

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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Brasília, Brasil*

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SP/VIII RAGTCCALC/Di N° 18-18

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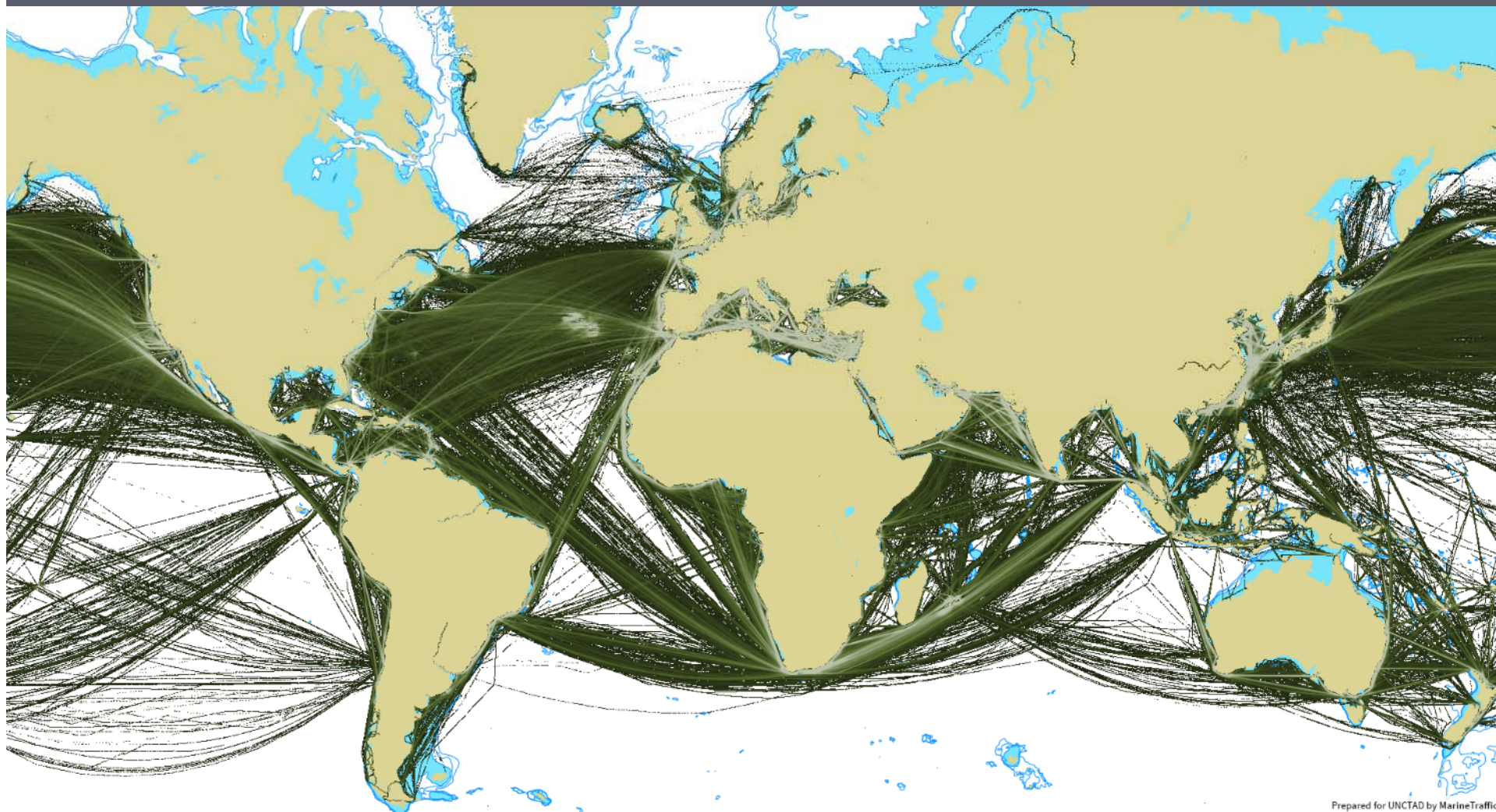
Transporte marítimo y puertos: Competencia en el sector y desafíos para la regulación

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

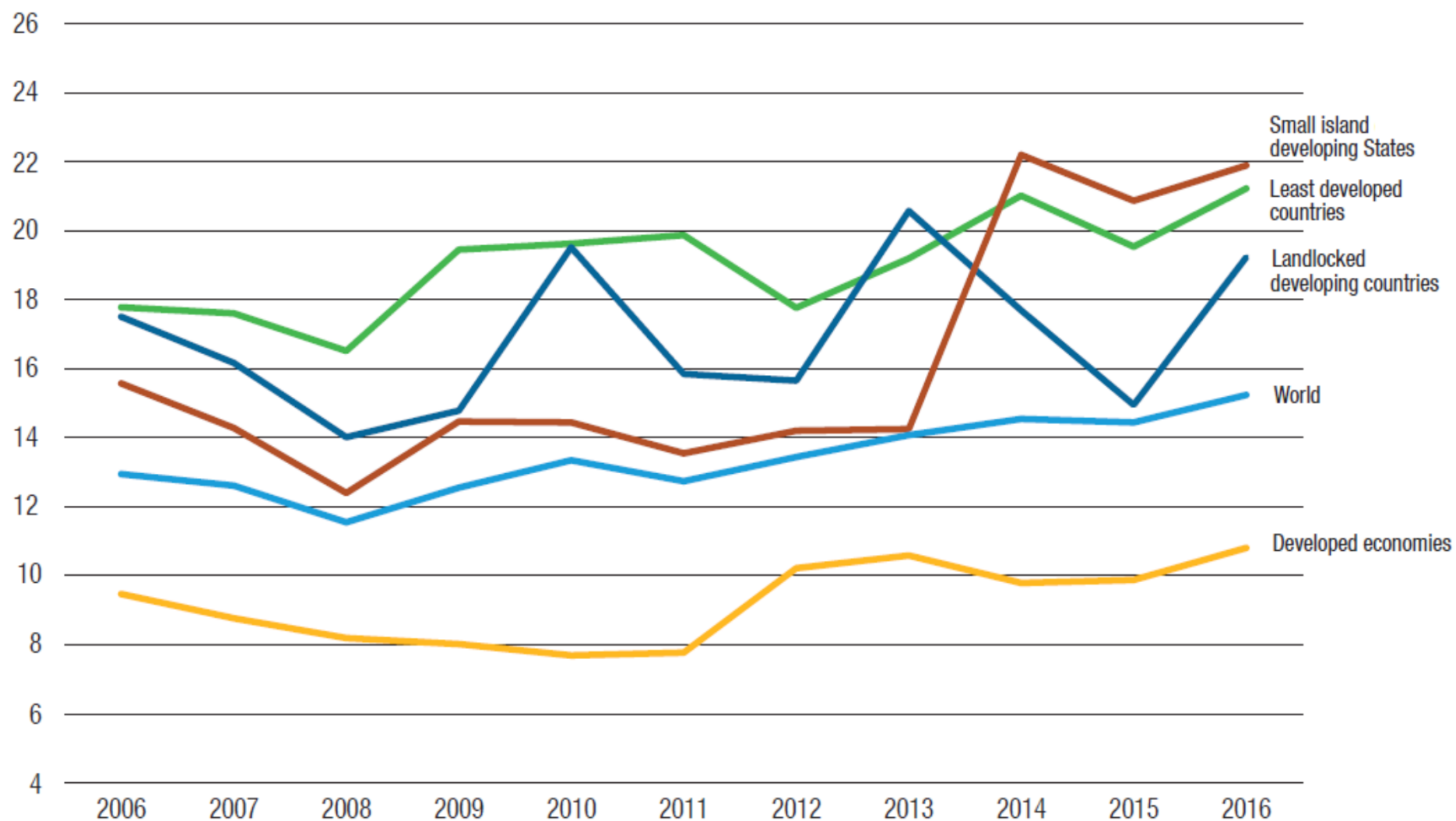


▶ Costos del transporte internacional

▶ Consolidación entre las líneas navieras

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La situación en el 2018

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



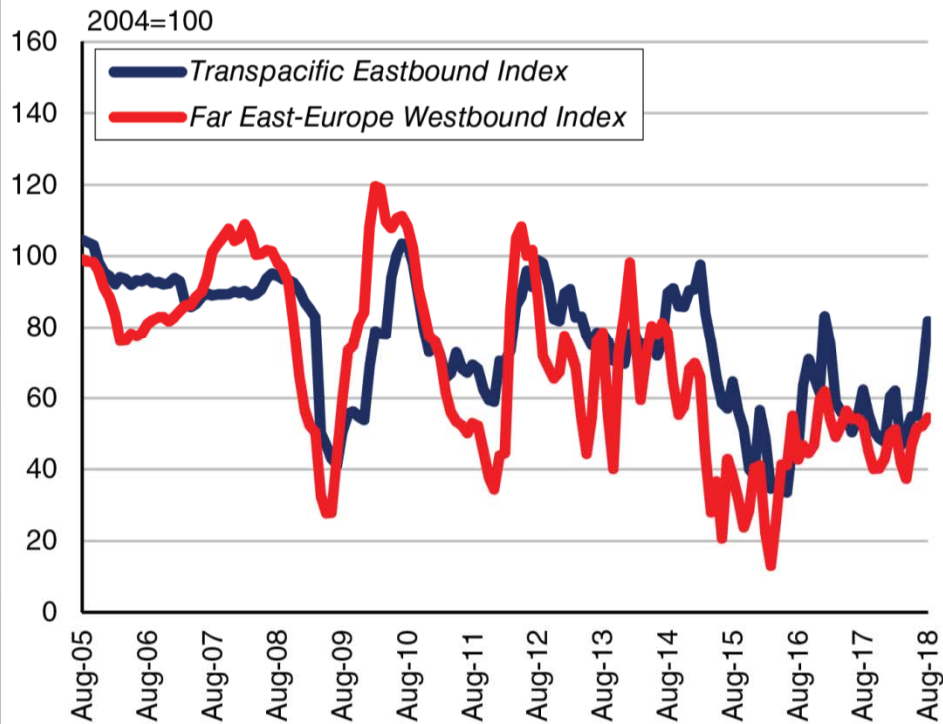
Source: UNCTAD secretariat calculations.

Source: UNCTAD RMT 2017

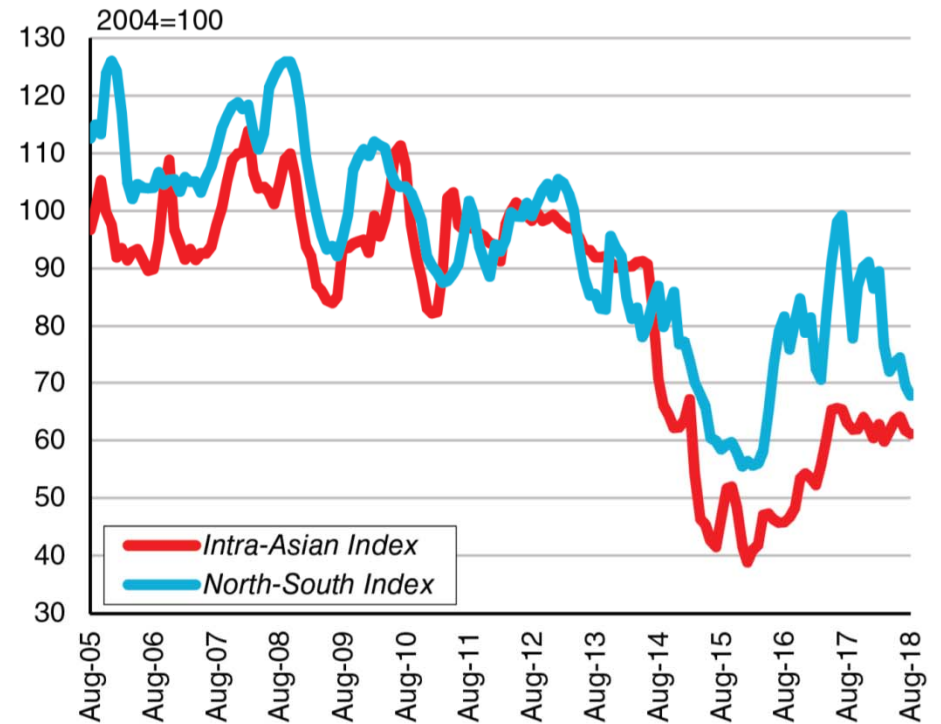
Note: All modes of transport; the least developed countries grouping includes 48 countries for all periods up to 2016.

