Global Shippers Forum/ MDS Transmodal Container Shipping Market Quarterly Review

2021: Quarter 3

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GSF/MDST Container Shipping Market Quarterly Review MDS Transmodal overview

In association with Global Shippers Forum, MDS Transmodal has decided to produce a new quarterly review of the trends and performance of the global container shipping market for four main reasons:

- 1. We have over the last 35 years been developing a wide range of databases that describe global liner shipping; on the fleet and its deployment, on demand, performance, costs and revenues. Over the last 15 years we have brought these together using standard coding systems so that the industry could be readily described and modelled, largely to support our consultancy work. We felt it was time to now share these resources with a wider market so that decision making can be based on sound evidence.
- 2. Over the last 15 years, since the decision that was made by the EU to effectively bring an end to the conference system, the liner shipping sector, its suppliers and clients have been in flux as the size of ships, performance and levels of integration and consolidation have changed radically while its market has grown remorselessly. The need for sound regulation and informed investment has never been greater and is attracting the concern of global authorities such as OECD, UNCTAD and trade associations such as GSF, CLECAT and FEPORT.
- 3. The urgency for the liner shipping sector, its suppliers and clients to address the issue of climate change. The process whereby sustainable solutions are agreed upon and invested in will be complex and require a collaborative approach if global connectivity and prosperity are to be maintained.
- 4. Global Shippers Forum represents an ideal partner for our initiative because of its reach and membership. However, GSF will have its own perspectives and arguments which MDST will remain independent of. MDST's commentary will be limited to noting statistical change (comments in blue) while GSF will focus on the implications for its members (comments in brown).

GSF/MDST Container Shipping Market Quarterly Review GSF Overview

The Global Shippers' Forum represents the interests of importers and exporters as cargo owners in international supply chains. As such global shippers are the customers of the container shipping industry. The trends and performance of the container shipping market are crucial to the interests of shippers around the world who are reliant upon services for the safe, timely, cost-effective and sustainable movement of unitised world trade.

GSF's partnership with MDS Transmodal arose from a common interest in understanding better this fast-changing market and how it is responding to the multiple factors shaping its future. GSF's focus is on five key measures that monitor the outputs of the sector:

- 1. **Competitiveness**: is the regulatory environment and the ownership structure contributing to an open and responsive market where the benefits of scale are experienced fairly by customers?
- **2. Capacity**: how is the availability and utilisation of shipping capacity responding to the external factors given the market structure and the legal permissions granted to competing entities to co-ordinate sailings and services?
- **3. Costs**: how are the underlying and incidental costs of the industry affecting advertised spot rates and the high levels of surcharging experienced by customers?
- **Service performance**: is the predictability, reliability and connectivity of services providing an offer that shippers can depend on in their supply chain planning and forecasting and in the commitments they make to their customers?
- **5. Carbon emissions**: how is the response of the shipping industry to climate change affecting the greenhouse gas emissions attributable to the cargo that it carries?

The distinctive feature of these indicators is that they assess the market from a shipper's (customer's) perspective and offer a description based on experience of service rather than advertised performance. Over time these data will build into comprehensive and authoritative evidence bank to support our representations and advocacy. in support of global shippers

As well as Quarter-on-Quarter fluctuations, MDST's extensive data holdings also permit longer term trends to be observed. These will be presented to provide context for short-term changes and to assess the overall direction of the industry.

The GSF/MDST Container Shipping Market Review Indicators

1 Trade Volumes

- 1.1 Total trade, global
- 1.2 World Cargo Database (MDST) compared with Container Trades Statistics (CTS)
- 1.3 Unitised trade, global
- 1.4 Maritime Loaded TEU, routes

2 Shipping Capacity

- 2.1 Deployed capacity, global
- 2.2 Deployed capacity by markets served, global
- 2.3 Deployed capacity, routes

