



# ***Global Maritime Weekly Digest***

Publishing Director: Prof Minghua Zhao

Editor: Richard Scott

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*The **Global Maritime Weekly Digest**, based at **Southampton SOLENT University**, provides a regular flow of maritime news and analysis, of significance in a global context. Topics covered include shipping fleets and management, seaborne trade, ports, shipbuilding, ship recycling, maritime policy and regulations, and seafarers' labour.*

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## **Editorial comments**

- Several new developments likely to affect **operational aspects** of shipping in the future are discussed in item 1: LNG as a marine fuel, 3D printing of spare vessel parts, and digitalisation of information flows in relation to ship operations automation. These are expected to contribute to a safer, more efficient maritime industry with a reduced environmental impact.
- The crucial importance of **seafarer training** is emphasised in item 2 while, separately, the UK's Honourable Company of Master Mariners is introducing a 'chartered' grade to raise the status of master mariners who qualify (item 3).
- Contributions made by **developing countries** to increase their involvement in global maritime activities are reviewed in item 4, looking in particular at shipowning, ship registration and the supply of seafarers to the international market.
- Many developing nations are among the **top twenty** shipowning countries while, among the top ship registration countries (flag states), developing nations are the dominant category. The developing world is also a key supplier of seafarers to the international marketplace (item 4).
- A steep **fall in prices for new ships** has been seen over the past two years, which normally would be expected to encourage shipowners to place orders. But newbuildings are not generally seen as an attractive investment currently, amid weak freight markets, restricted availability of finance and limited optimism about market recoveries, resulting in only a low volume of ordering in the recent past (item 5).

**Richard Scott** MA MCIT FICS  
editor (email: [bulkshipan@aol.com](mailto:bulkshipan@aol.com))

(1) Hellenic Shipping News, 16 November 2016/ DNV

## What does the future hold for shipping?

Digitalization and de-carbonization are watch words for the coming decade, and I will try to explain how the maritime industry can navigate these developments to its best advantage. I will use three examples to illustrate how shipping can advance – to become safer, more efficient and at the same time reduce its environmental footprint.

The main question for all of us is: What does the future hold for shipping?

Obviously, the future is notoriously hard to predict and a straight answer is far from easy to give. What I do know is that shipping will continue to play an important part of the world economy for decades to come. But the industry itself, the vessels, the infrastructure, and the systems that connect them could change substantially. We can of course not ignore the current market situation and the structural effect this might have. But, today is not an arena for fear and pessimism. This is an arena for curiosity, innovation and opportunity.

### LNG as a marine fuel

Today shipping plays an integral part of the global economy and moves more than 80 per cent of world trade by volume. Not only does shipping move the majority share of world trade, it does so while emitting the least amount of greenhouse gasses per transported unit.

In the recent COP21 agreement, shipping was in fact left out. Approximately 2.5 per cent of global greenhouse gas emissions can be accounted to shipping, and the industry will not be left alone. It will have to do its bit. A key question is therefore: How can shipping reduce its environmental footprint, improve cost effectiveness while at the same time remain the preferred mode of transportation of goods?

One answer is alternative fuels. Depending on fuel type, greenhouse gas emissions, NOX, SOX and local particle emissions can be significantly reduced – if we want. The technologies are there. Today the leading alternative fuel for ships is LNG. LNG exists in abundance and is becoming increasingly available as infrastructure continues to be built. Right now – ferries and offshore vessels make up the majority of the LNG fuelled ships in operation, but container vessels and oil and chemical tankers are catching up. Let's take a closer look at LNG fuelled container vessels. Together with industry partners we have investigated the possibility of using a combined gas and steam turbine system (COGAS) to power an ultra large container vessel.

The project called PERFECT – Piston Engine Room Free Efficient Containership – has developed a LNG-fuelled concept vessel that is electrically driven. PERFECT has a propulsion concept that has the potential to offer a more efficient, more flexible and greener box ship than current 20,000 TEU diesel-engine-driven container vessels.

This new design combines the exceptional volumetric efficiency of membrane containment technology with flexible electric propulsion to save cargo space and improve fuel efficiency compared to a conventional design. Two 11,000 m<sup>3</sup> LNG fuel tanks are located below the deck house, giving the vessel enough fuel capacity for an Asia/Europe round trip. With the gas and steam turbines integrated at deck level within the same deck house as the tanks, the space normally occupied by the conventional engine room can be used to increase cargo capacity significantly. Separating electric power generation from electric propulsion allows the electric power plant to be moved away from the main propulsion system, giving a great deal of flexibility. In fact, an engine room is not needed any more. The three electric main motors, which are arranged on one common shaft, can be run fully independently of each other providing increased reliability and safety.

