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Southampton SOLENT University

Global Maritime Weekly Digest

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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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- In the ***global market for tankers***, overcapacity has become a more pressing issue. Demand for the services provided by these ships has performed solidly, but the tanker fleet is now growing too rapidly, reflected in low market freight rates which may continue for some time (item 1).
- A new scheme to promote a ***higher professional status for master mariners*** has seen the first batch of candidates awarded a Chartered Master Mariner qualification (item 2). The recipients were peer reviewed and assessed for their individual contribution to the industry and how they have directly contributed to the development of others.
- During recent years ***seafarers' welfare*** has become a much more prominent aspect of ship operations and management. A major project based at Southampton Solent University is looking into how welfare services for international seafarers function in Chinese ports (item 5).
- An emphasis on training, to ensure ***improvements in maritime safety,*** was a focus of attention in recent seminars considering a wide range of aspects (item 3).
- Why is the ***current bulk carrier market cycle*** so long, and when will it see a sustained upturn? After nine years in a trough when mostly low freight rates persisted, is the recent improvement a reliable sign of better times ahead for shipowners? This analysis assesses features of the historical period and prospects for a recovery (item 7).

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(1) BIMCO, 6 November 2017

Tanker Shipping: Q4 only delivers temporary upside as overcapacity remains an issue

Overview

This is the highest global oil demand ever but it's also a large and growing fleet. What the tanker market needs most right now is more tankers engaged in floating storage facility.

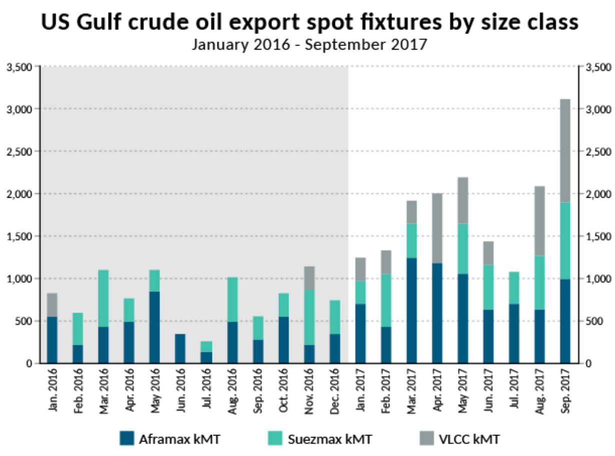
Demand

The past couple of months have seen discussions about the rebalancing of the oil markets, only surpassed by discussions on the short-term effects of Hurricanes Harvey and Irma on the tanker shipping market.

First things first. The global stocks of crude oil and oil products are being drawn down slowly, as the OPEC-led adjustments to global oil supply affect less than one-third of global production. An important part of it, no doubt, but it still leaves two-thirds of the ”rebalancing efforts” out of OPEC-control. This includes OPEC members like Nigeria and Libya, both nations that have increased their output in 2017. Another significant producer that has scaled up its production in 2017 is the US. By mid-October OPEC called upon US shale oil producers to help reduce the supply glut, as they react to a slow rebalancing of the oil market.

Global oil demand is heading for a new all-time high at 98.7m barrels per day (bpd) in Q4 2017. Up by 1.9% from Q4 2016. Where is this demand coming from? Out of an incremental growth of 1.87m bpd, 1.06m bpd (57%) of that growth is coming from Asia, which is good for shipping. Particularly, if that demand is met by oil from African producers and not the relatively short-haul producers in the Middle East. 0.35m bpd (19%) comes from the Americas – this may impact shipping only slightly, whereas a further 0.23m bpd (12%) comes from the Middle East with no expected effects on shipping at all.

Recurring turmoil in Libya’s giant El Sharara oil field means that the nation will stay a swing exporter, with a significant untapped potential until the unrest settles.



In the US, the last week of August and the first weeks of September were largely impacted by this year’s hurricane season. The immediate effects were refinery outages, and disruption to the Colonial pipeline which provides large parts of the East Coast US with gasoline, jet fuel and other refined oil products.

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International shipping assisted to ensure mainland US continued to receive supplies of oil products and the US Jones act was suspended for two weeks.

As of 4 October, one refinery (capacity 225,000 bpd) is currently in the process of restarting after being shut down. Five other refineries (combined capacity of 1.8m bpd), also located in the Hurricane struck US Gulf coast region, are operating at a reduced rate.

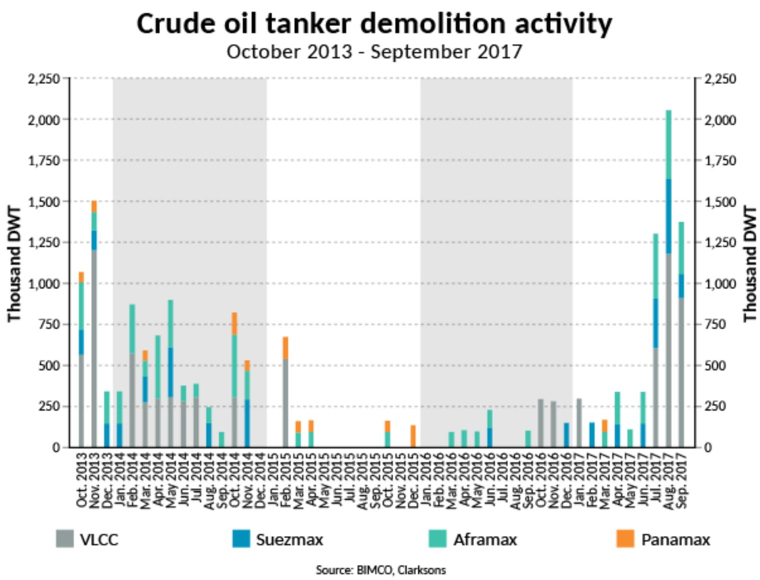
In addition, the prolonged downtime at Gulf Coast refineries has reduced crude oil throughput in the US. A knock-on effect has been a large increase in seaborne US crude oil exports, at least if judged by recent spot fixtures (source: Charles R. Weber Company). More than 3m DWT of crude oil tanker capacity was fixed in September, surpassing the previous high in May, that saw 2.2m DWT engaged.

