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The Implications of Mega-Ships and Alliances for Competition and Total Supply Chain Efficiency: An Economic Perspective

November 2016

contents

	page
Executive summary	3
Introduction	6
1 Why do we need more debate on mega-ships and alliances?	8
2 The recent growth in mega-ships	9
3 The associated development and growth in shipping alliances	10
4 Implications of the growth in mega-ships and alliances for competition	13
5 Importance of focusing on total supply chain costs to shippers	15
6 Potential solutions	17
Annex 1: Competition issues raised by mega-ships and alliances and recommendations for regulators and competition authorities	19

About the GSF

The Global Shippers' Forum (GSF) is the global voice for shippers, created in 2006 as the successor to the Tripartite Shippers' Group, first organized in 1994. Like the Tripartite Shippers' Group, the GSF represents the interests of shippers from Asia, Europe, North and South America and Africa. The GSF is focused on the impact of commercial developments in the international freight transportation industry and the policy decisions of governments and international organisations that affect shippers and receivers of freight. The GSF was formally incorporated and registered as a non-governmental organisation in the United Kingdom in June 2011.

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The container shipping market is undergoing considerable change. The development of the mega-ship has had a profound impact. They have led to the creation of new strategic global alliances and quickened the pace of consolidation in the industry. This paper analyses the impacts for shippers, the customers of container ship operators, and in particular the wider supply chain implications of mega-ships and the potential impacts on competition between competitors and their shipper customers.

This paper comes in two parts: the first provides an economic assessment of mega-ships, alliances and consolidation of the container ship industry; the second part, in the form of an annex (Annex 1), undertakes a competition policy analysis of mega-ships, strategic alliances and the impacts of consolidation in the industry. The paper draws on various detailed studies and sources, including the recent Organisation for Economic Co-operation and Development (OECD) International Transport Forum report on mega-ships and the OECD Competition Committee's report on competition issues in liner shipping, but it also provides its own independent economic and competition assessments.

The following key findings, conclusions, and recommendations for carriers, regulators and competition authorities, and shippers are summarised below.

Economic issues

- Mega-ships and the associated commercial practices of strategic alliances and mergers are driving consolidation in the container shipping sector. This is harmful to shippers because mega-ships and strategic alliances reduce supply chain efficiency and rivalry on important parameters of competition, including capacity, sailing frequency, transit times, ports of call and associated service quality
- The higher economies of scale associated with mega-ships mean that fewer ships can operate in a market of a given size. Higher barriers to entry are likely to reinforce the trend towards fewer independent operators, with smaller operators being driven out of the major trades into niche markets. Faced with a trend towards consolidation and cooperation due to mega-vessels, it is unlikely competition problems associated with consolidation and mega-ships will be solved by new entrants into liner shipping
- The report asks whether the time is right to question the received wisdom that shipping alliances and consortia are preferable to consolidation between carriers because shipping lines operating common capacity cannot compete amongst themselves with regards to the consortium's agreed capacity, sailing frequency, transit times, ports of call and associated service quality
- Vertical integration between shippers and shipping companies may be an alternative means of better aligning incentives between both parties, although the Global Shippers' Forum (GSF) recognises a detailed analysis of the potential costs, impacts on competition as well as potential benefits of vertical integration are required

- A deeper analysis of the costs and benefits of alliances relative to a counterfactual of all out mergers between alliance partners would be helpful. Such an analysis of all the resultant costs should take into account all the resultant benefits to shippers through the supply chain, and not just whether a merger would affect rates, which are just one component of the supply chain costs experienced by shippers
- Moreover, should the market become consolidated to 6-10 major operators controlling the main trade lanes, it would seem inevitable that the market share thresholds for alliances and consortia agreements would have to be so low that they would be ruled out on competition grounds, with carriers having to compete head-to-head
- A key recommendation of this paper is that due to the complexity of the issues confronting the industry and the desirability of better aligning the interests of shippers and carriers that there should be an active debate in an ongoing industry forum to discuss a sustainable future business model for the container shipping industry

Competition issues

- The growth of global strategic alliances has produced barriers to entry for new entrants and made it almost impossible for independent carriers to compete on global trades. Absent independent shipping lines in genuine competition with alliances and consortia, effective competition will be eliminated or seriously compromised through the new market structure dependent on strategic alliances and exchange of information between their members
- The growth of mega-ships has been a major driver for the development of the four main strategic alliances and concentration of the container shipping market. Strategic alliances should therefore be the main area of focus for competition authorities (such as the European Commission) and maritime regulators worldwide
- There should accordingly be sufficient independent competition to strategic alliances on key trade routes
- In line with the economic conclusions above, consideration of the treatment of mergers by, for example, the European Commission leads to the question as to whether consolidation through mergers is a preferred market structure to global strategic alliances, because of the impact not only on economies of scale but also of service and geographic scope
- Consequently, in line with the European Commission's investigations into liner shipping mergers it may be time for competition authorities and maritime regulators to focus on the merger criteria when assessing alliances in the future
- In concentrated markets, the sharing of information on a regular and frequent basis reveals commercially sensitive elements of competitors' strategies in the market, including price, capacity

or cost information is more likely to raise competition concerns. GSF therefore reiterates its call for competition authorities and regulators to remove, where possible, shipping line exemptions for price agreements and other forms of agreement that facilitate exchanges of information on costs and rates, including general rate increase guidelines.

- While GSF favours the repeal of unique shipping industry exemptions, effective oversight and monitoring of consortia and strategic alliances (including direct interventions) may be equally effective in dealing with the competition and efficiency issues detailed in this paper and by International Transport Forum ITF/ OECD. The new market structures and trend towards consolidation may require new competition and regulatory approaches
- Regarding the European Commission, one such approach could be the reintroduction of the notification process under the EU Consortia Block Exemption Regulation, but at much lower market share thresholds below the current 30 per cent. Additionally, the EC could also follow the example of the US Federal Maritime Commission (FMC) with more direct monitoring of alliances. And similarly regarding the US FMC, would its remit to protect US shippers and commerce be enhanced by a return to the pre-1984 Shipping Act requirement of prior approval of alliance agreements with the onus of proof placed on carriers to demonstrate the benefits to shippers and carriers?
- These are some of the leading questions raised by this paper, and in particular whether competition authorities and maritime regulators need to review their existing regulatory powers to deal with the new competition issues raised by consolidation and strategic alliances, including the adaptation of past regulatory approaches to these new challenges



The growth of mega-ships across many liner shipping routes has wide ranging implications for competition for shippers, between shipping lines and total supply chain efficiency. Accordingly, it is appropriate to assess the extent to which shippers and end consumers have benefitted from mega-ships, including the associated growth in merger activity and shipping alliances as mega-ships reduce the number of carriers that can operate efficiently on a route.

In particular, shippers have expressed concern that the fundamental industry movement towards increasingly large ships, a movement that impacts shippers as well as industries that facilitate shipping (eg port and terminal facilities, port and terminal handling), has typically been carried out without consultation¹.

This is an issue as mega-ships, and the associated commercial practices which they promote (such as the growth of global alliances and mergers), may also harm users of the shipping industry, including ultimately end consumers, by reducing supply chain efficiency by:

- driving consolidation and alliances across shipping lines, given the challenges posed by the commercial need for shipping lines to keep capacity highly utilised. However, this has implications for rivalry. In particular, members of a shipping alliance composed of lines operating common mega-ships capacity cannot compete with each other as regards the alliance's commonly agreed capacity, sailing frequency, transit times, ports of call and associated service quality
- reducing the frequency of sailings (as multiple ships are replaced with one mega-ship) and promoting commercial practices such as 'slow steaming', whereby spare capacity and fuel costs are reduced by running ships at slow speeds². To put this in context, Bloomberg reported in 2012 that Maersk Line's whole fleet currently sails at about 16-18 knots, which is similar to the peak average of speeds of over 16 knots achieved by 19th-century clippers powered only by sails³. This is not economic progress
- making shippers dependent on a smaller number of vessels, which also make fewer and slower sailings. This raises issues as to the reliability, predictability and security of the supply chain. Just-in-time production by goods manufacturers – with all the efficiencies that this offers in terms of enabling them to rapidly respond to customer demand and reduce the high costs of holding stock across the supply chain – depends on a reliable, flexible and fast transportation supply chain
- putting the reliability, predictability and security of a shipper's supply chain in the hands of shipping alliance members other than the shipping company with which the shipper has entered into a contract, a factor brought to public prominence by the recent bankruptcy of Hanjin Shipping

1 "The Impact of Mega-Ships", International Transport Forum, OECD (2015), page 12

2 A reported rule of thumb is that a 10 per cent increase in speed results in about a 30 per cent increase in fuel consumption. Source: Christa Sys, Gust Blauwens, Eddy Omey, Eddy Van De Voorde & Frank Witlox (2008) 'In Search of the Link between Ship Size and Operations', *Transportation Planning and Technology*, 31:4, 435-463, page 456.

3 <http://www.bloomberg.com/news/articles/2012-01-25/container-ships-at-clipper-speed-run-out-of-option-to-stem-losses-freight>

- having adverse effects on related infrastructure industries (eg ports and terminals) due to their commercial dependence on a small number of alliances and the serious operational challenges of supplying ever growing volumes of freight into and out of ports and loading and unloading mega-ships

The benefits of the growth of mega-ships (and other related policies such as slow steaming) are being reaped by shipping companies, who benefit from greater economies of scale and lower fuel costs. However, as highlighted above, significant costs associated with the growth of mega-ships are, however, being borne in other parts of the supply chain by shippers, ports and terminals and ultimately by end consumers. These costs need to be weighed against the cost benefits of mega-ships.

When the costs (or benefits) of an action are experienced by a different party from the party taking action, this is known in economics as an 'externality'. Failure to account for the costs imposed on someone else (also known as 'negative externalities') means that inefficient production decisions may be taken. As regards liner shipping, a key issue to be raised is whether the on-going development of mega-ships and alliances may be occurring beyond the level which is optimal across the entire supply chain to the extent that shipping lines do not take account of the full costs being borne by other parties in the supply chain. It is in this context that there is clearly merit in there being a debate about these points and what actions maximise total supply chain efficiency, rather than focusing primarily on minimising carriers' costs.

The remainder of this paper is structured as follows.

- Section 1 reviews the reasons why active debate on these issues is important in the context of the global economy, particularly due to the significance of the shipping industry to competition across an array of markets, regulatory regimes and, more broadly, economic growth and development
- Section 2 then presents a brief factual review of the recent growth in mega-ships
- Section 3 presents a factual review of the growth in strategic alliances in the liner shipping industry, in order to set the scene for subsequent sections

- Section 4 then discusses the economic significance of the growth in mega-ships and the associated increase in scale and economies of scale in the liner shipping industry as well as alliances
- Section 5 explains why more attention needs to be focused on total supply chain costs as opposed to liner shipping costs and rates in isolation, particularly as there is evidence that total supply chain costs have been increasing despite the reduction in liner shipping rates
- Section 6 concludes by setting out some suggestions of potential methods of improving the aligning of incentives between shippers and carriers.
 - It may now be time to question the received wisdom that shipping alliances and consortia are preferable to consolidation between carriers. This is because consolidation and more effective negotiation between shippers and (a smaller number of) shipping companies may be one method of ensuring that the externalities described above are recognised when shipping companies determine their strategies. Shipping lines operating common capacity in a consortium cannot compete amongst themselves with regards to the consortium's own commonly agreed capacity, sailing frequency, transit times, ports of call and associated service quality
 - Vertical integration between shippers and shipping companies may be an alternative means of better aligning the incentives of both parties, although a detailed analysis of the potential costs, impacts on competition as well as potential benefits of vertical integration is required
 - Forums in which shippers and shipping companies exchange ideas and jointly develop innovative products may also help shipping companies to better meet the needs of shippers today and in the future
 - Annex 1 to this paper provides a more detailed competition policy analysis. This highlights potential competition concerns and raises various issues for regulators and competition authorities in their oversight and assessment of mega-ships and alliances

Why do we need more debate on mega-ships and alliances?



The shipping sector is fundamental to enabling competition between shippers, trade between nations, growth and development. A shipping sector that is in tune with the needs of shippers and end consumers benefits the global economy. A shipping sector that steps out of line with the needs of shippers and end consumers, and does not take account of the costs it imposes on other parts of the supply chain, retards downstream competition, trade, growth and development.