The first phase of the project performed by GTT, CMA Ships and DNV GL showed that the project is technically and economically viable. We are now in the second phase of the project and we have been

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joined by ABB, the Caterpillar company Solar Turbines, and OMT. We will look at optimizing the COGAS system, using the cooling capacity of the LNG, and further optimization of the hull lines to attain greater efficiency and increased cargo capacity.

### **3D printing**

The next potential game changer in shipping is additive manufacturing, or 3D printing. Not only can additive manufacturing result in new designs for more efficient machinery components, it could also allow spare parts to be produced locally in various ports around the world. This would improve responsiveness to market demands, shorten the time for repairs and contribute to more efficient ship operations

The technology is already being used for rapid prototyping, but it is now gradually being integrated into existing manufacturing infrastructure, for example in the automotive and aircraft-manufacturing industries. It has fewer design restrictions compared to conventional manufacturing processes, it offers possibilities for novel designs, including lightweight products, and has the potential to shorten manufacturing time significantly.

The US Navy has started testing the technology on board ships, to evaluate the potential of producing spare parts. However, this requires trained personnel on board, and the printer will be subject to the motions of the vessel, potentially affecting product quality.

So, there are some issues that need to be thought through. Qualification and certification may present significant challenges because of the potential for variability in specified properties. The traditional qualification methods of repeated testing of an end product produced from a centralized facility will not be sufficient. The distributed nature of additive manufacturing means that the product characteristics determined for one location may be entirely different to another location – owing to software and hardware differences, or other factors.

An additional or 'second order' downside of additive manufacturing for shipping is that the distributed production of manufactured goods may reduce the overall demand for shipping of goods.

### **Digitalization and autonomous shipping**

The shipping industry will have to continue innovating to keep up with the increasing expectations from end users, charterers, regulators and society at large. This is not just about the technology itself, but also about how successful we are in scaling it to the point where it delivers real financial, environmental and societal benefits.

On that note – we should all keep an eye on all the possibilities that digitalization of shipping holds. Ships are becoming sophisticated sensor hubs and data generators, and advances in satellite communications and antenna technology are improving ship connectivity. This allows for a massive increase in the volumes of data transferred between ship and shore – at ever-lower cost. Digitalization of information flows will spur the automation of existing processes and functions and positively impact safety and environmental performance. The fleet of the future will continually communicate with its managers and perhaps even with a "traffic control" system that is monitoring vessel positions, manoeuvres and speeds.

Fleet managers will be able to analyse this data, enabling them to advise the captain and crew on navigation, weather patterns, fuel consumption, and port arrival. This will help to reduce the risks of human error leading to accidents, increase cost efficiency, and help to improve environmental performance. Some of these data will also be shared. Ports will use the data to help them plan and optimize loading and unloading. Classification societies will analyse the data to check on the status of machinery and hull, letting the owners and operators know when a survey is required based on the condition of the systems, helping them to reduce downtime and avoid unnecessary maintenance. Onshore, new cloud technologies, such as big data platforms and digital twin technologies will have a dramatic effect on how the industry manages information, and how vessels and their components are designed, built, and operated – all of which will see new digital business models emerging.

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A potential game changer that may spring out of the progress within information and communication technology is the advent of unmanned vessels. Unmanned vessels can either be remotely operated from shore, on autopilot or be completely autonomous. Many steps will be needed before fully unmanned ships can become a reality. However; some sort of autonomy is also relevant to manned ships, and it would greatly increase safety through smart decision support.

In order to increase this autonomy, situational awareness needs to be improved dramatically. When it comes to autonomous equipment, it's predicted that equipment like Electronic Chart Display and Information System (ECDIS), GPS, RADARS, CAMERAS and LIDARS (light detection and ranging) will be utilized to create situational awareness around the vessel. These are all systems and sensors which are available on the market today.

We have been researching topics around autonomous and remotely operated vessels for several years now in close cooperation with academia and industry partners. Our goal is to develop classification requirements and assurance principles that will allow the safe introduction of this technology in the maritime industry.