3 Capacity Utilisation

3.1 Utilisation through Suez & Far East - North Europe & Med

4 Carrier Costs & Revenues

- 4.1 Costs & revenue, Global
- 4.2 Unit costs & unit revenue, Global

5 Market Competitiveness

5.1 Market concentration

6 Port Connectivity (MDST/UNCTAD LSCI)

6.1 Top 10 container ports, global

7 Services performance

7.1 Consistency, reliability & port calls, global

8 Carbon Emission Factors

8.1 CO₂ emission tonnes/TEU, global

Glossary

More about MDS Transmodal & contacts
More about Global Shippers Forum & contacts





Global Shippers' Dashboard Quarter 3 2021

| KPI | Indicator | Status & Overview |
|-----|--------------------------|---|
| 1 | Trade volumes | Global trade, as recorded by landed imports, has recovered to the levels that it would have achieved by now had Covid-19 never happened, with a measurable volume carried by non-liner shipping services |
| 2 | Shipping capacity | Deployed cpacity has been increased by existing ships making more frequent 'shuttle' voyages between port pairs over the period, at the expense of longer, multi-regional sailings offering more port calls. |
| 3 | Capacity utilisation | Utilization rates have declined slightly as alternative services to liner shipping have been used but most container ships remain effectively full, with utilisation exceeding 90% on most trades. |
| 4 | Carrier costs & revenues | Unit operating costs for ships (\$/teu) have increased slightly over the past 12 months due to stronger charter rates and some recovery in oil price. Earnings per container moved have nearly tripled over the same period. |
| 5 | Market competitiveness | New analysis shows that the average market share of shipping lines operating in consortia with lines in different alliances has reached 42%. |
| 6 | Port connectivity | Chinese ports, served more frequently by ships switched to Transpacific 'shuttle' services, show improved connectivity, whilst ports on traditional 'loop' services show a decline due to switching of vessels to busier and more profitable trades. |
| 7 | Service performance | Predictability of services for shippers remains consistently poor with the number of skipped port calls increasing in Q3, due to lack of space on full ships and switch of ships from 'loop' services to 'shuttle' services between single port pairs |
| 8 | Carbon dioxide emissions | CO2 emissions per TEU dropped sharply during the early stages of the Covid-19 pandemic and have since stabilized at a new level about 5% lower than pre-Covid levels despite the frenetic activity in the market. |

Status colour code:

Red = adverse development or trend (from shippers' perspective); Amber = neutral or concerning trend (from shippers' perspective)

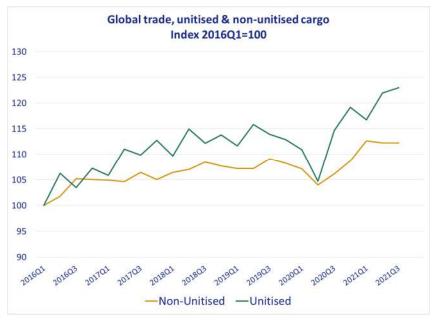
Green = improving development or trend (from shippers' perspective)





1.1 Total trade, global (mTonnes)

| | 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% | |



Note: Unitisable traffic is estimated on the basis of long run ratios of unitization based on country x commodity flows and the scale of traffic available and explains long-run trends in unit load volumes derived from other sources.

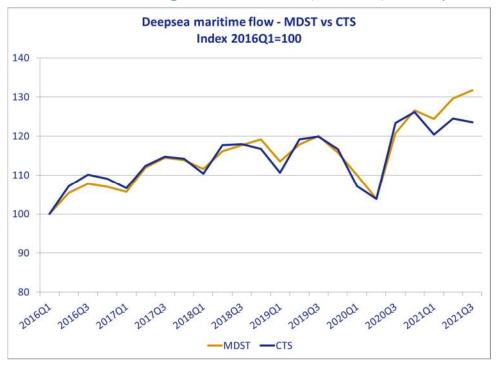
Source: MDS Transmodal, World Cargo Database November 2021

- Measured within World Cargo Database (when received at the importing country) global trade in 2021Q3 recovered strongly compared to 2020Q3, up 6% (reflecting the recovery pattern in 2020), but only 0.2% over the previous quarter.
- Stronger growth rates are estimated for unitisable traffic available at 0.8% over the previous quarter (including regional and overland international freight), although some may have diverted to non-unitised modes or non-liner shipping as a consequence of rising freight rates and falling reliability.





