

Sixth Annual Stakeholders' Conference

COVID-19: A crash test for the resilience of the maritime logistics chain?

An overview of supply and demand in
the liner trades

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Brussels, 1st December 2021

1. Why am I here today?

- MDST started compiling databases on trade and ship deployment 40 years ago
 - gradually developing modelling and forecasting tools to become better consultants
- Regularly contribute articles to the trade press and give conference presentations
 - until recently in praise of the deep-sea container industry in reducing unit costs and carbon emissions since the end of conferences in 2008
- Therefore followed the debate on the Consortium Block Exemption Regulation with interest
 - puzzled that Commission's reason to defer change included lack market share data
- This is despite the fact that the arrangements after the end of conferences in 2008 included the lines *confidentially* contributing detailed traffic data to a central agency (CTS)
 - regulators in other industries in a national context would normally have privileged access to such data
- Therefore noted that Global Shippers Forum (GSF) suggested this gap be filled through trusted global organizations such as UNCTAD or OECD
 - we work for (or with) both so we proposed to GSF a Quarterly Review of the industry
- Publishing our fifth review today

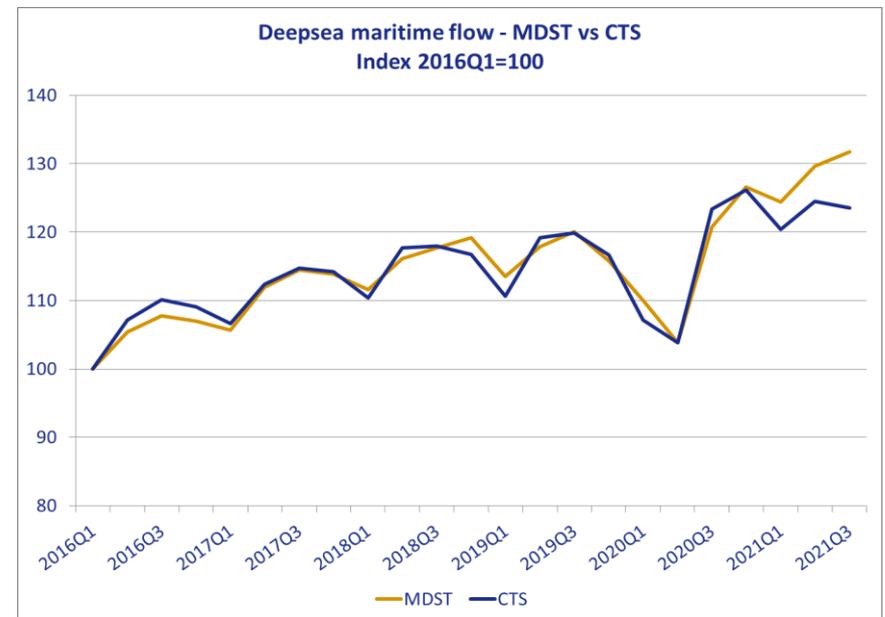
2. The last 2 years

- Two years ago appeared to be adequate capacity and stable rates, suggesting decision to defer long term decision on CBER for 4 years unlikely to have immediate implications
- But then pandemic led to a brief slump in demand threatening liner services' viability
 - so lines took steps to cut costs, reducing sailings and not returning empty containers
- In practice, fiscal action in the West then led to rapid recovery: 2020Q4 a record quarter
- Our first QR was in 2020Q3: last quarter where rates and performance were reasonably 'normal'
 - recovery from the pandemic slump of 2020Q2 already taking place
 - before the Far East ran out of containers that the lines had failed to return
 - before port congestion and impact of handling more 20,000 TEU+ ships appreciated
 - network vulnerability demonstrated by Ever Given incident did not help!
 - inland challenges through lack of haulage
- Subsequent quarters have displayed ballooning freight rates and deteriorating performance
 - which I will describe in the following slides
- Ironically 5 years ago we were giving conference papers congratulating lines on reducing costs and emissions
 - OECD then a lone voice pointing to the potential dangers of market concentration
- We have ourselves now studied that concentration

3. Current market development

- Table below describes growth over the last 12 months and the last quarter using consistent model of unitization rates at detailed commodity level, using trade data
- Annual underlying annual growth rate of 7.3% for unitized cargo versus 6.0% for all internationally traded cargo
- That measure of demand no longer tracks CTS data, appearing to demonstrate diversions to non-member services, air, conventional shipping and overland rail.

