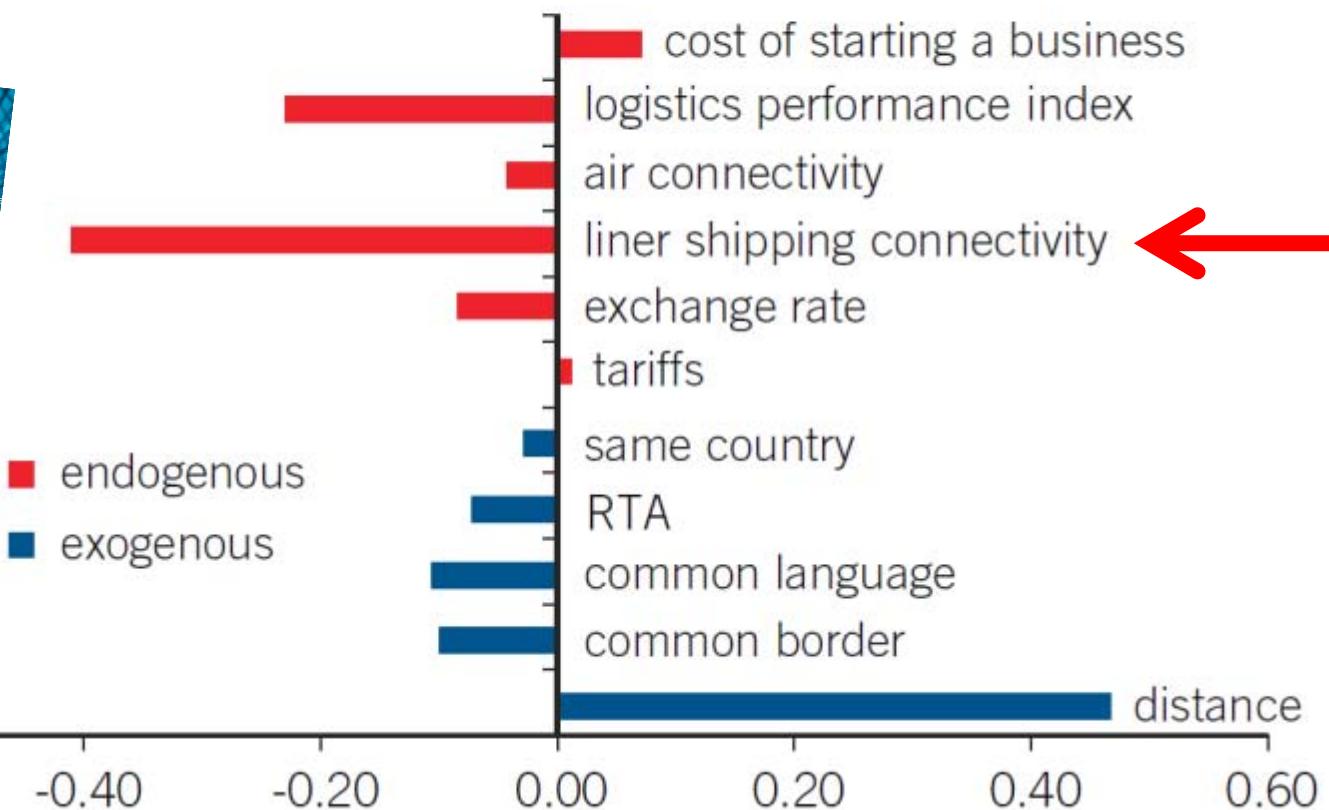


\$ Better connectivity / more competition
among carriers reduces maritime transport
costs (shippers perspective)

Higher Liner Shipping Connectivity leads to lower trade costs

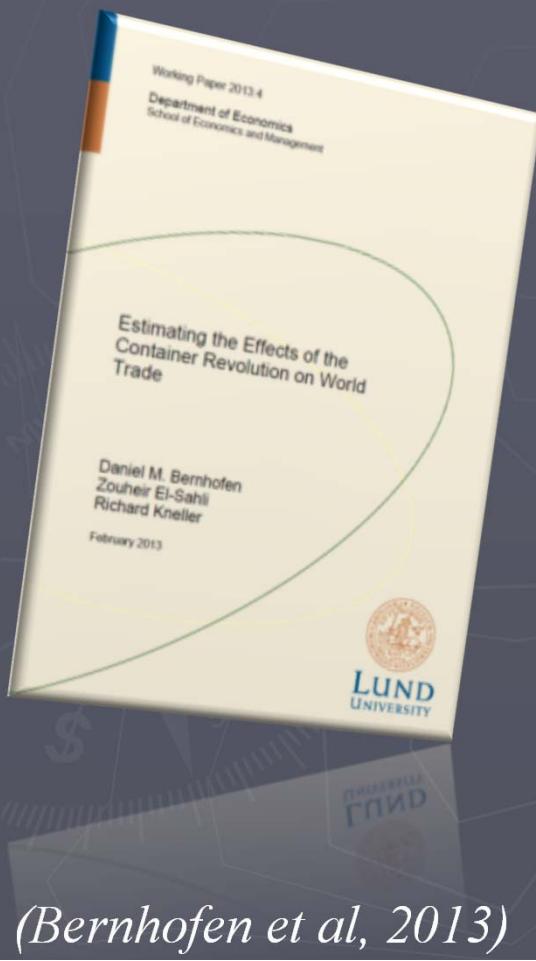
Figure 1. Relative Impact of Different Sources of Trade Costs

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



(Arvis et al, 2013)