In China, crude oil imports continued to climb in September. During the first nine months of 2017, China imported 33m tonnes more of crude than the same period last year. BIMCO estimates that this equals a tonne-mile growth rate of 18% for Chinese crude oil imports alone.

Supply

In total, the demolition of crude oil and oil product tankers in 2017 has not been impressive. But focussing only on product tanker demolitions in August – it reached a five-year-high at 472,000 DWT. For only the second time in seven years, more than 450,000 DWT was permanently removed from active trading. The demolition of two LR2 and five MR/handysize ships accounted for the greater part of this.

For crude oil tankers, we have now experienced increased demolition for three months in a row (July-Sept). August was particularly strong, with a level unseen since 2003. Amongst the demolished ships there were four VLCCs, three suezmaxes and four aframaxes.



But is it too little and too late? No and No! Throughout the year, BIMCO has remained confident that the poor freight markets would eventually result in increased demolition interest. The reason for a pick up now is grounded on the growing belief that this downturn will last longer than first anticipated.

In terms of newbuild interest, we had owners shy away from the demolition market in the earlier part of the year, they were attracted to the newbuilding market instead as optimism was still solid. Ordering of crude oil tanker tonnage was particularly high. However, September proved that the second half of the year surprisingly reflected the first half. No less than nine VLCCs were ordered that month for delivery in 2019 and 2020, bringing the total number of new VLCC orders for 2017 up to 41 units.

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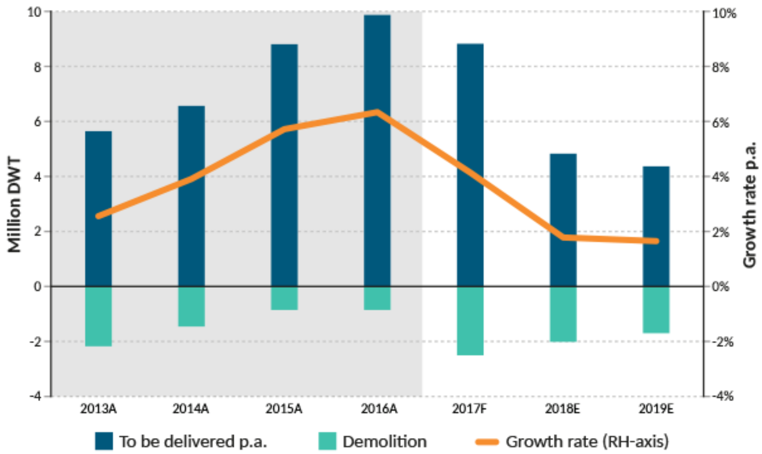
While newbuild orders will only affect the market one to two years from now, deliveries in 2017 are already deeply affecting the fundamental balance in a negative manner.

Oil product tanker fleet growth



Source: BIMCO estimates on Clarkson's raw data

A is actual. F is forecast. E is estimate which will change if new orders are placed. The supply growth for 2017-2019 contains existing orders only and is estimated under the assumptions that the scheduled deliveries fall short by 10% due to various reasons and 35% of the remaining vessels on order are delayed/postponed.

Outlook
BIMCO expects that the lossmaking freight rate levels that we saw during October, due to maintenance at oil fields and oil refineries, will be somewhat reversed as we enter the peak season for oil tankers, which runs from November to January. This should benefit both oil product tankers and crude oil tankers.

For crude oil tankers, we expect rates to go up, but not to reach the highs of the previous peak season in 2016/17. The market fundamentals are too weak for that to happen. We are seeing the highest oil demand ever, but also a fleet growth of almost 5%.

For oil product tankers, we expect a bigger tailwind to lift rates. However, the market remains fragile. Global oil stocks, built up in 2014-2016 must be drawn upon for tanker demand to normalise again.

There is still a lot to do on that account despite erroneous statements of a ”near-balanced” oil market.

The immediate future of Kurdistan Regional Government (KRG) sour crude oil exports – to several European refiners via the Kirkuk-Ceyhan pipeline into the Mediterranean Sea – is uncertain. In response to the Kurdish referendum (25/9) on possible independence from Iraq, the governments of Iran, Turkey and Iraq have issued statements of potential actions that may affect KRG exports, if implemented.

Before the conflict, KRG exported 600,000 barrels per day (bpd), going to Italy, Greece, Israel, Croatia, Spain and Sweden. At the end of October, exports amounted to just 200,000 bpd.

The likely alternative to KRG crude oil, would be Russian exports out of the Black Sea. But Iraqi Arabian Gulf exports could also step in, as the oil grade is similar. No clear signs of who is going to yet.

In Asia, the ‘busy part’ of the Pacific typhoon season is still here, with most landfalls happening in China, Japan, Vietnam and the Philippines. So far, the typhoon season has passed without devastating key infrastructures or potentially affecting shipping. Nevertheless, extensive weather routing to ensure a safe voyage is being widely applied.

In total, US crude oil exports were up 59% year- on- year, for the first seven months of 2017. This equated to more than 900,000 bpd being exported, up by 340,000 bpd. While the main receiver of it, Canada, dropped its imports by 69,000 bpd, seaborne transports increased. Exports during the first seven months to China were up by 168,000 bdp, exports to Japan up by 19,000 bpd, Korea up by 30,000 bpd and Singapore up by 31,000 bpd. In addition, the shorter trans-Atlantic destinations like the United Kingdom, saw an increase of 52,000 bpd, Netherlands increased by 34,000 bpd and Italy increased by 18,000 bpd.