A recent OECD publication expressed succinctly the reason why liner shipping is a crucial economic sector⁴.

“Liner shipping is a crucial sector for global trade. It is one of the keystones of globalisation. From Adam Smith’s *Wealth of Nations* to the *International Trade Theories*

of Paul Krugman or to Jeffrey Sachs’s studies on the impact of shipping costs on a nation’s growth path, there is wide consensus concerning the relevance of maritime transport.”

That same OECD publication noted that the share of international trade carried by sea is around 80 per cent by volume (or even higher for most developing economies)⁵, and that most containerised cargo cannot be transported in a cost effective way by other alternative means⁶.

Important contributions to the debate on mega-ships and alliances have been made, for example, by the OECD/ITF. This report is intended to add to the debate by focusing on the perspective of shippers and their end customers.

⁴ “Competition issues in liner shipping – note by the Secretariat”, OECD, DAF/COMP/WP2(2015)3, 19 June 2015, paragraph 1.

⁵ *Ibid*, paragraph 2, citing UNCTAD “Review of Maritime Transport, 2014”.

⁶ *Ibid*, paragraph 3, citing Brooks, 2000.

This section briefly reviews the facts around the recent growth in mega-ships, to set the context for the remainder of this paper. Greater detail is available in the sources referenced.

Figure 1, taken from a recent OECD/ITF publication, shows the development of container ships in the period 1970–2015. It demonstrates clearly that the size of container ships has been increasing since 1970, regardless of which precise capacity measure is examined. Focusing on the right-hand part of the chart and the more recent time period, the maximum capacity of ships (the blue line) doubled from 8,160 TEU in 1997 to 15,550 TEU⁷ in 2006, and will exceed 21,000 in 2017. The average size of new builds has also increased since the 1990s, as has average capacity of container ships.

The maximum and average size of container ships is expected to grow even further based on ship orders and deliveries due in 2017⁸.

7 Twenty-foot equivalent units.
 8 "The Impact of Mega-Ships", International Transport Forum, OECD (2015), page 18

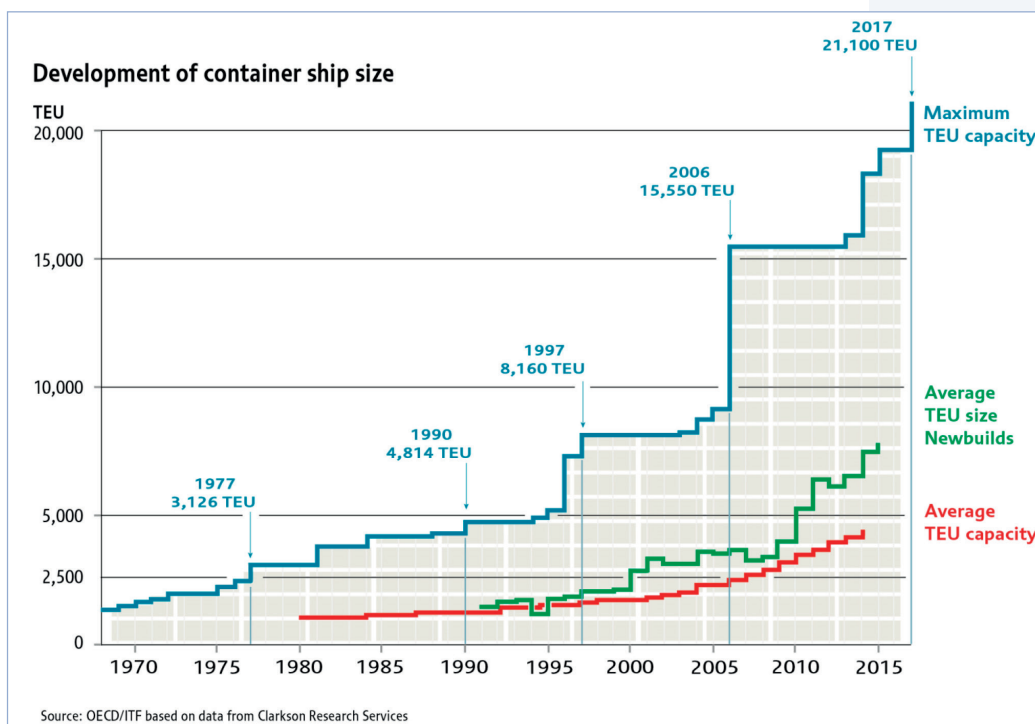
Figure 2 presents more detailed data for the five years 2009-13 on the top 20 shipping carriers. These data from Dynamar confirm an increase in fleet capacity over this period, as well as growth in 'carrying' (container volumes).

Doubling the maximum container ship size over the last decade has reduced total vessel costs per transported container by roughly a third⁹. These cost savings are, however, decreasing and costs are not expected to continue falling at the same rate in the future, and further increases in maximum container ship size would raise vessel transport costs¹⁰.

Another consequence of the growth in large ships noted by the OECD/ITF is that the frequency of direct calls on the main trade lanes has declined in recent years (the number of weekly Asia-North Europe loops decreased by 36 per cent in the period 2012-14)¹¹.

9 "The Impact of Mega-Ships", International Transport Forum, OECD (2015), page 9
 10 *Ibid*, pages 9-10
 11 *Ibid*, page 31

Figure 1: Development of container ship size, 1970-2015



Source: Reproduction of Figure 1.3 from "The Impact of Mega-Ships", International Transport Forum, OECD (2015), page 18.

Figure 2: Capacity and carrying data for top 20 shipping carriers, 2009-13

Measure (units)	2013	2012	2011	2010	2009
Fleet capacity (TEU)	14,993,000	13,956,000	13,388,000	12,308,000	10,808,000
Carryings (TEU)	118,034,000	115,448,000	110,959,000	103,173,000	90,311,000

Note: the Top 20 carriers are, in alphabetical order: APL, China Shipping, CMA CGM, Coscon, CSAV, Evergreen, Hamburg Süd, Hanjin, Hapag-Lloyd, Hyundai, "K" Line, Maersk Line, MOL, MSC, NYK, OOCL, PIL, UASC, Yang Ming and ZIM. Includes estimates where info may have been unavailable.

Source: "Larger and more efficient ships the answer of liner operators to declining revenues says Dynamar", International Shipping News, 23 December 2014 (available from <http://www.hellenicshippingnews.com/larger-and-more-efficient-ships-the-answer-of-liner-operators-to-declining-revenues-says-dynamar/>)

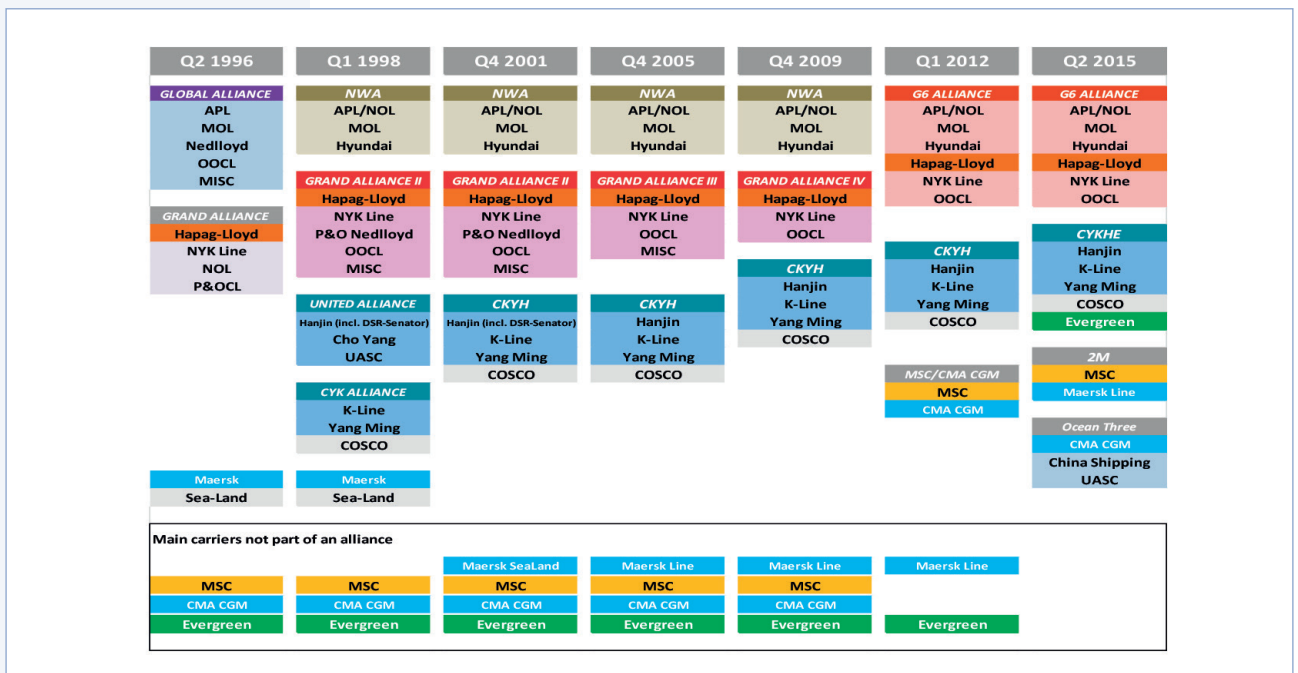
3

The associated development and growth in shipping alliances

The growth in mega-ships, and associated increase in capacity, has resulted in the formation of strategic alliances between carriers, which spreads the risk associated with new investment among carriers involved in the alliance. Figure 3 below illustrates the evolution of strategic liner shipping alliances over the past 10 years.

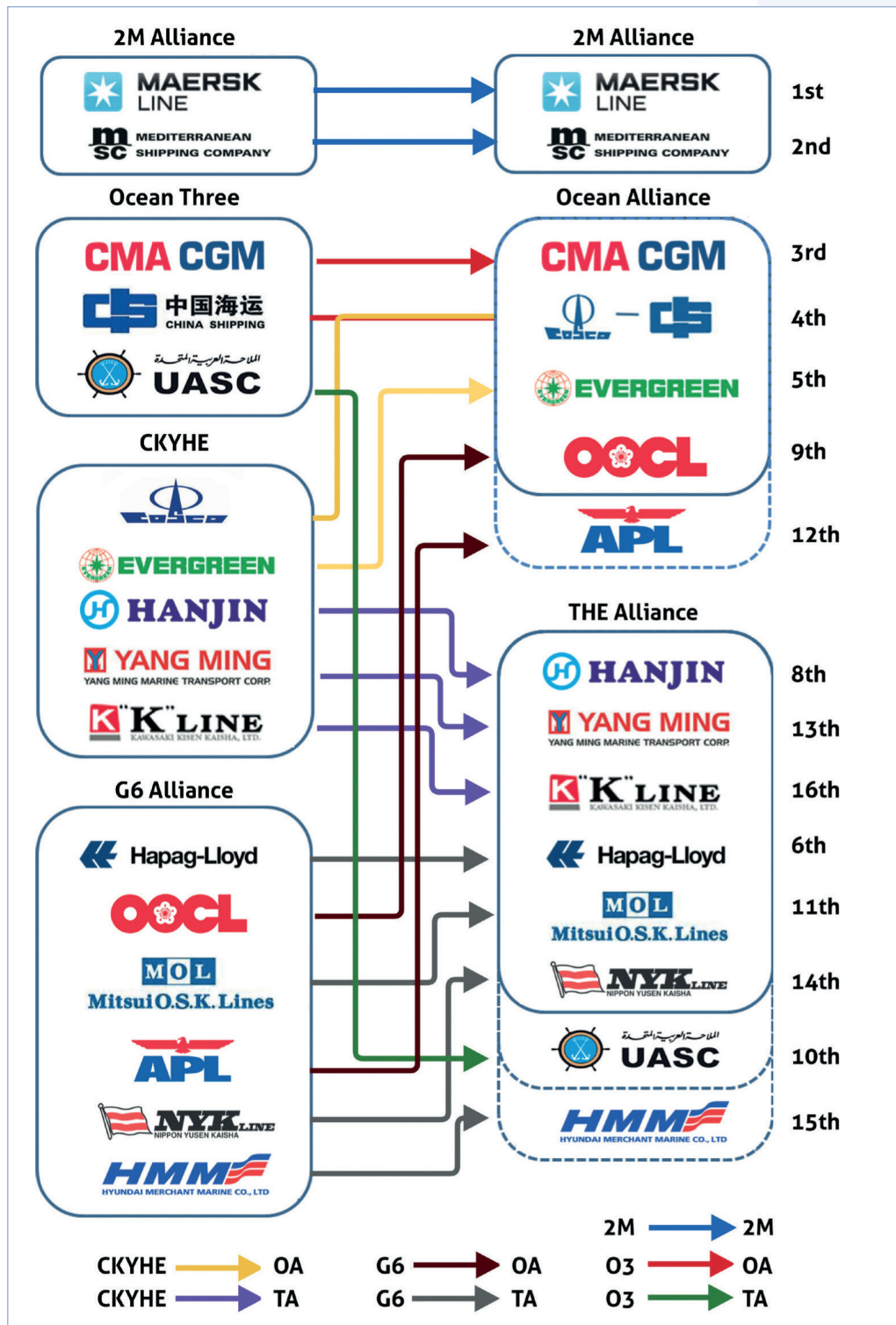
It shows the evolution of alliances into four major strategic alliances up to 2015: G6, CKYHE, 2M and Ocean Three, and that all of the main carriers are now part of a global alliance. Figure 5 (page 12) shows the number of services offered by each of these four major global line shipping alliances, as well as others, by key trade route.