	2021Q3	Year To Date (YTD)	Previous Quarter (PQ)	Previous Year (PY)
Agricultural	201	601	1.9%	-3.0%
Metals	12	36	-5.2%	7.1%
Oils & fats	23	68	4.5%	-2.6%
Chemicals	170	507	0.6%	5.3%
Ores	506	1,508	-0.2%	-3.0%
Forest products	122	361	-1.5%	18.4%
Energy:				
- Coal	333	928	13.1%	18.4%
- Oil & gas	1,085	3,340	-1.2%	5.9%
Other	468	1,421	-5.7%	9.2%
Total Non-Unitised	2,920	8,771	0.0%	5.7%
Unitised	635	1,866	0.8%	7.3%
TOTAL Tonnes	3,555	10,637	0.2%	6.0%



Source: MDS Transmodal, World Cargo Database November 2021 & Container Trades Statistics

4. e.g. Far East to Europe – estimated unitized cargo '000s tonnes

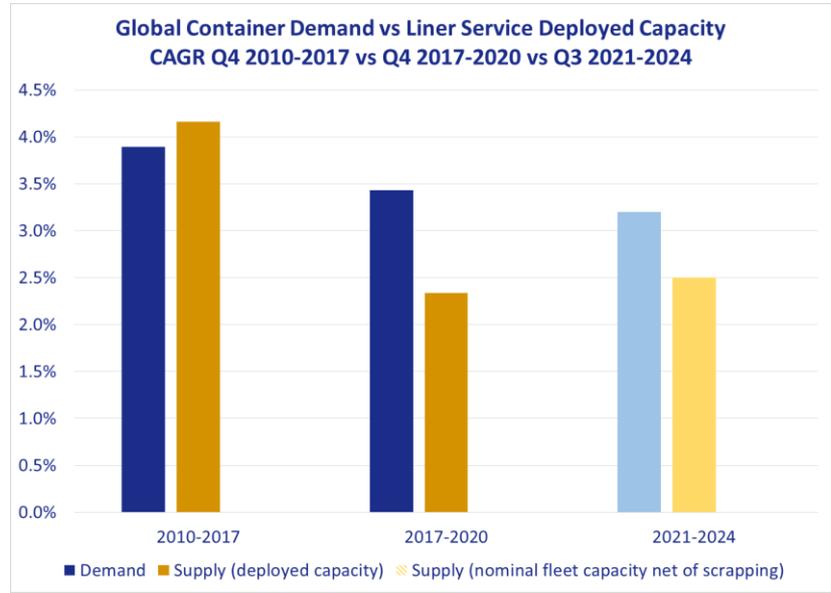
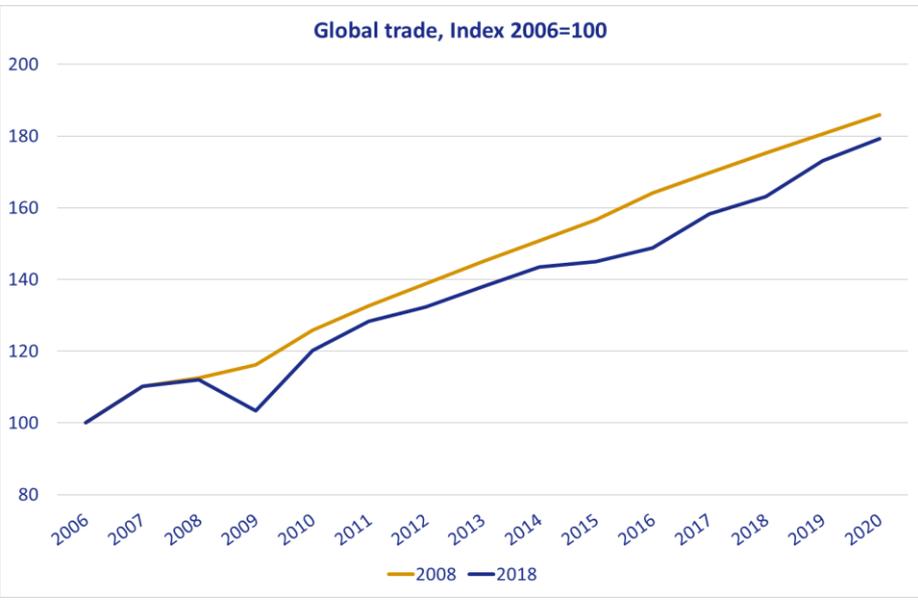
Top 20 SITC2D	SITC2D_text	2016Q3	2019Q3	2020Q3	2021Q3	2020Q3-2021Q3 % change	CAGR 2016Q3-2019Q3	Share of total European import		
								2016Q3	2021Q3	2021Q3 minus 2016Q3 (% points)
77	Electrical machinery	1,628	2,203	2,413	2,975	23%	11%	25%	33%	8.0
89	Miscellaneous Manufactures	1,804	2,143	2,324	2,664	15%	6%	25%	30%	4.4
69	Metal manufactures - other	1,788	1,976	1,961	2,249	15%	3%	26%	26%	0.1
74	General industrial machinery	1,326	1,428	1,468	1,837	25%	3%	26%	30%	3.2
65	Textiles & made-up articles	1,317	1,530	1,501	1,645	10%	5%	31%	32%	1.0