This is the highest global oil demand ever but it’s also a large and growing fleet. This makes the oil tanker market a constantly changing environment. Longer sailing distances are always welcome, but what the tanker market needs most right now, is more tankers engaged in floating storage operations. With Brent and Dubai crude futures pricing being in backwardation and the West Texas Intermediate (WTI) crude in a slim contango for the next 12 months, a comeback for floating storage seems farfetched for the time being.
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(2) Lloyd’s List, 8 November 2017

Chartered status

by Michael Grey

The first Chartered Master Mariner qualifications have been awarded to a group of ‘industry leaders, visionaries and trendsetters’

IT IS funny how perceptions of our language change over time. What do we think of when we hear the word “master”? My old Imperial Reference Dictionary, probably published about a century ago, leaves us in no doubt. “One who commands or controls: a lord or owner: leader or ruler: commander of a merchant-ship: one who has complete knowledge: one eminently skilled in anything: head of a body or corporation, as Balliol College; a degree conferred by universities”. The list goes on for ever and I don’t want to be a bore, so I have been a bit selective.

Is there a need to further qualify this important rank or qualification, in the light of such definitions? I’m afraid there is, with professional bodies constantly striving to make themselves more exclusive. Accountants, it might be recalled, were once book keepers, who sat on high stools in counting houses, but somehow rose in the world to become “Chartered” and now rule much of the universe of business.

Curiously, they never wished to become “master book-keepers” but opted for something which they obviously believed sounded more professional and which they assumed would resonate with the public.

Engineers, who have been around for only a couple of hundred years, opted for the same route, the CE suffix drawing a distinction between a tip-top professional and the chap who comes to fix your boiler. Master Mariners, who have probably been recognised (if not formally qualified) for a couple of millennia, have, by contrast, relied on the recognition of the public to spell out their professionalism in the handling of a ship at sea.

But in an era in which ships are something seen distantly, on a far horizon, and their commanders rarely encountered in public, it has been judged that something rather more recognisable, to distinguish the real experts among them, was called for. A Chartered Master Mariner qualification, then, would be the badge of professional excellence which was needed in the 21st century. Accordingly, the Honourable Company of Master Mariners, along with the Nautical Institute, have, with the assistance of the Privy Council, now done the business.

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I assumed these changes would take ages, if not entire generations, to put in place, so it is astonishing to reveal that less than a year after the announcement of the scheme to grant chartered status to Master Mariners, the first certificates have been awarded. They are the successful candidates in a pilot exercise which, it is hoped, will provide a mechanism that will give due encouragement to other professional master mariners.

They were awarded on a sunny day in October, on the quarter deck of the Headquarters Ship*Wellington,* which seemed a very apposite River Thames location, bearing in mind the history of this old warship and that of the Honourable Company. Presenting the awards in place of the shipping minister, who was detained in Parliament, the Maritime London chairman Lord Mountevans suggested that this award, in terms of our industry, would henceforth be seen as “the hallmark of excellence”.

Rigorous process

The recipients, a group of “industry leaders, visionaries and trendsetters” were invited to take part in the pilot, but still had to go through the same rigorous process that examined every facet of their professional development. For instance, the peer review examines their individual contribution to the industry and how they have directly contributed to the development of others. I dare say the future volunteers to this exacting examination will perhaps be a bit younger, and at an earlier stage in their careers, but the principles of the process have been proved by the examples provided by the successful pioneers, 10 of whom were present in London.

They were an interesting group of master mariners. Peter McArthur, Matthew Easton and Don Cockrill are all practising pilots, but have been recognised for their many extra-curricular activities which enhance other people’s work and contribute to their expertise. Kevin Slade is the chairman of the Merchant Navy Training Board, while Mark Fortnum and David Taylor hold senior positions in their oil company marine transport departments. Duncan Lamb runs the Royal Fleet Auxiliary and is the senior civilian mariner advising navy command.

Stephen Monk and Leslie Chapman are former Royal Navy officers, the former involved with navigational training, the latter working with commercial organisations, governments and the Ministry of Defence. Richard Barnes is a seagoing shipmaster, a chemical tanker specialist and trainer with a raft of other useful competencies.

Not all those involved with the pilot were successful, but those presented with their certificates last month have successful satisfied peer reviewers, personal evaluations, assessments, recommendations and a rigorous validation process. The main thing is that it has worked, it has proved practical and hopefully other master mariners who aspire to this chartered status will now come forward. Their suitability will be measured against a range of professional, technical, educational, philanthropic and personal development standards.

Overlooking my desk as this is being written is a faded photograph of my ancestor Captain Edward Grey, who was the first of a long line of Grey master mariners to be “officially” qualified by the old Board of Trade, which oversaw standards in Victorian times. The competence of his predecessors was assessed solely by the fact that they brought their ships safely home.

I suspect that this photograph, as he sits stiffly in a most uncomfortable looking chair, holding a scroll in his right fist, was the occasion of the presentation of his BoT Master’s Certificate. He went on to command Australian wool clippers.

He lived at a time when everyone knew what a master mariner did, but I suspect he would have approved of the new Chartered status earned by his successors and would encourage others to come forward.
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(3) Hellenic Shipping News, 15 November 2017/ Nautical Institute

Future-proofing through training – The Nautical Institute Command

Training and professional development needs to be addressed at the highest level if we are to continue to improve maritime safety, concluded attendees at The Nautical Institute's 2017 Command Seminar series. At the most recent event, held in Cyprus, attendees emphasised that it is important to ensure continuity in the maritime profession, making sure that seafarers make the most of new technology, while maintaining existing skills and knowledge. "New technologies will be used to support the Master's decision, but mentoring and training need to be intensified in the new context of digitalisation," said speaker Captain Alexander Legowski of OL Shipping.