Figure 3: Evolution of strategic alliances, 1996-2015



Source: "Competition in the container shipping sector" – presentation by Cyril Ritter, DG COMP, 19 June 2015, slide 14 (downloaded from <http://www.oecd.org/daf/competition/competition-issues-in-liner-shipping.htm>).

Figure 4: Strategic alliances, 2016



Source: Figure 4 provided by SeaIntel shows the reconfiguration of the four main alliances following the acquisition of NOL/APL by CMA CGM and the merger of China Shipping and COSCO; the creation of the Ocean Alliance and the alliance to replace the Ocean Three and, CKYHE and G6 alliances. At the time of preparing this paper Hanjin Shipping has filed for Receivership in Seoul.

Figure 5: Number of services offered by global alliances, 2014 Q2

Traderoute	Number of Services	2M	OceanThree	CKYHE	G6	Others
		Maersk; MSC	CMA-CGM; UASC; China Shipping	Cosco; K Line; Yang Ming; Hanjin; Evergreen	APL; Hapag Lloyd; Hyundai MM; Mitsui; Nippon; OOCL	
Asia-N Europe	22	6	4	6	5	1
Asia-Med	15	5	4	3	1	2
N Europe-N America	16	3	na	1	7	5
Med-N America	7	2	na	0	1	4
Asia-USWC	41	4	5	13	14	5
Asia-USEC	23	2	2	7	5	7

Note: data refers to the second quarter 2014.

USWC = US West Coast; USEC = US East Coast

For the purpose of the above table, a liner shipping service can be defined as the maritime transport of containerised cargo (and empty containers) from a geographic region (eg Far East) to others (eg North Europe) and vice versa, following a predefined sequence of called ports constituting the so-called 'portrotation' of the service. Source: Drewry (2014).

Source: "Competition issues in liner shipping – note by the Secretariat", OECD, DAF/COMP/WP2(2015)3, 19 June 2015, Table 2.



Figure 4 (page 11) shows the recent proposed reconfiguration of alliances due to acquisitions and mergers which, subject to regulatory approval, will result in just three major strategic alliances. The diagram includes Hanjin Shipping which has subsequently filed for bankruptcy. The dynamic nature of the container shipping market is likely to result in further mergers and acquisitions leading to deeper consolidation and concentration in the container shipping market and changes to alliance structures.

The OECD reports that today almost all major liner carriers are part of a global alliance (which is consistent with figures 3 and 4 above) and that the position of fully independent carriers has declined¹². It is clear from figure 5 that, at least on certain routes such as Asia-North Europe, the vast majority (21 out of 22 in that example) of services are offered by the four major global alliances.

Carriers have entered into consortium agreements in addition to global alliances, which have created an intricate network of connections and capacity sharing arrangements among carriers, and creates links on particular trade routes between carriers that are not members of the same strategic alliance¹³.

¹² *Ibid*, paragraph 32.

¹³ *Ibid*, paragraphs 125-126.

Mega-ships

The growth in mega-ships has consequences for the intensity and nature of competition between carriers.

Larger ships result in increased economies of scale at sea as the fixed capacity costs of a ship exceed the unit variable costs associated with transporting the ship between two ports. Larger ships are, however, associated with negative returns to scale when ships are in port (as time spent in the port, and costs associated with handling, increase with ship size). Nevertheless, overall, the economies of scale associated with ship size at sea have outweighed the diseconomies of scale associated with the ship in port¹⁴. We would caution against assuming that sea economies of scale will always offset port diseconomies of scale. This is because the progressive development of mega-ships may materially increase port costs, including the costs of transporting ever greater volumes of freight to and from ports, as well as the costs and complexities of managing the loading and unloading of very large volumes of freight.

A recent presentation by Drewry highlights the far reaching impact of mega-ships on ports¹⁵. If the same cargo volumes arrive at ports in fewer but larger ships, this puts strain on port infrastructure. For example, ports require longer and deeper quays, larger yards to handle peak loads, higher staffing to deal with peaks, as well as larger cranes to unload cargos¹⁶. Drewry estimates that in contrast to the situation 10-15 years ago when all (100 per cent) North European port capacity was usable by the largest ships, only approximately 70 per cent of that capacity is usable today, with a large number of ports requiring upgrades to deal with larger ships¹⁷. Finally, if one examines liner operating costs (which have been declining with ship size) and terminal and port costs (which have been increasing with ship size) on a combined basis, Drewry finds that combined cost savings are limited and that the move from ships with 8,000 TEU capacity to ships with 20,800 TEU capacity has resulted in combined (liner plus terminal and port) cost savings of just 4 per cent¹⁸.

¹⁴ *Ibid*, paragraph 22.

¹⁵ Presentation to FEPORT stakeholder conference December 2015: 'Mega ships – the imperative for greater dialogue', Dinesh Sharma, Senior Manager, Drewry.

¹⁶ *Ibid*, slide 2.

¹⁷ *Ibid*, slide 3.

¹⁸ *Ibid*, slide 6.



Given the cost advantages associated with larger ships relative to smaller ships, it is reasonable to expect that entry into a particular route will occur only with larger rather than smaller ships, provided the volume of trade is sufficient to warrant larger vessels. This, in turn, has implications for potential entrants on any particular high volume route.

- The entrant must operate a larger (rather than a smaller) ship and
- In order to be viable, it must expect to fill a larger (rather than a smaller) ship

These considerations raise the costs and risks of entry for shipowners.

Higher economies of scale mean that fewer firms can operate viably in a market of a given size. The growth of mega-ships, by increasing economies of scale, and increasing the fixed costs associated with operating on a particular route, reinforce the trend in liner shipping towards fewer independent operators, with smaller operators being driven 'out of the major routes and into niche markets' to quote Meersman et al¹⁹. It is thus clear that the issues being faced by shippers as a result of the

¹⁹ "Competition issues in liner shipping", paper by Hilde Meersman, Christa Sys, Eddy Van de Voorde and Thierry Vanelislande, 19 June 2015 (available from [http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DAF/COMP/WP2\(2015\)5&docLanguage=En](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DAF/COMP/WP2(2015)5&docLanguage=En)), paragraph 31.

trend towards consolidation and cooperation due to mega-ships are highly unlikely to be solved by new entrants into liner shipping. This is particularly the case given the OECD's finding that today almost all major liner carriers are part of a global alliance, which creates a network of economic links between these carriers and will tend to disincentivise independent entry by these carriers.

Alliances

As noted above, shipping alliances (and consortia) have developed in response to the need to share risk, spread fixed costs and utilise the capacity associated with larger vessels (mega-ships). However, these benefits to carriers come at a cost to competition: members of an alliance cannot compete with each other on important dimensions of competition on a particular route – namely capacity, sailing frequency, ports of call, transit times and associated service quality.

While there may be some limited price competition between members of a consortium, the European Commission in a recent (September 2014) merger decision confirmed that 'participation in consortia can lead to anticompetitive effects as it restricts consortia members' flexibility on some of the key parameters of competition [...].²⁰ The key parameters of competition are elaborated in the recitals of the decision that immediately follow, copied below (emphasis added):

(69) Participants in a consortium have to agree on the capacity that the consortium will offer and even if the individual shipping companies can normally increase the capacity offered on the vessels they operate on an ad hoc basis, changes to the capacity of the consortium have to be agreed among all consortium members. It must be noted in this respect that, because demand for container liner shipping services is rather in-elastic with regard to price changes, capacity represents a key parameter of competition as small variations in available

capacity can have a significant effect on price. *The setting of capacity for an individual consortium can materially influence the level at which price competition takes place not only across competing consortia but also among consortia members.* A vast majority of respondents to the market investigation have confirmed that capacity is indeed an important driving force for competition in this industry.

(70) In addition to capacity, consortia members have to agree on other aspects of the service, including frequency of service, transit times, and ports of call, which are also important drivers of competition among shipping companies.

Consortia and alliances agree capacity between themselves, which materially affects price competition. Consortia and alliance members also agree on other 'important drivers of competition among shipping companies', namely frequency of service, transit times and ports of call. Consortia and alliances thus reduce price and non-price competition between members.

In the *CSAV/Hapag-Lloyd AG* merger decision cited above, the European Commission was concerned about the impact on competition of the creation of new links between previously independent consortia on two particular routes: (i) Northern Europe – Central America and Caribbean; and (ii) Northern Europe – South America West Coast²¹. Pre-merger, the merging parties were members of different consortia operating on each route²². The merger would have created links between the consortia on those routes with the result that, post-merger, capacity, schedules and ports of calls could have been coordinated across the consortia due to the merged entity's participation on two consortia. In order to prevent the creation of a link between consortia, the merger was cleared subject to a commitment by the merging parties to terminate their participation in two vessel sharing agreements (ie, alliances) relating to the two routes in question²³.

²¹ *Ibid*, §§71-72.

²² *Ibid*, §§105 and 129.

²³ *Ibid*, commitments annexed to the Commission's decision, §2.

²⁰ *Ibid*, §§69-70.

As noted in section 2 above, increased ship size has been associated with reduced costs for carriers. This does not, however, automatically mean that shippers' costs have declined to the same extent or as rapidly, or that total supply chain costs have fallen. This is because the cost to shippers of shipping goods includes not only freight rates (and associated transport costs such as port and inland transport costs), but also other costs such as:

- costs of stock holding and inventory management: the ability to obtain reliable just-in-time deliveries means that shippers are able to respond to changes in customer demand more rapidly and are required to hold lower stocks, which improves supply chain efficiency and reduces their supply chain costs
- costs of dealing with unexpected supply disturbances: when shipping companies change schedules at short notice or there is a service problem, this can add to delivery times and even leave goods stranded. This has the consequence that shippers need to hold higher stock levels to deal with potential disruptions, and they must allocate scarce management time to dealing

with disruptions as well as managing (and possibly compensating) their customers in turn for the knock-on disruption it causes them. This can also seriously compromise the ability of manufacturers and retailers to meet customer demand and maintain their own competitive reputations. For example, if a key input is not available, a manufacturer may need to reduce or interrupt its production line. Similarly, large supermarket retailers compete on the basis of the wide range and quality of the goods they sell; empty shelves may mean that consumers take all of their custom elsewhere and not just the items which are out of stock

These types of costs (stock holding and dealing with supply disturbances) are influenced by the actions of shipping companies. If shipping carriers do not meet scheduled delivery times, then additional costs are imposed upon shippers. When shippers refer to 'service quality' by shipping companies having deteriorated, or suffering as a consequence of the rise in mega-ships, what they frequently mean by this is that operational difficulties encountered by shipping companies result in the shippers facing unanticipated supply-chain costs, disruption to their business, and consequent difficulties with providing high quality service to their own customers.