One example is the Advanced Autonomous Waterborne Application Initiative – better known as AAWA. Our focus in this project is to develop class requirements and principles for assurance of safety and performance. A general principle for a new technology solutions to be introduced, is that it must be “as safe as, or safer than” existing solutions. At DNV GL we are in the process of forming the framework that will demonstrate this for various degrees of autonomy. Key in this process will be to undertake comprehensive simulations, HIL testing, and physical trials.

### **Closing**

The key drivers for the coming decade are decarbonisation and digitalisation and offer opportunities for the maritime industry to become safer, more efficient while at the same time reducing its environmental footprint. At DNV GL we are excited to be a part of this transformation. We will continue to work with stakeholders across the maritime world to realize the potential of our industry – so that the outlook for shipping tomorrow will be brighter than today.

Source: DNV GL

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(2) Hellenic Shipping News, 15 November 2016/ International Chamber of Shipping

## **Use Training To Direct The Future Of Shipping Says ICS Chairman**

Training acts not only as a career enhancer, but also plays an essential role in the modernisation of the shipping industry as a whole, said Esben Poulsson, Chairman of the International Chamber of Shipping (ICS) today, as he delivered the keynote speech at this year's Crew Connect Global Conference in Manila.

“The future sustainability of the industry requires an evolutionary response to the training and retention of seafarers,” he stressed. “We need to do more than simply respond to changing needs, we must learn to anticipate them and thereby control the development of the industry. “

In an uncertain time for the global economy and world trade, and therefore the shipping industry, he pointed out the inevitability that structural change will follow and that operations and trading patterns will also change.

“There is always a danger in these circumstances that investment in training can be a victim,” warned Mr Poulsson. “Now, perhaps as never before, companies must have an eye to the future and consider that significant growth in shipping could return within the next 5 years. Employers must recognise that

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decisions made in these difficult times should not inhibit the future sustainability of the industry. Investment in training and recruitment is an essential part of assuring good industrial health. "We are experiencing a transition into a 'smart' era, which will feature integrated technology and automated functions and systems. Certainly, there will be a continuous challenge to ensure that seafarers' skills reflect their changing roles on board ship," he explained. "Seafarers may no longer be required so much to use machines but rather to collaborate with them."

Esben Poulsson paid tribute to the contribution of seafarers who operate merchant ships, living and working away from home, contributing to economic development and the improvement of living standards worldwide.

As the amendments to ILO Maritime Labour Convention (MLC) that come into force in January approach, Mr Poulsson praised the MLC and its intention of ensuring worldwide protection of seafarers; establishing a level playing field for countries and shipowners committed to providing decent working and living conditions for seafarers; and protecting them from unfair competition from substandard ships.

He also spoke about the humanitarian tragedy being played out in the Mediterranean and the unprecedented numbers of migrants attempting the dangerous sea crossing to Europe in completely unsuitable craft. "Our lobbying efforts with European governments have seen a welcome increase in Search and Rescue resources such that the call on merchant ships to undertake harrowing rescues has been reduced, but not eliminated. However, until the United Nations takes a direct role in this situation it is difficult to see how the appalling death toll can be reduced," he said.

On another front, he highlighted a recent piracy attack on a merchant ship off Somalia, the first for several years, and gave a warning that the threat has not been eradicated and that self-protective measures must be continued in order to avoid the terrible consequences should there be another hijack.

Mr Poulsson also highlighted the need for shipowners, maritime administrations and training providers to continue to work together to ensure full compliance with the new STCW training regime, that takes full effect in January 2017, so as to prevent any disruption to the operation of the world fleet due to any lack of seafarers holding appropriate certification.

In conclusion, Mr Poulsson returned to the issue of future proofing training, warning: "Changes may well be rapid and a failure to respond with equal speed may leave training needs assessment trailing in their wake."

Source: ICS

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(3) Lloyd's List, 17 November 2016

## Fit for high office

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- by [Michael Grey](#)

The Honourable Company of Master Mariners aims 'to recognise excellence' with the launch of a new qualification

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THE matter of qualifications has come up again this week as the world and his wife debates the fitness of US President-elect Donald Trump for his future high office in the world's most powerful democracy.

They may not have had a great deal of choice, but it seems to me that it is probably premature and ill behoves the rest of us to attempt to dismiss the choice of the American electorate as deplorable or some huge mistake generated by social media.

It seems that there is more than a touch of the Brexit "remainers" in the attitude of the *bien pensants* as they mourn this latest manifestation of the unpredictability of the universal franchise. It probably will not be as bad as you fear. We just have to wait and see.