1.2 World Cargo Database (MDST) compared with Container Trades Statistics (CTS)



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

Conclusions & Commentary

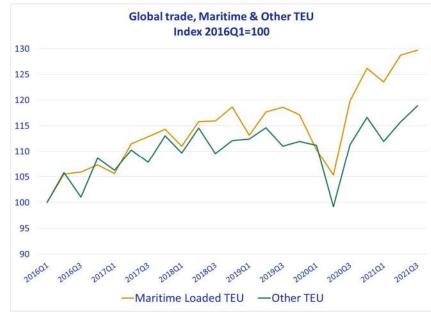
- WCD (generally recorded at time of import) and CTS (recorded when cargo shipped by data supplied by the lines) track each other closely to 2020Q4 but then deviate
- WCD describes actual trade from Customs data
- Explanations will include a reaction to much higher freight rates, falling reliability and lack of capacity leading to some minor bulk flows switching from to conventional shipping, to non-liner tonnage and to overland (rail) routes
- From Q1 2021, the graph records the difference between total cargo landed, and cargo lifted by container shipping services, showing the volumes reaching destination by services other than deep-sea liner shipping.
- 'Non-liner-tonnage' also includes ships chartered by shippers. Air freight capacity also recovered over this period.



GLOBAL SHIPPERS FORUM

1.3 Unitised trade, global (mTEU)

| | 2021Q3 | YTD | PQ | PY |
|--|--------|-----|-------|------|
| Maritime containers | 42 | 123 | 0.8% | 8.2% |
| '- of which deep-sea (inter-continental) | 31 | 91 | 1.6% | 9.2% |
| '- of which short-sea (intra-regional) | 11 | 32 | -1.5% | 5.3% |
| Other (overland & ro-ro) | 36 | 104 | 2.7% | 6.8% |
| Total TEU | 77 | 227 | 1.6% | 7.6% |



Source: MDS Transmodal, World Cargo Database November 2021

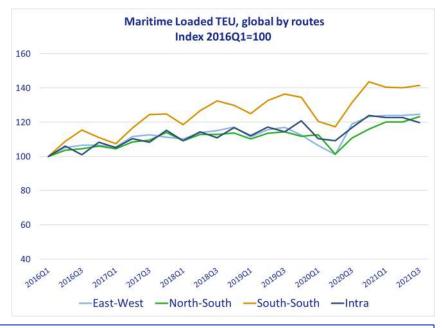
- In 2021Q3 the volume of potential unitisable international cargo increased by 1.6% compared to 2021Q2 and by 7.6% compared to 2020Q3. Deepsea flows grew strongly as did overland flows not available to the maritime sector but short-sea markets fell marginally.
- Inter-continental markets therefore remained strong despite the disruptions characterising the global supply chain.





1.4 Maritime Loaded TEU, routes (mTEU)

| | 2021Q3 | YTD | PQ | PY |
|-------------|--------|-------|-------|-------|
| East-West | 22.4 | 65.7 | 1.3% | 7.9% |
| North-South | 3.4 | 9.9 | 3.3% | 14.6% |
| South-South | 5.2 | 15.3 | 1.8% | 10.8% |
| Intra | 10.8 | 32.4 | -1.5% | 5.7% |
| Grand Total | 41.9 | 123.3 | 0.8% | 8.2% |



Source: MDS Transmodal, World Cargo Database November 2021

- Compared to 2021Q2, in 2021Q3 all maritime markets except 'intra continental' experienced growth, with the recovery more focussed on North-South routes.
- Year-on-year maritime loaded container volumes reflect the steep 'rebound' in economic activity, but have remained static throughout 2021, consistent with a service offering operating at full capacity.