Different trends on different routes

Mainlane Freight Rate Indices



Regional Freight Rate Indices

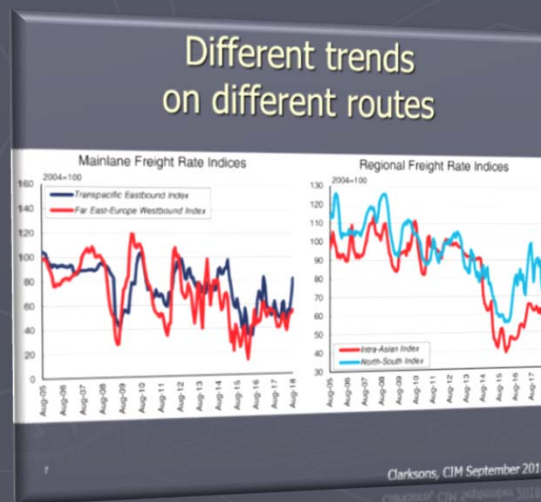
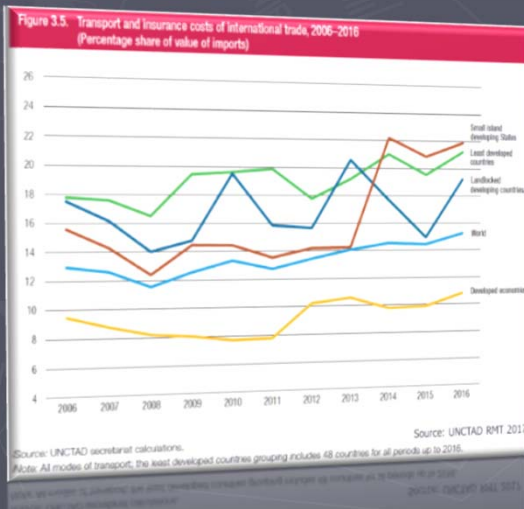


Container freight rates from China

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

Source: Clarksons Research, CIM September 2018

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



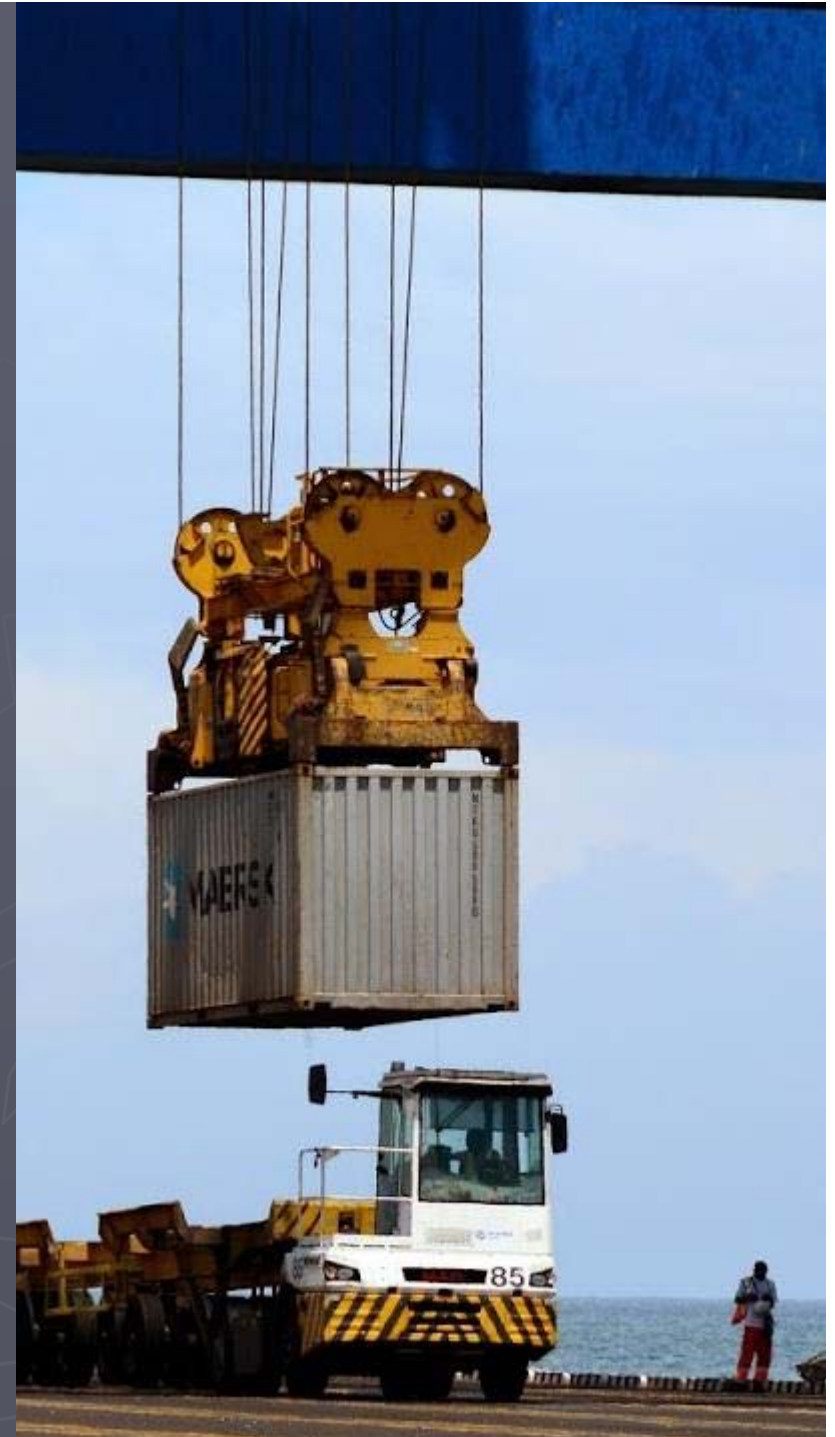
Container freight rates from China

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	Avg. 2016	Avg. 2017	Avg. 2018*	May 2018	Jun 2018	Jul 2018
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% change y-o-y	271%	63%	-26%	-38%	-47%	-54%
Shanghai - Australia/New Zealand	526	677	917	830	733	736
% change y-o-y	10%	29%	87%	104%	110%	110%
Shanghai - West Africa	1,187	1,770	1,778	1,875	2,207	2,046
% change y-o-y	-18%	49%	-10%	-16%	-11%	-20%
Shanghai - South Africa	580	1,155	905	803	796	586
% change y-o-y	-15%	99%	-18%	-30%	-37%	-59%

Source: Clarksons Research, CIM September 2018

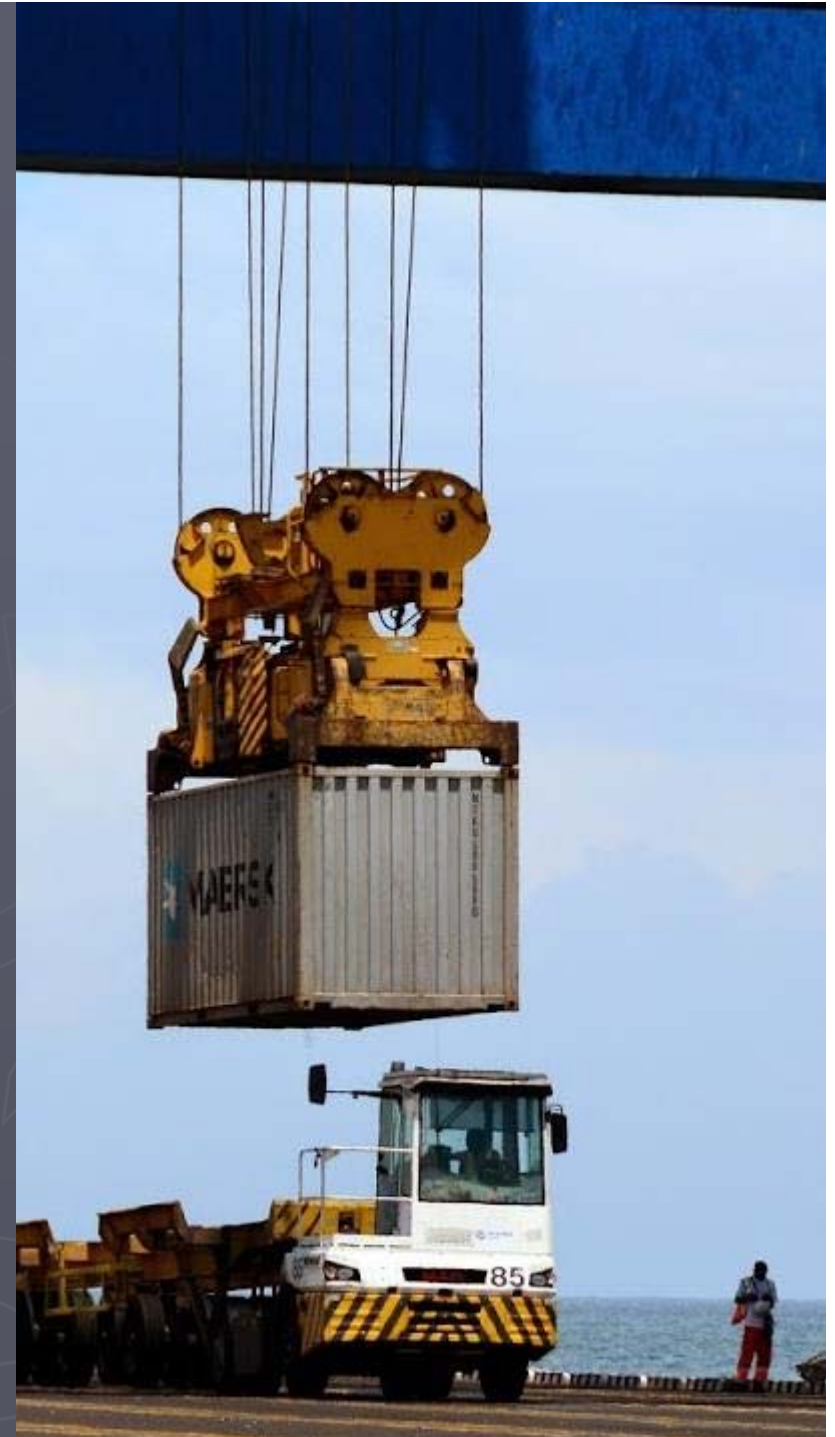
Differences in freight costs depend on...