Over the course of 2017, more than 500 people from a broad spectrum across the industry, from cadets to sailing Masters and senior industry figures, have attended The Nautical Institute's five Command Seminars. The seminars were based around the theme of navigation accidents and their causes, looking in some detail at how the industry can best cope with the changes expected over the next 15 years. Concerns include:

– The need to address the human element in maritime incidents
– The problem of fatigue, and false reporting of working hours
– Challenges of increasing automation on board ship, including autonomous vessels
– Ensuring training is properly carried out – and that the results are monitored.

The Nautical Institute will be working through its position at the IMO and through its professional networks to produce and implement resolutions to these issues. Measures already put in place to address these issues include providing formal professional training for navigation assessors, the establishment of an ice navigator qualification, and the relaunch of its flagship Command Scheme, which provides Masters and aspiring Masters with a thorough grounding that goes well beyond the minimum STCW standards.

Source: The Nautical Institute Command

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(4) Drewry, 9 November 2017

A better outlook for chemical tankers

Subdued ordering and a narrowing in the tonnage supply-demand gap from late 2018 is expected to support a recovery in the chemical shipping market, according to the latest edition of the Chemical Forecaster, published by global shipping consultancy Drewry.

Drewry estimates that tonne-mile demand of chemical commodities will grow at 3.8% on a year-on-year basis in 2017, of which the organic trade is likely to grow only at 1.5%. By contrast, inorganic and vegoil tonne-miles are expected to increase by 6.3% and 6.5%.

Drewry estimates that the global chemical trade will grow at 3.3% in 2017, owing to the strong vegetable oil trade from Southeast Asia to South Asia. The recent reduction in US exports, as a result of Hurricane Harvey, which had a negative impact on the chemical shipping trade, is expected to prove only temporary. Trade will return to normal patterns when North American plants resume production.

Chinese demand for methanol has been improving during the second half of the year as MTO plants either plan to ramp up or resume production. Ten new MTO plants are coming on stream in the second half of 2017, and two new plants will begin operations early in 2018. One methanol plant in Iran and two plants in the US will come online by the end of 2017. Drewry thus expects moderate growth in the global methanol seaborne trade, especially in long-haul and domestic trade routes in China.

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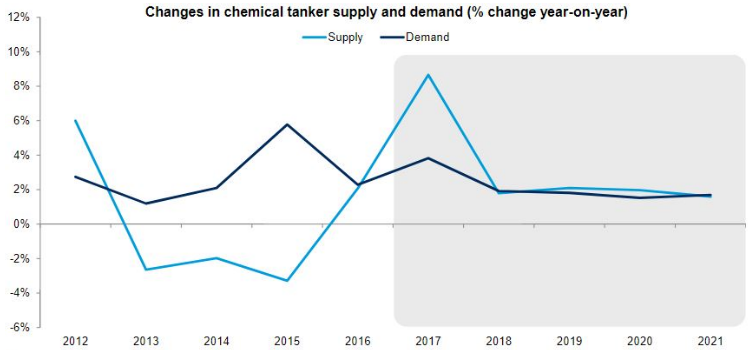
Time charter rates picked up in the third quarter of 2017, supported by strong demand for CPP and palm oil. Robust demand, high fuel production and declining fuel inventories will strengthen the clean product tankers market from the fourth quarter to 2018.



Note: Supply based on fleet trading in chemicals/veg oils. Demand based on tonne-miles
Source: Drewry's Chemical Forecaster

"The chemical tanker fleet is oversupplied, and increased demand in the CPP market will attract more swing tankers to move to the CPP trade. Overall, we expect earnings to improve over the medium term," said Hu Qing, Drewry's lead analyst for chemical shipping.
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(5) Southampton Solent University, 21 November 2017

Research project investigates seafarers' welfare in Chinese ports

How are welfare services in Chinese ports, offered to seafarers from countries around the world (including those from China), organised and operated? What are the most valued services that seafarer organisations and other players can provide in these ports?

To answer these and others questions, on the basis of a detailed survey and analysis, a research project has begun at the China Centre Maritime (CCM) at Warsash School of Maritime Science and Engineering (WSMSE), Southampton Solent University. Funding is being provided by the ITF Seafarers Trust, and the project is endorsed by Nautilus International, the UK Merchant Navy Welfare Board and the International Seafarers Welfare and Assistance Network.

The project is intended to go well beyond assessing what welfare services are currently provided for seafarers employed on ships calling at Chinese sea ports. Another aim is to help develop best practice in port-based welfare provision, informed by ideas derived from the research on seafarers' needs.

A key research element is to look closely at various stakeholders current policies. The policies of the Chinese Government, trades unions, shipping and ship management companies, crewing agencies and other key stakeholders relating to seafarers' welfare and how it is provided will be analysed.

At the China Centre Maritime, the project is being led by maritime sociologist Professor Minghua Zhao with Dr Gaochao He, a professor from Zhongshan University specialised in the study of Chinese workers and Dr/Captain Pengfei Zhang, a senior lecturer at WSMSE and specialist on seafarers rights and MLC2006.

The research, which has already begun, is expected to produce important findings to inform maritime policy makers and practitioners and to benefit the 1.3 million seafarers who carry the huge amounts of international trade across the globe to all parts of the world.