66	Mineral manufactures	2,218	2,101	1,974	1,590	-19%	-2%	11%	6%	-4.6
82	Furniture	972	1,180	1,367	1,576	15%	7%	23%	27%	4.0
57	Plastics in primary forms	986	1,057	929	1,376	48%	2%	9%	10%	0.9
78	Road vehicles	1,029	1,158	1,021	1,353	33%	4%	14%	16%	2.3
72	Specialised machinery	499	701	738	1,051	42%	12%	20%	28%	7.9
51	Organic chemicals	823	923	884	1,024	16%	4%	24%	24%	0.4
84	Clothing & accessories	1,033	1,047	1,077	872	-19%	0%	40%	34%	-5.7
62	Rubber manufactures	725	804	786	796	1%	4%	23%	23%	-0.2
59	Other chemicals	431	869	731	680	-7%	26%	5%	6%	0.8
5	Vegetables & fruit	735	641	622	638	3%	-4%	5%	3%	-1.3
71	Power generating machinery	346	429	406	628	55%	7%	16%	26%	9.5
67	Iron & steel	547	566	526	537	2%	1%	8%	7%	-1.3
81	Sanitary/plumbing/heating/lighting	357	417	415	462	11%	5%	29%	30%	1.5
64	Paper & paperboard	504	542	489	440	-10%	2%	5%	4%	-1.1
76	Telecom & recording equipment	363	408	462	432	-6%	4%	49%	49%	-0.6
All others		5,650	6,404	5,969	6,153	3%	4%	6%	5%	-0.4
Grand Total		25,081	28,528	28,063	30,977	10%	4%	11%	11%	0.2

Source: MDS Transmodal, World Cargo Database November 2021

- Implied market growth of 10% 2020Q3 to 2021Q3 and across most commodities
- Decline only in commodities where Far East share of European markets itself fell: clothing and mineral manufactures.