2. Capacity

2.1 Deployed capacity*, global

| | Ship size (TEU) | 2021Q3 | PQ | РҮ | Average capacity per region, 2021Q3 vs 2020Q3 |
|--------------------------------|-----------------|--------|-------|-------|---|
| | <5,000 | 29.2 | -0.3% | 5.9% | -1.9% |
| | 5,000-7,499 | 5.9 | -2.7% | 1.1% | -0.3% |
| Deployed capacity (mTEU) | 7,500-9,999 | 6.2 | 0.2% | 1.9% | 1.1% |
| Deployed capacity (III 120) | 10,000-12,499 | 2.8 | 8.2% | 23.7% | 5.0% |
| | 12,500-14,999 | 4.5 | 1.1% | 15.2% | 13.2% |
| | 15,000+ | 4.5 | 6.5% | 24.1% | 11.2% |
| Total deployed capacity (mTEU) | | 53.1 | 0.5% | 7.7% | 1.3% |
| | <5,000 | 3,547 | 0.9% | 6.9% | |
| | 5,000-7,499 | 487 | -0.8% | 4.1% | |
| No of vessels | 7,500-9,999 | 477 | -0.2% | 2.1% | |
| NO OI VESSEIS | 10,000-12,499 | 172 | 6.8% | 19.4% | |
| | 12,500-14,999 | 244 | 0.8% | 5.6% | |
| | 15,000+ | 208 | 5.6% | 18.2% | |
| Total No of vessels | | 5,135 | 1.0% | 6.9% | |

^{*} Note: analysis carried out on individual IMOs. Source: MDS Transmodal, Containership Databank November 2021

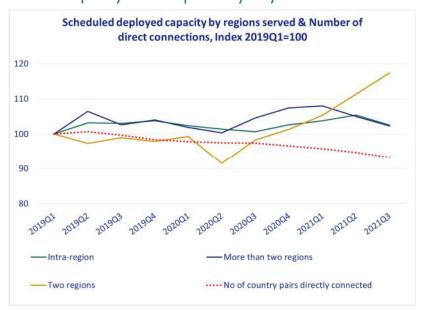
- In 2021Q3, scheduled deployed capacity rose by 7.7% compared to 2020Q3. However, the increase has been mainly driven by different usage of ships rather than introduction of new ships.
- This was through the policy of the lines to deploy some ships onto shorter routes serving only two world regions (i.e. 'shuttles') instead of services serving multiple markets (e.g. NA FE ME Europe NA).
- To take this into account we therefore also compared annual changes in capacity available between regions (new final column)

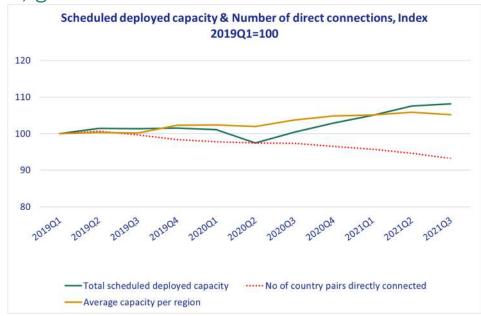




2. Capacity

2.2 Deployed capacity by markets served, global





Source: MDS Transmodal, Containership Databank November 2021

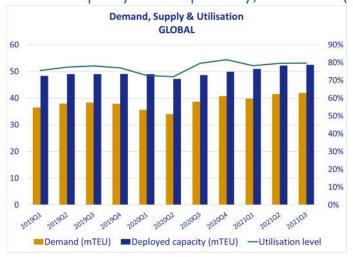
- Since 2020Q3, shipping lines have been adjusting their networks shifting capacity from services serving more than two regions in favor of services serving only two regions.
- Taking into account this reallocation of the ships, we estimate that the annual increase that actually occurred in scheduled capacity equates to circa 1.3% per region severed, versus an 8.2% growth in maritime demand.
- In adjusting their networks, lines have been cutting calls increasing number of county pairs without direct connections.
- Available capacity has been increased by existing ships making more frequent 'shuttle' voyages between port pairs over the period, at the expense of longer, loop sailings offering more port calls.

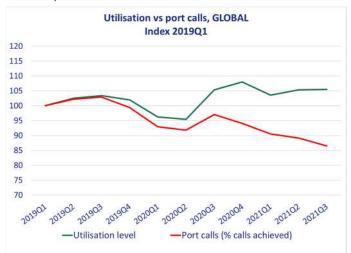




2. Capacity

2.3 Deployed capacity, routes (mTEU)





| | 2021Q3 | PQ | PY | |
|--------------------|--------|-------|-------|--|
| East-West | 23.1 | 3.8% | 14.6% | |
| North-South | 4.1 | -0.6% | 2.1% | |
| South-South | 3.4 | 2.7% | 11.6% | |
| Intra | 22.5 | -2.7% | 1.9% | |
| Grand Total | 53.1 | 0.5% | 7.7% | |