Introducing containerization leads to more trade



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Free exchange

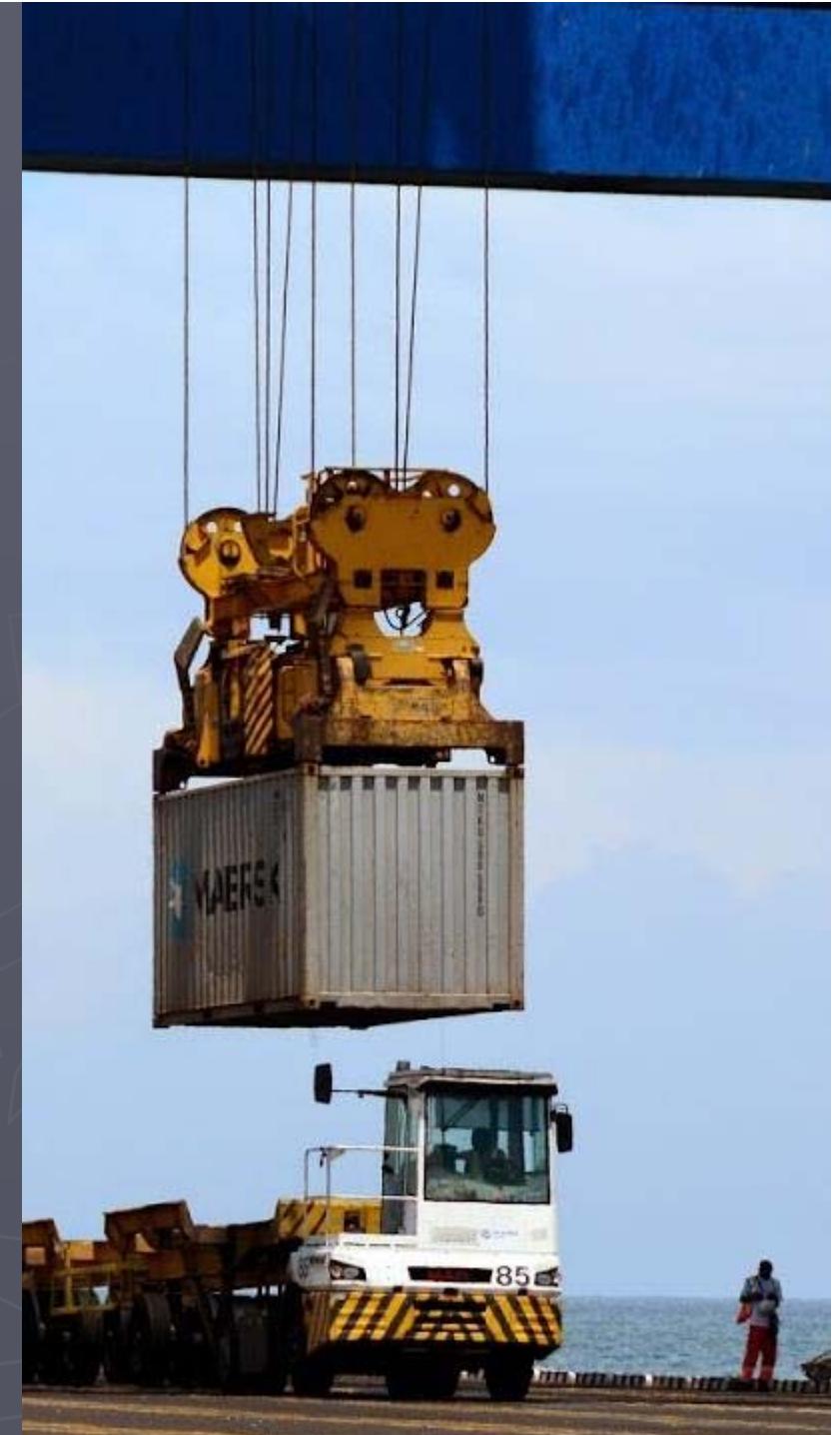
The humble hero

Containers have been more important for globalisation than freer trade

A photograph showing many shipping containers stacked in a port.

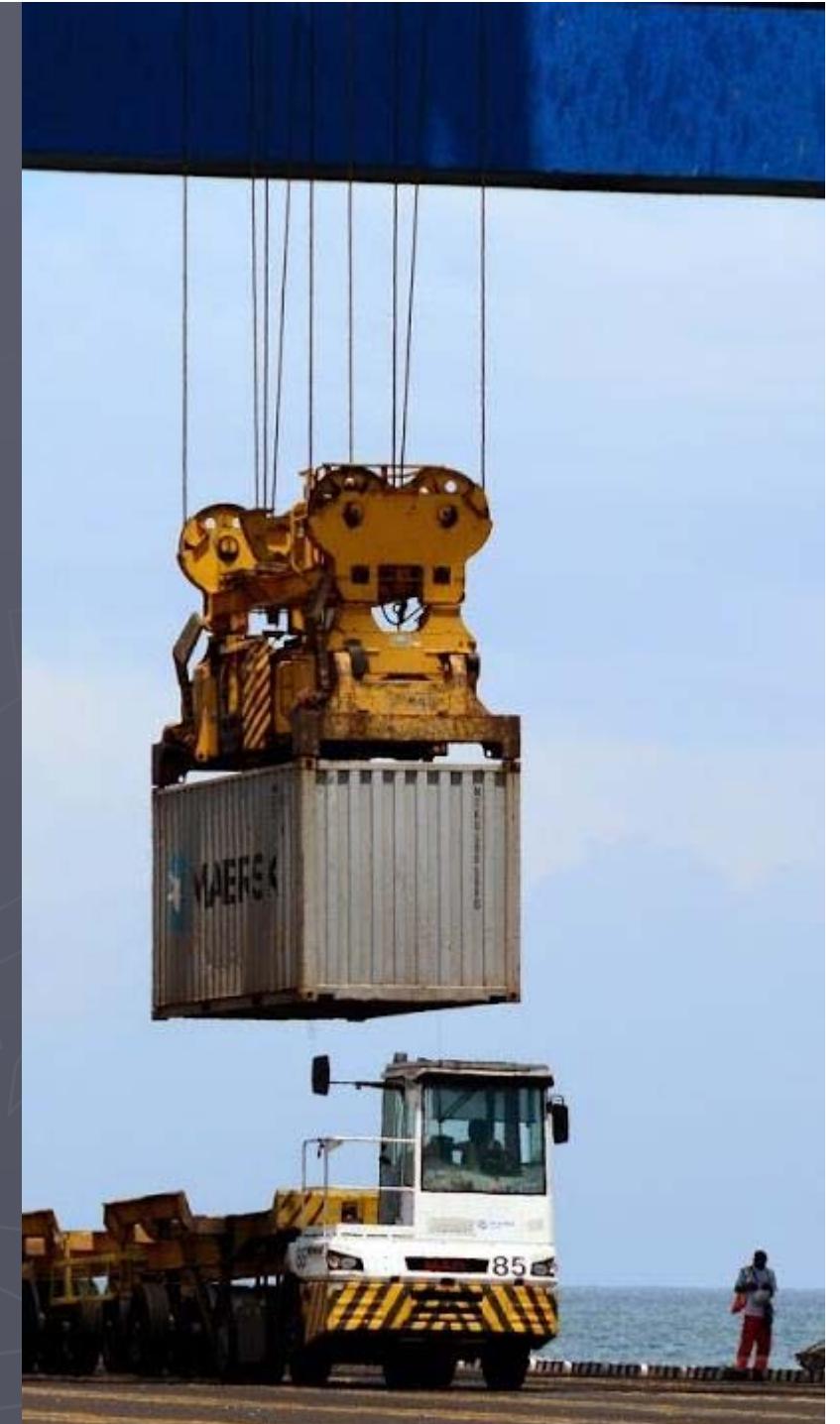
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300

Components of UNCTAD's Liner Shipping Connectivity Index (LSCI) Average for 160 countries

250

200

150

100

50

2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018

Maximum
ship size

TEUs

Ships

Liner
companies

Source: UNCTAD RMT 2018, on the basis of data from MDS Transmodal



Differences in freight costs depend on...