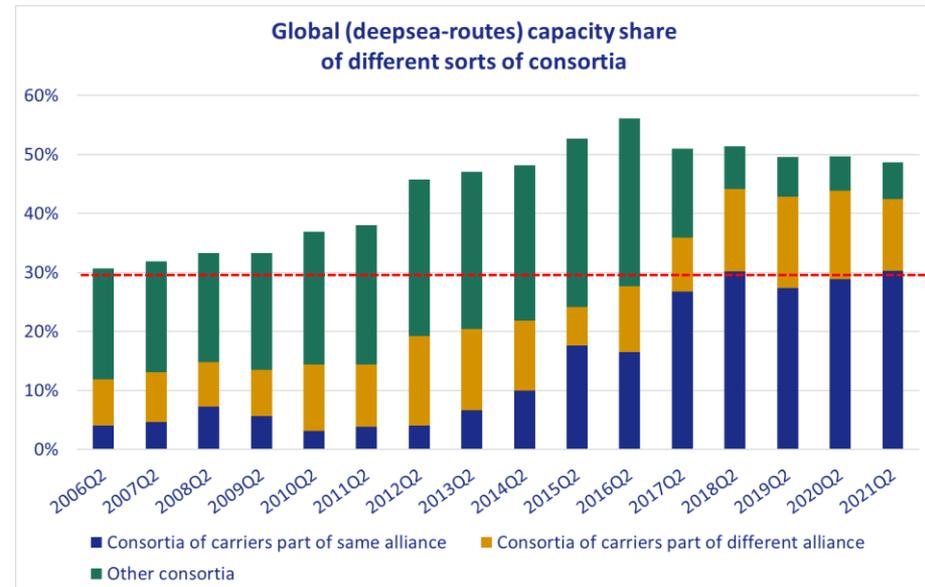
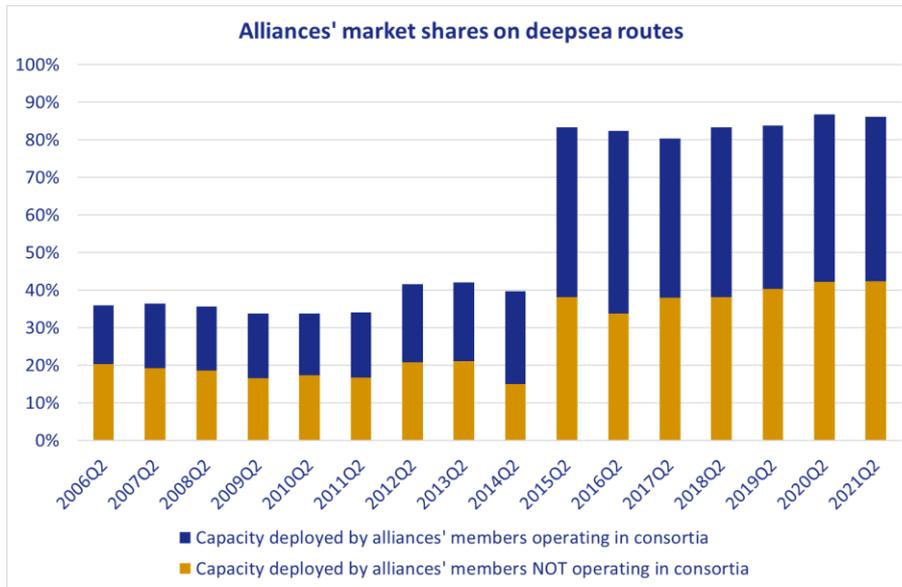
5. Forecasting the need for capacity

- At a global level container traffics are remarkably predictable as our graph below describes, comparing actual growth with back-casting (forecasts only using data to 2008)
 - lines face predictable long term markets to match their long term investments
- Global deployment grew marginally faster than demand to 2017 and then stalled
 - although continuing growth could have been expected and has now taken place
- We can reasonably ask why capacity did not continue to grow after 2017
- Forecasts based on order books - minus likely scrapping - imply continuing shortfall