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But away from high (or low) politics to the qualifications, not of presidents, but master mariners, with a scheme to give at least some of them chartered status. Master mariners have always struggled for recognition outside the closed world of their ships. Years ago, the Foreign Going Master's Certificate (now known as Class I (unlimited) Certificate) was the highest qualification to which any seafaring person aspired, unless he or she was in the Grey Funnel Line, in which case they might hope for an Admiral's berth.

I don't know why, but this never seemed good enough for the most aspirational, despite the fact that it probably took 10 years of seafaring and three separate examinations to gain this statutory qualification. So if we were exceptionally driven, there was the Extra Master certificate, which really only qualified people for either a role in maritime training or a government post in the survey service. It was a year of intense, unremitting study, which made your average degree seem quite a doddle, but this ultimately did not impress. So along came Nautical Degrees, which attracted a bit more enthusiasm, although they took three years and a great deal of hard-earned money to accomplish.

### **Universal recognition**

But some people (I have to say I was never one of them) hankered for some other more "universal" recognition. There were envious looks at the engineering world and the prestigious "Chartered Engineer", which was available to exceptional folk in this area.

Mind you, when it was revealed, some years ago, that the chap who was the Chief Engineer of the old *QE2* failed to qualify for this academic accolade on account of his not having a degree, some of us blew the odd raspberry. A few reprobates, perhaps more comfortable on the plates of an engineroom than in a shore post, suggested that this was to discriminate between a real engineer and the chap who came to fix your broken washing machine. We should not go there, this being heresy.

The fact is that you do not need to have anything other than a master's ticket (and the relevant experience) to successfully command a modern merchant ship, with no other bells and whistles being necessary. This has rather rankled in some quarters. There is a need, suggests the Honourable Company of Master Mariners, "to recognise excellence" and to reward exceptional service. The Nautical Institute has also aligned itself with this viewpoint, but it is the HCMM that, under the terms of its Royal Charter, has since 2013 had the right to grant Chartership status to qualifying master mariners.

Last week saw the launch of the Honourable Company's Chartered Master Mariner Scheme, appropriately on the quarter deck of its headquarters ship *Wellington*, moored at the Victoria Embankment in London. The agreement was duly signed by the Master of the HCMM and chief executive of the Nautical Institute.

It is not exactly an easy process, as it does not depend upon examination, or election, like other chartership schemes. Instead, it will be a rigorous process of peer review, with personal evaluations, interviews, assessments, recommendations and validation.

The two bodies will be joined in this process by representatives of the Merchant Navy Training Board, Chamber of Shipping and Royal Fleet Auxiliary, while there is a group of consulting organisations also able to intervene. They are clearly not going to be dishing these out like sweeties and a certain exclusivity will attach to the qualification.

There is a realistic and perhaps comforting recognition of the risks of peer reviews and determination that unlike a lot of academic peer reviewing, which a growing number of people suggest might be highly questionable — even, some say, involving corruption on stilts — this will be no "chumocracy" and will be beyond reproach in a robust auditing process.

A pilot project will occupy the first year of the scheme, with a few applications made by invitation. Then, all being well, it will be up to ambitious officers from the wider marine community to apply.

It will be interesting to see how it develops, and perhaps more important, what the attitude of the wider industry might be to those who have been judged suitable and properly qualified for this accolade. Will it be worth it? We must wish the scheme, and its wholly honourable motives, well.

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(4) Hellenic Shipping News, 16 November 2016/ Richard Scott

Article by Richard Scott, Solent GMWD editor & MD, Bulk Shipping Analysis

## Developing countries' increasing involvement in maritime business

Amid all the problems pounding the shipping industry, what aspects are becoming brighter? One prominent trend is developing countries increasing their involvement in many parts of global maritime business, according to the *Review of Maritime Transport 2016*, published by the United Nations Conference on Trade and Development on 7 November. Looking at the broader picture, the Review outlines a cautiously upbeat view of global shipping over the years ahead.

UNCTAD suggests that long-term growth prospects for seaborne trade and maritime businesses are positive, although there are many uncertainties and downside risks. Analysis points to “ample opportunities for developing countries to generate income and employment and help promote foreign trade”. But immediately after publication of the Review, an event occurred underlining the reference to possible difficulties ahead.

