Annual Review

2018

BRS GROUP

SHIPPING AND SHIPBUILDING MARKETS

Contents

Shipping & Shipbuilding Markets

500
Employees worldwide

215
Shipbrokers

100
Assets transactions per year

3,500
Chartering transactions per year

The BRS Group is a diversified global shipping services group offering a range of maritime activities which complement its core shipbroking business. In addition to Shipbroking and Yacht Brokerage, the Group's activities include Freight Futures (FFA's), Software Technology and Market Intelligence.

Evolution not revolution

It was a relief to see the consolidation that took place in the shipping markets in 2017, which in turn has led to a healthier market and a stronger outlook for 2018.

The energy sector, however, remains complicated with the LNG market rising, tankers falling, coal volumes up, and shale the wild card. All in all, more transaction volumes (demand) plus more controlled tonnage (supply) leads us to conclude that the year ahead of us will be more and more balanced. Yard consolidation has also continued (from 680 yards in 2007 to 300 today), which has meant upward pressure on newbuilding prices. .

This year has seen the confirmation of three major changes to the shipping market whose implications, and whether they will be disruptive or evolutive, have yet to be settled: 1) the awareness that shipping is a major contributor to CO2 and sulphur emissions; 2) the fact that all shipping markets, and thus the landed costs of many trades, are based on broker indices; and 3) a recognition of the need for transaction traceability for compliance, sanctions, tax and reliability purposes.

Regulations imposed on national companies by international organizations are by definition hard to enact and even harder to enforce. The industry is making small steps, but there is a large differential building between those who embrace the targets and the others who try to circumnavigate or delay them.

Geopolitical events complicate planning and decision-making, as oil at $40 a barrel leads to radically different decisions than oil at $75 a barrel. Such decisions range from immediate scrapping for heavy consumers, to conversion to dual-fuel engines, to newbuildings with full LNG-capable engines, or simply ultra-slow speeding. Our markets will be influenced by the ultimate proposals of the engine/ship designers; what fuel qualities the energy companies can provide efficiently; the political decisions of the major oil producers; and of course the fuel price which emerges from these developments, as all the while the climate conundrum unfolds.

The Singapore Stock Exchange (SGX) bought the Baltic Exchange at the end of 2016 and with it the right to publish all the shipping indices used as benchmarks for pricing, plus the settlement numbers used for derivatives and increasingly also for term physical transactions. The indices were developed by shipbrokers to allow a tanker and dry cargo shipping derivative market to flourish. The indices were extended into all sectors in response to a real need for transparency and objectivity. The industry is now faced with a realization that the indices less and less reflect shipbrokers' objective opinion of the state of the market, but rather more and more what the clients are showing to the market.

Who owns the indices? The cargo owners who transact (in which case the compliance officers will have a serious issue to resolve; transacting using an index which you influence), the shipbrokers who supply objective appraisals of how they see their markets (but they are seeing a smaller and smaller share), or the Singapore Exchange (in which case with what authority, as any major news provider could compile them, albeit with less objectivity and sentiment as the users who rely on them would quickly learn to feed the provider and thus influence the indices).

Direct fixing using indices is now the majority of dry bulk transactions. On the major ore routes, which represent over 50% of the dry cargo market, we estimate less than 10% is fixed through brokers or disclosed. The CIF (Cost, Insurance and Freight) net back prices of commodities are even more dependent on the indices. Price disclosure that used to be done by establishing bids and offers on the market is no longer necessary as the indices serve as price references. End users can now price their freight (and the landed cost of their commodity) on their own ships without going to the market.

Could this be the reason why a majority of the dry cargo orderbook in 2017 constituted orders by, or for, end users and traders. Traditional owners are having a harder and harder time justifying investing against returns based on purely indices. Is this a natural inevitable evolution or are we headed to an uneven playing field where the giants are able to control the total commodity chain? We better figure it out before there is a revolution, but the evolution is already well advanced.

Whether it is the Panama Papers, national tax laws, Brexit, terrorist funding, sanction enforcement, the future need for traceability and accountability is growing. Various maritime initiatives are underway with Silicon Valley targeting the huge transaction volumes in all aspects of the maritime sector. The complexity of cross border trades and payments, coupled with the even more complex interaction between the participants, screams for transparency, speed and simplification. Blockchain and cryptocurrencies are heralded as potential solutions but with the complex web of essential maritime links, the chain will look more like a cobweb than an anchor chain.

Our industry has major challenges ahead but we are confident that it will continue to grow in order to transport safely, efficiently and cheaply, with participants finding solutions to overcome climate, transparency and transaction hurdles. Maybe not in one go, but slow and steady like a ship tracing its own wake. Evolving not disrupting.