Source: MDS Transmodal, World Cargo Database November 2021

6. Market Competitiveness (MDST/OECD-ITF)



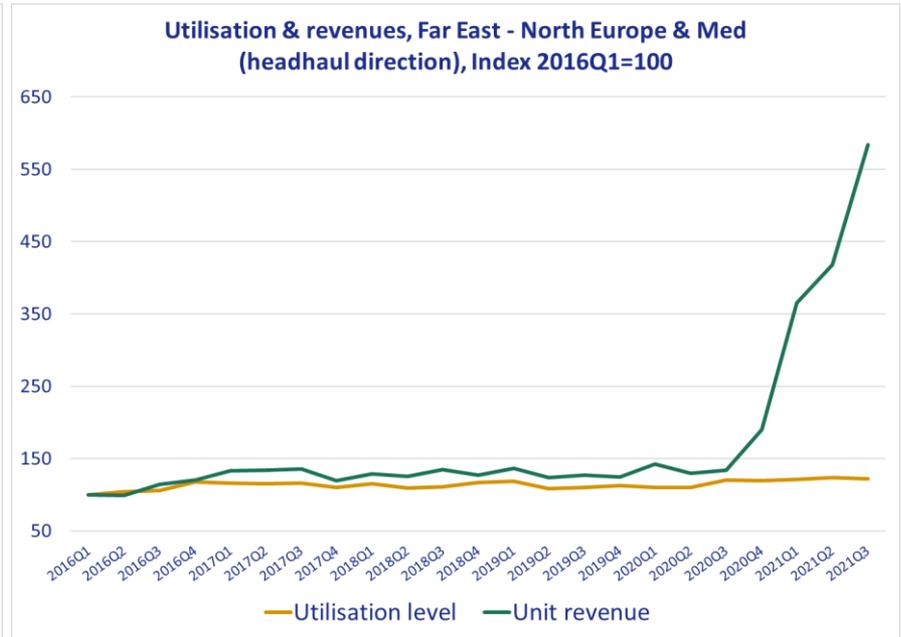
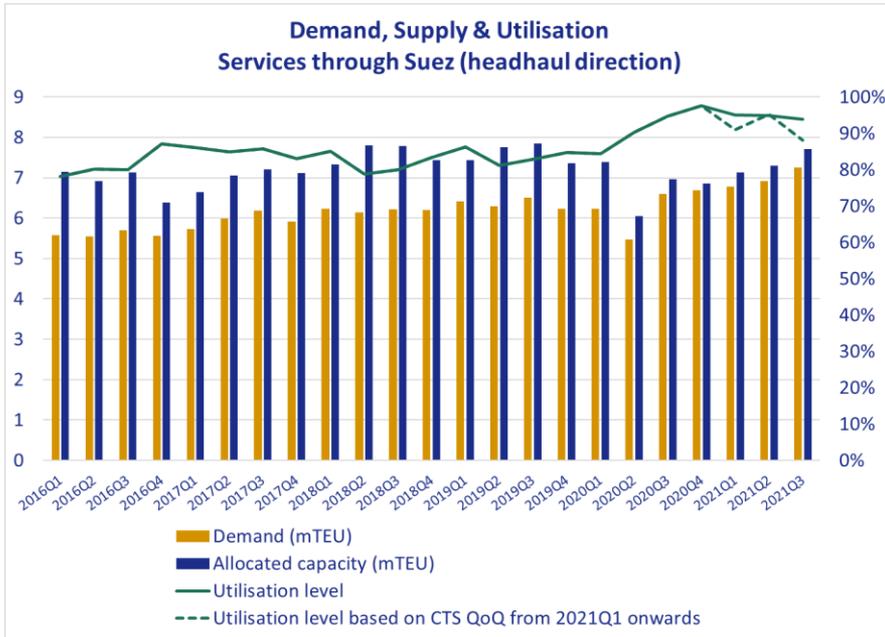
Source: Merk & Teodoro (forthcoming) based on MDS Transmodal Consortia & Alliances Database May 2021

Analysis based on the global sum of the capacity of each individual service but including alliance members only, classified by (a), those operating services alone and (b), when in consortia (i.e. ships operated by more than one line)

Analysis of only those services operated by consortia, classified by where (a), consortia members are other members of the same alliance, (b), members are of different alliances and (c), members are alliance and non-alliance companies

- 48% of capacity of services are provided by lines in consortia and 52% when alone
- 30% of all capacity is operated by consortia where members are of the same alliance but this rises to 42% when members of different alliances are included.
- Proportion has grown from <30% in 2016; consortia act as 'bridges' between alliances.