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

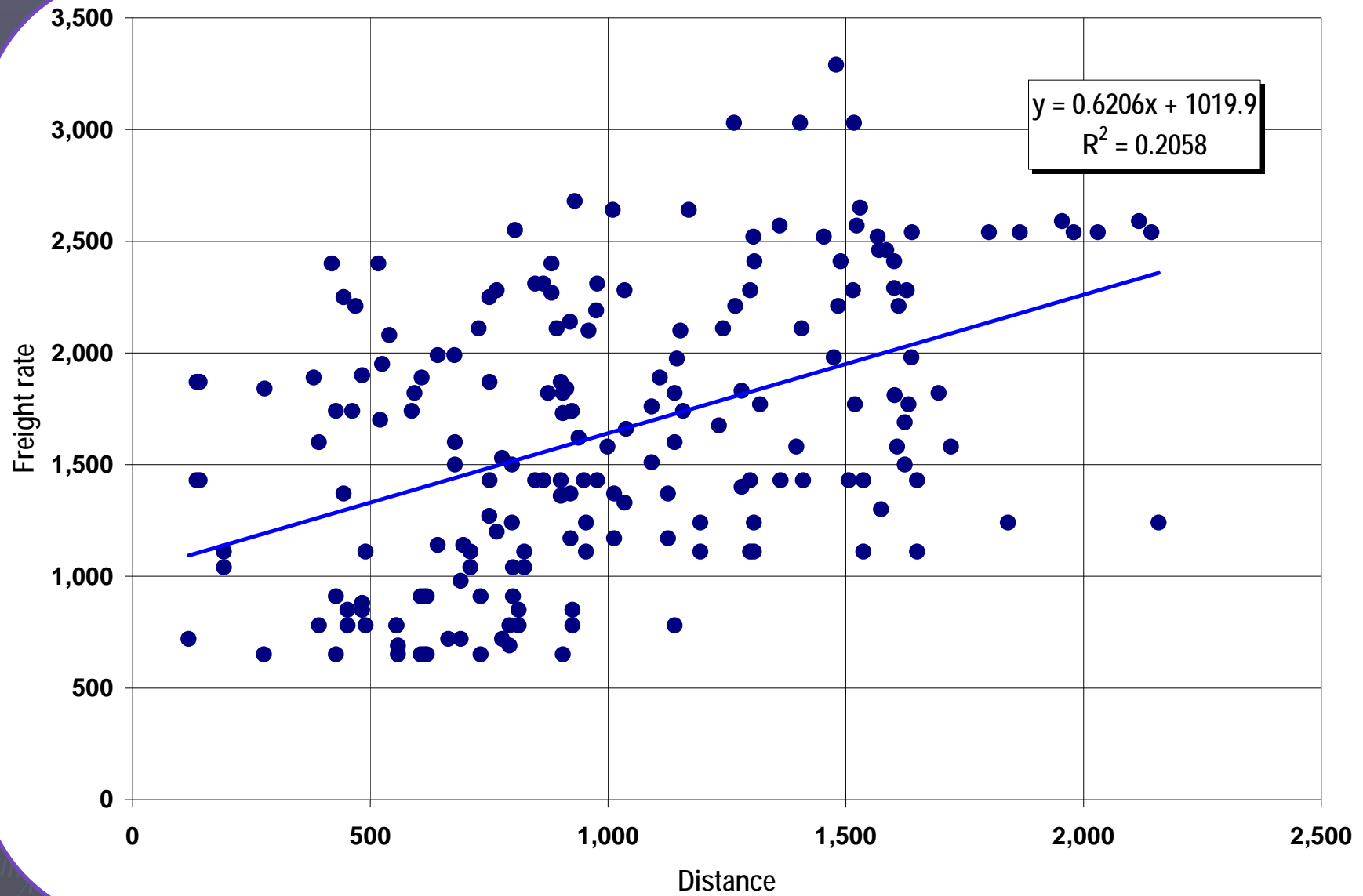


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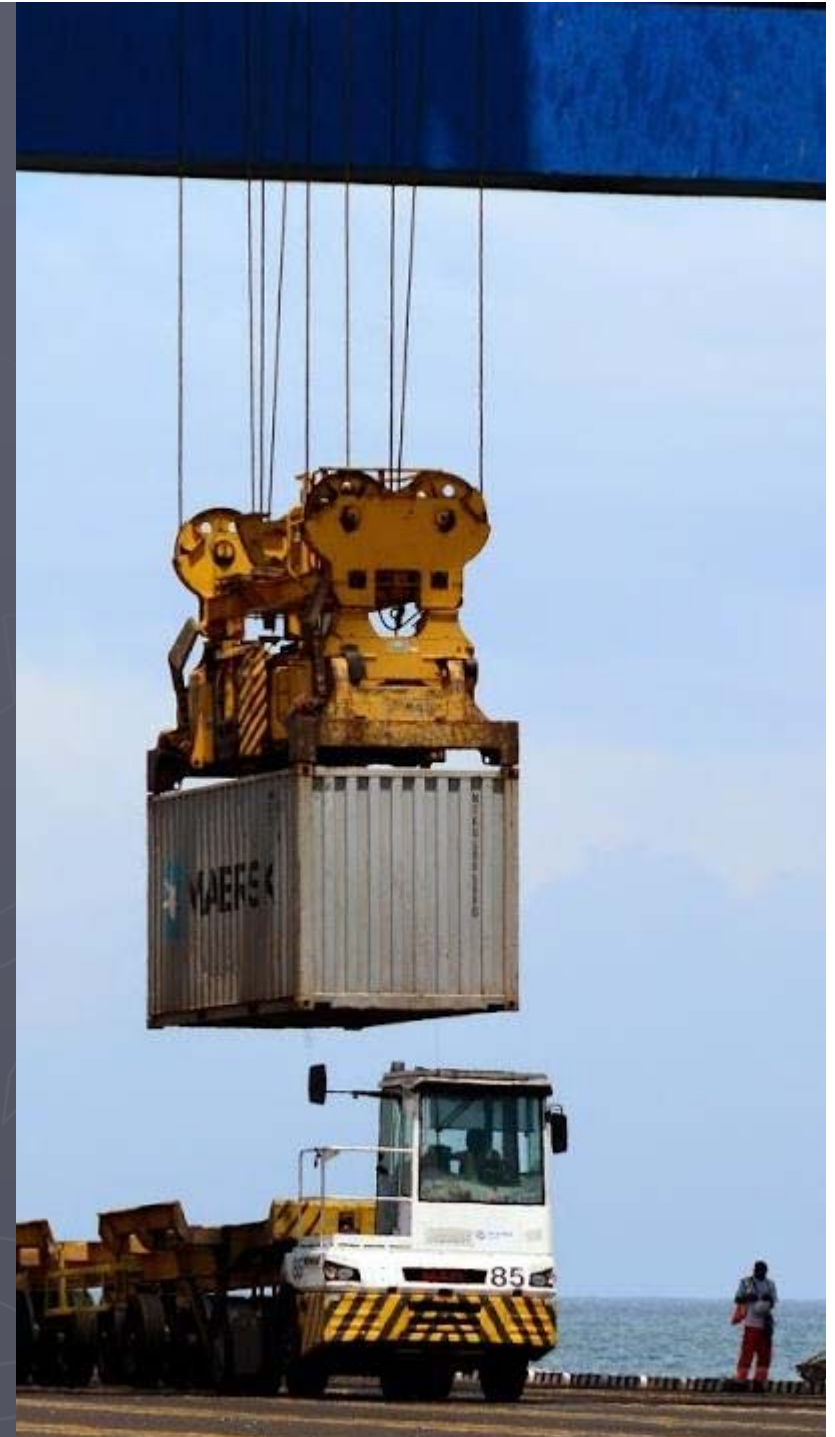


Freight rates and Distance in the Caribbean

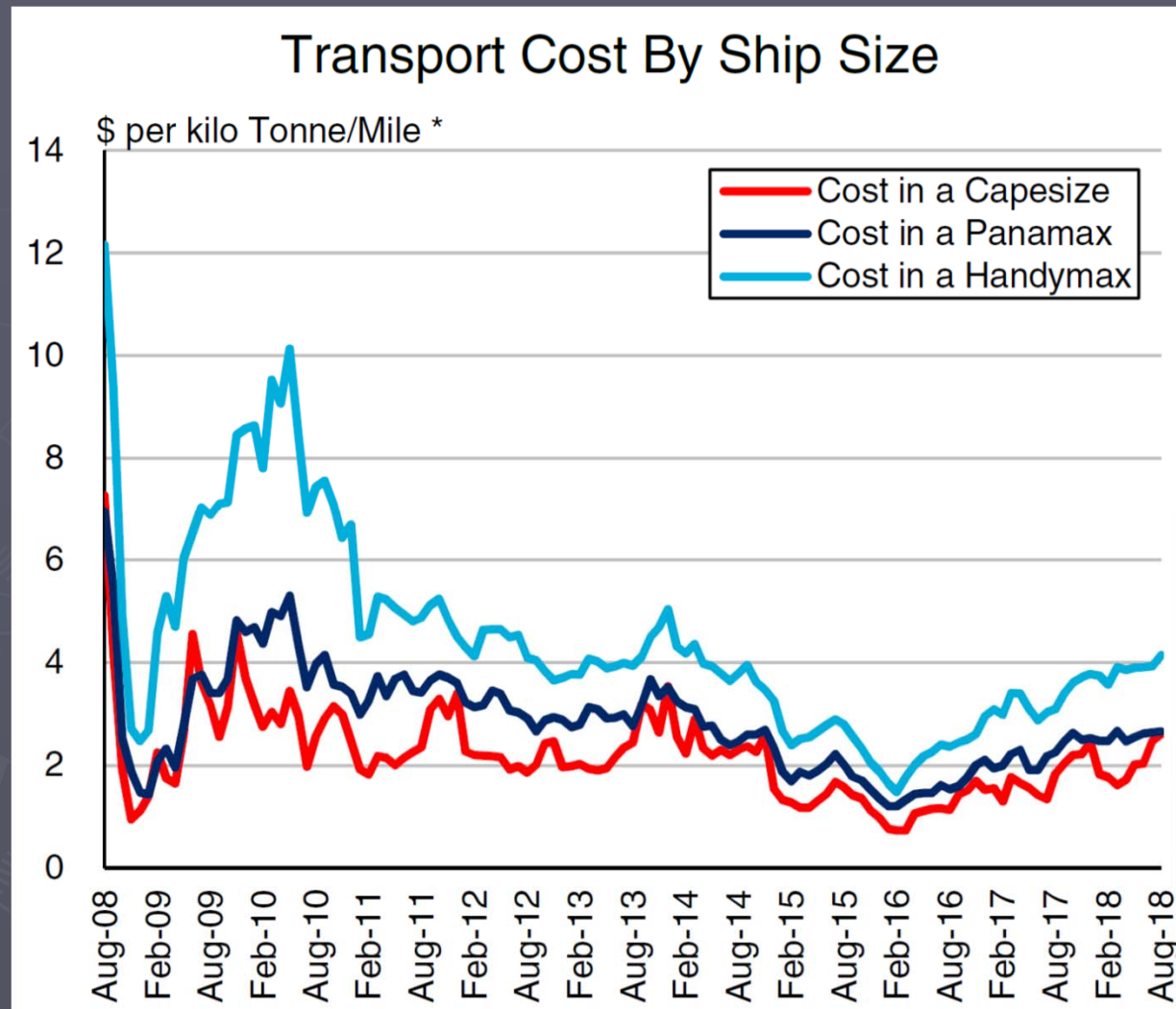


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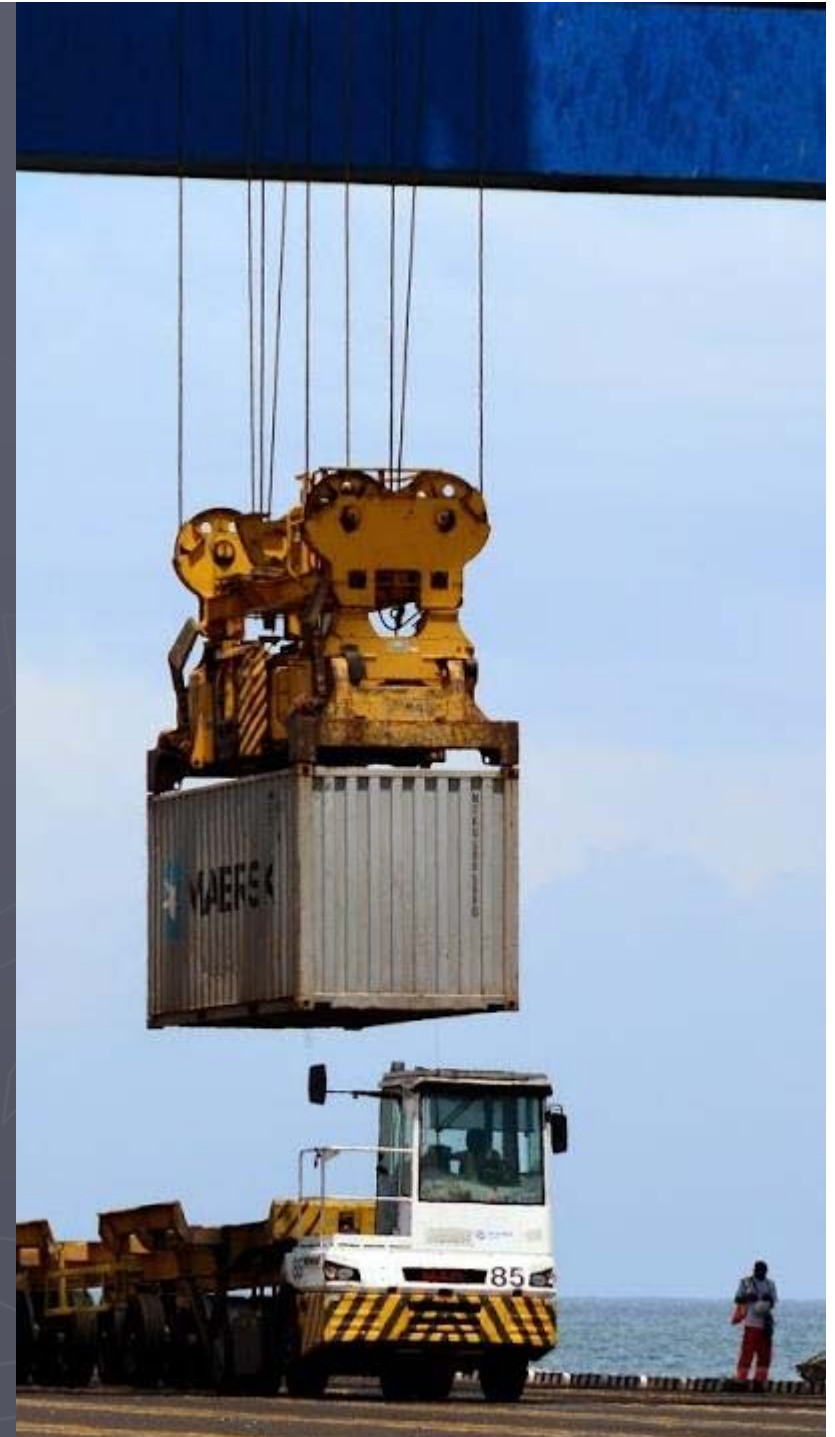


Economies of scale



Differences in freight costs depend on...

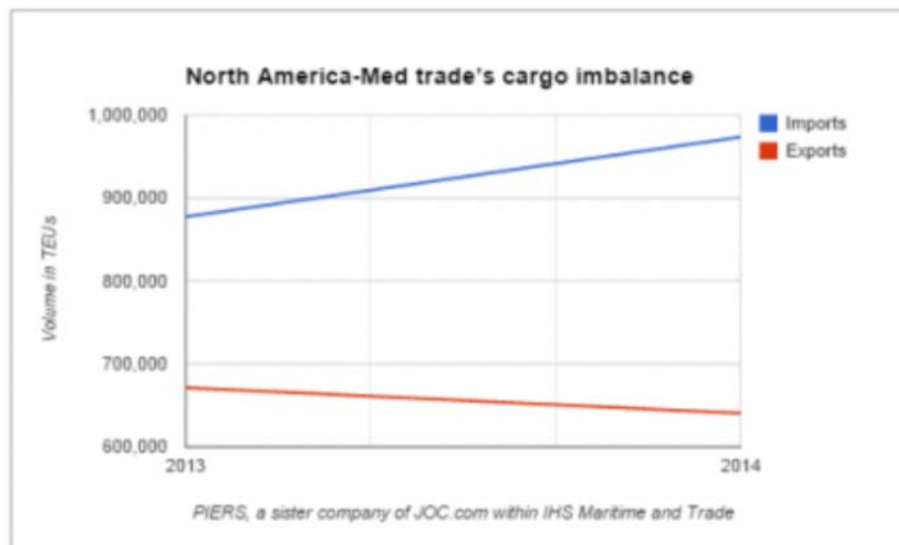
- 1) Distances
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Imbalances



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.