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The Economist November 26th 2011

Trade terms

SIR - The term "shipper" was wrongly used in your article on shipping ("Economies of scale made steel", November 12th). The shipper is the client, that is, the importer or exporter of goods. The provider of the service is the shipping line, or carrier. Furthermore, although it is true that the carriers benefit from economies of scale, which help to reduce their costs, these cost savings still need to be passed on to the client (the shipper).

The same trend of market concentration that leads to cost savings may also lead to less competition. On routes where there are less than five carriers providing liner services there is evidence that the process of concentration leads in effect to higher freight rates. So not all cost savings will be passed on in the form of lower freight rates to the clients.

JAN HOFFMANN
Trade facilitation section
United Nations Conference on
Trade and Development (UNCTAD)
Geneva

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IS THERE OVER-INVESTMENT IN ULTRA LARGE CONTAINER SHIPS?

Containerships have never been bigger than today, container freight rates have never been lower, and never has so much container carrying capacity been idle. In March 2016, the idle container ship fleet stands at 1.6 million TEU, and a shipper may pay less than 200 US\$ to have his twenty foot container shipped from Shanghai to South America. A related trend is that in recent months there have been new mergers and acquisitions among liner companies.

The overupply of tonnage is the result of past investment decisions against slower than expected demand growth. Individual carriers typically react to this situation by a) trying to reduce their costs, and b) growing their market share. From an individual company's perspective, this often means a) investing in modern large containerships to save fuel and achieve economies of scale, and b) seeking mergers to better control the market, which is necessary to fill the new large ships. This makes sense from the individual company's perspective, but it doesn't if we look at the big picture, and here are three reasons why:

1. The larger ships cut unit costs for the carriers, but the total system costs are not reduced; in fact, they may actually go up. The costs of the megaships to the logistics system may out-way the benefits. The ports, the hinterland connections, and the network structure (more transhipments with fewer direct services) will lead to more costs as the vessel size goes up. This not only applies to those ports and routes which have to accommodate the largest ships, but due to the cascading effect it is also relevant in smaller and developing countries markets. The overinvestment is not in the interest of the carriers' logistics partners.¹
2. As ships get bigger faster than trade grows, there is space for fewer carriers in individual markets. We observe a continued process of concentration. While lower freight rates may be good news for the shipper in the short term, in the longer term, there is a danger of more markets with oligopolistic market structures. Overinvestment is not in the long term interest of
3. The above mentioned three reasons for not investing in more and larger container ships may not be relevant for the individual carrier. As a commercial entity, it has to look at its own returns, and will not accept staying behind competitors.

In the longer term, there is still scope for further consolidation. Globally, the industry is not very concentrated. Maersk has a share of 14.6% of the TEU carrying capacity, followed by MSC with 12.9%, CMA CGM group (8.7%) and COSCO group (7.5%) (20 March 2016; source: Alphaliner). The logistic partners (ports, intermodal connections) will do their best to adapt to growing vessel sizes, and in the long term, perhaps, the "optimal" vessel size will be larger than today. In the meantime, the pressure on the maritime freight rates will continue, and the resulting low trade costs should help the global economy recover. Thank you to containerization and the maritime business.

1 For a further discussion on this issue see e.g. Dryvoy Shipping Consultants 2016 (<http://dryvoy.co.uk/news.php?id=457>), Iverkus Harlanblades 2016 (<http://www.harlanblades-med.blogspot.ch/2016/03/liner-fleet-size-and-port-planning.html>), Olaf Mert 2015 (<http://eendracht.org/2015/06/22/the-impact-of-mega-ships/>), and Jean Paul Rodriguez 2015 (<https://www.linkedin.com/pulse/dividends-large-scale-maritime-shipping-jean-paul-rodriguez>).

2 For a further discussion of trends in liner shipping connectivity and fleet deployment, see e.g. UNCTAD Review of Maritime Transport 2015 (<http://unctad.org/RMT>).

For further information contact Jan Hoffmann (j.hoffmann@unctad.org), Trade Logistics Branch

UNCTAD TRANSPORT AND TRADE FACILITATION NEWSLETTER N°69 - FIRST QUARTER 2016

- ▶ Costos del transporte internacional
- ▶ Consolidación entre las líneas navieras
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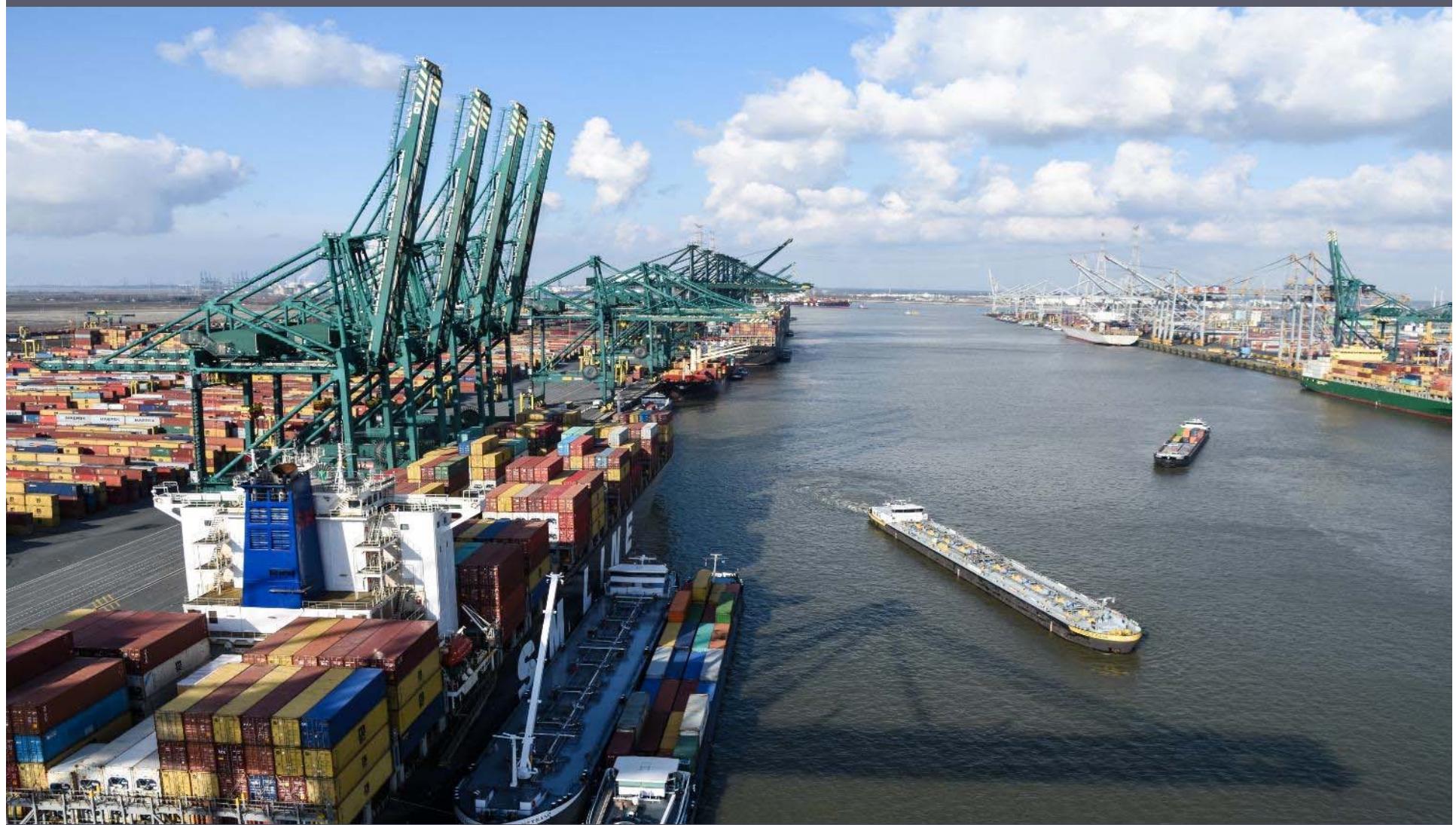
Consolidation in the container market