Source: MDS Transmodal, World Cargo Database & Containership Databank November 2021

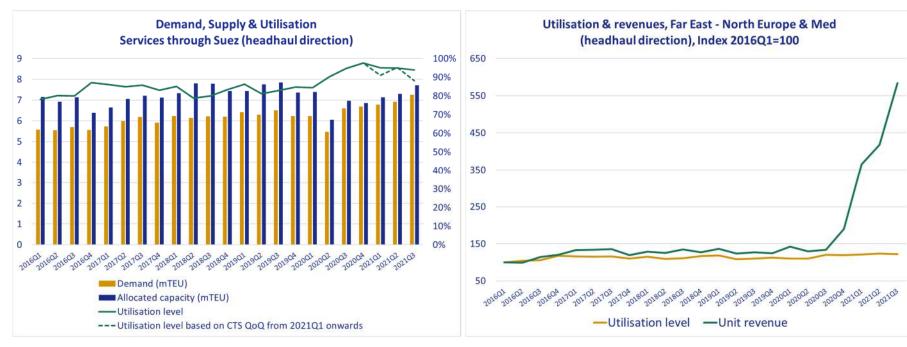
- Capacity scheduled on the EW routes increased faster than those on other markets, however not as fast as demand moved on these trade lanes.
- The increase in utilisation levels from 2020Q3 has been accompanied by a deterioration in the number of calls actually made as illustrated in the following sections, consistency and reliability also deteriorated.
- High utilization rates, whilst economically and environmentally efficient, result in poorer levels of service for shippers, with limited space resulting in more 'skipped' ports (not worth the cost or time of calling) and more 'rolled' cargo (very limited space for waiting containers when ships do call).





3. Utilisation

3.1 Utilisation* through Suez & Far East - North Europe & Med



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

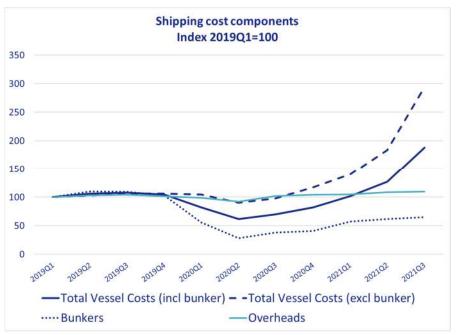
- Utilisation level measured for the vessels passing through the Suez Canal WB (busiest point for the shipping routes), reached its highest level for several years in 2020Q3, remaining high ever since.
- Utilisation level measured on the Far East Europe trade lane is also estimated to be in the region of 90%.
- With utilisation levels remaining high, unit revenues (calculated based on the price indices reported by CTS) have carried on increasing: 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.
- Utilization rates have declined slightly as alternative services to liner shipping have been used but most container ships remain effectively full, with utilisation exceeding 90% on most trades.





4. Costs & Revenues (Index 2019Q1=100)

4.1 Costs & revenue, Global





Source: Costs: MDS Transmodal, Container Business Model November 2021; freight rates: MDS Transmodal elaboration on various sources

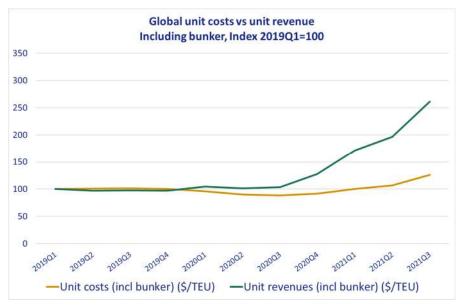
- Total shipping costs are increasing mainly due to increases charter rates as bunker costs are estimated to have increased only marginally in 2021Q3. By contrast, freight rates have been increased substantially with spot rates on the Asia to Europe routes experiencing a eight-fold increase in 2021Q3 as compared to 2019Q1.
- The rapid increase in short-term charter costs has had little impact because the major lines overwhelmingly own or long-term charter their vessels.