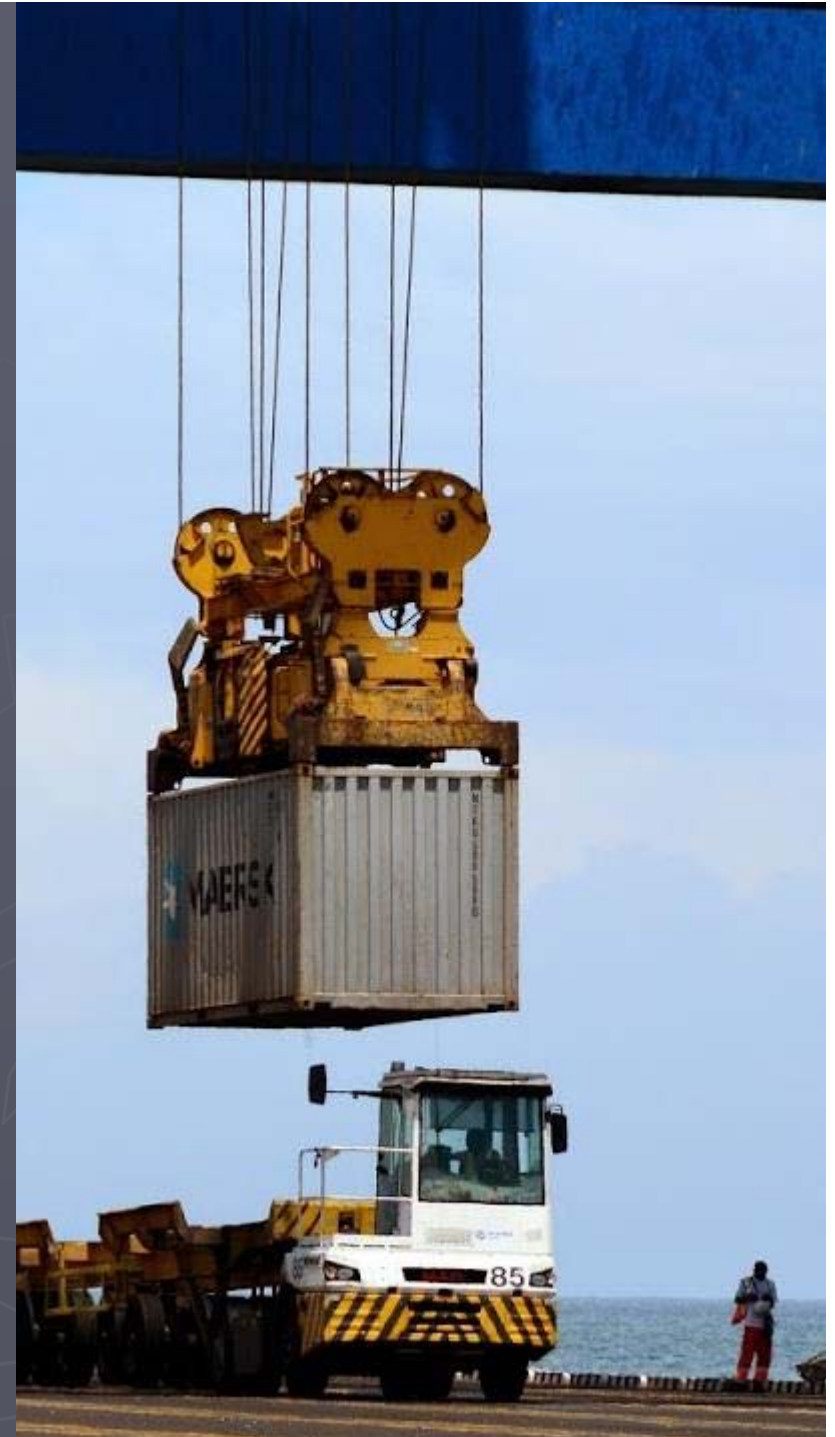
Several carriers are implementing general rate increases on April 1 in a bid to shore up the market.

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

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

Differences in freight costs depend on...

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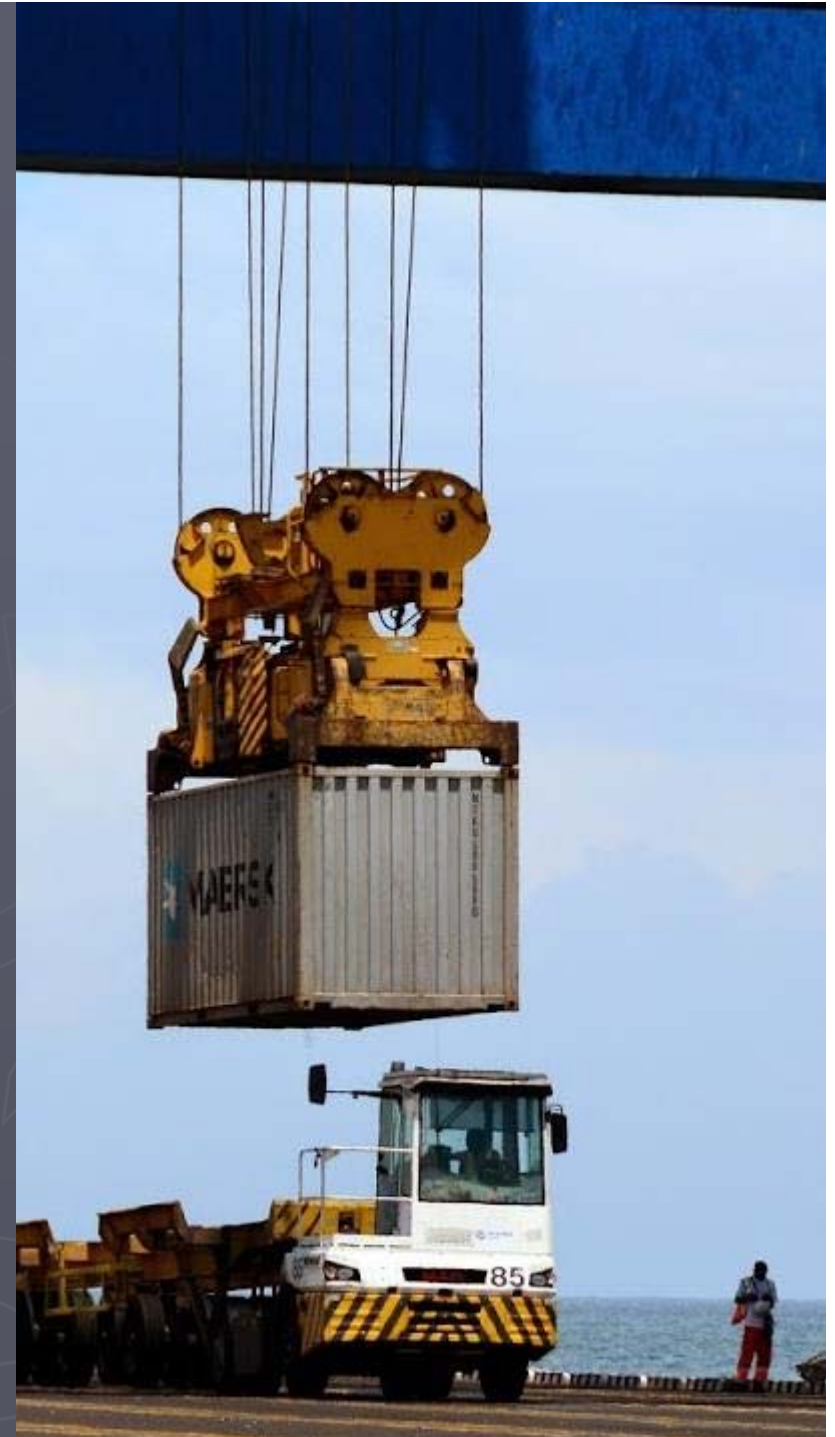
Merchandize type and value

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



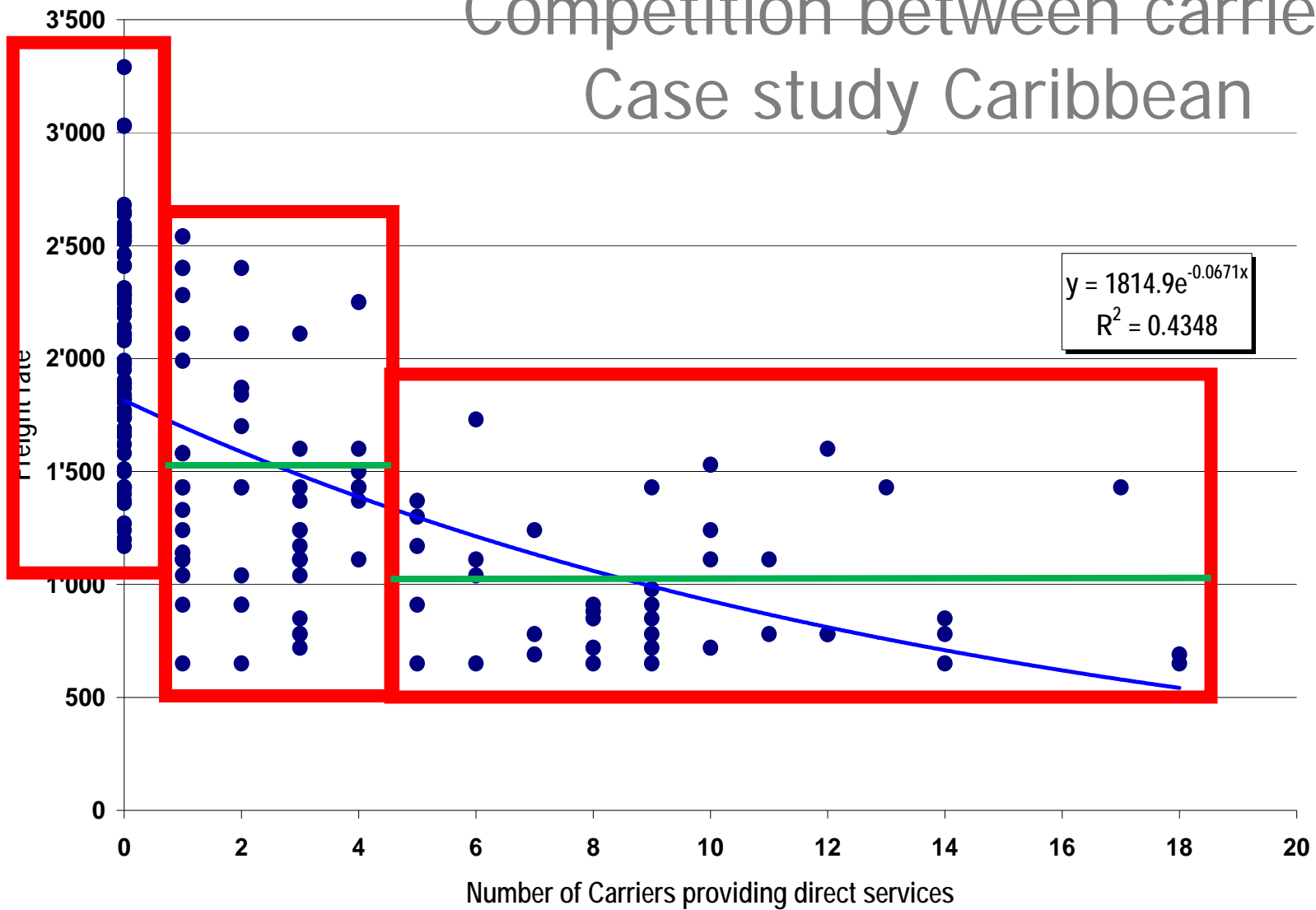
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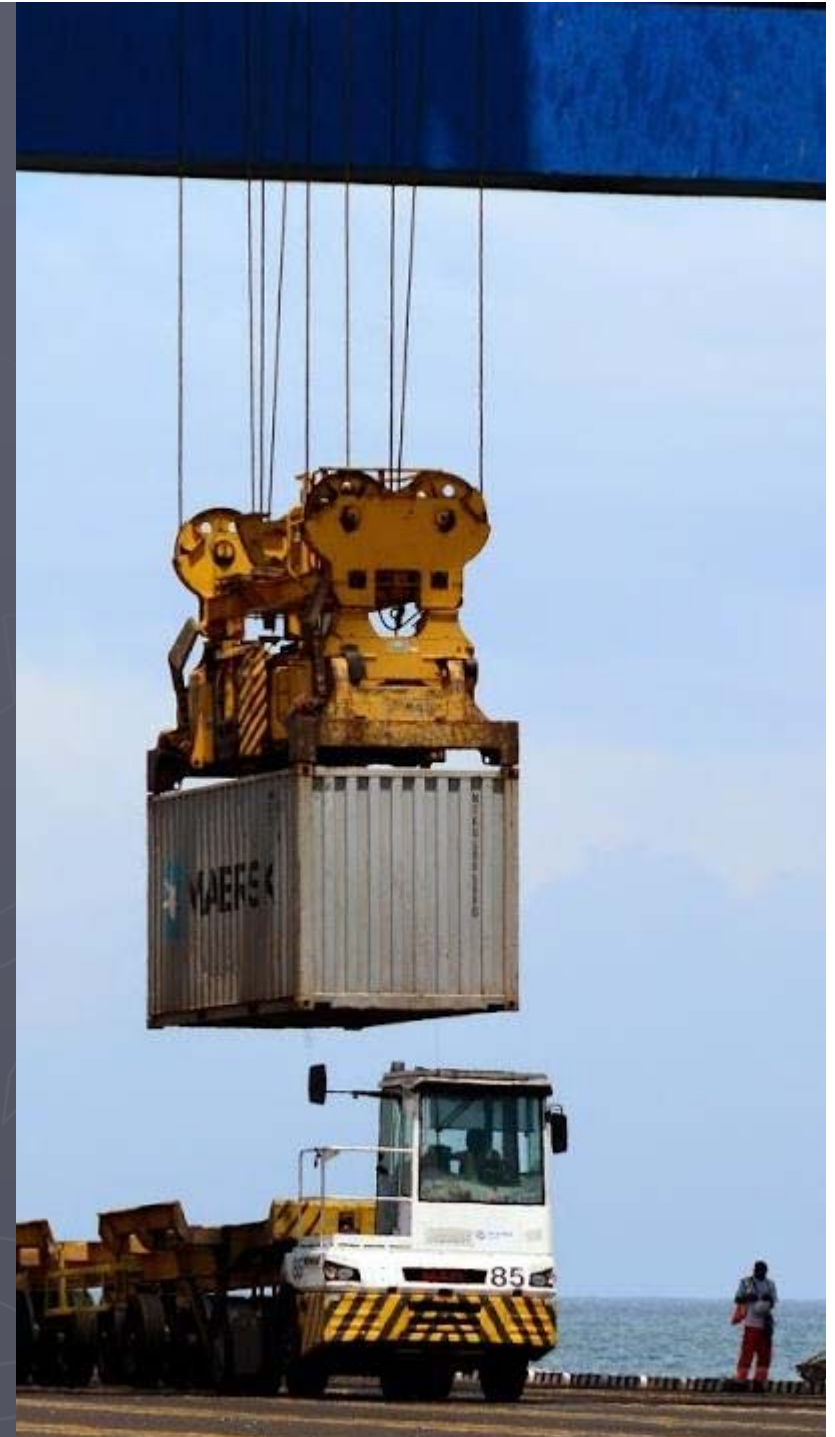
Competition between carriers

Case study Caribbean



Differences in freight costs depend on...