► Mergers and Acquisitions

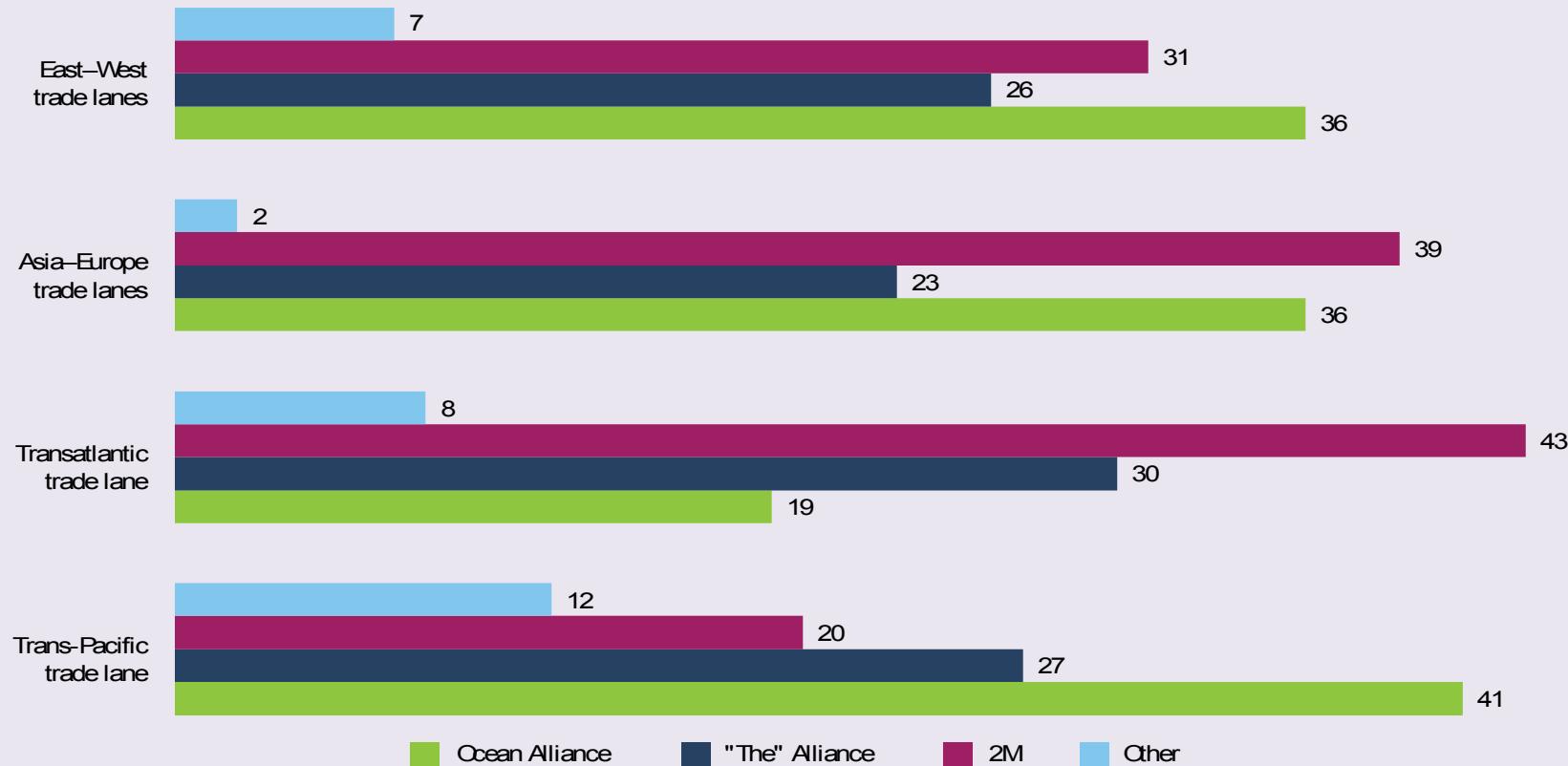
"As of January 2018, the top 15 carriers accounted for 70.3% of all capacity. Their share has increased further with the completion of the operational integration of the new mergers in 2018, with the top 10 shipping lines controlling almost 70% of fleet capacity as of June 2018."