Two days after the report appeared, Donald Trump was elected as the next president of the United States. Risks for world trade appear to have suddenly multiplied or, at least, uncertainty has been abruptly amplified by this election outcome. The president-elect has criticised globalisation and free trade, expressed hostility towards international trade pacts and shown enthusiasm for a protectionist stance. What is not clear yet is how much was campaign rhetoric and how much was firm intention. If government policy evolves on this basis, a potentially highly unstable period for world trade could result, where detrimental influences are a bigger feature. However, that is speculation and may remain so until the new government is installed early next year and clarification ensues.

### Ship supply questions

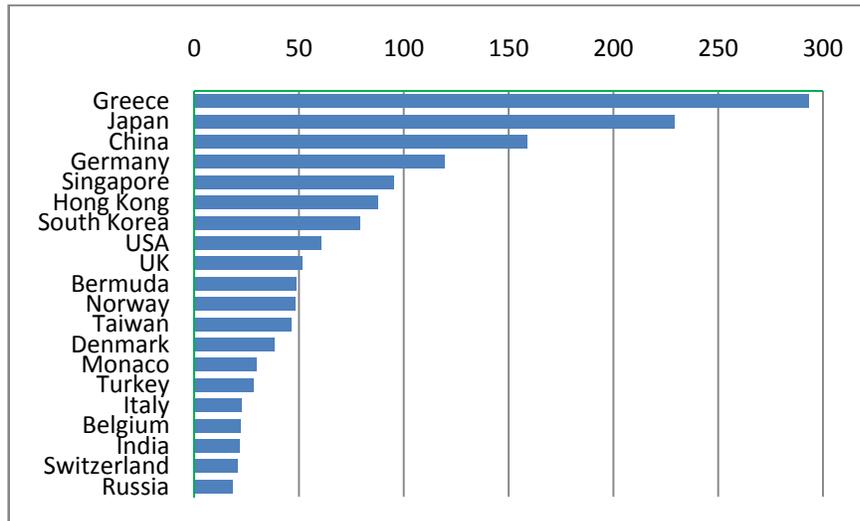
A chapter of the UNCTAD report discusses the structure, ownership and registration of the world fleet of ships. It points out that the fleet's deadweight capacity (all ship types) grew by 3.5 percent in 2015. While this increase was the lowest annual percentage for over a decade, it was still far higher than the 2.1 percent growth in demand, resulting in continued global overcapacity.

The authors focus on various positive indicators for shipping markets. However, there is a discussion about the downside of the huge container ships surplus caused by overinvestment, which the Review suggests is not in the long-term interest of either liner operators or shippers. In the short term shippers may benefit from lower container freight rates but, in the long term “there is a danger of more markets with oligopolistic market structures”, reflecting a continued process of concentration as service operators become fewer.

An analysis of the entire world fleet of commercial vessels by country of ownership, as at 1 January 2016, reveals that three countries remain at the top. Greece is still by far the largest owning country with 293 million deadweight tonnes, 16.4 percent of the 1792m dwt world total. Japan is the second largest, with 229m dwt (12.8 percent) and China is in number three position with 159m dwt (8.9 percent). Accompanied by Germany (119m dwt) and Singapore (95m dwt), the top 5 owning countries comprise exactly half of the world total.

### Top 20 shipowning countries as at 1 January 2016

million deadweight tonnes, seagoing merchant ships, 1000 gt and over



source: UNCTAD *Review of Maritime Transport, 2016*

### Ship demand conundrum

UNCTAD's view of the seaborne trade outlook seems realistic at present and, to some extent, provides a counterpoint to alternative more pessimistic projections emerging during the past twelve months or so. The Review's authors concede that negative developments in the macroeconomic framework are intensifying, and dampening maritime cargo volumes. Nevertheless, they argue that growth in global seaborne trade is still intact. While China's slowdown is bad news for shipping, a number of developing countries are becoming more involved and could drive further trade enlargement.

Uncertainties and downside risks listed are: weak global demand and investment, political uncertainties such as the ongoing migration crisis, doubts about the future pace and direction of European integration and a further loss of momentum in developing countries. Moreover, another set of factors is identified – technology, innovation, the data revolution and e-commerce – which can transform and disrupt the shipping industry, generating both challenges and opportunities. How will these trends evolve? The Review admits the outcome is unknown.

Among causes for anxiety, and there are many, about the future evolution of world seaborne trade, the so-called fourth industrial revolution is prominent, along with the shared and circular economies. However, the Review does not comment specifically on the likely timing of most of the impact from these trends. What seems clear though is that these are longer-term influences evolving over a decade or two perhaps and, as a result, immediate effects may be limited. Reduced global use of fossil fuels is another, more tangible, worry for the shipping industry because it is already highly visible.