- 1) Distances
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- 5) Competition
- 6) Port characteristics



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 = 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 (-58.11)	-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)
PORTEFIC _{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**

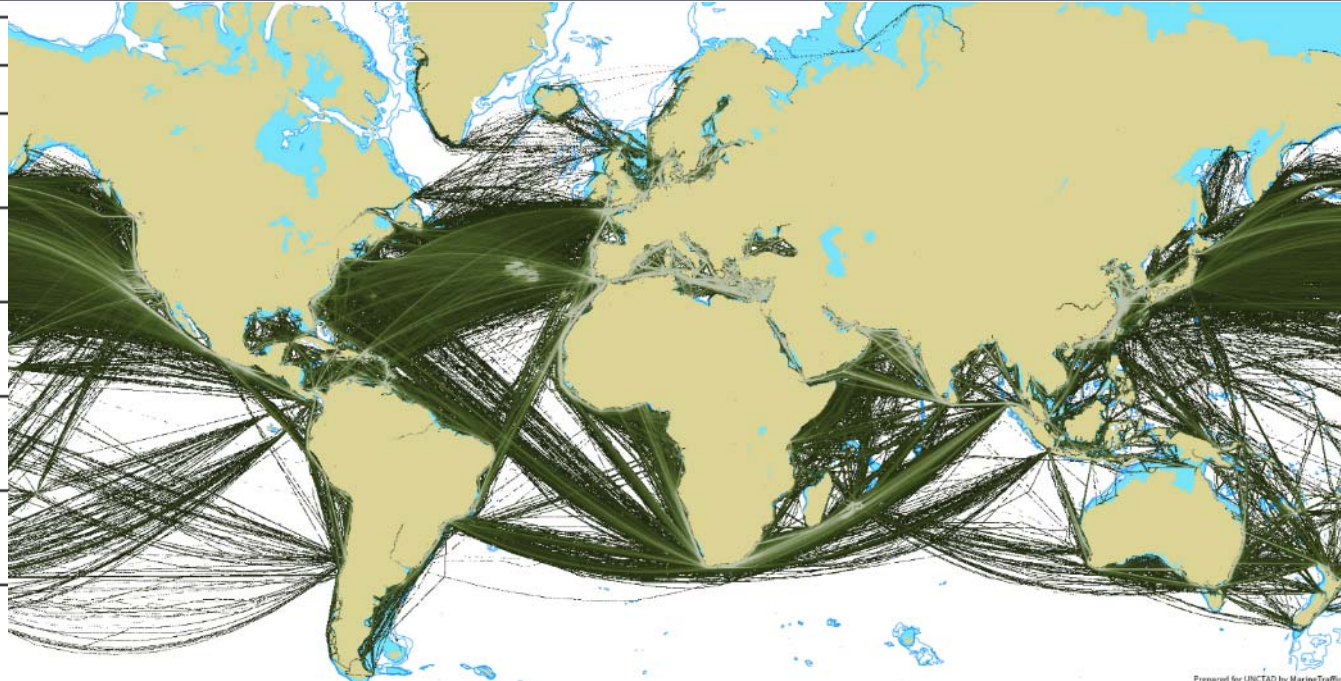
Dependent variable: maritime transport costs per tonne of containerizable cargo

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

Variable		Model 13
Observations		N = 73 818
TONS _k		-0.0857 (-57.00)
VALUEPERTON _k		0.3447 (129.16)
DISTANCE _{ij}		0.1769 (30.28)
BILATERALVOLUME _{ij}		0.0256 (10.91)
BALANCROUTE _{ij}		0.00228 (14.31)
LINERSERVICES _{ij}		-0.1129 (-32.60)

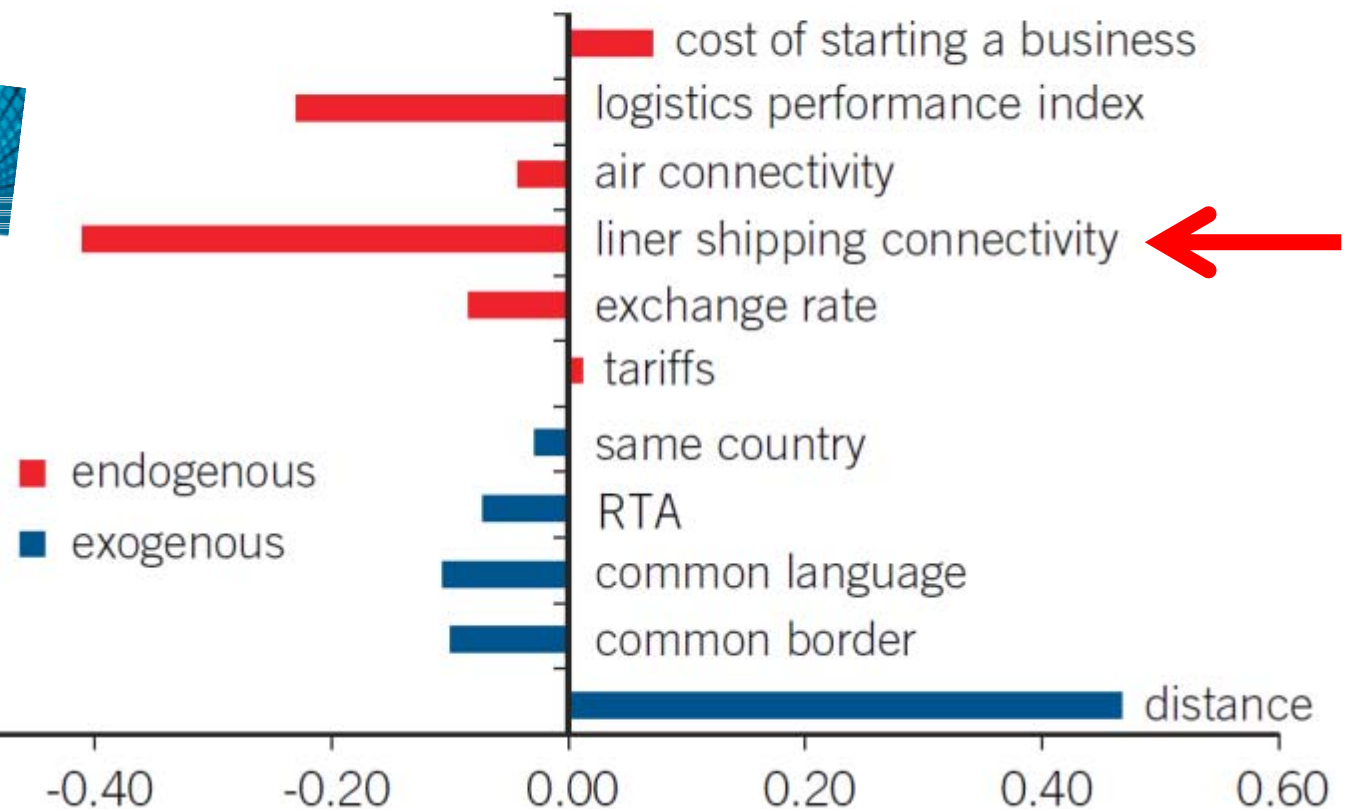


Better connectivity / more competition among carriers reduces maritime transport costs (shippers perspective)

Higher Liner Shipping Connectivity leads to lower trade costs

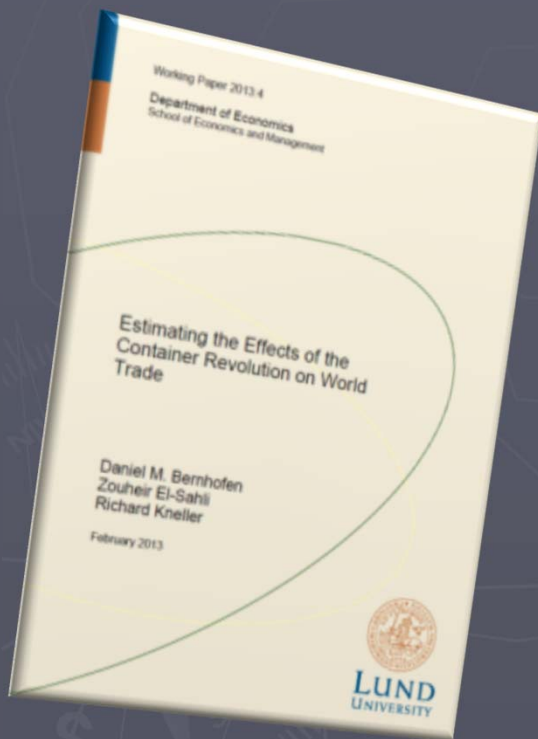
Figure 1. Relative Impact of Different Sources of Trade Costs

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



(Arvis et al, 2013)

Introducing containerization leads to more trade



(Bernhofen et al, 2013)

The Economist

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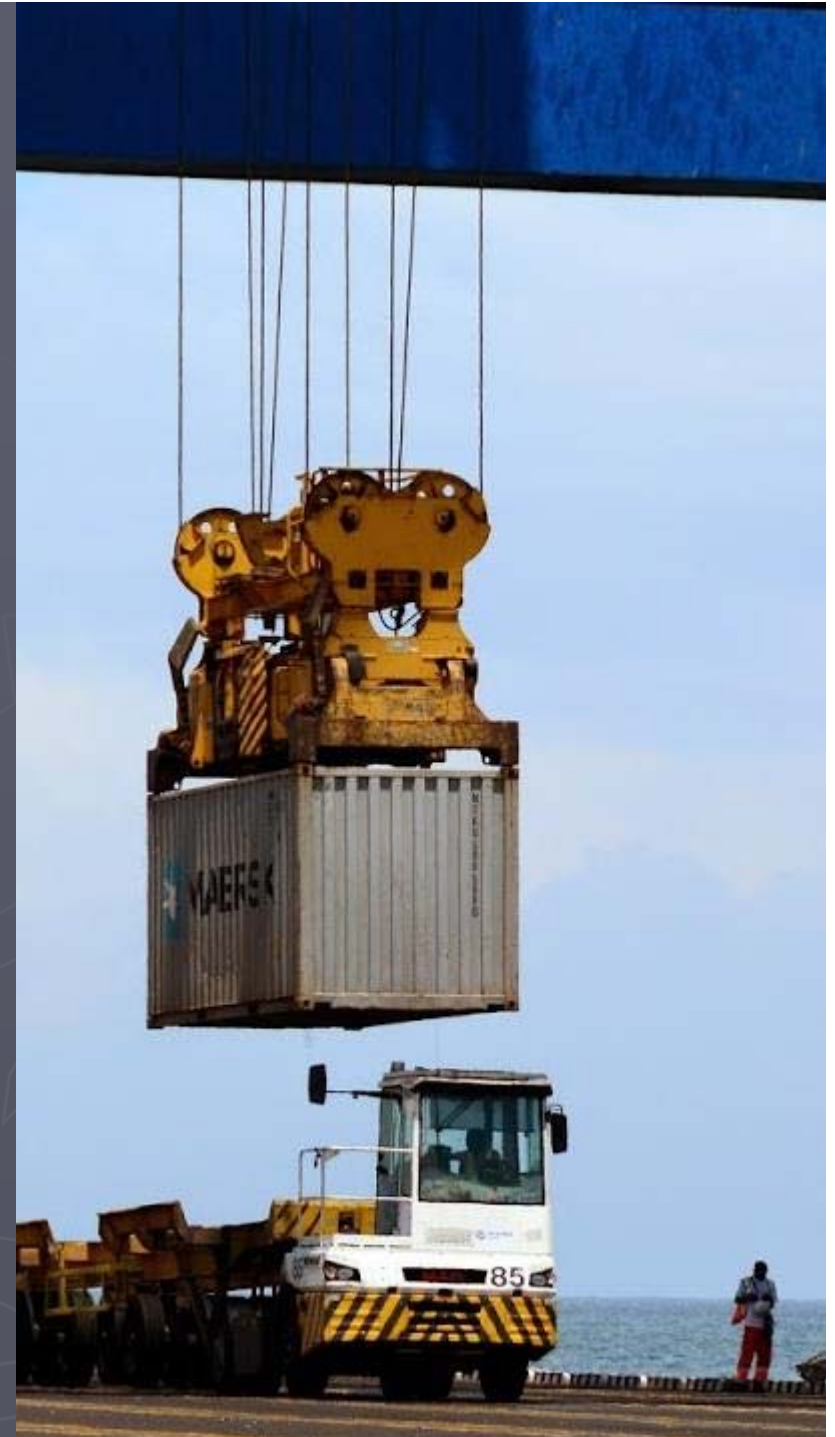
Free exchange