A recent article in *Containerisation International* reported on a roundtable discussion on mega-ships and shipping alliances involving leading global brand shippers. The article provided some anecdotes illustrating the difficulties faced by shippers as a result of the growth in mega-ships. One such category of difficulties related to dealing with the large 'spikes' in volumes arising from use of larger vessels²⁴:

"So what is customer satisfaction like at present? At the recent annual UK ports conference, the director of supply chain for the major UK retailer Tesco voiced his concern over the roll out of mega-ships on the East-West trades and their impact on ports and terminals and the unprecedented peaks in cargo they create. He said that historically the evolution of European port volumes were relatively flat or smooth, but now the larger vessels created great spikes



24 "The New Normal?", *Containerisation International*, July 2015, available from <http://www.lloydslist.com/II/sector/containers/article465116.ece>

in product being 'dumped' at the quayside which needed to be removed quickly from ports. If ports were unable to cope with the excessive peaks in demand and cargo is left on the quay, or if ships are forced to wait at anchor, then it won't be able to satisfy the need for fast moving goods he said."

Other difficulties relate to managing supply chains, and in particular dealing with unexpected disruptions in supply chain logistics that may be caused by shipping alliances:

"[...] other global volume shippers echoed these concerns, highlighting their inability to manage their inventory due to frequent short-notice 'operational adjustments'. For example, one shipper explained that a short-term decision to add a port of call by one alliance member had resulted in adding a further six days to the expected arrival time causing serious problems in getting goods to the market."

In addition to the costs imposed by mega-ships on shippers, growth in mega-ships has imposed substantial costs on infrastructure providers as bridge height, river width/depth and port equipment may need to be altered and expanded to accommodate larger ships. A substantial share of these costs are borne by the public sector in many countries, and thus there may also be costs passed on to tax payers. These infrastructure costs, and who bears them, have been explored

and documented in an OECD/ITF report entitled *'The Impact of Mega-Ships'*²⁵. That report notes on the first page of its executive summary that "Supply chain risks related to bigger container ships are rising"²⁶.

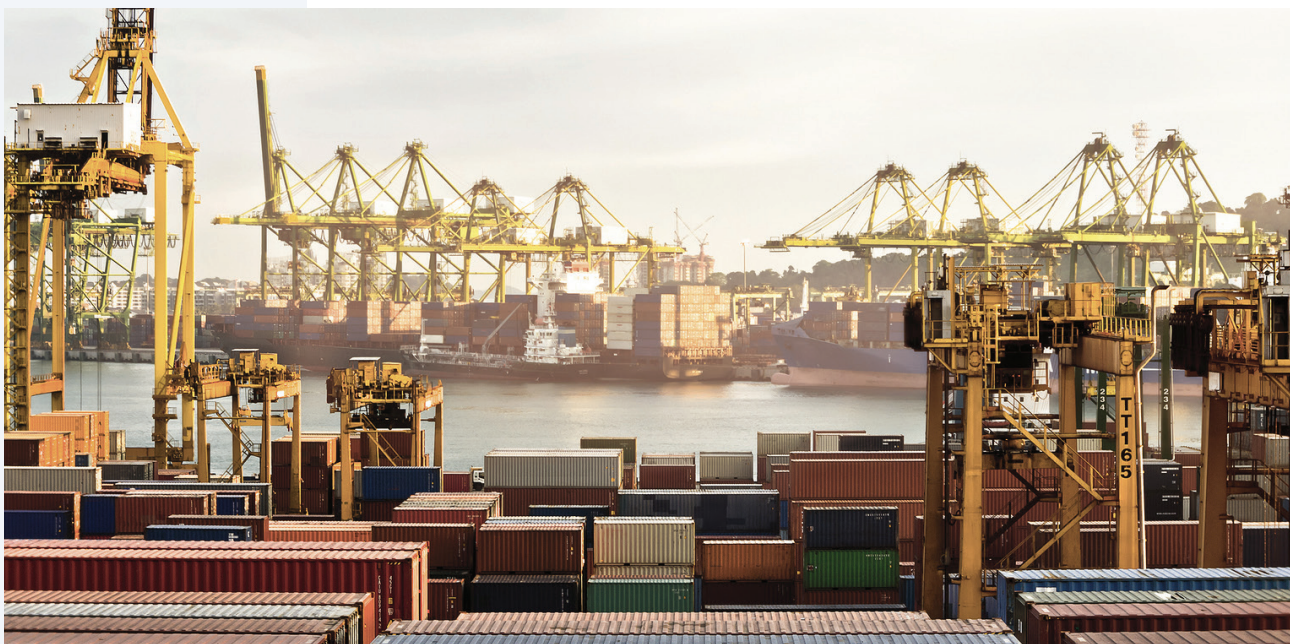
The issues arising from mega-ships are closely related to the issues concerning 'slow steaming', which is the use of slower sailing speeds by shipping companies in order to reduce fuel costs and reduce emissions²⁷. The issues are analogous as slow steaming results in benefits (ie, lower costs) to shipping companies, but may have adverse consequences for consumers. Research by Martijn Streng (Erasmus University Rotterdam, The Netherlands) has examined the following question: "What is the economic impact of slow steaming in the container shipping market on a supply chain level?" Streng's research finds that although shipping companies (carriers) benefit from slow steaming, shippers and consignees face increased costs. In summary, Streng finds that the "combination between the net effect for shippers and the net effect for carriers shows mainly a negative net effect on a supply chain level, which means that slow steaming implies most of the times costs to the supply chain."²⁸

25 "The Impact of Mega-Ships", International Transport Forum, OECD (2015).

26 *Ibid*, p.9.

27 All else equal, slow steaming requires more ships to be deployed to maintain shipping frequencies.

28 "Slow steaming: an economic assessment of lowering sailing speeds on a supply chain level", Masters thesis by Martijn Streng, Erasmus thesis repository.



Having established that the increasing move towards mega-ships has benefitted carriers, but is imposing costs on shippers across the supply chain, how can industry stakeholders, in particular shippers and competition authorities and maritime regulators, encourage shipping companies to take account of these 'externalities'? As explained in the introduction, when the costs (or benefits) of an action are experienced by a different party from the party taking action, this is known in economics as an 'externality'. In this context, the adoption of mega-ships may be occurring externalities beyond the level which is economically efficient, to the extent that shipping companies predominantly focus on the benefits that they experience, but do not take account of the costs being borne by other parties across the supply chain as a whole.

The OECD/ITF report referenced above discussed a number of ways in which the incentives of public interests (in particular, countries and ports) and shipping companies could be better aligned and, with one exception, those points are not repeated here. The exception, repeated here, is the OECD/ITF's fifth suggestion, which was as follows³⁰.

"5. Stimulate an appropriate forum for discussion between liners and transport stakeholders

Container lines have typically not consulted anyone on new mega-ships, before they ordered these. A constructive discussion would need to take place with the relevant transport stakeholders, including governments, regulators, port authorities and all interested constituents. The objective could be to facilitate an exchange of views, an understanding of objectives and plans, and ultimately better coordination to ensure optimum supply chain configurations, including optimised use of mega-ships."

The remainder of this section focuses specifically on ways in which incentives of shippers and shipping companies could be better aligned – a subject that could be discussed further in an appropriate shipper/carrier/regulator forum.

Alliances vs consolidation

The received wisdom in the shipping industry is that vessel sharing agreements and alliances



are good for competition, because they result in the maintenance of a higher number of shipping firms than would exist if shipping firms merged instead of forming alliances. In addition, with alliances/consortia there may be scope for some competition between alliance members on certain dimensions such as price, contract terms (eg spot vs longer-term contract), marketing and on specific aspects of customer sales/service. However, competition on dimensions such as the network (number of services and ports of call), frequency and reliability can only occur between, rather than within, alliances. It is these quality dimensions of competition that are particularly important for supply chain efficiency, and these are not safeguarded or preserved by capacity sharing alliances/consortia since they are jointly determined.

The perspective of certain shippers is that dealing with fewer fully independent shipping companies could on occasion be better than dealing with a larger number of allied shipping companies. This is because these shippers believe that this would make it easier to negotiate competitive supply level agreements (SLAs), address issues such as unexpected supply chain disruptions or

unscheduled calls at additional ports, and obtain redress if SLAs are breached.

Mærsk Line's chief executive Søren Skou is reported as having 'listed the greater benefits of fullscale consolidation against the far fewer advantages of alliances' in a presentation to the October 2015 European Maritime Law Organisation (EMLO) conference in Copenhagen²⁹.

A deeper analysis of the costs and benefits of alliances relative to a counterfactual of all-out mergers between alliance members would be helpful. Such an analysis should take into account all the resultant costs and benefits to shippers through the supply chain – and not focus primarily on whether a merger would affect freight rates, which are just one component of the supply chain costs experienced by shippers.

Should the market become consolidated to 6-10 major operators controlling the main trade lanes it would seem inevitable that the market share thresholds for alliances and consortia agreements would have to be so low that it would be ruled out on competition grounds with carriers having to compete head-to-head.

Vertical integration

Vertical integration has been used to increase the alignment of incentives between carriers and ports, with carriers investing in some mega-terminals such as Los Angeles in the USA, Laem Chabang in Thailand and Maasvlakte II in Rotterdam, the Netherlands. Such investment enables shipping companies to reduce physical bottlenecks at ports, control stevedoring costs and potentially improve the quality of their services³⁰.

²⁹ "Carriers and shippers lose confidence in global alliances", Lloyd's List, 7 October 2015.

³⁰ "Competition issues in liner shipping – note by the Secretariat", OECD, DAF/COMP/WP2(2015)3, 19 June 2015, paragraphs 151-152 and section 8 (paragraphs 154-161).

Vertical integration does, however, carry with it potential costs that need to be evaluated against its potential benefits.

On the one hand, a degree of vertical integration between shippers and shipping companies is a potential method to increase the alignment of incentives between shippers and shipping companies. The nature of such integration, and the extent to which it might alleviate the problems felt by shippers, would of course need to be explored.

On the other hand, vertical integration might adversely affect competition. For example, a carrier that owns port facilities may be able to raise costs for rival carriers that wish to use the facilities. In addition, if carriers own port facilities this may create further trading dependencies between carriers, which may further reduce carriers' incentives to compete independently.

We note that, in practical terms, vertical integration between shippers and shipping companies might be more difficult than in other industries given the high share of government and family control in the shipping industry³¹.

Joint development of (and support for) cooperation between shippers and carriers

To sum up, given the complexity of the issue and the need for balanced consideration across the supply chain, there would be strong merit in there being an active debate on the implications of mega-ships and alliances.

³¹ "Container liner shipping update", Camilla Jain Holtse, Chief Legal Counsel, Head of Competition Compliance, Maersk Line, 19 June 2015 (downloaded from <http://www.oecd.org/daf/competition/competition-issues-in-liner-shipping.htm>), slide 6.

Competition issues raised by mega-ships and alliances and recommendations for regulators and competition authorities

Introduction

- 1 A key aim of the mega-ships and alliances paper is to make a contribution to the debate started by the ITF/OECD, in particular its publication: "The Impact of Mega-Ships" (2015) ("OECD Mega-Ships").¹ We hope, as discussed in the main body of the paper, that it will prompt a discussion with the key stakeholders in the supply chain, in particular between carriers and shippers – a key recommendation of the ITF/OECD report.
- 2 This annex deals with the competition policy and regulatory issues raised by the economic implications of mega-ships and alliances in the main body of this paper. It reflects and takes into account the parallel work of the OECD Competition Committee including the Note by the Secretariat of Working Party No 2 on Competition and Regulation entitled "Competition Issues in Liner Shipping" (10 June 2015) ("OECD Competition Issues").² The OECD Competition Issues paper is itself accompanied by a number of OECD member papers including papers by the EU (OECD Competition Issues - European Union paper, 9 June 2015)³ and the United States (OECD Competition Issues – United States paper, 19 June 2015).⁴
- 3 The annex section of the paper raises issues for maritime regulators.
- 4 The first section of this annex analyses the market for liner shipping from a competition policy context. It does so mainly from an EU competition policy perspective, but also takes into account regulatory and competition policy

approaches internationally. Competition policy concerning carrier cooperation and consolidation has, arguably, been more developed in the EU due to the repeal of the liner conference block exemption from antitrust laws and its treatment of consortia/VSAs through the EU consortia block exemption regulation. The paper also briefly reviews the regulatory developments in other jurisdictions including the United States, Canada, Australia, New Zealand and Singapore. It also examines potential competition issues in the three main areas of relevance in practice: (1) the growth of mega-vessels and global alliances; (2) the comparative merits of consolidation through mergers and alliances; and (3) the role of cooperation through information exchange.