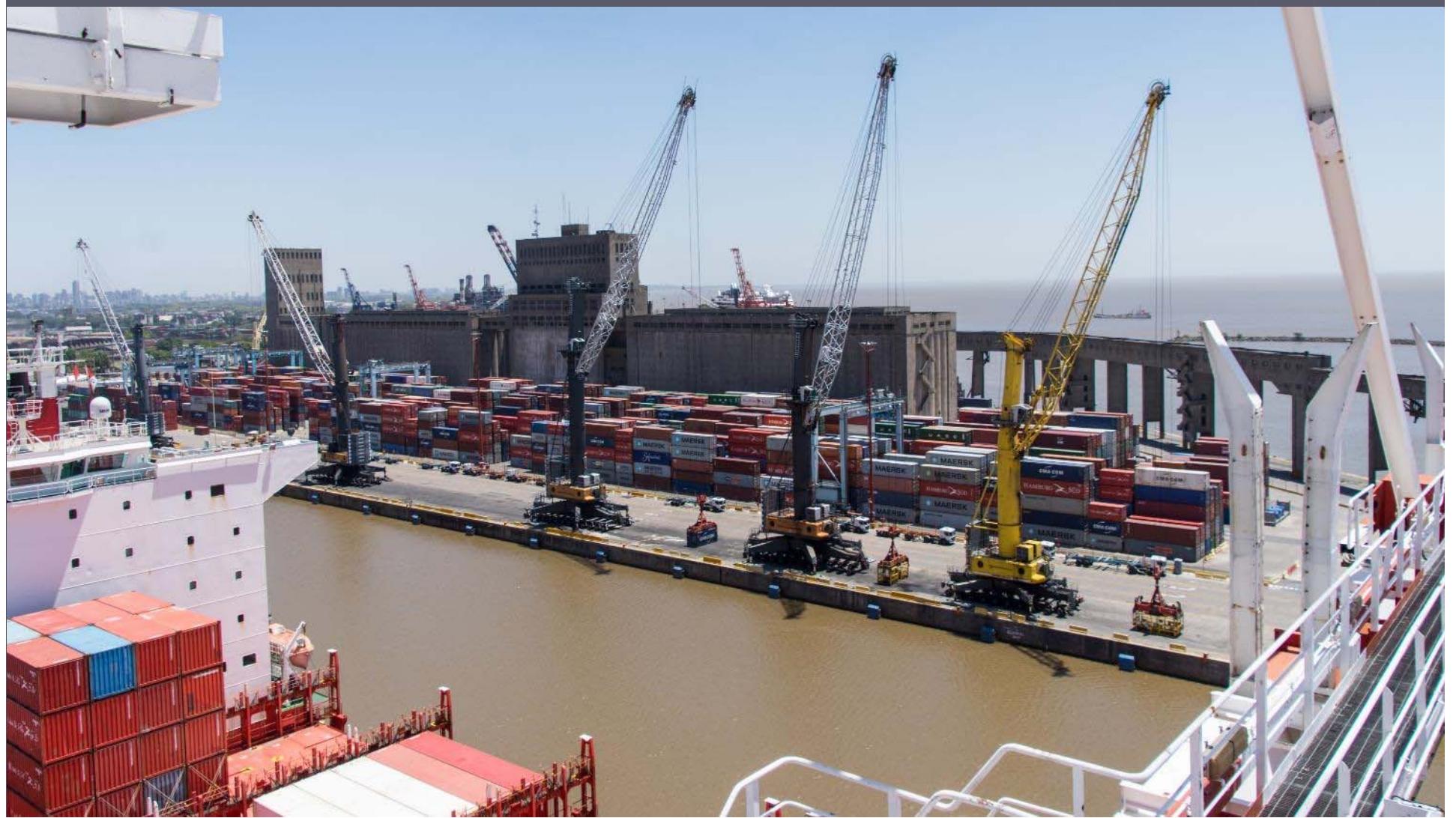
Alliances



Alliances of global carriers were restructured in 2017 to form 3 larger ones: 2M, the Ocean Alliance and "The" Alliance. This reshuffling resulted in a highly concentrated market structure, mainly in the main trade lanes, where the 3 alliances collectively account for around 93 % of the East-West routes.