The humble hero

Containers have been more important for globalisation than freer trade

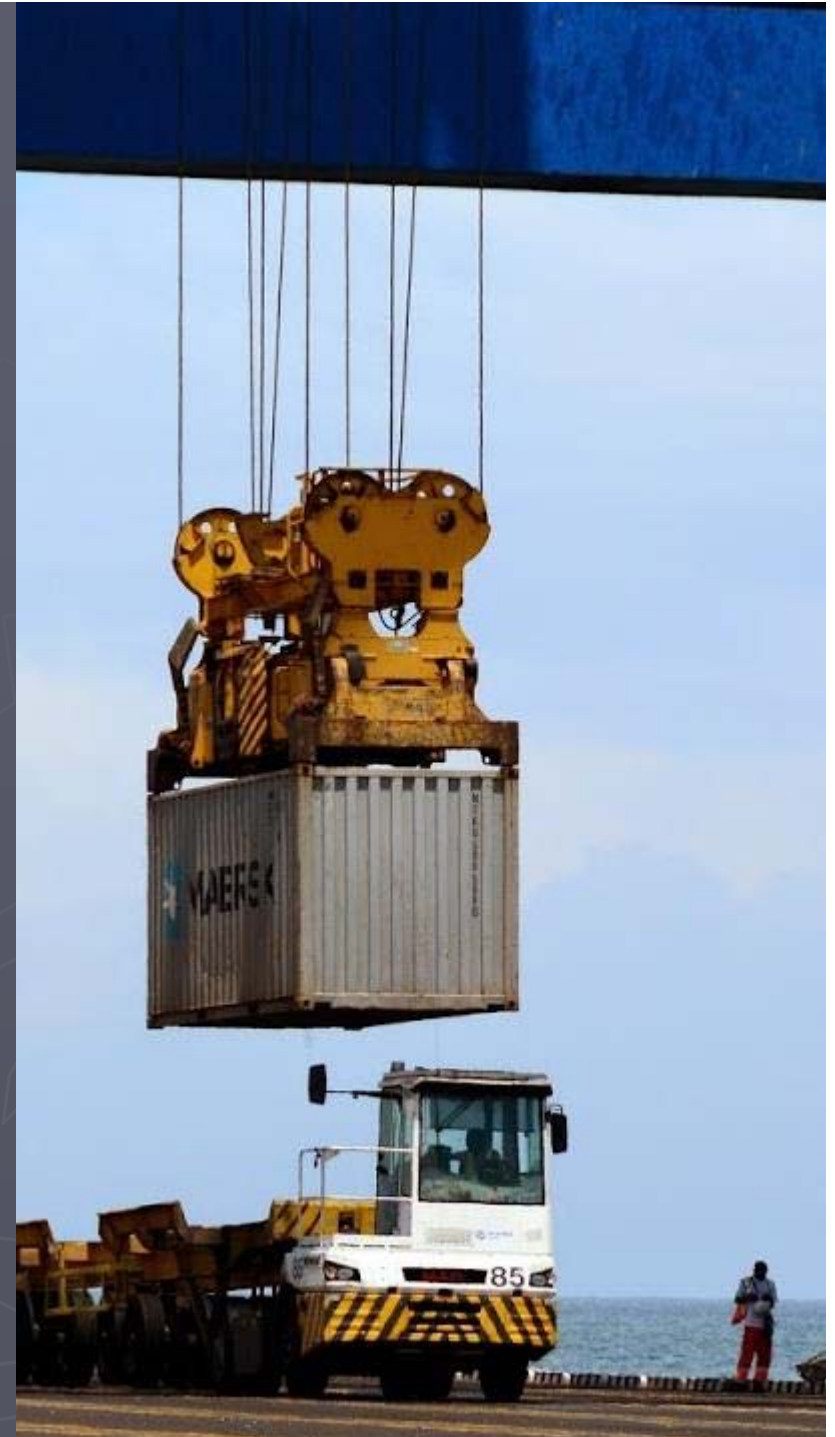
Differences in freight costs depend on...

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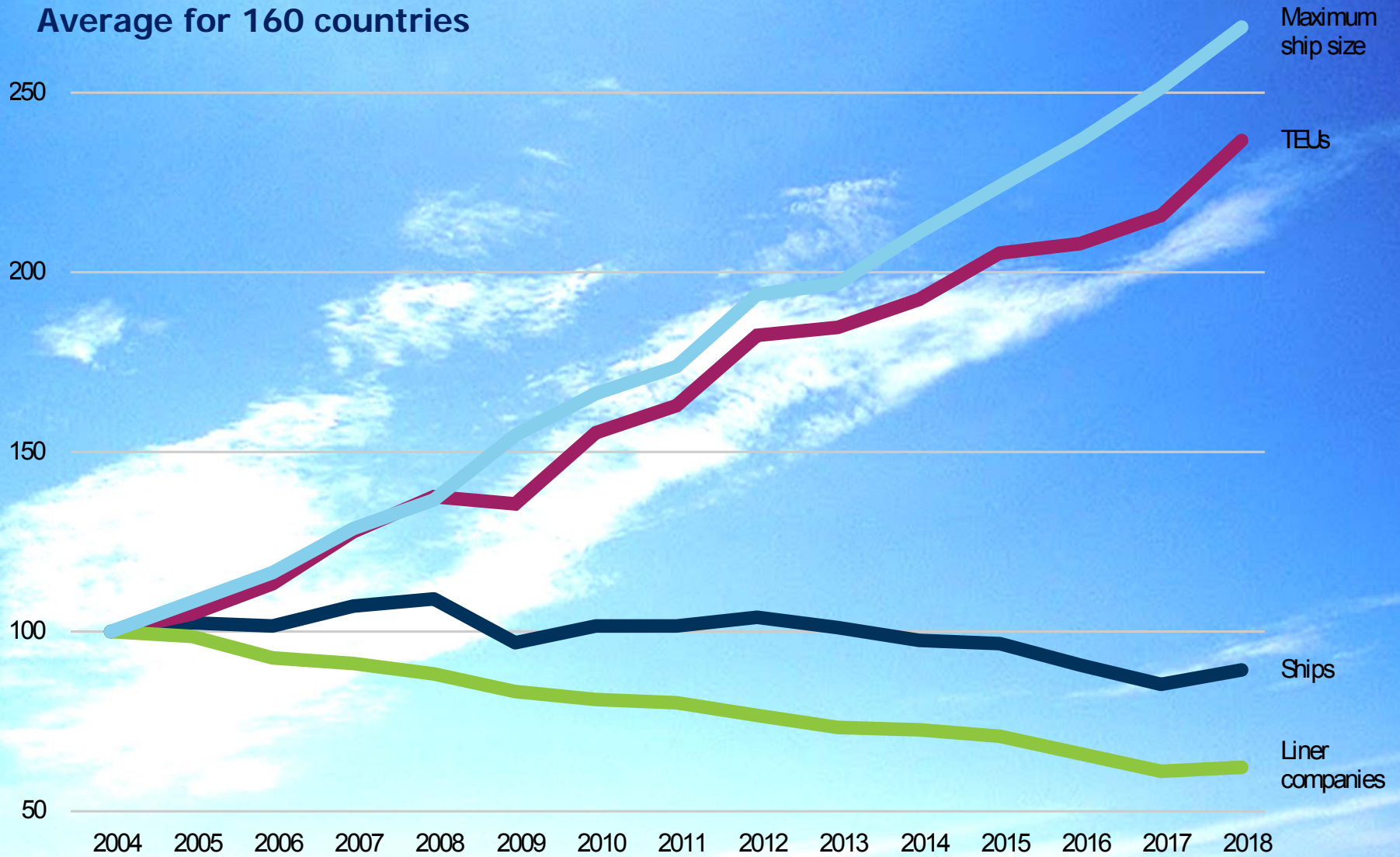


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Components of UNCTAD's Liner Shipping Connectivity Index (LSCI) Average for 160 countries



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



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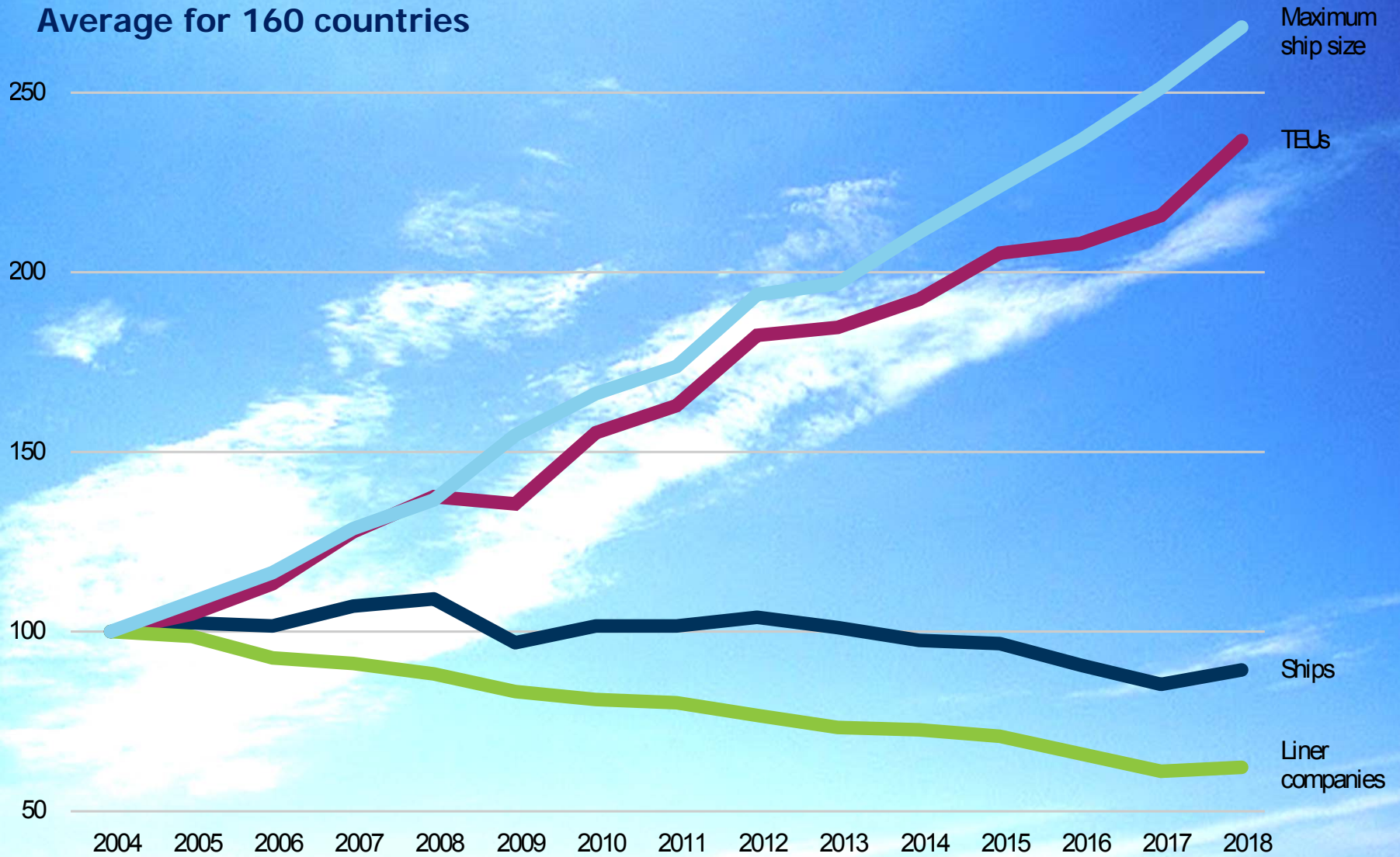


- ▶ Costos del transporte internacional

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- ▶ América Latina y el Caribe:
La situación en el 2018

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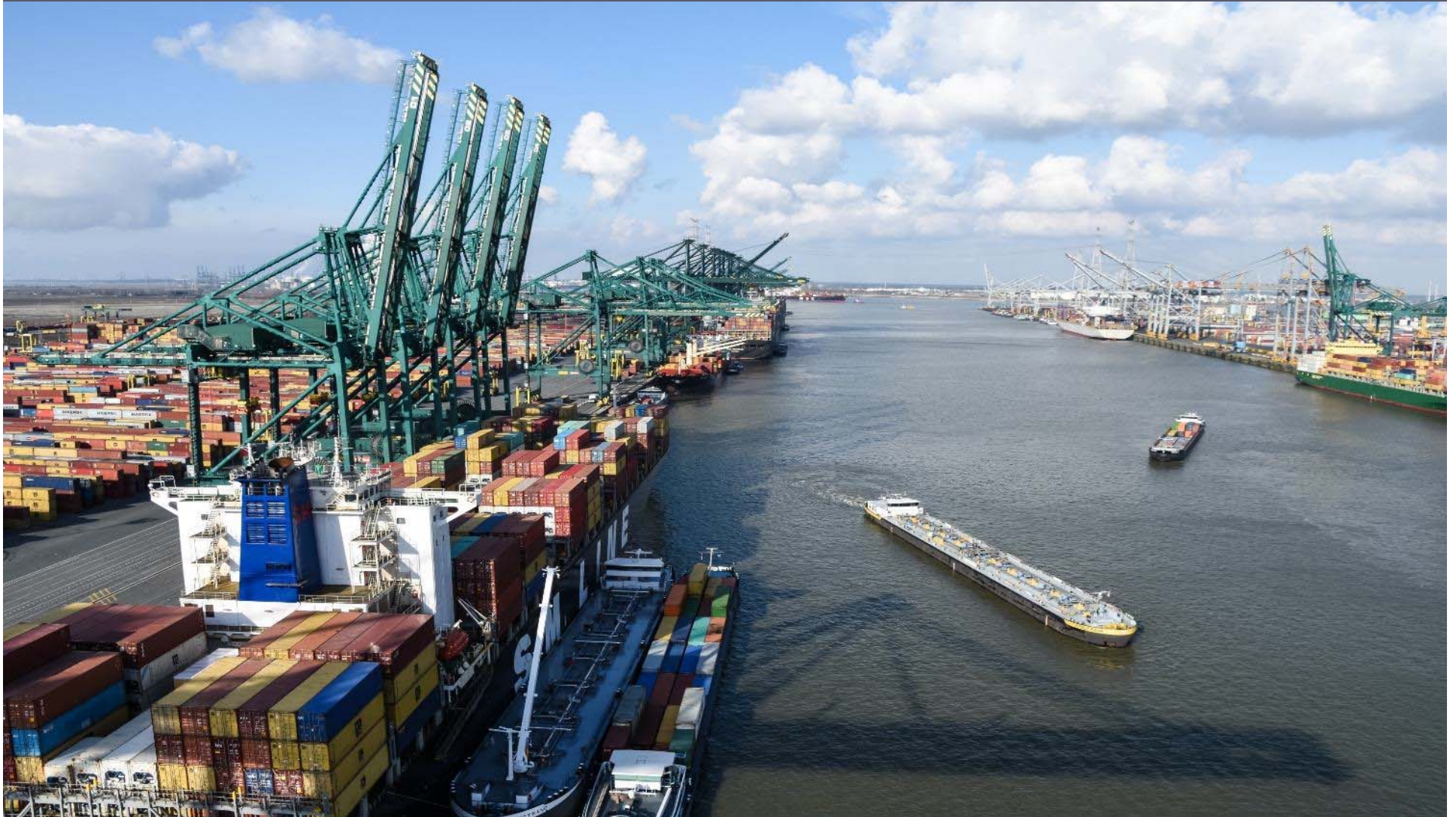
Consolidation in the container market