- 5 Reference is made throughout this annex to the economic analysis in the main body of the paper ("The Implications of Mega-Ships and Alliances for Competition and Total Supply Chain Efficiency: an Economic Perspective") for a more detailed market analysis where relevant.

Liner shipping market

- 6 This section of the annex paper provides an overview of the structure and main characteristics of the global liner shipping market by reference to the recent OECD Competition Issues and European Union paper, 9 June 2015 to the OECD. These cover on the supply side the main global carriers, their capacity and market shares on the main trades, market consolidation, fixed and variable costs and the role of global alliances and mega-ships.⁵ On the demand side, they note the cyclical nature of shipping and the impact of capacity oversupply on freight rates and the quality of services especially for shippers operating just-in-time delivery businesses.⁶

¹ The Impact of Mega-Ships OECD/ITF 2015.

² OECD Directorate for Financial and Enterprise Affairs Competition Committee, Working Party No.2 on Competition and Regulation: Competition Issues in Liner Shipping – Note by Secretariat – 19 June 2015.

³ OECD Directorate for Financial and Enterprise Affairs Competition Committee, Working Party No 2 on Competition and Regulation: Competition Issues in Liner Shipping – European Union – 9 June 2015, submitted for Item IV of the 59th meeting of the Working Party No 2 on Competition and Regulation on 19 June 2015.

⁴ OECD Directorate for Financial and Enterprise Affairs Competition Committee, Working Party No 2 on Competition and Regulation: Competition Issues in Liner Shipping – United States – 19 June 2015, submitted for Item IV of the 59th meeting of the Working Party No 2 on competition and Regulation on 19 June 2015.

⁵ OECD Competition Issues, paras 16 to 25 (and figure 1 on the liner shipping fleet, figure 2 on fleet capacity deployed by top 20 carriers', figure 3 on evolution of the container ship fleet, table 1 on size of container ships and figure 4 on Transshipment structure), pages 5 to 8.

⁶ OECD Competition Issues, paras 26 to 28 (and figure 5 on trade volumes in the main routes and table 2 on number of services offered by global alliances).

- 7 The relevant product market is liner shipping. As defined by the European Union, "liner shipping is the provision of regular, scheduled maritime freight transport, mainly by container on a specific route, ie between a range of ports at one end (eg Shanghai – Hong Kong - Singapore) and a range of ports at the other end (eg Rotterdam – Hamburg – Southampton)".⁷
- 8 The relevant geographic market for European Union competition law is maritime transport to and from the EU, with specific port pairs or ranges at each end of the trade route.⁸
- 9 The key players include the global top 10 carriers in the worldwide liner shipping sector: five European carriers (APM-Maersk, MSC, CMA-CGM, Hapag-Lloyd and Hamburg Sud); and the five Asian carriers (Evergreen, COSCO, CSCL, Hanjin Shipping⁹, Mitsui OSK Lines.)¹⁰
- 10 The liner shipping carriers transport 40 per cent by value of EU external trade by sea (see the main body of the paper – Mega-Ships and Alliances an Economic Perspective 1)¹¹, with maritime transport to and from the EU maintaining a modal share around 37 per cent since 1995 (in tonne-km)¹².
- 11 The market share accounted for by the containership fleet transporting goods to, from and within the EU is 20 per cent in terms of number of vessels and 25 per cent in terms of global capacity, indicating that more large ships are deployed on the Europe trade routes¹³. The largest trade route is the Far-East/Europe trade accounting for 75 per cent of European capacity¹⁴.
- 12 The key characteristics of the liner shipping market are:
- fragmented but with increasing global consolidation. According to the UNCTAD
- 2015 annual Review of Maritime Transport, there is now an average of 15.7 companies offering regular container shipping services to each country, a number that has declined steadily from 22.1 in 2004¹⁵
- consolidation primarily taking the form of strategic alliances¹⁶
 - the cyclical nature of the market, like other transport modes, results in overcapacity
 - the 2008 financial crisis led to a general reduction in rates leading to an increase in ship size to 20,500 teu (see, the main body of the report Mega-Ships and Alliances: an Economic Perspective)¹⁷
 - the introduction of ultra-large container vessels was the key driver behind the move to mega global alliances (see the main body of the report – Mega-Ships and Alliances: an Economic Perspective)¹⁸ until only 4 global alliances (now reduced to three main alliances with the CMA-CGM acquisition of NOL subject to regulatory approval) and 50 per cent of capacity to and from EU is provided by consortia¹⁹
 - in under two years, the number of big alliances doubled with 16 of world's top 20 carriers in one of four mega global alliances: CKYHE, G6, 2M and Ocean Three²⁰ (this likely to be reduced to three main alliances²¹)
- 13 For further market analysis based on the OECD 2015 papers and other relevant sources, see the main body of the paper, "the implications of Mega-Ships and Alliances for Competition and the Total Supply Chain: an Economic Perspective.

EU Regulatory Framework for liner shipping

- 14 The EU regulatory regime applicable to liner shipping was historically subject to sector specific legislation and guidance, including the block exemption for liner

7 OECD Competition Issues - European Union paper, 9 June 2015, para 2, page 2.

8 *Ibid*, para 2 and footnote 3.

9 The analysis predates the bankruptcy of Hanjin Shipping.

10 *Ibid*, para 1 and footnotes 1 and 2, source: Alphaliner Monthly Monitor, April 2015.

11 Economic Analysis, Section 1, pages 3 to 4.

12 OECD Competition Issues - European Union paper, 9 June 2015, para 2, page 2.

13 *Ibid*, para 3, page 2.

14 *Ibid*, and source Alphaliner Monthly Monitor, April 2015.

15 Review of Maritime Transport 2015 (UNCTAD/RMT/2015), 15 October 2015. *Ibid*, para 4, page 2 - Statistics from Alphaliner, Monthly Monitor April 2013 and April 2015 show change from 85.2 per cent of global fleet capacity held by 21 carriers to 85.7 per cent of global fleet capacity held by 19 carriers.

16 *Ibid*, para 4, page 2.

17 Economic Analysis, Section 2, pages 4 to 5.

18 Economic Analysis, Section 3, pages 6-9.

19 OECD Competition Issues - European Union paper, 9 June 2015, paras 5 to 11, pages 2 and 3.

20 *Ibid*, para 12, page 3.

21 See figure 4, mega-ships and alliances, economic analysis, page 8.

- conferences until October 2008. Today the general EU competition rules apply, with a block exemption for certain consortia agreements. This means that the general block exemption regulations, such as those on horizontal and vertical restraints, also will apply to alliances.
- 15 Article 101(1) TFEU (EU competition rules) prohibits agreements and concerted practices which significantly restrict competition in the EU and appreciably affect trade between member states, unless the four conditions for exemption in Article 101(3) TFEU are met.
- 16 Article 102 prohibits the abuse of a dominant position. To date, there has been little cause to apply Article 102 to liner shipping other than in the context of collective dominance.
- 17 The Consortium Block Exemption Regulation (EC) No 906/2009 (Consortia BER) was extended until April 2020 by Commission Regulation (EU) No 697/2014 of 24 June 2014²². If not prolonged in 2020 following its five-year review required by the Council enabling regulation, it will expire²³.
- 18 The Consortia BER defines a consortium as an agreement between carriers, “the object of which is to bring about cooperation in the joint operation of maritime transport services, and which improves the service that would be offered individually by each of its members...in order to rationalize their operations by means of technical, operational and/or commercial arrangements.”
- 19 Members of a consortium (which can take the form of a strategic global alliance) are permitted by the BER not to compete with each other as regards their commonly agreed capacity, sailing frequency, transit times, and ports of call. According to the European Commission when assessing the impact of a merger on effective competition “deciding on ... capacity setting, scheduling and the ports of call” are “important parameters of competition”²⁴.
- 20 The BER requires there to be sufficient competitive pressure on the consortium which is assumed to lead to economies of scale and efficiencies passed on to customers in terms of better services and higher coverage of ports. For that reason, the joint market share of the members of the consortium may not exceed 30 per cent. Otherwise the agreement falls outside the safe harbour of the BER and is subject to self-assessment by the parties. Self-assessment requires the carrier parties to determine whether the consortium, VSA, or strategic alliance is likely to present competition problems in breach of EU competition rules.
- 21 The Consortia BER permits exchange of information on capacity and agreement on capacity setting to enable carriers to match supply to demand. This tolerant approach may require closer scrutiny in the light of the growth of the new strategic global alliances and their harm to the quality of services provided to shippers, discussed further below. Carriers in a consortium or alliance should be permitted under Article 101(3) TFEU only to adjust capacity to meet short-term seasonal fluctuations in demand without exchanging information, or agreeing, on individual future capacity investment or deployment.
- 22 Further consideration of horizontal restraints is given below in the context of information exchange and the Horizontal Guidelines associated with the EU Horizontal Block Exemption regulations. Vertical restraints and their treatment under competition law in the various jurisdictions worldwide are of increasing importance because of the trend for carriers, such as Maersk, to invest in ports and terminals. Also, one potential option for shippers to improve the reliability and quality of the shipping services that they require would be to vertically integrate with a carrier. See, the main paper, for a general discussion of vertical integration²⁵.

²² OJ L 184, 25.6.2014, page 3.

²³ OECD Competition Issues -European Union paper, 9 June 2015, paras 26 to 33, pages 6 to 7.

²⁴ *Ibid*, para 48 page 10; and see, Economic Analysis, Section 4, Sub-section “Alliances”, pages 9-11.

²⁵ Economic Analysis, Section 6, page 15.

Competition Regulation developments in other jurisdictions worldwide: US, Canada, Australia, New Zealand, India, Russia, Turkey, Israel, Brazil, South Africa, China, Chinese Hong Kong, South Korea, Chinese Taipei, Japan, Malaysia and Singapore

23 The US Shipping Act 1916 introduced antitrust immunity for open liner conferences (excluding the right enjoyed by members of closed conferences prevalent at the time to refuse a new member carrier)²⁶. Antitrust immunity was subject to approval by an independent agency – the US Shipping Board – which was the predecessor of the current regulator – the Federal Maritime Commission (FMC). The 1984 Shipping Act turned the clock back by removing the requirement of prior approval by the FMC and shifting the burden of proof onto the FMC to seek injunctions to stop agreements found likely to lead to a reduction in competition or to produce an unreasonable reduction in transportation service or an unreasonable increase in transportation cost²⁷.

24 The 1984 Act also clarified the scope of the agreements covered by antitrust immunity. The agreements covered by the exemption were those which:

“(1) discuss, fix, or regulate transportation rates, including through rates, cargo space accommodations, and other conditions of service; (2) pool or apportion traffic, revenues, earnings, or losses; (3) allot ports or regulate the number and character of voyages between ports; (4) regulate the volume or character of cargo or passenger traffic to be carried; (5) engage in an exclusive, preferential, or cooperative working arrangement between themselves or with a marine terminal operator; (6) control, regulate, or prevent competition in international ocean transportation; or (7) discuss and agree on any matter related to a service contract.”²⁸

25 The tide turned with a pro-competitive shift in the US liner shipping regulatory context introduced by the Ocean Shipping Reform Act 1998 (OSRA) coming into force on 1

May 1999. OSRA did not remove antitrust immunity for liner shipping conferences but adopted an approach of promoting the conditions for weakening the enforceability of agreements, by prohibiting conferences from impeding conference carriers from entering into confidential individual service contracts. Service contracts still have to be filed with the FMC but are no longer required to be made public. Under the 1984 Shipping Act, conferences were required to publish tariffs and service contracts, making the freight rates of all competitors common knowledge for both carriers and shippers²⁹.

26 In 2002, the OECD adopted a seminal report recommending that limited antitrust exemptions should not be allowed to cover price fixing and rate discussion. The report also concluded that capacity agreements should be carefully scrutinised so as to determine the distortion they can potentially generate in the market³⁰.

27 According to the OECD, the 2002 OECD report and the regulatory changes in the US and EU have triggered a widespread debate on the application of competition law to the liner shipping sector in several other countries³¹.

28 Some countries, including some with newly established competition laws, have never established exemptions for liner shipping conferences: China, Chinese Hong Kong, India, Russia, Turkey, Malaysia, Brazil, South Africa among others³². However, on 19 December 2013, following a review and stakeholder consultation, the Malaysian Competition Commission (MyCC) granted a conditional block exemption for vessel sharing agreements and voluntary discussion agreements. These have to be filed with the MyCC, may not include price fixing and may last only for a reasonable period of time³³.