Vertical integration: e.g. Buenos Aires



Challenges for Small Islands

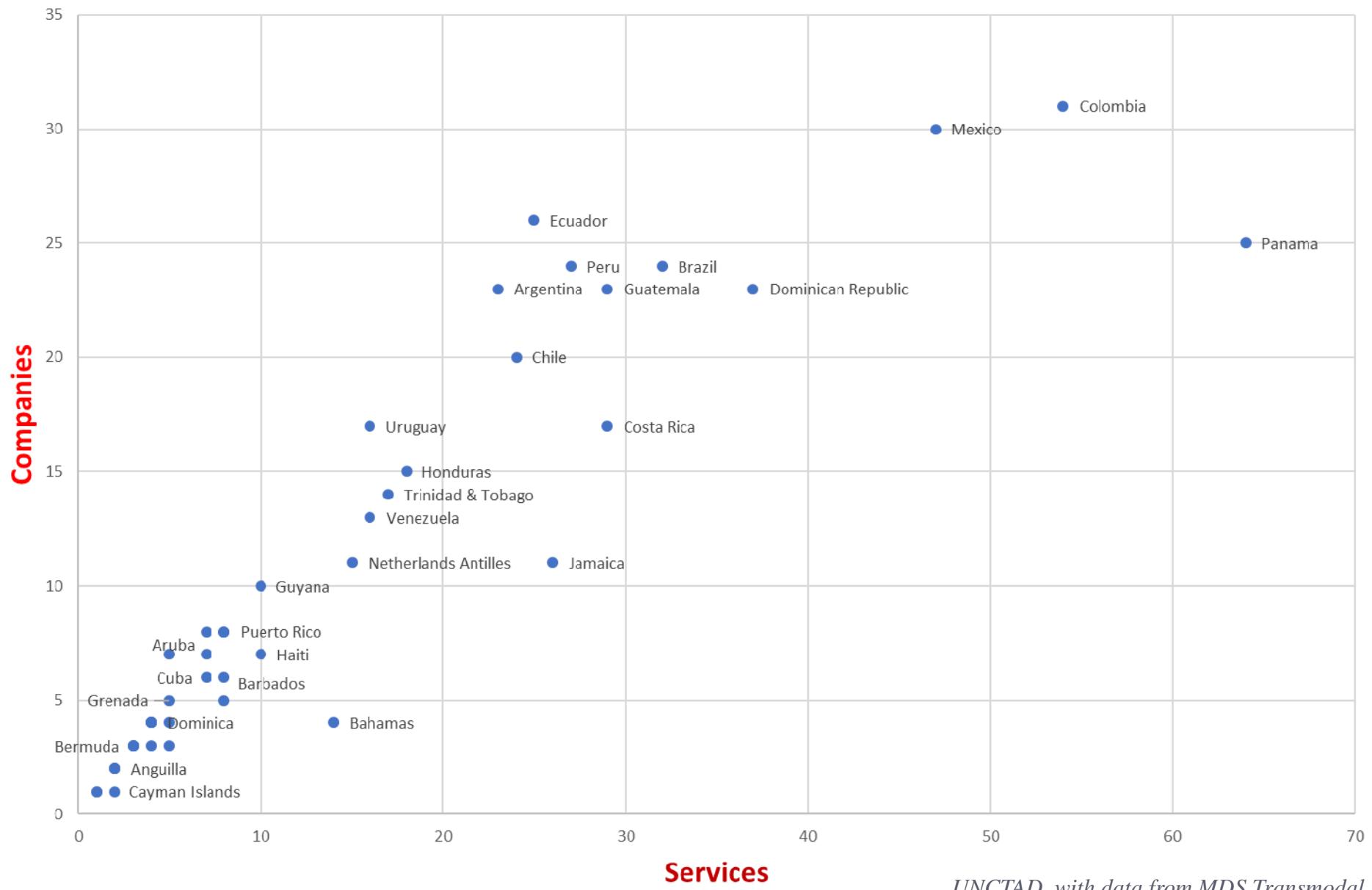


Challenges for Small Islands



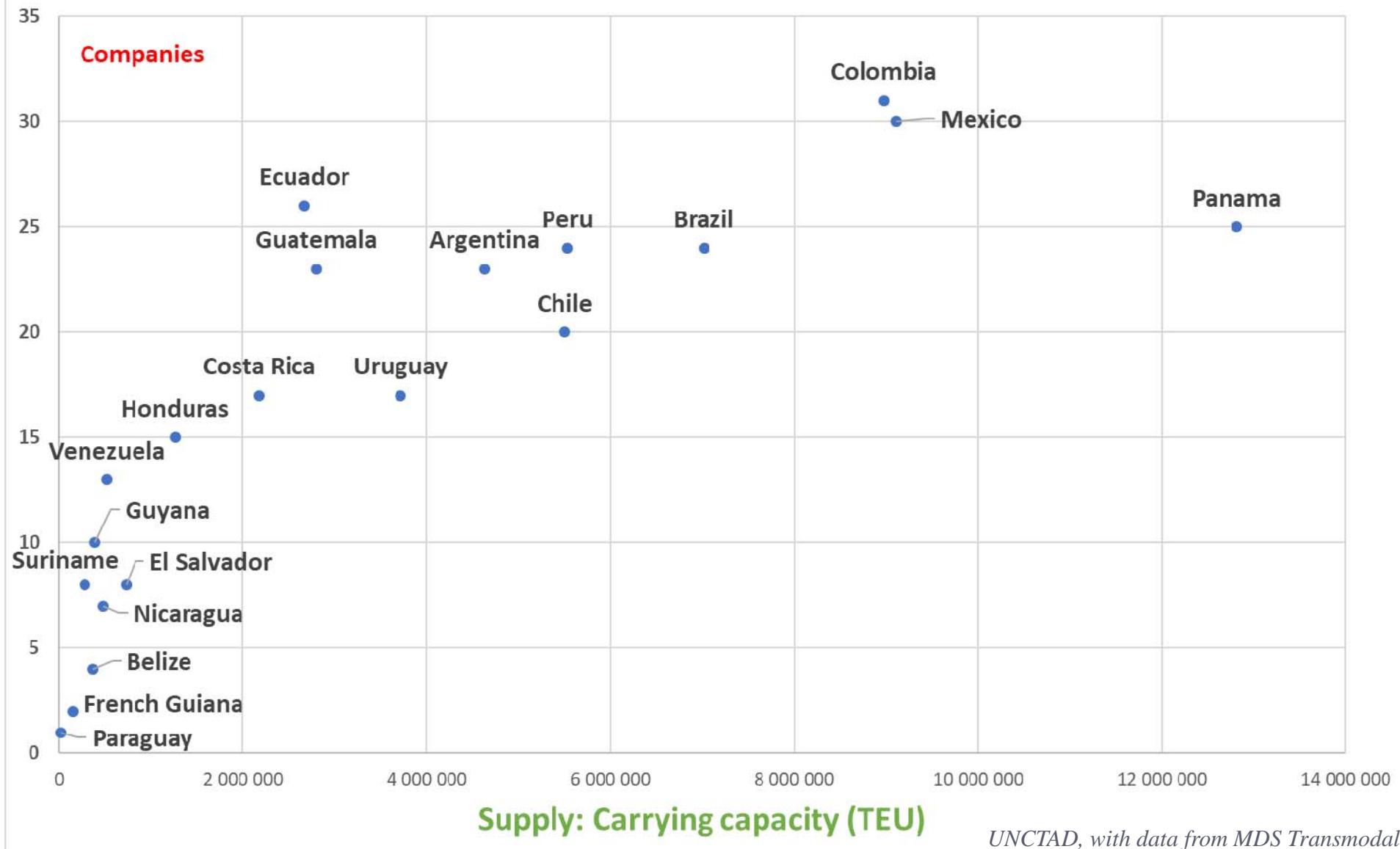
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- ▶ Costos del transporte internacional
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Liner supply in 2018