► Mergers and Acquisitions

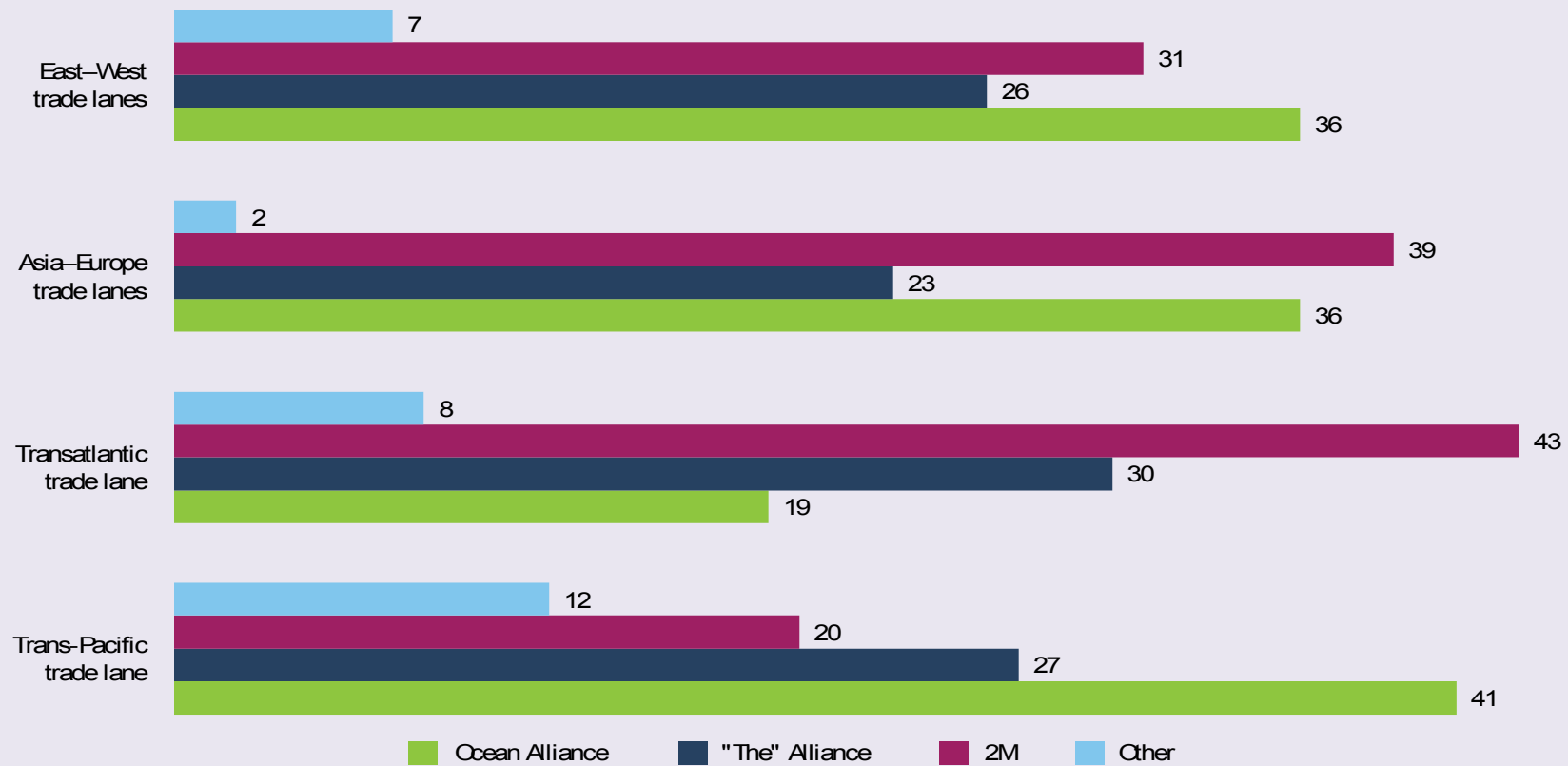
"As of January 2018, the top 15 carriers accounted for 70.3% of all capacity. Their share has increased further with the completion of the operational integration of the new mergers in 2018, with the top 10 shipping lines controlling almost 70% of fleet capacity as of June 2018."



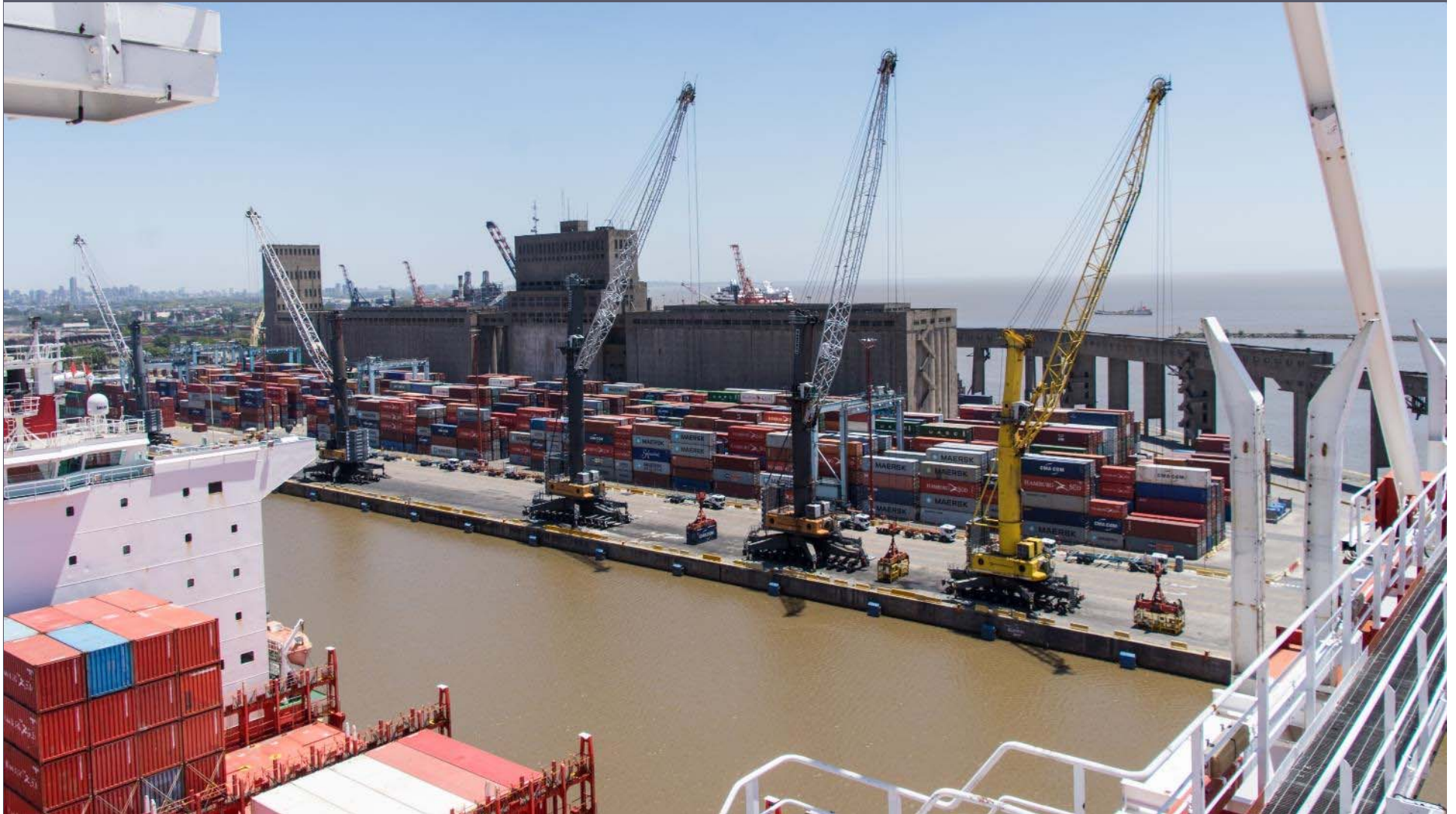
Alliances



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

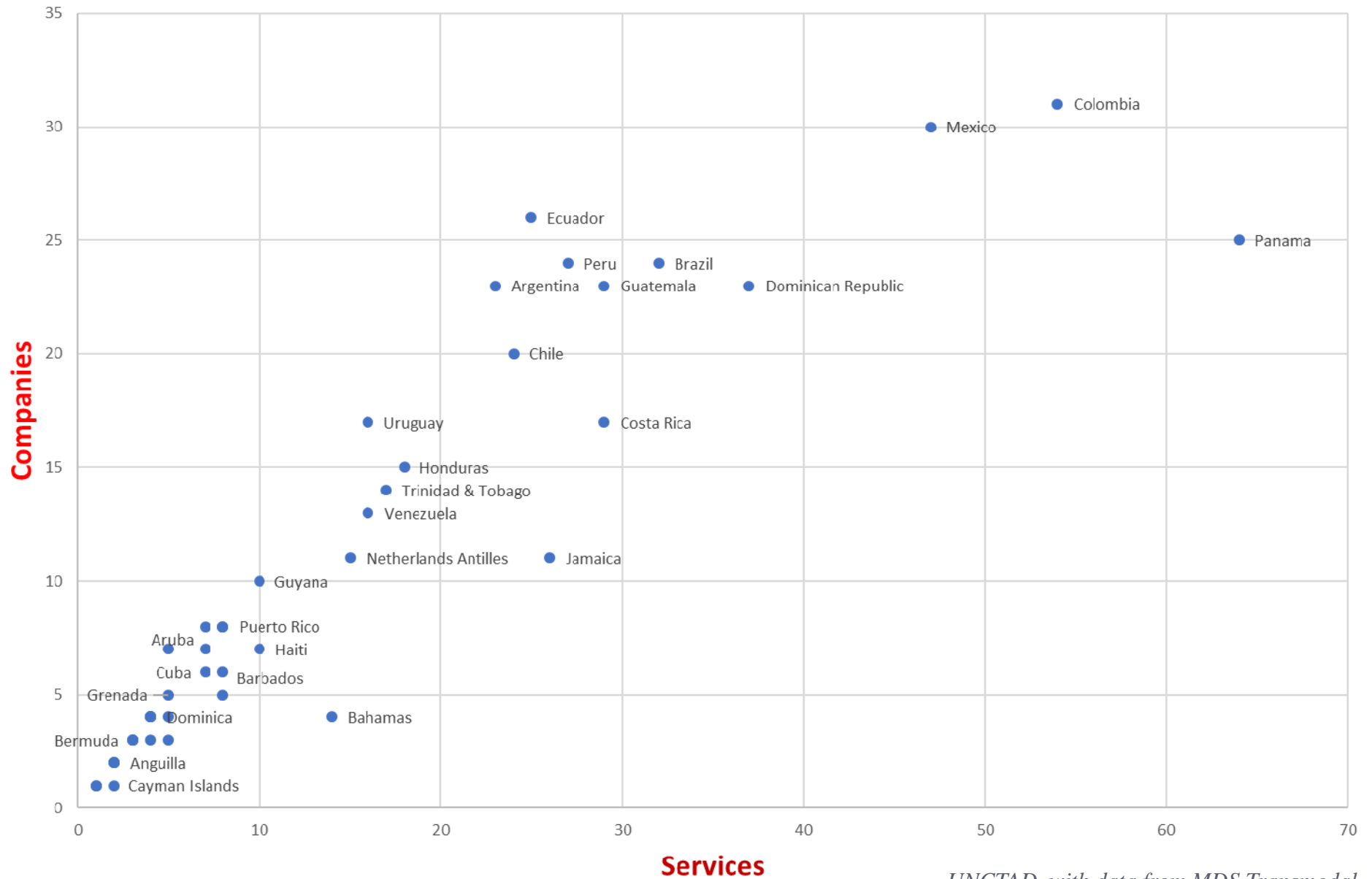


Challenges for Small Islands



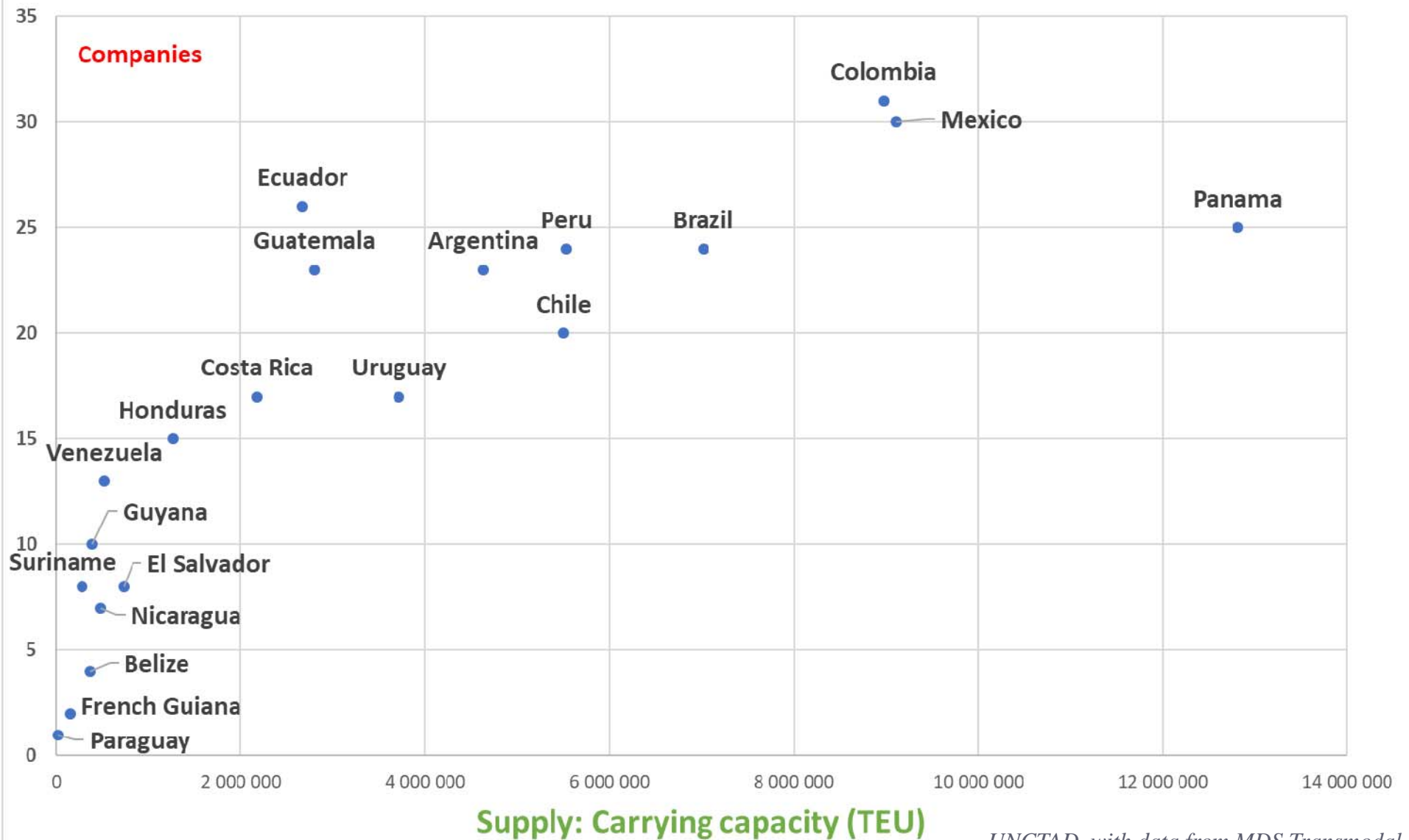
- 
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Liner supply in 2018