29 Other jurisdictions have maintained exemptions following reviews: South Korea and Chinese Taipei. Japan decided in 2011 following a review to extend antitrust immunity, including for conferences, until

26 OECD Competition Issues – United States paper, 19 June 2015, see generally pages 2 to 5.

27 OECD Competition Issues, paras 58 to 61.

28 *Ibid*, para 61, footnote 14, page 16.

29 *Ibid*, paras 67 to 68, page 18.

30 OECD Competition Issues, paras 76 to 77, pages 19 to 20; and see, OECD (2002), page 77.

31 *Ibid*, para 88, and see paras 89 to 94, pages 22 to 23.

32 *Ibid*, para 93, page 23.

33 *Ibid*, para 93, footnote 30, page 23.

2015. However, the Japanese Fair Trade Commission has recently instigated a further review following their preliminary assessment that antitrust immunity should be removed. The Ministry for Trade and Industry in Singapore extended the 2006 block exemption expiring in 2010 until 31 December 2015, following public consultation by the Singapore Competition Commission (SCC)³⁴. The exemption has been further extended until 2020.

30 On the other hand, Israel repealed the block exemption for liner shipping in 2010³⁵.

31 In Australia, the March 2015 final report of a competition law review recommended repeal of the exemptions on liner shipping and that the Australian Competition and Consumer Commission (ACCC) should be given the power to grant exemptions for agreements that meet a minimum standard of pro-competitive conditions³⁶. The final position is not yet clear.

32 Similarly, New Zealand is expected to adopt a Commerce (Cartels and Other Matters) Amendment to the New Zealand Competition law, the Commerce Act 1986, which did not previously apply to the shipping industry that was subject to the Shipping Act 1987. This follows a final report of April 2012 by the Productivity Commission recommending the removal of exemptions for carrier agreements involving price fixing, and introducing a registration requirement for those that do not³⁷.

33 Finally, Canada is expected to consider further reforms. It currently applies a similar approach to that in the US with antitrust exemptions maintained following amendments in 2001 to the Shipping Conference Exemption Act, but prohibiting conferences from preventing confidential individual service contracts, which now proliferate in Canadian trades³⁸.

Growth of mega-ships and global alliances

34 This section identifies certain commercial issues arising from the increased consolidation of the liner shipping sector

with the recent rearrangement of the top 19 global carriers into 4 mega global alliances (soon to be three following the recent CMA-CGM acquisition of NOL and the changes to alliance and consortia membership demanded by the European Commission as a condition of approval of the merger³⁹). Those very large alliances exist alongside a web of consortia agreements on each trade, and the doubling in size of new vessels over the last decade with mega-ships now ordered with a capacity of 21,100 teu, (see the main body of this paper)⁴⁰.

35 The carriers say that their bunker fuel costs doubled between 2008 and 2012. This was undoubtedly true and led to 'slow steaming' operations to conserve fuel. Carriers also say that for this reason they (led by Maersk, the world's largest carrier) have invested in ever larger ships culminating in 2015 with vessels exceeding 20,000 teu.

36 Until 2015, according to ITF/OECD, the economies of scale achieved by the investment in mega-ships reduced fixed costs for carriers by over 30 per cent. This, OECD, explains is why freight rates have not increased significantly since the beginning of the 2008 economic crisis⁴¹. While the OECD has rightly identified these factors as answers to why rates have not increased, GSF also notes that the significant downward spiral in world trade and introduction on vast amounts of new capacity has had an equally important check on rate increases in the container shipping market.

37 However, the OECD Mega-Ships Report suggests that the decline in fixed costs through the economies of scale resulting from higher volume ships has reached its natural peak so that, in future, costs will not only not reduce but might well increase if vessel size increases further⁴².

38 Further, the OECD Mega-Ships report has raised the question of the costs borne by market players other than the carriers who benefit directly from the economies of scale. In particular, the OECD points to the

34 *Ibid*, para 94, page 23.

35 *Ibid*, para 89 and footnote 28, page 22.

36 *Ibid*, para 90, page 22.

37 *Ibid*, para 91, page 22.

38 *Ibid*, para 92, page 23.

39 Further changes to alliances structures and membership is likely to be required in view of the recent COSCO-CSCL and Hapag Lloyd acquisition of UASC.

40 Economic Analysis, Section 4, pages 9-12.

41 OECD Mega-Ships, page 9, first para of Executive summary.

42 *Ibid*, page 9, first para and page 10, last para of Executive summary.

externalities of the mega-ships investment, from the costs of ports and terminal handling to the supply chain costs borne by shippers when their just-in-time delivery obligations are undermined⁴³. Carriers' changes to sailing times and ports of call can leave shippers' cargo stranded for days, if not weeks, on very short notice, too short normally to find an alternative carrier within the shipper's delivery timetable (see the main body of this paper, Mega-Ships and Alliances an Economic Perspective 1)⁴⁴.

- 39 The ability to implement short-term changes with considerable knock-on consequences for shippers' supply chains raises the question as to whether there is sufficient competition between and real choice between the four, and now possible three, global mega-alliances. This appears to be because the market has effectively created new barriers to entry by the investment in mega-ships, leaving insufficient independent carriers unconnected to the four global alliances either directly or indirectly through a myriad of interweaving consortia agreements⁴⁵.
- 40 The carriers may have shared the reduction in fixed costs, arising from their investment in mega-ships and their introduction of slow steaming, (see paras 36 and 43 for a wider assessment), but service competition has been significantly reduced and service quality and standards has been impaired. In the last 12 months, the reduction in variable costs in the form of significantly reduced bunker fuel prices has also reduced the carriers' total costs, justifying lower rates. However, it is the quality of service provided by the carriers belonging to the four mega-alliances that is of increasing concern to certain shippers who operate just-in-time logistics⁴⁶.
- 41 The OECD Mega-Ships report has raised the question of the potential increase to fixed costs if the carriers continue to invest

in ever larger ships such as the 21,000 teu ships ordered for 2017.

- 42 Investment in ever larger ships is expected to have the following effects in the market: (1) increasing negative cost externalities for shippers and others; (2) reducing the quality of service through reduced sailings, ports of call and slow steaming (ship speeds now reduced to 16 knots the same speed as the fast clippers of the sailing age); (3) also putting pressure on carriers to increase prices because the economies of scale of mega-ships will no longer materialise (see, the Economic analysis in the main body of the paper)⁴⁷.
- 43 The growth of mega-ships has been a major driver for the growth of alliances and consolidation into the four global alliances in 2015. Vessel size has reduced fixed costs for the carriers but accentuated externalities (negative cost externalities) for other players such as shippers and ports. This is why strategic alliances are likely to become the next area of focus for competition authorities including even the European Commission, despite its inaction in 2014 with regard to the P3 Alliance (Maersk, MSC, CMA-CGM), outlawed by the PRC authorities as a merger assessed as likely to reduce competition because of the high combined market share of the three carriers on the Far East to Europe trade. In particular, MOFCOM, the Chinese Ministry of Commerce, had concerns that the alliance would restrict competition in the container liner shipping market in the Asia-Europe trade on the grounds that it would:
- create "a compact association different from the loose traditional shipping alliances in nature (...) based on vessel sharing agreements and accommodation swap agreements" with parties only retaining vessel property as the network centre would independently manage vessel operations
 - strengthen the parties' market power and allow them to squeeze rivals as P3 would have accounted for 46.7 per cent of capacity on the route
 - lead to a change from a "relatively segmented" to a "highly concentrated"

43 *Ibid*, pages 9 and 10, second, third and fourth paras of Executive summary.

44 Economic Analysis, Section 4, pages 9-12.

45 OECD Competition Issues paper, pages 29 to 31, paras 124 to 127, and see figure 7 – Capacity shares of the four mega-alliances in Asia-North Europe and Asia-Med trades (Source Drewry, August 2014) and figure 8 – the intricate network of cooperative agreements in the liner shipping industry (2012) (Source: Caschilli et al., 2014).

46 Economic Analysis, pages 12–14.

47 Economic Analysis, Section 4, pages 9-12.

market structure and strengthen barriers to entry

- strengthen the parties' bargaining power vis-a-vis cargo owners and ports⁴⁸
- 44 The fact that liner conferences, and discussion agreements (not tolerated by the European Commission), remain lawful in large parts of Asia and the US has encouraged the global character of the strategic alliances. While in the US confidential service contracts are permitted by the Ocean Shipping Reform Act (OSRA) since 1998, despite the lawful existence of open conference and discussion agreements, the continuation of liner conferences and discussion agreements in the major Asia and Pacific trades, as well as the inheritance of the conference culture in Europe, raises the question as to whether the liner shipping industry has really changed its underlying collaborative culture.
- 45 This explains the European Commission's recent investigation into information exchange on pricing through price signalling alleged to have been used since the repeal of the liner conference block exemption in 2008 by the world's leading carriers to enforce their general rate increases (GRIs). As will be discussed below, the carriers do not publish their actual rates but merely the proposed increases. The European Commission has subsequently accepted commitments from 14 carriers to stop publishing and communicating GRIs. This will introduce transparency to the market and encourage prices to be agreed between shippers and carriers either on a spot market basis or through individual service contracts.
- 46 The impact of global strategic alliances on shippers is mixed. To date, supply and demand has undoubtedly had an extraordinary downward impact on rates, a direct benefit for shippers at least in the short run. In addition, the economies of scale obtained by carriers from investing in mega-ships and reducing the speed of sailings has enabled them to benefit from reduced fuel costs through slow sailing and has reduced the carriers' fixed vessel costs.

Bunker fuel, the greatest cost component of variable costs, has halved in the last year while it doubled during the preceding five years⁴⁹. However, the carriers can still agree on rates for trades where liner conferences still lawfully exist and can share information on rates and costs, including GRI guidelines, in carrier discussion agreements where permitted.

- 47 However, the costs externalities of mega-ships are borne by shippers and other market players such as ports and terminal handlers, road hauliers and even taxpayer funded transport infrastructure investments. There is also some evidence that just-in-time deliveries may have been compromised by mega-ship and alliance operations⁵⁰. While it is not possible for there to be competition on the quality of service provided by carriers operating within the same alliance, using common capacity with common ports of call and sailing times, the position is exacerbated by the network or web of intertwining consortia agreements that the four global mega-alliances (now three) have with other carrier competitors (see figure 8, OECD competition issues paper).
- 48 The growth of global alliances has produced barriers to entry for new entrants and has made it almost impossible for independent carriers to compete on global trades. The OECD Competition Issues paper says that the independent carriers have had to retreat to provide local or regional services or feeder services to the hub ports as a consequence of the global alliances and mega-ships (see the main body of this paper)⁵¹.
- 49 The role of independent carriers is of crucial importance for competition in international liner shipping markets. From a historical perspective, it is worth noting that in the early 1990s carriers sought to eliminate their impact on the market through the Transatlantic Agreement (TAA) where the European Commission had to intervene to ensure that the liner conferences operating on the North Atlantic/Europe trade did not eliminate all effective competition by

48 *Ibid*, Box 4. The case of the P3 Global Alliance, page 32; citing <http://english.mofcom.gov.cn/article/policyrelease/buwei/201407/20140700663862.shtml>