The fourth industrial revolution is a concept which envisages that innovation, technology and big data could assist in increasing efficiency and productivity in the global economy. This progress could shift established modes of production and consumption, with negative implications for seaborne trade. The performance of supply-chains could be enhanced, accompanied by a reduction in their typical length as features such as three-dimensional (3D, or additive) printing and robotics are increasingly incorporated. Shorter supply-chains imply shorter average sea voyage distances, with adverse effects on the demand for shipping services.

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Similarly, the impact of the shared and circular economies points to savings and efficiency gains which could lower demand for maritime transport. Shared economy characteristics (renting and swapping, for example) may modify demand and also supply chains. This would be achieved through new technology and platforms that facilitate asset management, service delivery and information access. A circular economy promotes effective use of resources, greater resource conservation, and reduced reliance on fossil fuels and raw materials, to achieve sustainable production and consumption patterns.

Steps have been taken already in numerous countries to cut fossil fuel consumption. Further advances in renewable energy production and energy storage could have a large adverse impact on oil, coal and liquefied gas movements and associated demand for shipping capacity.

### **Developing countries' maritime strengths**

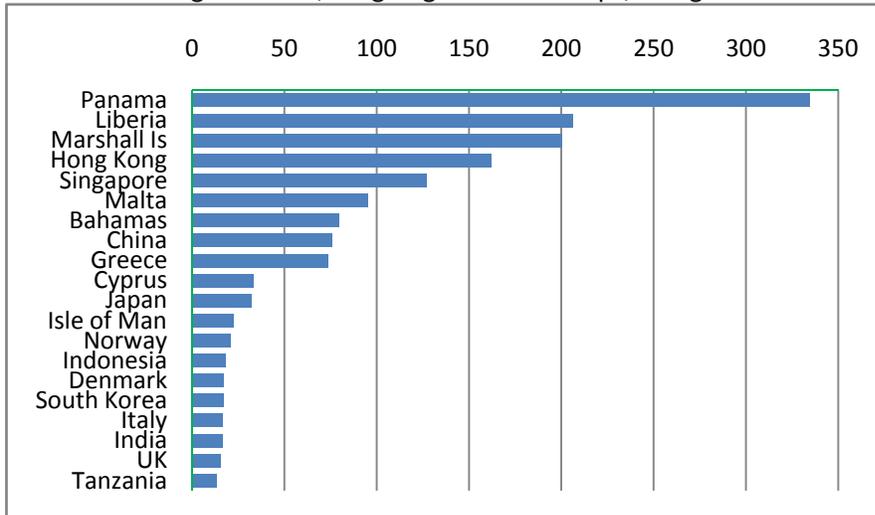
Many developing countries are involved in five key aspects of the global shipping scene – shipowning, ship registration, seafarer supply, shipbuilding and ship recycling. As the UNCTAD report emphasises, in some activities developing countries are top participants, with increasing shares of the world market. The report suggests that a good policy choice for policymakers in these countries is to identify and provide support for selected maritime businesses in sectors where a comparative advantage is evident. Aspects of shipowning, ship registration and seafarer supply are discussed below.

According to the Review, for developing countries as a group (including transition economies) their ownership share of the global fleet total, as at the beginning of 2016, was just over two-fifths (40.5 percent) and has been rising. Most of this capacity is owned in Asia, and just over half of that Asian sub-group is comprised of three countries/territories, China, Singapore and Hong Kong (China), jointly owning 19.1 percent of the world fleet's deadweight tonnage.

A breakdown of the fleet owned in Asian developing countries, by ship type, shows that almost half consists of bulk carriers, one quarter is comprised of tankers, and one eighth is container ships. For comparison, in other developing country regions with much smaller tonnages, the breakdown is very different. Fleets in developing countries in Africa and the Americas have high shares of offshore supply vessel ownership, for example.

As is well known, ship registration in the global fleet is highly concentrated in developing countries (including many open registries). The Review shows that, as calculated at the beginning of 2016, this group registers just over three-quarters (76 percent) of the world fleet's deadweight tonnage. The top 5 flag states are all in this category, jointly registering 57 percent of the world total. Panama is the largest, with 19 percent, followed by Liberia (11 percent), Marshall Islands (11 percent), Hong Kong, China (9 percent) and Singapore (7 percent). Different registries focus on different vessel types.