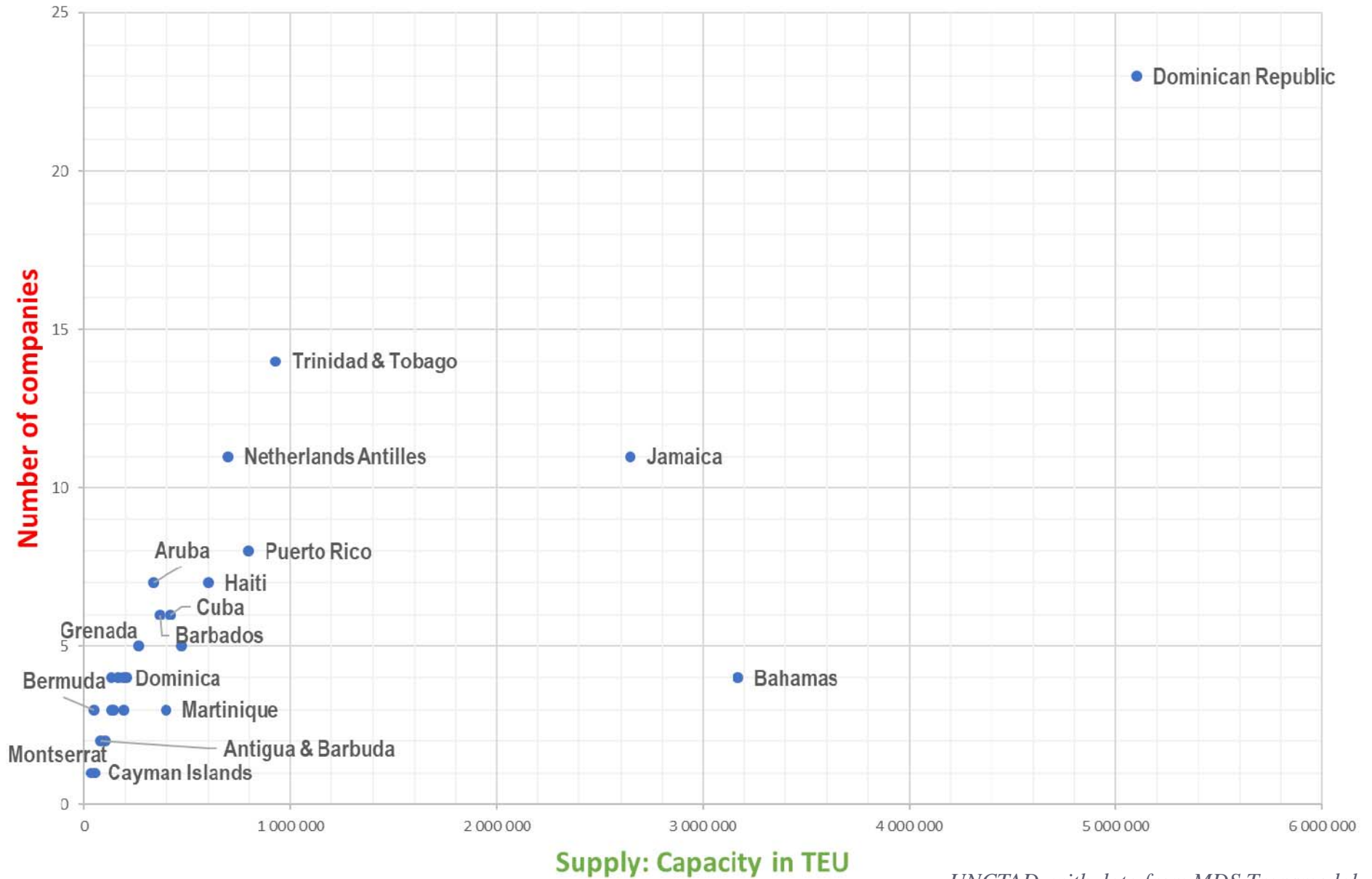
UNCTAD, with data from MDS Transmodal

Liner supply in 2018

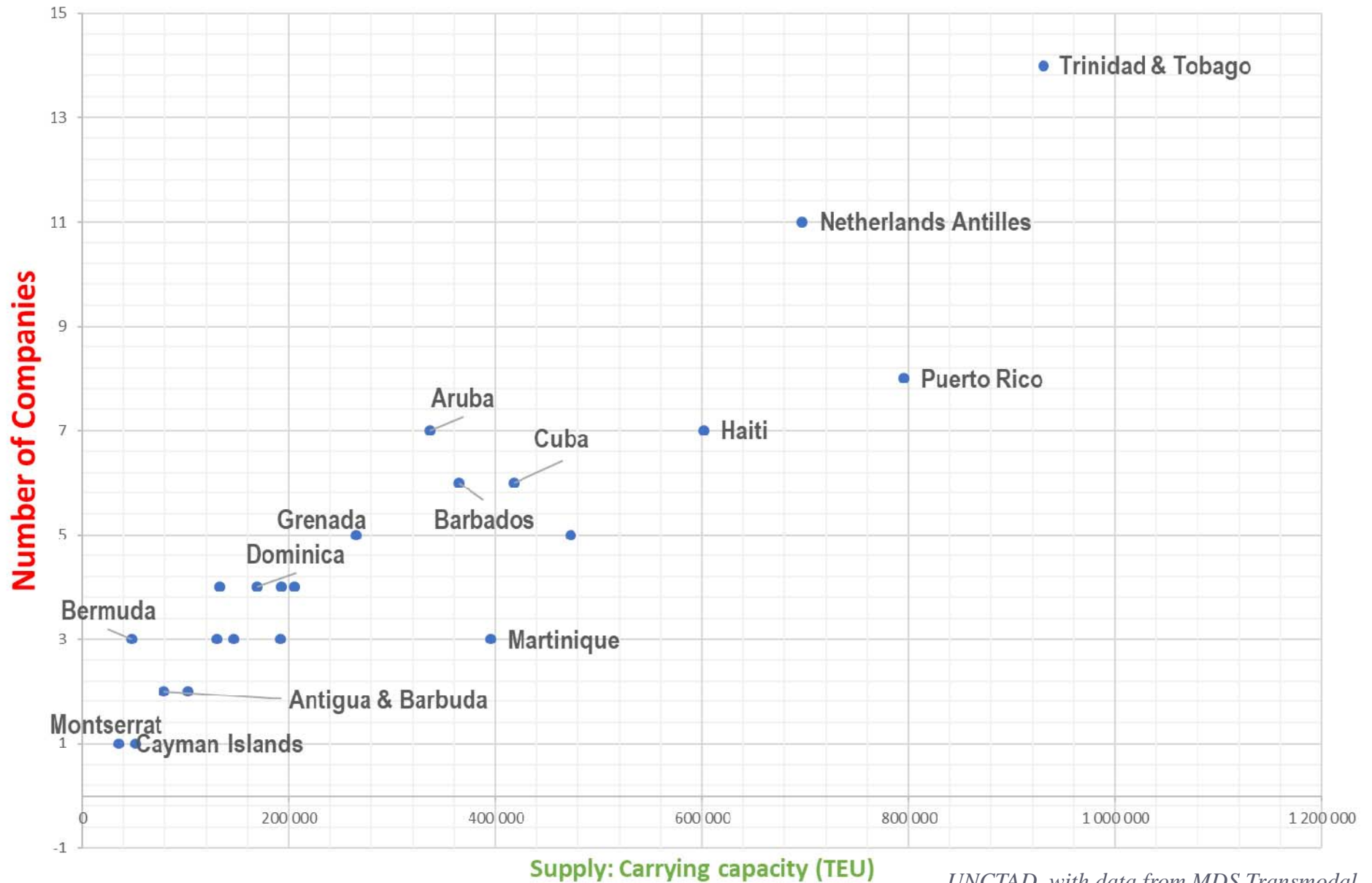


UNCTAD, with data from MDS Transmodal

Liner supply in 2018

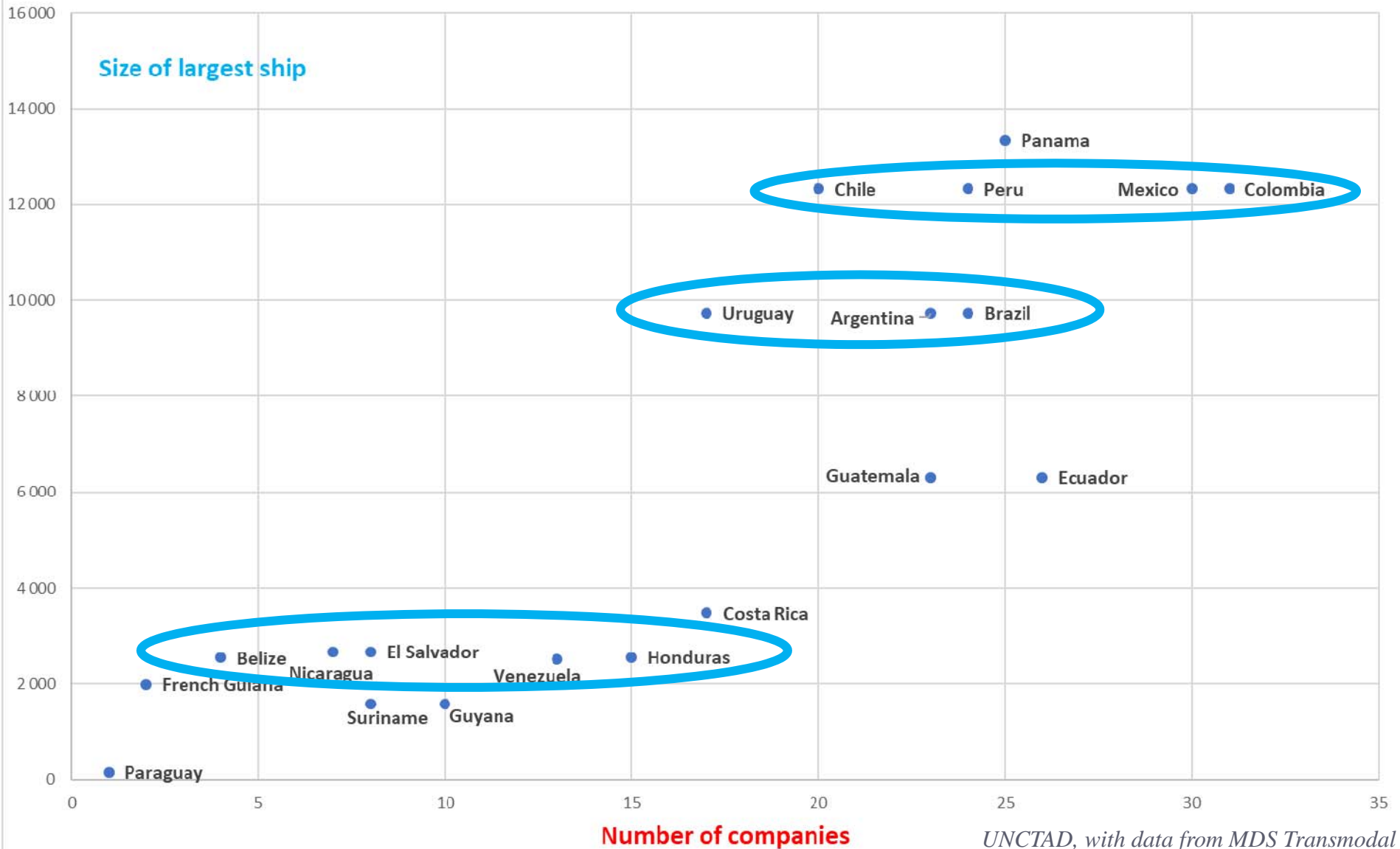


Liner supply in 2018



UNCTAD, with data from MDS Transmodal

Ship sizes



UNCTAD, with data from MDS Transmodal

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	173.828	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 from MDS Transmodal

▶ Costos del transporte internacional

▶ Consolidación entre las líneas navieras

▶ América Latina y el Caribe: La situación en el 2018

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The Economist November 6th 2014

Trade terms
six - The term "shipper" was wrongly used in your article on shipping ("Economies of scale made steel", November 1st). 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...


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



Ship sizes



UNCTAD, with data from AIS Transmode



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