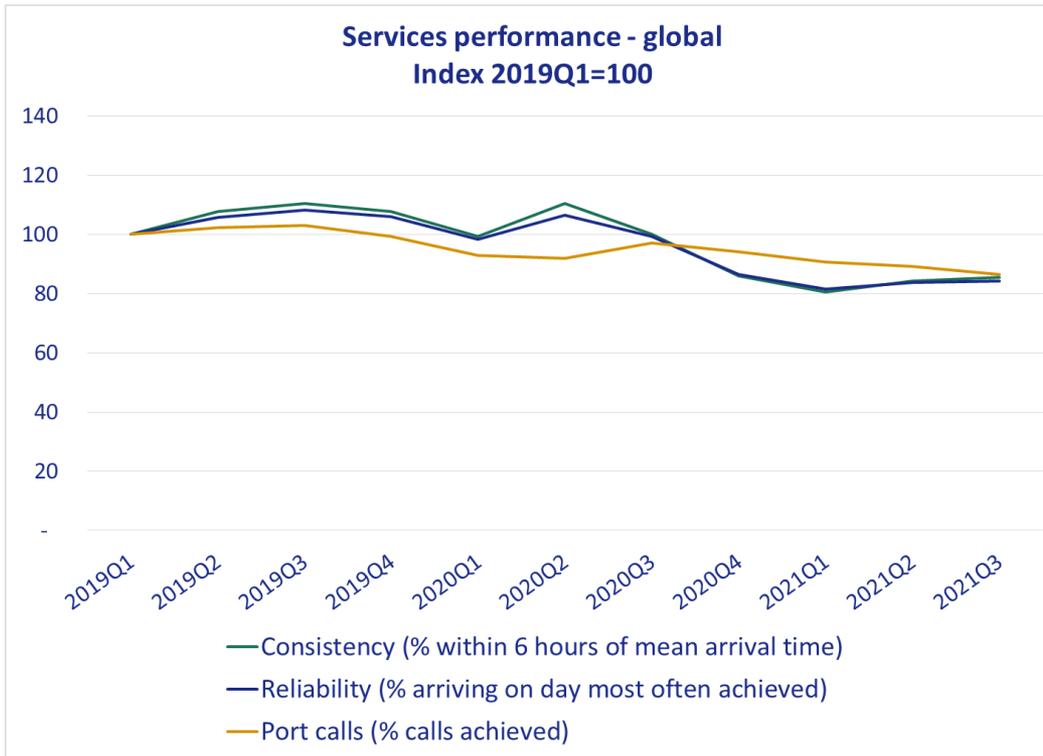
7. Supply, demand and freight rates



*Note: from 2021Q1, MDST utilisation level shows a ratio between potential demand and scheduled capacity
 Source: MDS Transmodal, Container Business Model November 2021

- Utilisation level measured for the vessels passing through the Suez Canal WB (busiest point for the shipping routes), reached its highest level for several years in 2020Q4
- High utilisation levels have led to rapid growth in unit revenues (whether indices reported by CTS or spot indices): on the Far East to Europe routes, we estimate an increase of more than some 340% in 2021Q3 as compared to same quarter of 2020.
- Overall revenues more than doubling for the lines, all contributing to global inflation.