**Top 20 ship registration countries (flag states) as at 1 January 2016**  
million deadweight tonnes, seagoing merchant ships, 100 gt and over



source: UNCTAD *Review of Maritime Transport, 2016*

Providing seafarers for the international shipping market is another large and strongly evolving activity for developing countries. Figures for 2015 are drawn from a survey conducted jointly by BIMCO and the International Chamber of Shipping, published several months ago. These show China contributing the largest number at 244,000 (15 percent of the world total). In second place was Philippines with 216,000 (13 percent), followed by Indonesia's 144,000 (9 percent). Russia, India and Ukraine also provided substantial numbers. Global demand for seafarers apparently increased by a cumulative 45 percent during the decade ending last year, facilitating the expanding involvement of developing countries.

**A positive perspective**

The new UNCTAD Review highlights the lacklustre growth of global seaborne trade, currently increasing at a pace notably slower than the historical average, and the slowest since the debilitating world economic recession seven years ago. It also points to uncertain prospects in the immediate future and further ahead, emphasising prominent downside risks. Surplus capacity is compounding the problem for the shipping industry, with fleet expansion still exceeding demand enlargement across the shipping market as a whole.

Yet the outlook is not considered to be one of unremitting gloom. Several trends have potential for stimulating seaborne trade. Benefits for developing countries' involvement in maritime activities are likely to be derived from infrastructure building initiatives, progress with trade policy and liberalisation, increasing populations and urbanisation and growing use of e-commerce. However, some other trends such as the fourth industrial revolution, the shared and circular economy concepts and reduced fossil fuel use may act as restraints. So the picture is mixed, incorporating some promising elements.

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(5) Clarksons Research, 18 November 2016

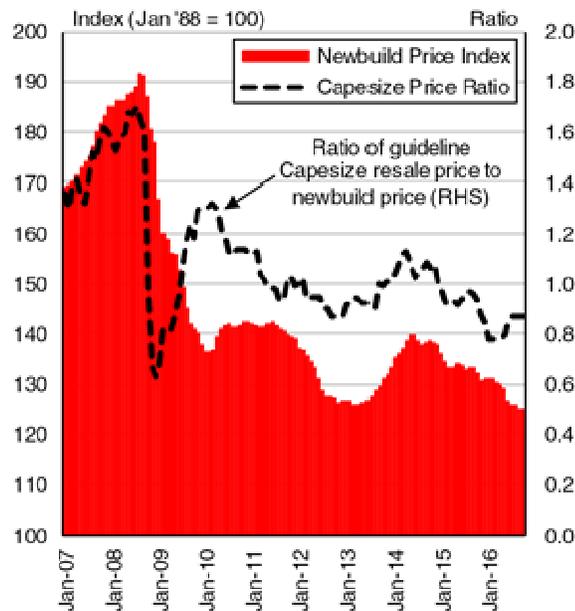
## Price Dynamics Low On Impact

Newbuilding prices have fallen fairly consistently since the end of 2014, and this trend has continued in recent months. Cutting newbuild prices can be an effective way for yards to stimulate new orders, but this is not always the case. A range of factors have dampened the impact of falling prices in 2016 so far, whilst other constraints may have limited the extent of the cuts seen.

### Graph of the Month

#### On The Way Down: Newbuilding Prices Since The Downturn

The bars show the end month level of the Newbuilding Price Index between January 2007 and October 2016. The line shows the ratio between the guideline resale price and guideline newbuilding price for a Capesize bulkcarrier.



Source : Clarksons Research

#### Yards Cutting Prices

In recent times, the combination of weak demand for newbuildings and excess shipyard capacity have caused newbuild prices (assessed here in nominal terms) to fall to levels not seen since around 2004. Although the scarcity of orders makes it more difficult to accurately gauge price levels, there has been a clear downward trend this year in the Newbuilding Price Index, which has fallen from 131 points at the start of the year to 124 points as of the end of October. The most significant decreases in newbuild prices in 2016 so far have been in the tanker and containership sectors, where contracting has dropped off sharply since the end of 2015. The guide prices for a c.320,000 dwt VLCC and c.8,800 TEU boxship have fallen 9% and 7% respectively since then. The decline in bulkcarrier prices has been less severe this year, but they have been on a downward trend for a longer period, and the guide price for a c.180,000 dwt Capesize has fallen by 22% since the end of 2014.