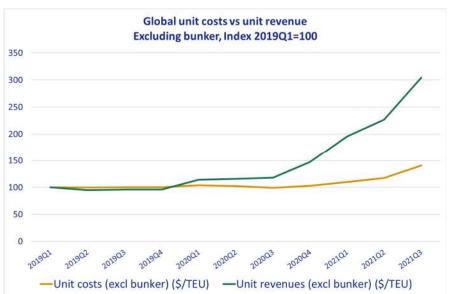




4. Costs & Revenues (Index 2019Q1=100)

4.2 Unit costs & unit revenue, Global





Source: MDS Transmodal, Container Business Model November 2021

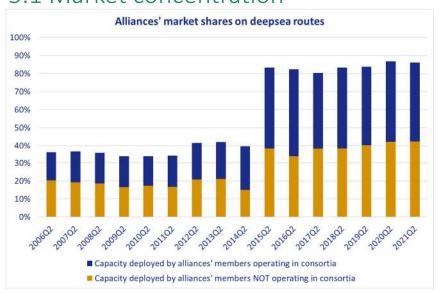
- With 2019Q1 equal to 100, global unit costs fell during the first half of 2020, as bunker costs declined, and started to increase from 2020Q3.
- 2020Q3 is the quarter where we start observing an increase in the divergence between unit costs and unit revenue, with the gap wider when bunker cost is subtracted from both unit revenues and unit costs.
- Unit operating costs for ships (\$/teu) have increased slightly over the past 12 months due to stronger charter rates and some recovery in oil price. Earnings per container moved have nearly tripled over the same period.

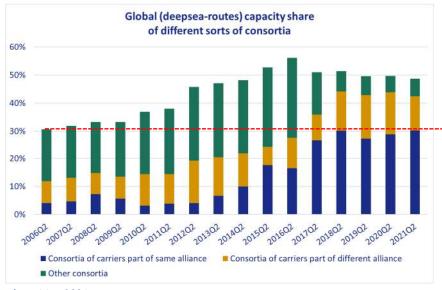




5. Market Competitiveness (MDST/OECD-ITF)

5.1 Market concentration





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

Conclusions & Commentary

Currently some 52% of the capacity of all services (globally) is provided by lines operating alone and 48% by lines operating in consortia. 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. This proportion has grown from under 30% in 2016; the level of linkages amongst carriers operating in different alliances has been increasing showing that consortia act as 'bridges' between alliances.



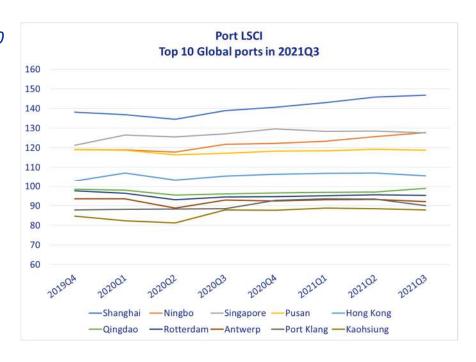


6. Port Connectivity (MDST/UNCTAD LSCI)

6.1 Top 10 container ports, global

Liner Shipping Connectivity Index, Hong Kong 2006Q1=100

| 11 3 | | , , | , |
|------------|--------|------|------|
| | 2021Q3 | PQ | PY |
| Shanghai | 146.9 | 1.0 | 7.9 |
| Ningbo | 127.8 | 2.0 | 6.0 |
| Singapore | 127.6 | -0.9 | 0.5 |
| Pusan | 118.8 | -0.4 | 1.7 |
| Hong Kong | 105.6 | -1.6 | 0.1 |
| Qingdao | 98.9 | 1.9 | 2.9 |
| Rotterdam | 95.2 | -0.5 | 0.7 |
| Antwerp | 92.1 | -1.1 | -0.7 |
| Port Klang | 90.0 | -3.3 | 1.5 |
| Kaohsiung | 87.8 | -0.7 | -0.1 |



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

- Having generally improved over time, the level of connectivity estimated for 2021Q3 began to deteriorate for some ports as the number of direct connections began to fall.
- Chinese ports served more frequently by ships switched to Transpacific 'shuttle' services show improved connectivity whilst ports on traditional 'loop' services show a decline in connectivity.