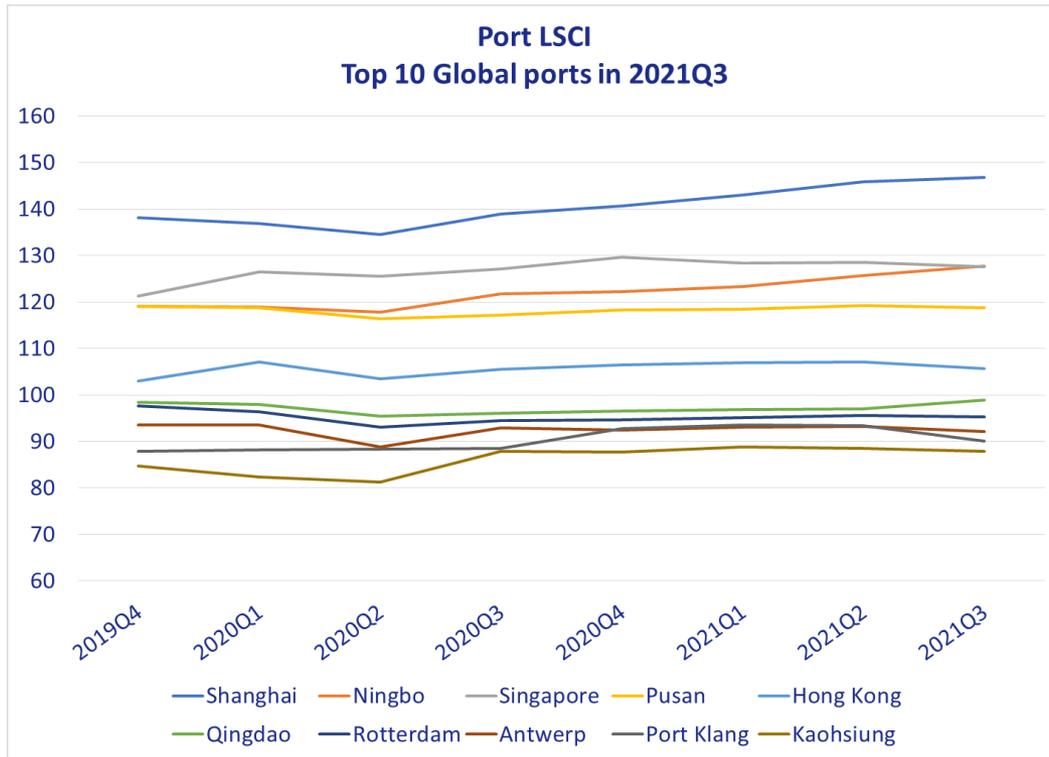
8. Performance: reliability and port call achieved



Source: MDS Transmodal based on AIS (Automatic Identification System) data

- We have assessed liner services on the basis of:
 - the proportion of anticipated/scheduled port calls actually achieved
 - the proportion of ship arrivals within 6 hours of the mean arrival time
 - the proportion of ship arrivals on the 'mean day' service calls
- Falling reliability and consistency flattened out but at the cost of port calls achieved