Tim JONES
President

Shipbuilding

Some breathing space

While 2016 turned out to be an annus horribilis with the freefall in newbuilding prices and the near-disappearance of newbuilding orders, 2017 brought some breathing space to the shipping community.

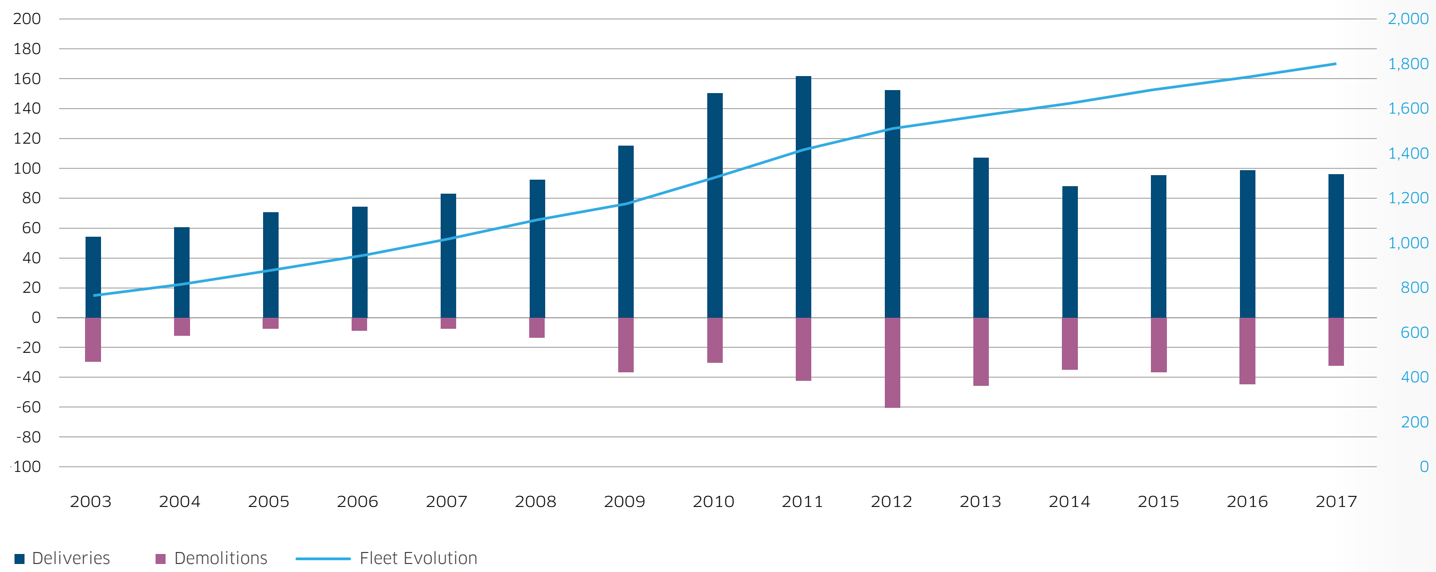
The number of newbuilding orders more than doubled and the improvement was spread equally across the three main pillars of the shipbuilding industry: bulker, tanker and container carrier. As a consequence, newbuilding prices finally inched up, though they remain at desperately low levels and hardly cover shipbuilders' construction costs which also rose last year.

Cruiseship under construction at **STX FRANCE** for MSC Cruises.

Picture: **VENTURE GOAL**, Deltamarin B43 design. 43,500 dwt bulk carrier, delivered in 2015 by Qingshan shipyard to Hamburg Bulk Carriers. With CO2 emission 40% below average of the Handysize fleet, Sistership **VENTURE JOY** won the Nor-Shipping 2017 Energy Efficiency Award for meeting the highest Energy Efficiency Design Index 2025 requirements.