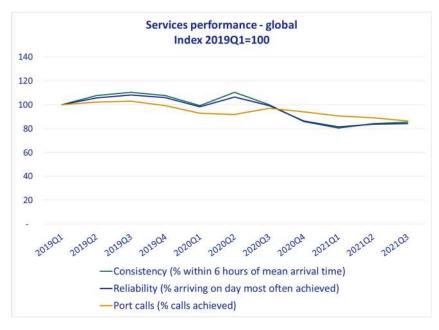




7. Services performance

7.1 Consistency, reliability & port calls, global

| | 2021Q3 | YTD | PQ (% points) | PY (% points) |
|---|--------|-----|------------------|---------------|
| Consistency (% within 6 hours of mean arrival time) | 44% | 43% | 0.7 | -7.6 |
| Reliability (% arriving on day most often achieved) | 52% | 51% | 0.3 | -9.2 |
| Port calls (% calls achieved) | 68% | 70% | -2.1 | -8.3 |



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

- There was a marginal improvement in consistency and reliability in 2021Q3 for port calls achieved as compared with the previous quarter but this may have been at the expense of port calls actually made.
- On an annual basis, all three indicators have slipped significantly, despite the fact that 2020Q3 demand was already
 approaching pre-pandemic levels, suggesting that performance in 2021Q3 reflected an accumulating service quality
 challenge.
- Predictability of services for shippers remains consistently poor with the number of skipped port calls increasing in Q3, due to lack of space on full ships and switch of ships from 'loop' services to 'shuttle' services between single port pairs.





8. Carbon Emission Factors

8.1 CO₂ emission tonnes/TEU, global



Note: demand from 2021Q1 based on CTS volumes Source: MDS Transmodal, Container Business Model November 2021

- Emissions per unit of cargo (tonnes/TEU) reduced as the twin policies of slower vessel speeds ('slow steaming') and the introduction of larger vessels (VLCCs) took effect. The decreases were most marked on the Far East- North Europe route where these policies had greatest impact.
- Emissions per unit on the liner services have now stabilised and may have deteriorated marginally in 2021Q3
- CO2 emissions per TEU dropped sharply during the early stages of the Covid-19 pandemic and have since stabilized at a new level about 5% lower than pre-Covid levels despite the frenetic activity in the market.
- New global carbon intensity reduction measures for existing ships will become effective from 2023. This indicator will be used to monitor their effectiveness in reducing shippers' Scope 3 emissions of CO2 from container shipping.





The indicators explained (1)

scheduled by the shipping lines (mTEU).

- **1.1 Total trade**: Total goods exported and imported by all countries measured in millions of tonnes and distinguished between 'not unitised' and 'unitised'.
- 1.3 Unitised trade: Cargo moved in units, measured in TEU and distinguished between Maritime containers (loaded containers shipped by sea, excluding RoRo) and Other (RoRo containers by sea, containers and road trailers across land borders).
 Unitised maritime trade represents the total demand for container shipping services by cargo owners
- 2.1 Deployed capacity: Capacity offered on container-carrying vessels (containerships) deployed on services as
 - Deployed capacity is the total supply of scheduled container-carrying capacity made available to shippers to meet the demand for unitised freight.
- **3.1 Allocated capacity**: Capacity estimated in the MDST model to calculate the level of utilisation; it represents, effectively, the available TEU capacity modelled on a global basis but taking each string and its precise port calls into account. MDST then allocates this capacity by taking into account the demand (region-to-region) making assumptions on direct services versus transhipment. In effect this is acknowledging the fact of wayport cargoes but at a region-to-region level rather than port-to-port level.
- **3.1 Utilisation**: Ratio of estimated cargo moved on identified routes to capacity allocated to those routes (e.g. services transiting the Suez Canal northbound busiest location for the global container shipping industry)

Numbers refer to sections in which the term is used

(shippers).