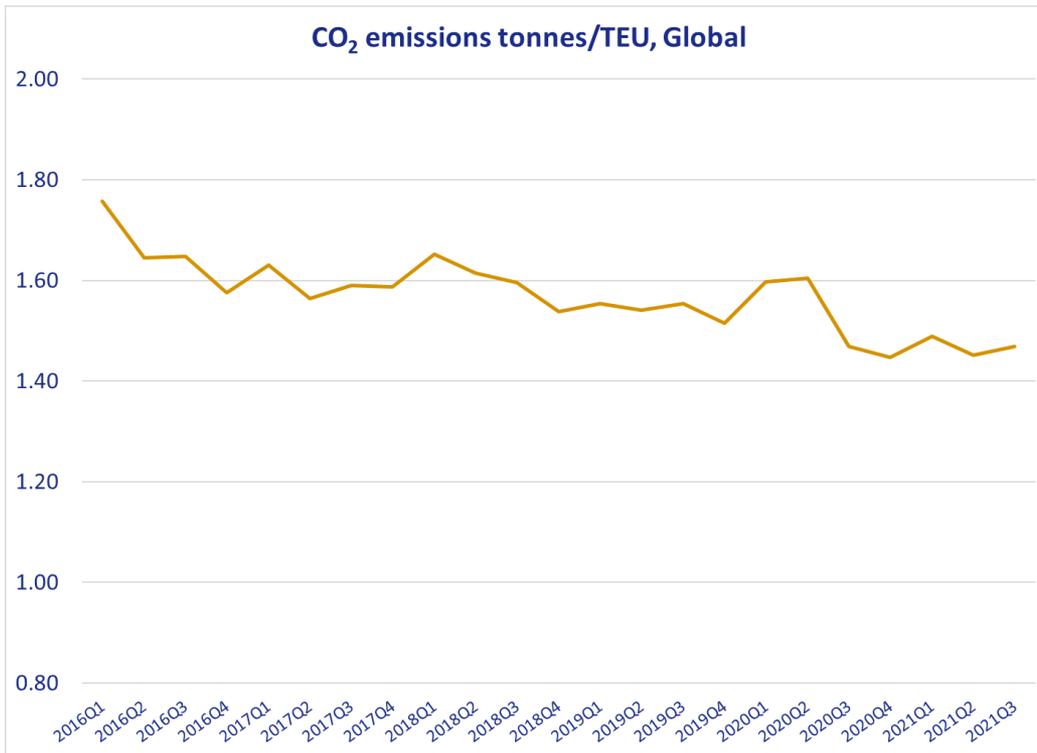
9. Connectivity (MDST/UNCTAD LSCI)



Source: MDS Transmodal, Containership Databank November 2021 (www.portlsci.com)

- Fundamental role of shipping lines is to connect producers and consumers regularly and efficiently.
- Port by port comparisons suggests connectivity for many ports now falling as services focused on fewer 'hub' ports
- Major country pairs no longer have direct services
 - e.g. UK or Italy with Japan.

10. Carbon emissions: progress now stalling



Source: MDS Transmodal, Container Business Model November 2021

- From a 2006 base liner shipping halved emissions over a 10 year period
- That progress has now bottomed out and beginning to deteriorate as major shippers switch to much smaller ships to avoid capacity bottlenecks in the supply chain.

11. Cause and effect

- Is this all the result of the pandemic?
 - An approach designed to minimize spare capacity would inevitably be vulnerable to the introduction of so many very large ships and a failure to recycle containers.
- Reaction to the pandemic clearly a factor
 - Initial reactions included fear of a 25% fall in demand for liner services so cash saving strategies entirely understandable
- But rates clearly rose to ration shipping line service capacity available as demand surged
 - diversion of actual trade to new start-up, overland and conventional services now becoming apparent, disregarding cargo actually deterred
- Market shares are clearly well in excess of the 30% rule.
 - As acknowledged in the Commission's letter to the trade association of 8.6.21
 - *"the Consortia BER is not applicable to the operations of the carriers in Ocean Alliance and 2M as regards their activity on the Asia-Europe route, where their shares are above 30%"*
- Existing structures clearly inadequate to deal with the shock experienced

12. Some questions

- Do the legal privileges the lines enjoy imply a duty to provide reliable services at a predictable cost that reflect normal profits?
 - company accounts show lines were profitable at the rates enjoyed in 2019
- Is there a danger that super profits will encourage further vertical integration?
 - reduce competitiveness in the supply chain
 - enhance the role of liner controlled terminals as transshipment hubs with impacts on pricing to countries without direct connections
- Would one solution be for regulators to establish monitoring systems and to expect spare capacity to be provided to avoid such crises in the future?
 - establishing procedures in the industry to prevent spare capacity leading to rates wars!
- Will political pressure lead to rushed solution?
 - “This lack of competition leaves American businesses at the mercy of just three alliances” (White House briefing room, 17.11.21)
- Is there an opportunity to develop agreed metrics by and for the regulators?

Thank you!

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