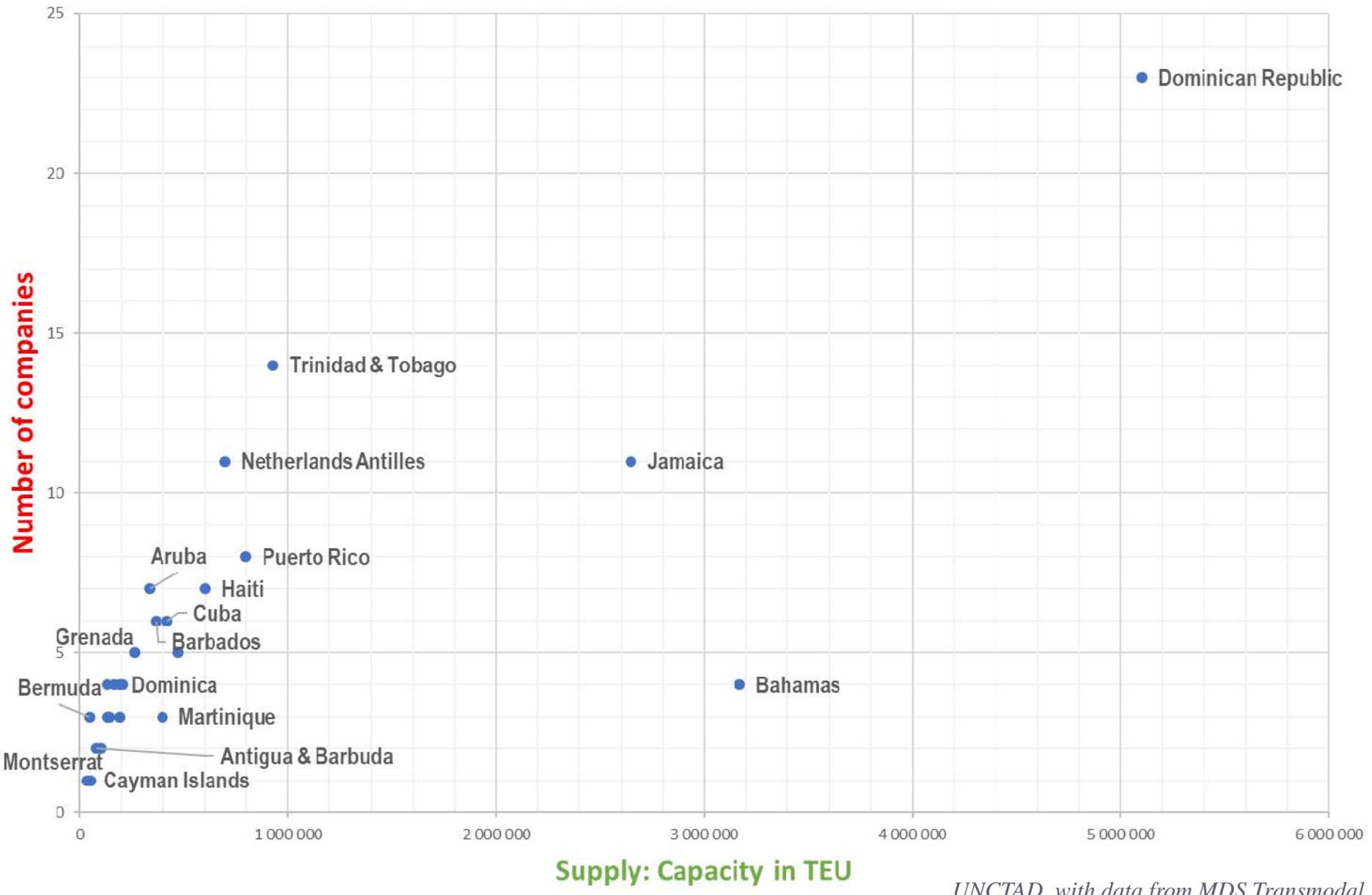


UNCTAD, with data from MDS Transmodal

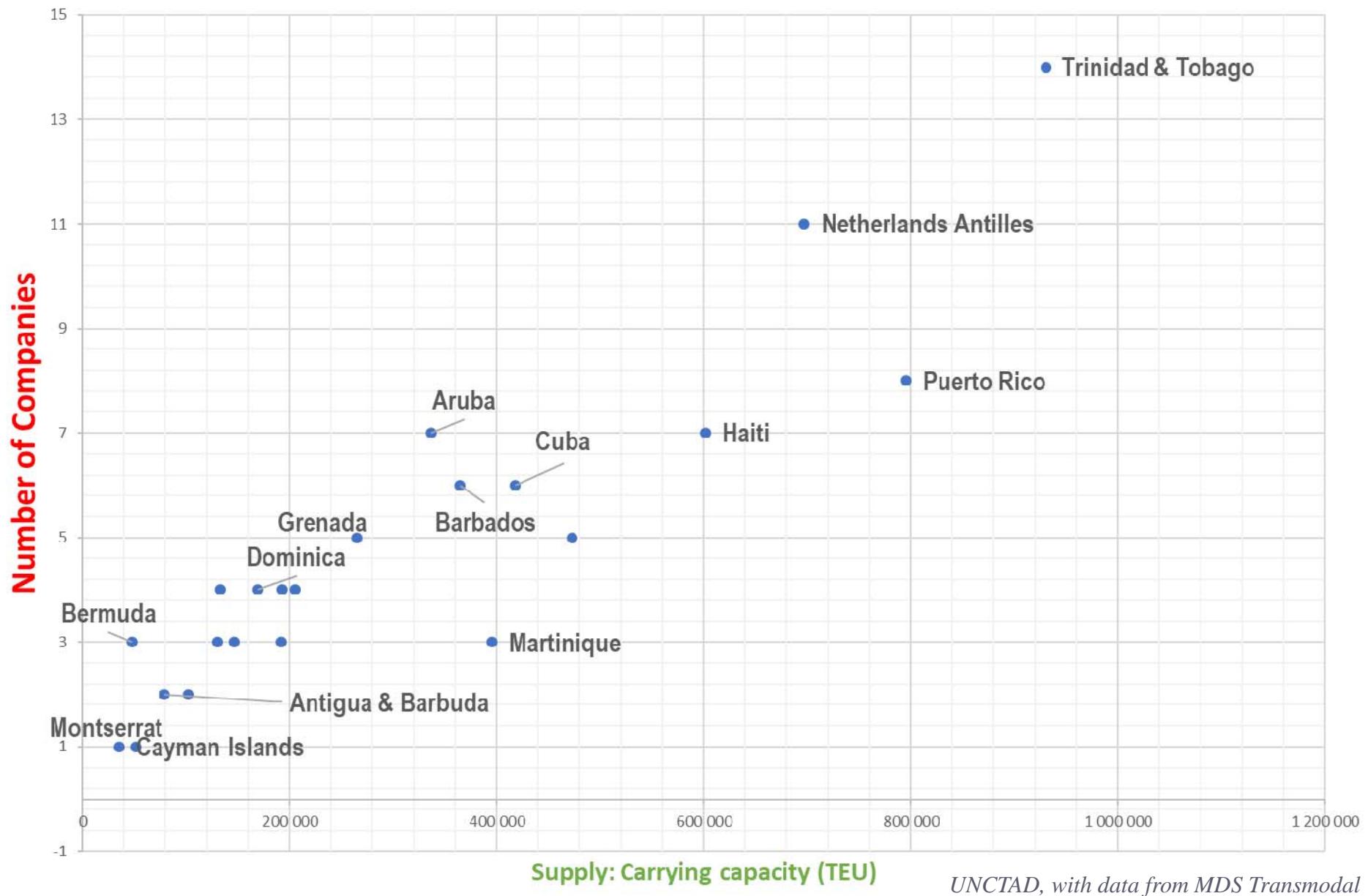
Liner supply in 2018



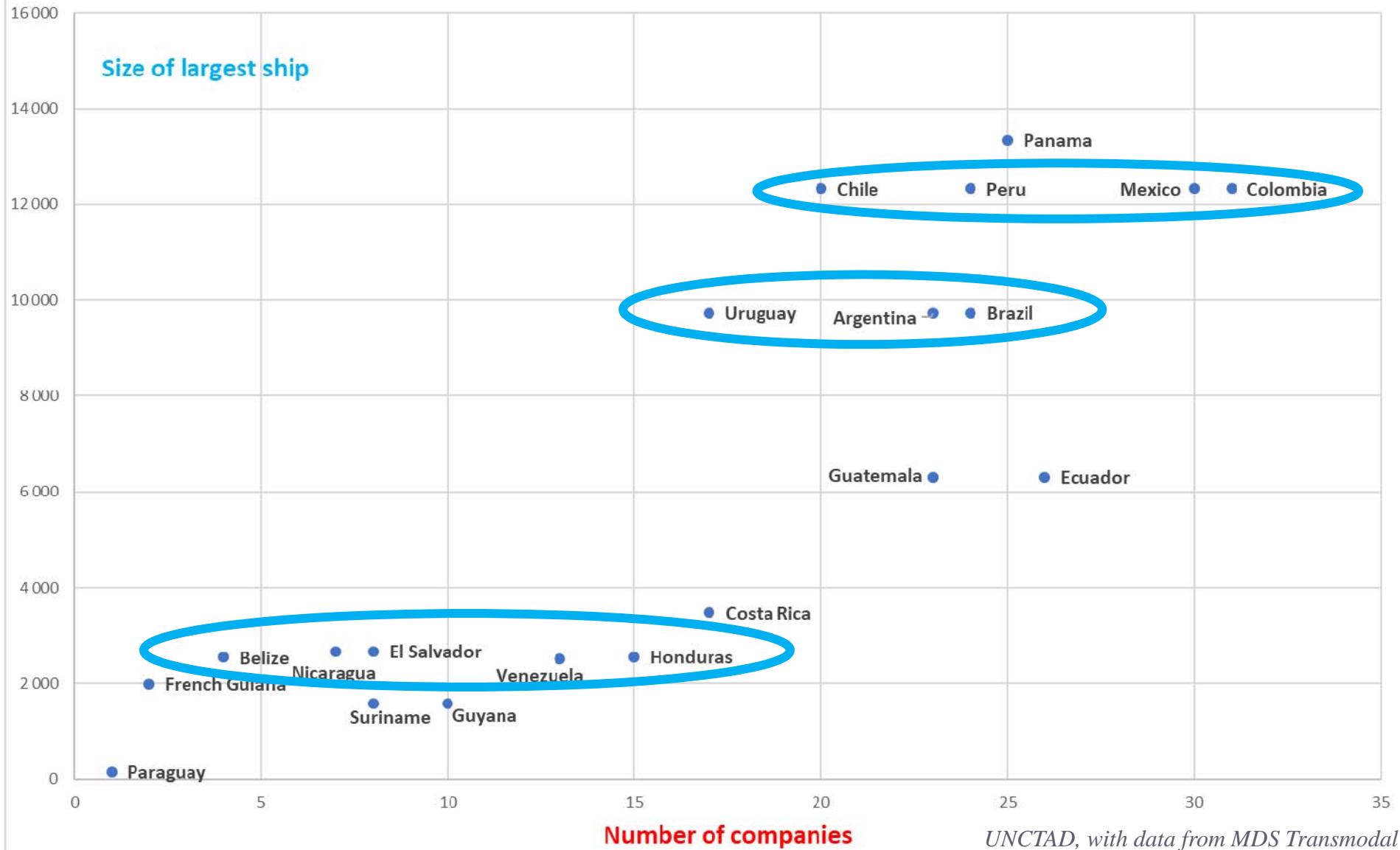
Liner supply in 2018



Liner supply in 2018



Ship sizes

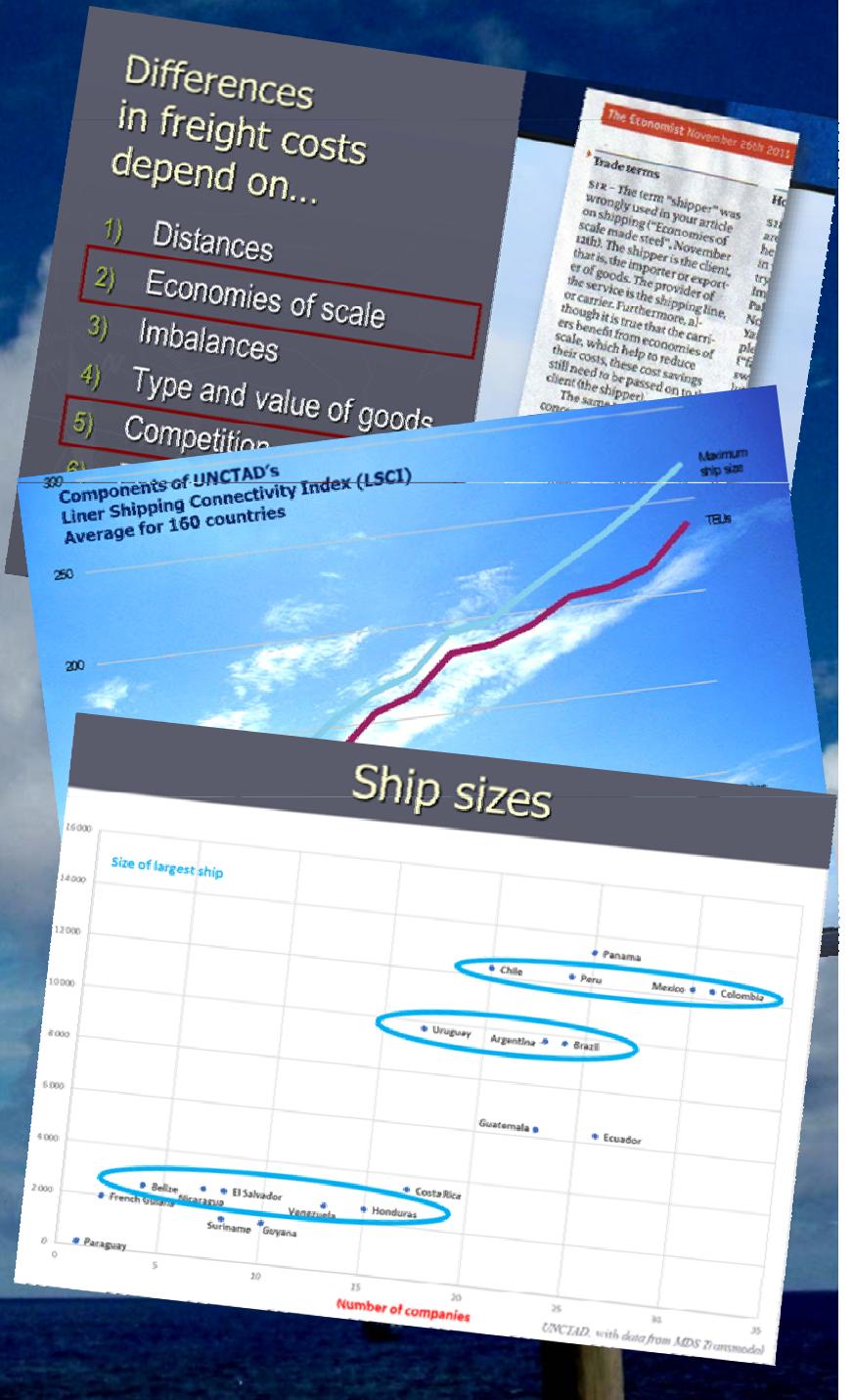


Leading providers for Brazil

Carrier Group	Carrier Name	2017	2018	%dif
MSC	MSC	455.562	405.402	-11%
HAMBURG-SUD	HAMBURG-SUD	155.398	275.720	77%
	ALIANCA	207.155	72.560	-65%
HAPAG LLOYD	HAPAG LLOYD	256.235	296.186	16%
MAERSK LINE	MAERSK LINE	156.104	175.828	11%
	MERCOSUL LINE	1.473		-100%
	SAFMARINE	35.838	33.182	-7%
	SEALAND	18.594	19.539	5%
CMA-CGM	CMA-CGM	160.240	182.987	14%
	MERCOSUL LINE		2.374	-
OCEAN NETWORK EXPRESS	ONE		35.554	-
EVERGREEN	EVERGREEN	33.368	35.389	6%
COSCO	COSCO	27.876	33.463	20%
ZIM	ZIM	27.109	27.204	0%
OTHER		123.892	86.472	-30%
Grand Total		1.658.844	1.679.859	1%

Source: Datamar
CNCAB, with data from MDS Transmodal

- ▶ Costos del transporte internacional
- ▶ Consolidación entre las líneas navieras
- ▶ América Latina y el Caribe: La situación en el 2018





Transporte marítimo y puertos: Competencia en el sector y desafíos para la regulación



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