The indicators explained (2)

- **4.2** Costs & Revenues: Estimated operating costs and estimated revenues measured with and without fuel
- 5.1 Market competitiveness: this analysis has been carried out using the MDST Consortia & Alliances Database, a subproduct of the MDST Containership Databank, which contains detailed information of the world's container carrying fleet also used by UNCTAD for the Liner Shipping Connectivity Index (LSCI) and by the World Bank for the Logistics Performance Index (LPI). The MDST Consortia & Alliances Database, developed in collaboration with ITF/OECD, is a dataset in which we have grouped the port pairs into trade corridors (e.g. a service calling, amongst other, at the port of Shanghai and at the port of Rotterdam, has been allocated to the East China Sea-North Europe trade corridor) and identified, for each vessel deployed on any given service, the shipping lines that operate them. This information has allowed us to identify the services operated by consortia and their members, by alliances and their members, by independent carriers.
- 6.1 Port LCSI: Liner Shipping Connectivity Index produced in collaboration with UNCTAD and generated from the following 6 components: number of scheduled ship calls/week in the port; total scheduled container shipping capacity calling at the port; number of regular services calling at the port; number of carriers that provide services to/from the port; maximum average size of the ships deployed by the scheduled service; number of other ports that are connected to the port through direct services (more on www.portlsci.com) The LSCI is a proxy for the frequency, reliability and direct access to markets experienced by shippers of cargo through each named port and a measure of the quality of service experienced by users of the ports services.

Numbers refer to sections in which the term is used





The indicators explained (3)

- **7.1** Services' performance indicators: Consistency (% within 6 hours of mean arrival time); Reliability (% arriving on day most often achieved); Port calls (% calls achieved after allowing for blanked sailings and ports skipped).
 - For shippers, Consistency is a measure of on-time arrival of vessels (will goods become available when they have normally been in the past?); Reliability is a measure of the regularity of service (same day of the week); Port Calls is a measure of whether the vessel arrives at all or the cargo is 'rolled' on to the next service. These are key factors in determining on-time delivery of exports to customers or availability of imports for domestic distribution.
- 8.1 Carbon Emission factors: Average amount of CO₂ emitted by each loaded container shipped by sea measured for the whole deep-sea shipping industry and selected trade lane (tonnes CO₂/TEU). Carbon emissions per cargo unit moved are the required inputs for manufacturers, retailers and other shippers to calculate the contributions that third parties make to the carbon footprint of their products and businesses (Scope 3 emissions). The shipping industry is under public pressure to deliver meaningful reductions in greenhouse gas emissions in the short and medium term. Current proposals target improvements through better ship design and maintenance and more efficient operation. Other actions include Emissions Trading Schemes, carbon taxes and the use of low-carbon fuels. Regardless of the means employed, this measure will track their net effectiveness on the carbon footprint of container shipping as experienced by users of its services.

Numbers refer to sections in which the term is used





More about MDS Transmodal & contacts

MDS Transmodal (MDST, <u>www.mdst.co.uk</u>) is a firm of transport economists based in Chester (UK) which specialises in maritime and all other modes of freight transport. MDST works with senior management in the public and private sectors to provide strategic advice based on quantitative analysis, modelling and sectoral expertise. MDST's approach is based on being:

- Innovative Constantly developing new ways to analyse strategic issues and opportunities
- Quantitative Analysis based on best in class maritime databases and models
- Independent More than 35-year track record of providing objective advice
- Expert Consultants with an average of 20 years' consultancy experience
- Specialist Focused on the economics of maritime transport and other freight modes.

MDST data, modelling and industry expertise can be applied to analyse strategic issues and opportunities wherever the client is based in the world. Clients include UNCTAD, the World Bank, the European Commission, government at all levels, ports and terminal operators, developers of distribution parks, financial institutions, global shippers and shipping lines and a wide range of professional services companies.

All of the data presented in tables and graphs can be provided at a more detailed level, e.g. trade data by country pairs as well as individual commodities, capacity and services performances by service and operator, etc.

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More about Global Shippers Forum & contacts

Global Shippers Forum (GSF) is the international business organisation speaking up for exporters and importers as cargo owners in international supply chains and trade procedures. Its members are national and regional shippers' associations representing manufacturing, wholesaling and retailing businesses in over 20 countries across five continents.

Shippers own the goods that others carry, and ultimately pay the costs they incur. GSF works to achieve safe, competitively efficient and environmentally sustainable global trade and logistics on behalf of its members.

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