49 Fuel costs are likely to rapidly escalate in the near term as global rules take effect requiring cleaner fuels.

50 Economic Analysis, Section 5, pages 12-14.

51 Economic Analysis, Section 4, pages 9-12.

- bringing the independent lines into the overall framework of collaboration on pricing and capacity.
- 50 Absent independent shipping lines in genuine competition with alliances and consortia, effective competition will be eliminated or seriously compromised through the new market structure dependent on strategic alliances and the exchange of information between their members. This is currently said to be lawful by the European Commission under the Consortia Block Exemption Regulation, provided that the members' market share is less than 30 per cent in total, even in the case of collaboration regarding future investment in capacity.
- 51 For this reason, the European Commission's approach to the merger between Hapag Lloyd and CSAV in September 2014 raises the question whether a similar approach should not be followed by the Commission with regard to strategic alliances. In particular, even though the Commission does not consider them to be mergers in the sense that their change to the structure of the market does not qualify them to be standalone full function joint ventures, there should be at least two competitors in a trade which are independent of the consortia on that trade which have links with each other and the alliances.
- 52 Further, as indicated above, the Consortia BER should not permit agreements or information exchange regarding future capacity deployment and investment by the individual members of the consortium, only what actual capacity the consortium member agrees to contribute to the consortium at any one time.
- 53 A consideration of the treatment of mergers by the European Commission leads to the next question as to whether consolidation through mergers is a preferred market structure to global alliances, for example because of the potential impact not only on economies of scale but also of service and geographic scope.
- the European Commission under the EU Merger Regulation (EUMR). On 8 December 2015, Neptune Orient Lines (NOL) was acquired by CMA/CGM. COSCO and China Shipping Container Line (CSCL), were merged in mid 2016. Rumours regarding Hyundai and Hamburg Sud have appeared, and agreement by UASC and Hapag Lloyd to merge both companies have recently been filed with the European Commission⁵².
- 55 Mergers have played an important role in shaping market structure since 1997 when the P&O Group and Royal Nedlloyd Line were integrated to form the merged P&O Nedlloyd. After acquiring Safmarine, CMB-T and Sealand in 1999, Maersk acquired P&O Nedlloyd in 2005 and currently accounts for 15 per cent of total deployed vessel capacity worldwide⁵³.
- 56 According to a study by Alexandrou et al. (2014), covering liner shipping mergers from 1984 to 2011, the level of rapid growth experienced by liner shipping carriers in the past three decades was unattainable through organic growth alone⁵⁴.
- 57 The trend towards consolidation in the industry can be illustrated by the growth of the share of vessel capacity accounted for by the largest global carriers. In particular, the top 5 carriers represented around 34 per cent of vessel capacity in 2000. By 2014, their share exceeded 43 per cent. The 10 largest carriers grew in the same period from 50.8 per cent to 60.4 per cent and the top 20 carriers from 69 per cent to nearly 83 per cent⁵⁵.
- 58 The expansion of Maersk through merger illustrates the important role played by mergers in shaping the market structure. It also is one of the many merger cases where DG Competition took account of the merging parties' memberships of conferences, consortia and strategic

Consolidation through mergers

- 54 A new merger wave in the international liner shipping sector may be beginning, with a number of recent merger notifications to

52 The CMA CGM/OPDR (M.7523) merger was filed recently for approval by the Commission under the EUMR. The acquisition of Oldenburg-PortugiesischeDampfschiffs-Rhederei GmbH & Co. KG (OPDR), currently a wholly-owned subsidiary of Bernard Schulte GmbH & Co. KG, by CMA CGM SA will improve the position of the latter in the short-sea shipping sector in the Iberian Peninsula and more generally in Europe, according to the Form CO notification. It will also enable the expansion of the CMA CGM Group's presence in North Africa and its entry to the Canary Islands market.

53 OECD Competition Issues, para 143, page 35.

54 OECD Competition Issues, para 143, page 35.

55 OECD Competition Issues, para 141, page 34.

alliances when assessing the potential of a merger to raise competition issues. Where the merger was found to raise competition concerns, clearance was subject to the commitment to withdraw from consortia and other alliances in the relevant market, as in the Maersk case⁵⁶.

59 It should be noted that there is no reason why the market structure should not be taken into account in the assessment of the conditions for exemption under Article 101(3) TFEU, and in particular for the purpose of assessing whether the object and/or effect of the provisions relating to “capacity setting, scheduling and the ports of call – all important parameters of competition”⁵⁷, eliminate effective competition.

60 The European Commission was concerned about the links the 2005 merger would create between Maersk, the largest liner shipping carrier worldwide, and the conferences and consortia to which only P&O Nedlloyd was a member. The Commission took into account this market structure in assessing the risks of anticompetitive effects associated with market sharing and price increases. Competition concerns were identified in the reefer container market for the transport of refrigerated goods where the merging parties overlap was substantial and their combined market share exceeded 50 per cent. The merger was cleared subject to the divestiture of P&O Nedlloyd’s operation in the Europe-South Africa trade lane and the withdrawal of P&O Nedlloyd from conferences and consortia in relevant markets where joint market shares were substantial⁵⁸.

61 One of the most recent examples of a European Commission decision approving a merger under the EU Merger Regulation concerns the merger between the German carrier Hapag Lloyd and Compania Sud Americana de Vapores S.A. (CSAV) of Chile. Hapag Lloyd and CSAV became the fourth largest liner shipping carrier worldwide after the merger, which was cleared by

the Commission on 11 September 2014. However, the clearance was conditional upon CSAV’s withdrawal from two consortia to which it belonged together with MSC⁵⁹.

62 In addition to international liner shipping, Hapag Lloyd provides port terminal services in Hamburg-Altenwerder through a joint venture with HL AG, a subsidiary of HGV. HL AG’s main shareholders include HGV, Kuhne Maritime, and TUI AG, a company active in the travel sector. CSAV is controlled by Quinenco SA (Chile), a Chilean company which provides among others, terminal, stevedoring, towage and other associated services through its subsidiary SM SAAM S.A. The activities of Hapag Lloyd and CSAV overlap in the liner shipping services market and have limited vertical links.

63 The European Commission examined the effects of the merger on competition in the market for liner shipping services on 12 trade routes between Europe and the Americas, Asia and the Middle East. As is common amongst carriers, Hapag Lloyd and CSAV provided liner shipping services mainly through consortia agreements with other carriers, deciding on capacity-setting, scheduling and the ports of call – all important parameters of competition, according to the European Commission⁶⁰.

64 Hapag Lloyd is currently a member of the Eurosal consortium with HSDG and CMA CGM on the North Europe/ Caribbean trade. CSAV was a member of the Euroandes consortium with MSC. Hapag Lloyd is currently a member of the Eurosal consortium with HSDG and CMA CGM on the North Europe/South America West Coast trade. CSAV is a member of the Euroandes consortium and Ecuador Express consortium both with MSC. The Commission had concerns that if the merger went ahead unconditionally, the new links between previously competing consortia would have resulted in anti-competitive effects on the two trade routes because they may have influenced capacity and, therefore prices, to the detriment of shippers and consumers.

56 OECD Competition Issues, para 146, page 35.

57 OECD Competition Issues – European Union paper, 9 June 2015 (submitted for Item IV of the 59th meeting of the Working Party No 2 on Competition and Regulation on 19 June 2015), para 48, page 10.

58 OECD Competition Issues, para 146 and Box 5, page 35.

59 OECD Competition Issues – European Union paper, 9 June 2015, paras 46 to 50, pages 9 to 10.

60 OECD Competition Issues – European Union paper, 9 June 2015, para 48, page 10.

65 The Commission accepted the commitments offered by the merging parties to terminate the two consortia in which CSAV participated with MSC on the North Europe/Caribbean and North Europe/South America West Coast, the Euroandes consortium and the Ecuador Express consortium.

66 The Commission found no competition concerns arising from the vertical links created by the merger between the markets for liner shipping services and (1) container terminal services; (2) inland transport; (3) freight forwarding services; and (4) harbour towage services, because of the limited market shares of the parties in the upstream and downstream markets⁶¹.

67 It is interesting to note that in its competition assessment of mergers, the European Commission focuses on what it says are the main areas of competition restricted by consortia and alliances: “capacity setting, scheduling and the ports of call – all important parameters of competition”. First, it may be time for the Commission to focus more on the same issues when assessing alliances and when it next reviews the Consortia Block Exemption Regulation. Second, with the new trend towards further consolidation through merger, the Commission will need to be equally vigilant with regard to the anti-competitive effects of alliances and consortia where the merging parties bring together new links between them and when there are insufficient independent carriers.

68 Further, the investment in mega-ships requires the Commission to assess the impact of a merger on the structure of the market arising from the reduction in the number of competing carriers. Not only will it be relevant to identify how many actual competing carriers operate on the relevant markets but also which carriers own the capacity on those markets.

Information exchange on prices and capacity.

69 Information exchange regarding capacity and prices, especially with a view to increasing prices, was underpinned by the liner conference system for over a century. Although it is seven years since the liner

conference block exemption was repealed for trades to and from the EU, many liner conferences and lawful discussion agreements still exist in other parts of global liner shipping markets. For example, the Transpacific Stabilization Agreement (TSA) is considered a lawful discussion agreement.

70 Exchange of information among rivals can generate efficiencies. However, exchange of information agreements must be seen in their role of potentially facilitating practices for sustaining explicitly or tacitly collusive conduct among firms. The key elements for assessing the potential impact of the information exchange relate to the characteristics of the market and the nature of the information exchanged⁶².

71 In concentrated markets, the sharing on a regular and frequent basis of information that reveals commercially sensitive elements of competitors’ strategies in the market, including price, capacity or costs, is more likely to raise competition issues. The sharing of information on price, for example, through price announcements may act as a focal point for coordination⁶³.

72 The level of aggregation and the frequency of disclosure as well as the age of the information are relevant to the assessment of the impact of the information exchange. The lower the level of aggregation, the higher the frequency of disclosure and the more recent the data, the higher the potential for information exchange to have an impact on the degree of interdependence of competitors’ behaviour on the market⁶⁴. In the liner shipping sector, the exchange of information on aggregate capacity forecasts should still be assessed with caution especially if they can signal the capacity deployed in the different trades, given that capacity is a primary variable in coordinated behaviour⁶⁵.

73 The risks to competition in the liner shipping market from information exchange cannot be exaggerated because of the industry’s historic dependence

62 OECD Competition Issues, para 177, page 43.

63 OECD Competition Issues, para 178, page 44.

64 OECD Competition Issues, para 178, page 44.

65 OECD Competition Issues, para 179, page 44, citing EU Guidelines on the application of Article 101 of the TFEU to Maritime Transport Services, OJ C11/1-72, 14.1.2011 (expired)

61 OECD Competition Issues – European Union paper, 9 June 2015.

on information sharing, which has been permitted by the European Commission (and other regulatory jurisdictions) to continue albeit in the narrower confines of the Consortia Block Exemption Regulation in the interests of operational cooperation, rather than in liner conferences:

“181. The liner shipping industry displays characteristics which favour its vulnerability to coordinated behaviour and has a long history of cartel-like agreements among competitors. Carriers were allowed to jointly set prices and regulated capacity for a long time. In some jurisdictions, conferences and discussion agreements are still exempt from antitrust provisions. Given that capacity in the industry is concentrated in the hands of a few players, active globally, which are still allowed to discuss and settle prices and regulate capacity on some trades, this raises the question of whether there might be a compliance risk for the trades where such market conduct is not allowed [such as the EU]. The intricate network of cooperation agreements in the industry further favours the conditions for information leakages”.

182. Thus, even if exemptions are abolished in some jurisdictions, the risk of information exchange may raise concerns with compliance in trades where conferences and discussion agreements are not exempted from antitrust provisions. This calls for oversight by competition authorities and regulators to avoid that, in spite of new regulations, “a significant degree of interdependence in firms’ strategies subsists”⁶⁶.

74 It is not surprising, therefore, that the main competition law investigation by the European Commission since the repeal of the liner conference block exemption from October 2008 concerns alleged unlawful information exchange in the form of price signaling⁶⁷.

75 Following dawn raids in May 2011 at the premises of liner shipping carriers in several member states, on 21 November 2013 the European Commission opened formal competition proceedings (Case AT.39850) against 14 liner shipping carriers

to investigate whether they engaged in concerted practices contrary to Article 101(1) TFEU (EU competition rules) (EC Press Release IP/13/1144)⁶⁸.

76 Since 2009, following the repeal of the liner conference block exemption, the carriers concerned have been making regular public announcements several times a year of price increase intentions or General Rate Increases (GRIs), through press releases on their websites and in the specialist trade press⁶⁹. In that period, 55 GRIs took place at an increasing frequency, almost every month from 2009-10. The announcements which are not binding, and on occasion were changed in amount and date, contain the amount of the increase and date of implementation. They are generally similar for all the carriers and made a few weeks before the announced implementation date but do not specify the full price that will be charged which remains unknown to customers⁷⁰.

77 According to the trade press, the announced increases are very significant at 40-80 per cent of the prevailing market price and it is not unusual for them to be 120 to 180 per cent⁷¹.

78 The European Commission has concerns that this practice may constitute a concerted practice prohibited by Article 101(1) TFEU (EU Competition rules) and Article 53 European Economic Area Agreement. In particular, the European Commission considers the practice may allow carriers to signal future price intentions to each other and may harm competition and customers by raising prices on the market for liner shipping transport services on routes to and from Europe⁷².