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(6) Clarksons Research, 31 October 2017

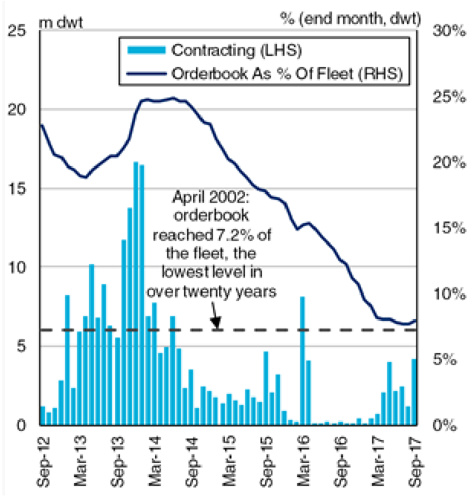
The Bulkcarrier Orderbook: Tracking The Gradient

Following limited contracting in the bulkcarrier sector in the last three years, the bulkcarrier orderbook has declined significantly. By the start of October 2017, the orderbook totalled 623 vessels of 64m dwt, equivalent to 7.9% of fleet capacity, close to the lowest ratio on record. With newbuilding interest starting to pick up, could the bulker orderbook now have bottomed out?

Graph of the Month

Navigating The Bulker Orderbook Landscape

The bars show monthly bulkcarrier contracting in million dwt (left hand axis), whilst the line shows the bulkcarrier orderbook as a percentage of the fleet in dwt terms as at the end of each month (right hand axis). The dotted line shows the orderbook as a percentage of fleet capacity in April 2002, when it stood at 7.2%, the lowest level for over twenty years. Timeseries of the bulkcarrier orderbook, deliveries and contracting are available on the *Shipping Intelligence Network*.



Source : Clarksons Research

Dramatic Dip

Three years ago, the bulker orderbook totalled 2,208 ships of 182m dwt, equivalent to 24% of fleet capacity. While this was 45% lower than the peak orderbook of 332m dwt in late 2008, it nevertheless was sufficient to drive continued firm deliveries in 2015-16. Amidst difficult market conditions (with weighted average bulker earnings falling below $4,000/day in early 2016), and limited access to finance for many owners, contracting in recent years has been very subdued. Bulkcarrier ordering fell from 64m dwt in 2014, to 24m dwt in 2015, and just 14m dwt (across 55 ships, including 30 Valemaxes) in 2016. As a result of the historically low levels of contracting, the orderbook shrank by 51% between end 2014 and end 2016 in dwt terms, to total 941 vessels of 85m dwt. This equated to 11% of fleet capacity, the lowest level in almost 15 years.

Change Of Terrain

However, in 2017 so far, ordering has started to pick up, with 17.1m dwt contracted. This volume is already 22% higher than the full year 2016 level, largely reflecting increased Kamsarmax ordering, even if overall newbuilding interest has remained at subdued levels. Nevertheless, the continued firm pace of deliveries (with bulkcarrier deliveries projected to remain over 40m dwt in full year 2017) has meant that the orderbook has shrunk by a further 25% in the year to date. By the end of September, the orderbook totalled 64m dwt, equivalent to 7.9% of fleet capacity, close to the historical low of 7.2% recorded in April 2002 (although the volume of capacity currently on order is around three times larger).

The Path Ahead?

Looking ahead, is there scope for the orderbook as a percentage of the fleet to decline further? Assuming that deliveries and recycling reach current projections of 43m dwt and 15m dwt respectively in full year 2017, continued ordering in Q4 2017 at the run-rate seen in the last six months would lead to the orderbook to fleet ratio declining marginally to 7.7% by the end of 2017. However, based on current delivery and demolition projections, ordering in Q4 2017 and full year 2018 at the run-rate seen in the last six months could see the orderbook to fleet ratio increase to 9.5% by the end of 2018 (or 12.8% if

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ordering continued at the pace seen in September). Indeed, ordering would have to slow to below the year to date run-rate to prevent an increase in the orderbook to fleet ratio by the end of 2018.
So, despite increased ordering so far in 2017, the bulkcarrier orderbook has continued to shrink. While a further decline in the orderbook to fleet ratio is possible in the rest of 2017, there is clear potential for the higher contracting levels seen recently to lead to an increase in the ratio next year for the first time since 2013, suggesting that the most likely scenario is that the current orderbook cycle is now in the process of bottoming out.
Source: Clarksons
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(7) Hellenic Shipping News, 15 November 2017/ article by Richard Scott (*Solent GMWD editor*)

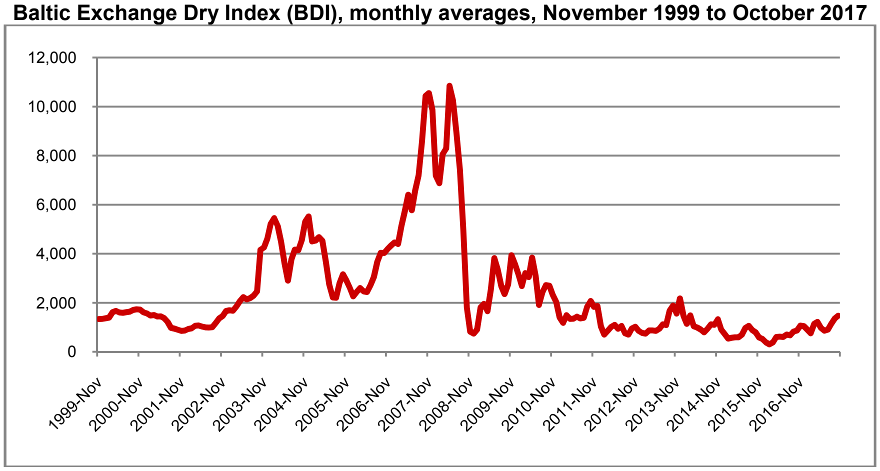
Riding the bulk carrier market cycle: rebalancing after a boneshaking journey

A recurring question arises. Is a long-awaited bulk carrier freight market recovery now under way? Over most of the past decade, this sector has been weak, providing only meagre returns for shipowners. But, after a number of false dawns, improvements in freight rates during 2017 and the causes point to, possibly, a more sustainable upturn unfolding.