#### Off The Shelf?

Price cuts can be one way for yards to attract orders. However they have had little impact in 2016 so far, with extremely weak markets and demand for new vessels, and limited availability of finance. Moreover, market conditions have led to resale prices offering a potentially more attractive alternative to newbuilding. This has been most notable in the bulker sector, with the guideline resale price for a Capesize falling to 78% of the newbuild price in Q1 2016 (see graph). Resale prices have also fallen to

less than 90% of newbuild prices in some boxship sizes.

### Builders Facing Constraints

The potential ability to impact ordering through newbuild pricing can also be limited by constraints on shipyards: it is often difficult for yards to keep cutting prices, especially when they are under financial pressure. Prices at Chinese yards are already below those elsewhere for many vessel types. In South Korea, opportunities for yards to reduce prices may have been constrained by the influence of creditors. Finally in Japan, some yards with full orderbooks until 2019 or 2020 have likely felt a little less pressure to lower prices, but others may have seen their flexibility limited by the rising yen, which has appreciated by around 15% against the dollar since the start of the year. As a result, prices might not have been cut as sharply as some may have expected, limiting the possible impact on ordering.

So, the impact of dropping newbuild prices has been limited by a range of factors, whilst financial pressures at shipyards have also had an impact on the extent to which prices might be cut. Despite newbuild prices falling further in 2016 so far, it is fairly clear that wider improvements to the market environment will be required to stimulate a fresh wave of vessel ordering activity.

Source: Clarkson Research

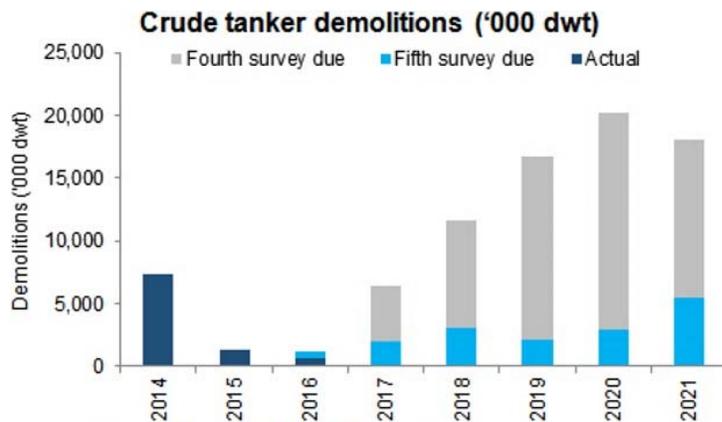
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(6) Hellenic Shipping News, 17 November 2016/ Drewry

## IMO regulation on Ballast Water Management to trigger further scrapping activity in tanker shipping market

Weakness in freight rates will increase tanker shipping demolitions over the next two years, with the trend accelerating in later years as a result of the IMO regulation on ballast water, according to the latest edition of the Tanker Forecaster, published by global shipping consultancy Drewry.

Despite the recent decline in tanker freight rates, demolitions have not yet picked up. Scrapping is expected to increase in the next two years, once owners start feeling the heat of persistent, low freight rates. But as the fleet is relatively young, demolitions will be moderate.



Source: Drewry's Tanker Forecaster

The new International Maritime Organisation (IMO) regulation on Ballast Water Management will require that all vessels going into deep sea have in-built Ballast Water Treatment Systems (BWTS) by September 2017. Existing vessels will have a grace period to carry out the retro-fit during their next special survey if this occurs after the deadline. Some owners are expected to bring forward fourth special surveys, if they fall around the scheduled deadline, in order to delay retrofitting BWTS to the fifth special survey. But vessel owners for which the survey is due after mid-2018 will probably have to either retro-fit BWTS or scrap their tonnage. The additional cost of retrofitting BWTS along with the special survey will force many owners to scrap younger vessels before the next survey is due.

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Drewry estimates that about 74 crude tankers (14 million dwt) and 114 product tankers (5.6 million dwt) will have their fourth special survey due between mid-2018 and 2021, making them potential victims of the new regulation.

“We do not expect all these vessels to be scrapped since many of them are on long-term charter at attractive rates, justifying the additional cost of retro-fitting BWTS. As tanker rates will remain well above operating costs during the forecast period, many owners might opt to operate their vessels after incurring this additional cost in anticipation of a recovery in rates,” said Rajesh Verma, Drewry’s lead analyst for tanker shipping.

“However, since the tanker market will be oversupplied, older vessels will find it difficult to get employment, which in turn will force many owners to scrap their tonnage just before their next survey is due,” continued Verma.

Source: Drewry

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