79 The Commission acknowledges that companies can adapt themselves intelligently to the existing or anticipated conduct of their competitors. However, they may not be in any direct or indirect contact with their competitors to influence their market behaviour or disclose to them the course of conduct which they themselves

66 OECD Competition Issues, paras 181 to 182, pages 44 to 45.

67 OECD Competition Issues – European Union paper, 9 June 2015, paras 38 to 44, pages 8 to 9.

68 OECD Competition Issues, Box 6, page 45.

69 OECD Competition Issues – European Union paper, 9 June 2015, para 28, page 8.

70 *Ibid*, para 39, page 8.

71 *Ibid*, para 40, page 8.

72 *Ibid*, para 41, page 8.

have decided to adopt or contemplate adopting on the market⁷³.

- 80 A concerted practice prohibited by Article 101(1) TFEU (EU competition rules) constitutes a form of cooperation between undertakings by which, without it having reached the stage of an agreement, practical cooperation between them is knowingly substituted for the risks of competition. Therefore, information exchange may constitute a concerted practice since it reduces strategic uncertainty in the market, thereby facilitating collusion, if the data exchanged is strategic such as future price intentions. According to the Commission, sharing strategic data between competitors amounts to a concerted practice, because it reduces the independence of competitors' conduct on the market and diminishes their incentives to compete⁷⁴.
- 81 The EU Horizontal Guidelines⁷⁵ explicitly state that a concerted practice may be present in a situation where a public announcement was followed by public announcements by other competitors and the announcements are used as "a strategy for reaching a common understanding". The Guidelines give as an example announcements that are provided as strategic responses to competitors, for example when competitors readjust their own earlier announcements to announcements made by competitors.⁷⁶
- 82 Article 101(3) (EU Competition rules) allows for exemption of an agreement or concerted practice where the four conditions are satisfied. This may benefit genuine public price announcements for the reasons given in the Horizontal Guidelines. Where they can address information asymmetries and reduce customers' search costs, they can help customers to make a more informed choice. They can also reduce the announcer's costs of reaching customers. However, the Horizontal Guidelines also clearly state that efficiencies are less likely in the case of publishing future price intentions because

customers cannot "plan ahead" on that basis.⁷⁷

- 83 In February 2016 the European Commission announced that it had concerns the General Rate Increases announced by the 14 carriers in the Asian North European trades allowed carriers to explore each other's pricing intentions and coordinate their behavior. The Commission has recently adopted a decision confirming legally binding carrier commitments to stop publishing GRIs and is to adopt a formal Commitments Decision to that effect. The Commitments decision will come into full effect on 7 December 2016 and will remain in force for three years.

Conclusions

- 84 In view of the above analysis the GSF believes it is timely to review EU competition law enforcement and its relationship with global competition policy in the international liner shipping sector. It will soon be a decade since the liner conference block exemption regulation was repealed (2006). After a two-year transitional period for adjustment, liner conference agreements fixing prices and capacity on trades to and from the EU were prohibited from October 2008.
- 85 The GSF believes such a review should assess commercial developments in response to the abolition of liner conferences on European trades since 2008, which coincided with the credit-crunch economic crisis, the introduction of mega-ships, the development of strategic alliances including the world's top 16 carriers both in terms of market structure and behaviour.
- 86 While the European Commission has been reluctant to assess strategic alliances under the EU Merger Regulation, we believe that where an alliance, such as the P3 for example, displays the characteristics and operational impact of a "full function joint venture" such agreements should be assessed as a merger. It is notable, as set out above, the PRC rejected the P3 under its merger legislation because of its high combined market share.

⁷³ *Ibid*, para 42, page 8.

⁷⁴ *Ibid*, para 42, pages 8 to 9.

⁷⁵ Guidelines on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal co-operation agreements (OJ 2011, C11/01).

⁷⁶ *Ibid*, para 43, page 9.

⁷⁷ *Ibid*, para 44, page 9.

87 The latest investigation by the European Commission DG Competition into alleged price signalling and its Commitments Decision resulting in a ban on GRIs in all trades to and from Europe raises serious concerns about information exchanges between carriers which “may harm competition and customers by raising prices on the market for liner shipping transport services on routes to and from Europe” (para 85 above). See also the EU Competition Commissioner’s comments on the case⁷⁸.

The price signalling case and the recent OECD Competition report clearly highlight ongoing concerns regarding antitrust exemption for liner conferences and discussion agreements to fix prices and discuss rates and costs to the detriment of shippers. The GSF therefore reiterates its call for competition authorities and maritime regulators, where possible under domestic law, to remove shipping lines exemptions for price fixing and agreements which facilitate exchanges of information on costs and rates and GRI guidelines.

88 One of the most recent EU Merger Regulation decisions (other new cases are pending) in the international liner shipping sector concerned Hapag Lloyd’s takeover of the South American carrier, CSAV, in September 2014. This was the first significant merger case since Maersk acquired P&O Nedlloyd (which also owned the South African carrier Safmarine) in 2005. In the latter case, there were unilateral effects in the horizontal overlaps between Safmarine and Maersk in the reefer market. To obtain clearance from the Commission, Maersk gave divestment commitments in relation to Safmarine.

89 In the Hapag Lloyd/CSAV merger, the Commission’s market analysis found that the combined market shares of the parties were below 40 per cent allowing the conclusion that there were no unilateral effects. However, coordinated effects were found by the Commission in the creation of links between previously independent

consortia creating the ability to influence decisions on capacity. In particular, among the other issues considered by the Commission, such as barriers to entry and expansion, was the Commission’s requirement that there should be at least two competitors independent of the linked consortia.

90 The approach taken by the Commission in the Hapag Lloyd/CSAV case to independent competitors may have important repercussions for the strategic alliances that dominate the global market today. Ever greater concentration and cooperation over the last 20 years has reduced the number of mega global strategic alliances in 2014 to four: G6, CKYHE, 2M and Ocean Three and to potentially three: 2M, Ocean Alliance and The Alliance as a result of recent mergers and acquisitions⁷⁹.

91 All the main carriers are now part of a global alliance. As a result, the position of fully independent carriers has declined.⁸⁰ On certain major trades such as Asia/North Europe, the vast majority of services (21 out of 22 services) are offered by the four major global alliances.⁸¹

92 It is essential that the competition authorities require the presence of sufficient external competition to alliance carriers and their networks of consortia from independent competitors on the trades concerned, just as in merger situations such as Hapag Lloyd/CSAV. In the absence of internal competition on key market features such as capacity, sailing schedules and ports of call, the requirements for exemption, under EU competition law, at least, will not be satisfied since shippers will no longer receive a fair share of the economic benefits or efficiencies and effective competition will be eliminated.

93 A key recommendation in this paper is that there must be effective competition between alliances on key trade lanes and where this is absent competition authorities and regulators should intervene to ensure there is genuine competition to the alliances or consortia agreements.

⁷⁸ This case is likely to result in approaches to pricing “that are modern, conducive to competition, and consumer friendly”, to cite the quotation by Lloyd’s List (6 October 2005) of EU Competition Commissioner Margrethe Vestager during her visit to Copenhagen to address the 21st annual conference of the European Maritime Law Organisation (EMLO).

⁷⁹ See figure 4: Strategic Alliances, 2016, Economic Analysis Paper, page 8.

⁸⁰ OECD Competition Issues, para 32.

⁸¹ OECD Competition Issues, Table 2, page 10 (source Drewry 2014).

- 94 The growth of mega-ships has been a major driver for the growth, and consolidation, of the four global alliances. Vessel size has reduced fixed costs for the carriers but accentuated the external costs (negative externalities) for other players such as shippers and ports.
- 95 This is why strategic alliances should be the main area of focus for the European Commission and other competition and regulatory authorities worldwide. In particular, the competition authorities will wish to ensure that history is not repeating itself with strategic alliances replacing liner conferences as the vehicles for elimination of effective competition on the main global trade routes, as the alliance members seek to minimise competition from independent shipping lines outside the alliances by linking up with them through consortia agreements.
- 96 While consortia agreements may encourage efficiencies through operational cooperation, they also may take advantage of the excessive scope for competition restrictions in key areas of competition such as capacity, sailing schedules and ports of call permitted under the relevant regulation applicable worldwide, including the toleration of discussion agreements in the US trades and the permissive EU Consortia Block Exemption. It is for this reason why shippers believe the EU consortia regulation should be repealed or substantially modified as suggested in this paper and toleration of discussion agreements should be terminated.
- 97 While GSF in principle favours the repeal of unique shipping exemptions such as the EU Consortia Block Exemption, effective oversight and monitoring and intervention of consortia and strategic alliances may be equally effective in dealing with the competition and efficiency issues detailed in this paper and by bodies such as ITF/OECD. While one may sympathise with the desirability of alliances being notified for clearance by, for example, the European Commission and the FMC, the new market structures and trend towards consolidation and alliances prompted by the introduction of mega-ships may require a new competition and regulatory approach. Regarding the EU, this could be the reintroduction of the notification process under the Consortia Block Exemption Regulation but at much lower market share thresholds below the current 30 per cent. While the FMC plays an effective role in monitoring alliance agreements, in particular with regard to the proposed P3 Agreement, its remit is restricted by the onus of proof on the FMC to block an agreement by recourse to injunctions in a US court. The FMC's remit to protect US shippers and commerce may be enhanced by a return to the pre-1984 Shipping Act requirement of prior approval of alliance agreements with the onus of proof on carriers to demonstrate the benefits to shippers and consumers.
- 98 One key question, therefore, is whether competition law will preclude further investment in ever larger ships? This question arises, as indicated by the OECD, because that investment will increase carriers' fixed and variable (bunker fuel) costs, without any benefit to shippers through reduced freight rates since the potential economies of scale are exhausted. On the contrary, the investment will create higher cost externalities for other market players, and in particular higher risk of lower quality services for shippers operating just-in-time delivery businesses.
- 99 Another key question is whether the new trend towards consolidation through merger will replace the current market structure of four or three mega global alliances? On the contrary, will mergers between significant numbers of the top 19 liner shipping carriers not rather increase reliance on alliances and consortia where the competition restrictions can be so damaging to the quality of liner shipping services, if not countered by independent competitors?
- 100 It is essential that there be normal business consultation between supplier carriers and their shipper customers to enable negotiated solutions to the multifarious service issues created by mega-ships and their role as drivers of alliances and mergers.
- 101 As recommended by the OECD Mega-Ships paper, consideration also must be given by the major competition authorities to opening a dialogue or multi-dialogue

between carriers and shippers and all players in the global liner shipping market from ports to local and central government tasked with infrastructure provision and future planning.

- 102 The key issues that the competition authorities, such as the European Commission and FMC, need to address include the adaptation of their past regulatory approaches to the new challenges facing the international liner shipping industry. For example, the European Commission could follow the example of the FMC in imposing reporting requirements on alliances, such as those imposed on the P3 and G6 alliances as one of the actions taken following the FMC's competition assessment, with continuing monitoring of the alliances on an on-going basis. Further, as set out in para 97 above, the FMC might take the opportunity to review its powers to determine whether the statutory basis for its present approach is still appropriate in view of the changes in the container market structure.
- 103 In conclusion, GSF offers these key questions for regulators and competition authorities, carriers and shippers. Should

the EU consortia BER be repealed, or at least amended to prohibit agreements and information exchange regarding future capacity investment and deployment? Should there be an active assessment of the new wave of mergers to ensure the consolidation of capacity ownership, especially in the form of mega-ships, does not lead to the elimination of effective competition? What arrangements are necessary to closely monitor and assess the four global alliances and the related web of interweaving consortia agreements to ensure there is always sufficient competition from lines independent of the relevant alliances and consortia? Lastly, and, as this paper suggests, do we need a generally flexible approach to new forms of cooperation and/or collaboration between shippers and carriers and other market players? They are the key issues raised in this paper and ones that we believe competition authorities and regulators should consider in response to the dynamic changes taking place in the container shipping market.

GSF member organisations



GSF mission statement

The goal of the GSF is to promote policies that reflect competitive and efficient global freight transport and logistics systems, including the promotion of safe, secure and environmentally sustainable international transport operations through dialogue and cooperation with national governments and inter-governmental organisations.

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