Market cycle history shows great variations in duration, and the current cycle in the global bulk carrier market is proving to be one of the longest. Historically also, large variations in amplitude have occurred. The current cycle's downturn and trough has been very deep and most painful for owners, although impressions of weakness tended to be accentuated by comparison with the preceding boom's strength and length.

An excruciating freight market trend
During the nine years elapsing since the great freight rates crash amid the global financial crisis in the second half of 2008, several nascent revivals failed to develop into an enduring recovery. Excessive growth in the world bulk carrier fleet was a persisting feature. This growth was exacerbated and prolonged by intensive bouts of new vessel ordering, when market sentiment among owners sensed better conditions approaching. An abrupt slowdown in world seaborne dry bulk trade expansion in 2015 and 2016 aggravated the demand/supply imbalance.

Baltic Exchange Dry Index (BDI), monthly averages, November 1999 to October 2017



The Baltic Exchange Dry Index (BDI) chart broadly emphasises how weak freight rates for bulk carriers have been in recent years. For the past almost seven years, from January 2011 to September 2017, the BDI monthly average only twice exceeded 2000 points (2072 in October 2011, and 2178 in December 2013). Mostly the index has been below 1500 points.

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Following a spectacular downturn from a peak 10,844 points average in May 2008, to just 743 in December of the same year, amounting to a 93 percent peak-to-trough reduction in that phase, a partial rebound was seen in 2009 in the crisis period aftermath. This rebound continued into 2010, after which it subsided. Subsequently a few short-lived improvement spikes were recorded, but the general trend was very subdued, culminating in a depressed low-point of 307 in February 2016. Since then an upturn has evolved, leading to an average 1484 points in October 2017.

Revisiting the mega-boom

Although now perhaps fading into maritime history, the features of the bulk carrier freight market boom a decade ago, starting in late 2003 and extending into mid 2008 are still illuminating. This boom period provides an example, albeit an extreme one, of what can happen in the marketplace when vessel demand and supply growth trends diverge.

Looking at the main demand indicator for bulk carrier transport services, world seaborne trade in all dry bulk cargoes together increased at annual rates of 6 percent to 9 percent in the five years from 2003 to 2007. This was a remarkable period of strong advances averaging 6.9 percent annually. In volume terms annual totals grew by a cumulative 984 million tonnes, reaching 3493mt in 2007, based on Clarksons Research calculations.

Within this global growth, extra imports into China comprised a large proportion. China's dry bulk imports rose from 217mt in 2003, to 594mt in 2007, a cumulative 377mt rise in the annual figure. Consequently, China's imports expansion comprised 38 percent or nearly two-fifths of the entire world trade increase. Higher imports by all other countries comprised the remaining 62 percent.

Vigorous global economic growth underpinned strong production trends in industries in numerous countries requiring imported dry bulk commodities. Additional import demand for agricultural commodities also contributed. The upsurge in China, which was modernising and becoming more open to trade, was especially notable amid greater dependence on foreign sources of raw materials, fuels and agriproducts.

On the supply side of the freight market, bulk carrier capacity growth in the world fleet initially lagged because the strong trade expansion was not foreseen. In 2003, when freight rates started to surge during the final quarter, only a small 2 percent annual fleet increase occurred, resulting from preceding market weakness.

Over the next four years, higher freight rates led to higher newbuilding deliveries and lower scrapping, raising fleet growth to an average 6.9 percent annually, similar to trade growth. Bulk carrier capacity rose by 98 million deadweight tonnes over the 2003 to 2007 five years according to Clarksons Research data, reaching 393m dwt at end 2007.

These indicators of demand for, and supply of, bulk carriers during the freight market boom period are rather simplistic. Other influences, mostly harder to measure, affect the market balance. On the demand side, another key determinant is changes in the geographical pattern of trade. Longer average voyage distances raise demand by boosting 'tonne-miles'. On the supply side fleet productivity is a crucial influence, affected by vessel speed, incidence and length of ballast voyages, port calls duration, part-cargo loading and other factors.

Despite the partial inadequacy of statistical measures available, however, it is clear that global bulk carrier demand expansion far exceeded the world bulk carrier fleet's ability to expand transport capacity through that period. The textbook result was high, sometimes extremely high, freight rates.

The crash and its brutal aftermath

The global financial crisis which occurred during the second half of 2008, with its destructive effects on the world economy and trade, brought an abrupt end to the bulk carrier market 'boom of two lifetimes', sometimes characterised as a 'super-cycle'. However, global dry bulk trade began reviving in the second

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quarter of 2009, followed by a sustained rebound in the following periods, aiding a partial freight market recovery. Market participants concluded that a complete disaster or catastrophe had been averted.

Swift intervention by governments was seen amid the financial markets crisis. The vast scale of problems resulted in the “biggest, broadest and fastest government response in history”, according to one commentator. Nevertheless, a severe downturn proved unavoidable, and the world economic recession which unfolded in late 2008 and first half 2009 was described by the OECD organisation as the ‘deepest and most synchronised recession in our lifetimes’.

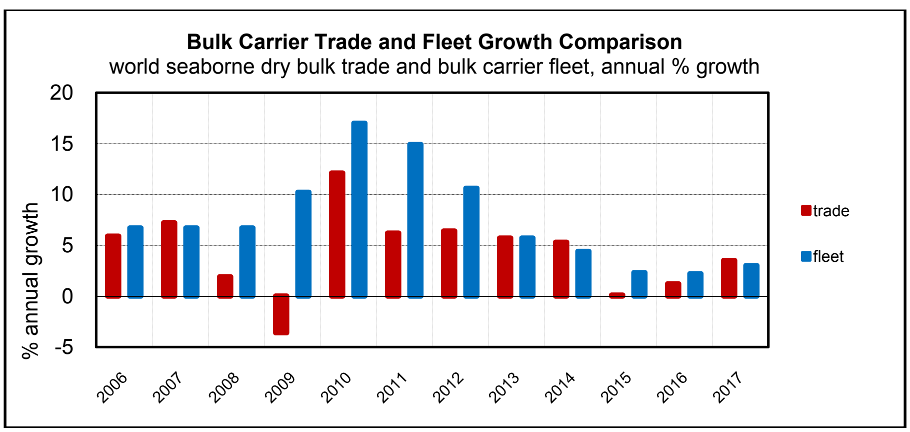
Although there was a dramatic deterioration in economic activity and international trade towards year-end, global seaborne dry bulk trade continued growing in 2008 as a whole, at a much slower 2 percent rate. Benefits were derived from buoyant activity before the second half collapse and also China’s continued imports expansion. Meanwhile, the world fleet of bulk carriers fully maintained its previously robust expansion, increasing by almost 7 percent in that year.

Reflecting the strength and longevity of the previous freight market boom which had boosted investors’ optimism, a gigantic orderbook for new ships had accumulated at shipbuilding yards. Global orders for newbuilding bulk carriers, at end 2008, stood at 326m dwt according to Clarksons Research. This volume was equivalent to over three-quarters of the existing fleet, implying a huge new capacity surge entering the market over the following few years.

Significantly, 2009 proved to be the only year in recent maritime history when there was an actual decline in world seaborne dry bulk trade. That year’s volume was 129mt or almost 4 percent below the previous twelve months, at 3430mt. Greatly increased imports into China prevented a much larger global fall occurring. In the same year, world bulk carrier fleet expansion accelerated, with total capacity increasing by over 10 percent.

A prolonged and painful rectification

During the post-crisis years excessive fleet growth, reinforced and prolonged by more contracts for new capacity, became the typical pattern. Newbuilding deliveries reached massive quantities, especially in the 2010 to 2013 period, when a total of 345m dwt was recorded. Another significant element expanding the fleet was conversions of tankers to bulk carriers, which mostly occurred during a period starting in 2008 up to 2011, when 25m dwt was added.



In 2010 a rebound in dry bulk trade from the previous year’s extreme weakness was seen, a vigorous 12 percent increase. But the bulk carrier fleet expanded even faster, with 17 percent growth, as a result of greatly enlarged deliveries of new vessels ordered earlier through the market boom.

Over the next two years fleet expansion substantially exceeded trade advances. Although a closer growth relationship seemed to be evolving in 2013 and 2014, in the following two years, 2015 and 2016, trade again underperformed compared with the fleet’s reduced growth rate.

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Comparing these trade and fleet statistics provides a rough explanation of why a full dry bulk freight market recovery proved so elusive and slow to develop. The figures are very broad indicators of the continuing market imbalance, the evolving gap between cargo movements and fleet capacity. Other influences also affected the demand for, and supply of, bulk carriers.

Within the entire period of eight years since the crisis, from 2009 to 2016, global seaborne dry bulk trade annual volumes grew by 1336mt, an overall 38 percent increase, reaching 4895mt in 2016. More than two-thirds of the expansion was comprised of additional imports into China.

Bulk carrier fleet deadweight tonnage growth was much faster at 89 percent over the entire eight years period, raising capacity by 374m dwt, to 794m dwt at the end of 2016, based on Clarksons Research figures. Enlargement was massive despite extensive orderbook slippage and postponements, reflected in many newbuildings delivered much later than originally scheduled, accompanied by order cancellations.

Why did this pattern of unbalanced trade and fleet expansion persist for so long? At various stages shipowners' collective optimism about freight market recovery and the merits of adding new capacity proved misjudged. The enthusiastic pro-active approach towards investment in new bulk carriers was facilitated by several advantages. Profits previously accumulated, low interest rates, and attractive newbuilding prices offered by shipbuilding yards contributed and, in some cases, a counter-cyclical strategy was added justification.

The bulk carrier newbuilding orders trend since the market crash of 2008 was reinforced by two surges. The symbolic 100m dwt level was exceeded in both cases. During 2010 bulk carriers totaling 102.3m dwt were ordered. This total was equivalent to 22 percent of the existing fleet at the beginning of that year, when the global orderbook was still extremely high after the boom years. The order book before those orders were placed equated to almost two-thirds of the current fleet.

In 2013 another surge occurred when bulk carrier newbuilding orders totaled 103.3m dwt, and this pattern extended into 2014 when a further 63.8m dwt was added. Orders placed in 2013 were equivalent to 15 percent of the existing fleet at the year's beginning, a lower annual percentage than in the preceding surge because of the strong fleet growth in the intervening years. The 167m dwt total of two years' orders greatly boosted the overall orderbook again.

Positive freight market sentiment about an approaching recovery, stimulating investment in new vessels, was encouraged by the trade picture. After the initial sharp trade revival in 2010, consistently robust expansion was seen in the following four years, 2011 to 2014, when world seaborne dry bulk trade grew at annual 5-6 percent rates, similar to growth during the preceding boom period. In particular, China's dry bulk imports expanded very strongly. Later, in 2015 and 2016, global trade growth became minimal and began to alter perceptions of the future pattern.

Despite support for bulk carrier demand during much of the extended post-crash period, it was clear that overcapacity in the freight market was pervasive and unlikely to be eliminated quickly. Vigorous vessel ordering activity periodically refilled the new capacity pipeline, eventually being reflected in actual newbuilding deliveries. This trend was instrumental in driving fleet growth beyond what was required for a sustainable market rebalancing.

Promising signs of recovery unfolding?

Eventually freight market cycles develop another phase, although the timing and magnitude of a new phase is often difficult to predict. Amid the prolonged trough of the current cycle, there are now signs that a strengthening phase is either already under way or approaching. How quickly or robustly this recovery period will evolve remains unclear. Uncertainties are apparent on both demand and supply sides of the bulk carrier market balance.

Early last year a critical point was reached, causing a widespread reassessment by shipping investors and others of the bulk carrier sector's prospects. This revised view resulted in collective action over the period since then which is likely to hasten and intensify a market rebalancing.

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Through 2015 there was a very subdued freight market, preceding extreme weakness at the beginning of last year. This market depression in early 2016 finally was enough to have a profound impact, and turn sentiment around. One consequence was that bulk carrier scrapping, which had already almost doubled in volume, remained high in 2016. While newbuilding deliveries continued to be relatively large, reflecting an order book that was still extensive, fleet growth last year remained restricted to an annual rate of just over 2 percent.

A modest pickup seen in the trade trend also assisted the freight market. Annual growth in world seaborne dry bulk trade resumed during 2016, albeit at a slow rate of one percent, after virtually no increase in the previous twelve months. The return to robust growth in China's dry bulk imports last year, after a reduction in the previous period, was a sizeable contribution.

As another direct reaction by shipowners to very low freight rates, of significance for the longer term has been the retreat of ordering activity for bulk carriers. Last year the annual newbuilding contracts total fell steeply to 14m dwt, from an already low 24m dwt in the previous twelve months. There has been more activity in 2017, but it has remained tightly constrained. Resulting from limited recent and earlier ordering, the much reduced schedule for deliveries in the period ahead implies slow fleet growth next year at least, assuming that scrapping is fairly substantial.

An additional positive influence this year, aiding the move towards market rebalancing, has been a brisk gain in dry bulk trade growth momentum. The acceleration has enabled the freight market to strengthen solidly from last year's depressed levels, even though bulk carrier fleet expansion has also picked up, mainly because of reduced scrapping volumes.

Pessimism partly confounded; doubts persist

The freight market improvement seen this year has surprised some pundits, and encouraged more optimism among owners and others. But it is still not completely clear whether, or to what extent, the stronger trend will be maintained over the next couple of years.

Contrasting views have been expressed. At the beginning of 2017 one reputable consultancy firm suggested that the dry bulk market's higher level, achieved by the end of the previous year, was unlikely to continue for an extended period. Twelve months of depressed freight rates was predicted, based on the expectation that short term factors providing support would dissipate within a few weeks.

Not all forecasters were quite so pessimistic. Also in the early weeks of last year, another consultancy firm expected to see a recovery evolving from 2017 onwards, based on a positive outlook for bulk carrier demand and limited fleet supply growth, ensuring a sustained market recovery. That opinion has been proved broadly correct so far, although it can be argued that questions about the trend's longevity remain valid.

Soon after this year began, international shipping association BIMCO again expressed doubts about dry bulk market recovery, describing 2016 as a "horrible year" and the "worst year on record", despite a steadily improving freight rates trend from an all-time low point. Steps to limit fleet growth continued to be emphasised as vitally necessary for a market recovery.

Over the past couple of years BIMCO has been strongly urging shipowners to restrain fleet growth by scrapping more ships and avoiding newbuilding orders. This association's first report under the heading of 'road to recovery' for the dry bulk sector, published in May 2016, proposed a "zero supply side growth" scenario. The message was reinforced by emphasising a cautious view of prospects for trade and bulk carrier demand growth, at 2 percent annually, implying limited assistance from that influence towards rebalancing the market.

BIMCO's president stated that "the recovery of the market is wholly and exclusively in the hands of us, the shipowners. We must act together and stop the growth in the supply side. The medicine is not going to be easy to take". Subsequent exhortations attempted to persuade shipowners to collectively restrict fleet expansion, but this campaign's aim has not been completely fulfilled.

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At recent and current bulk carrier newbuilding delivery volumes, zero fleet growth is an elusive target. In 2016 the fleet growth rate was down to just over 2 percent, similar to the previous year's lower expansion. For 2017, reflecting freight market improvement, scrapping has been drastically cut and fleet expansion may be at least one percentage point faster, exceeding 3 percent. In 2018, however, a minimal growth rate is perhaps more likely to be attained.

Tightening international maritime regulations, which already assist in curbing fleet growth, may be more influential in the future. The new ballast water management convention, implemented this year, requires substantial spending on equipment, although application to existing vessels has been postponed for two years. Emissions controls are tightening as well. These rules could contribute to some older bulk carriers being scrapped, but the impact of environmental aspects on shipowners' decisions about recycling is partly dependent on freight market levels.

Estimates of overcapacity in the bulk carrier market vary, but it is certainly large. Reducing it is seen as crucial for a return to sustained profitability. How and when will this result be achieved? Restricting world fleet growth to a minimum is argued as essential, although there is still a hidden surplus concealed in slow steaming and other capacity-absorbing features which could be released under some changed circumstances.

On the demand side of the freight market balance, more doubts are expressed about long-term global dry bulk trade growth prospects, with coal trade in particular facing constraints. Assuming overall trade does continue growing at reasonable rates, while fleet capacity expansion is restrained, a trend towards market rebalancing could extend what has been seen this year.

(This version of the article omits some detail and references. The full paper, prepared for academic as well as professional use can be obtained from Richard Scott, email: bulkshipan@aol.com)

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