Deliveries vs demolitions / Fleet evolution

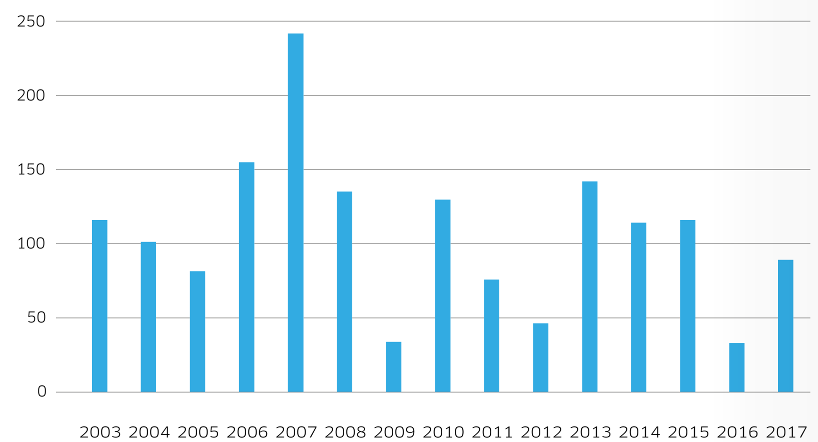
Million dwt



Orderbook		2016	2017
China	**Market share**	**44.9%**	**44.8%**
	Ships	1,351	1,267
	m dwt	104.7	99.7
Korea	**Market share**	**22.0%**	**24.7%**
	Ships	475	422
	m dwt	51.4	55
Japan	**Market share**	**26.6%**	**23.8%**
	Ships	901	717
	m dwt	62	53
Europe	**Market share**	**2.0%**	**1.9%**
	Ships	266	252
	m dwt	4.6	4.3
ROW	**Market share**	**4.6%**	**4.6%**
	Ships	234	227
	m dwt	10.8	10.2

Orders

Million dwt



Newbuilding prices rose between 5% and 20% during the year

KEY POINTS OF 2017

The three giants of the shipbuilding industry, representing almost 95% of the global orderbook by deadweight, fought fiercely for market share in 2017. China consolidated its top position recording a 44.8% market share, while Japan and Korea swapped positions again with Korea regaining its second place (24.7%) lost in 2016. Japan slipped back to third place in 2017 (23.8%). The 'rest of the world' (RoW) and Europe followed with 4.6% and 1.9% respectively.

Newbuilding deliveries (95.9m dwt) outpaced orders (89.1m dwt), and the global orderbook declined marginally from 233.4m dwt to 222.4m dwt. Korea was alone in winning enough orders to grow its orderbook during the year.

With owners wanting to take advantage of the low asset prices seen in early 2017, many returned to the yards where they invested in additional newbuildings (89.1m dwt in 2017 versus 33.1m dwt in 2016) while still being very active on the second hand market (93m dwt sales versus 83m dwt in 2016).

Newbuilding prices increased between 5% and 20% during the year depending on size and type of vessel.

This was partly a consequence of the increased demand, but also rising steel prices (which rose from approximately \$450/ton to \$750/ton year-on-year) and the weakening of the dollar against most of the main shipbuilding currencies.

Shipyards also wanted to cover the costs arising from changes to rules and regulations requiring either additional scantlings or additional equipment.

The key topics of SOx, NOx, CO2, scrubbers and dual fuel propulsion were hot throughout the year. So far it is not clear what the shipping community will do ahead of the 2020 fuel sulphur cap deadline and how it will address the key question: will sulphur be stripped out at the point of production or at the point of consumption?

		2016	2017
Orders	Ships	519	1,035
	m dwt	33.1	89.1
Deliveries	Ships	1,394	1,307
	m dwt	98.6	95.9
Orderbook	Ships	3,227	2,885
	m dwt	233.4	222.4
Active Fleet	Ships	32,632	33,939
	m dwt	1,678.7	1,774.6
Orderbook/Active Fleet	Ships	10%	9%
	m dwt	14%	13%

The three shipbuilding giants fought fiercely for market share

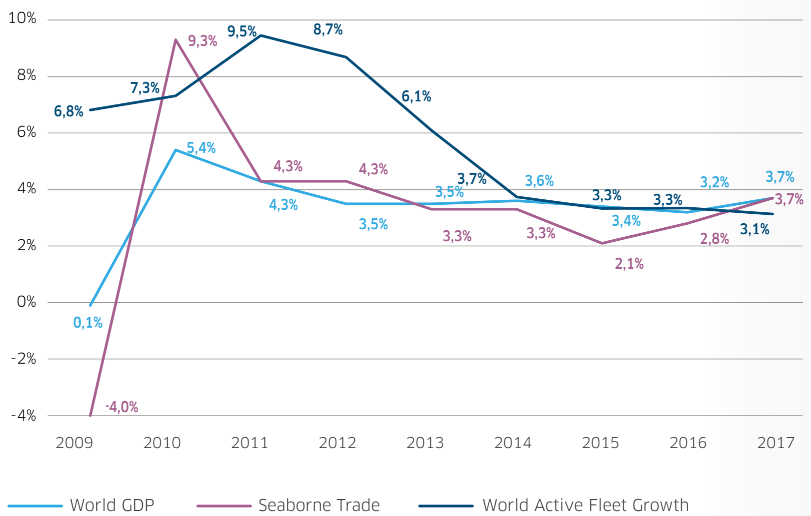
WORLD ECONOMY, MARITIME TRADE AND FREIGHT RATES

World Economy

The world economy performed better in 2017 with a growth of 3.7% against 3.2% the previous year. World seaborne trade growth also accelerated from 2.8% in 2016 to 3.7% in 2017.

The world fleet increased from 1,678m dwt to 1,774m dwt (33,939 ships). It is interesting to note that the fleet has more than doubled since 2008, when it consisted of just 711m dwt (17,406 ships).

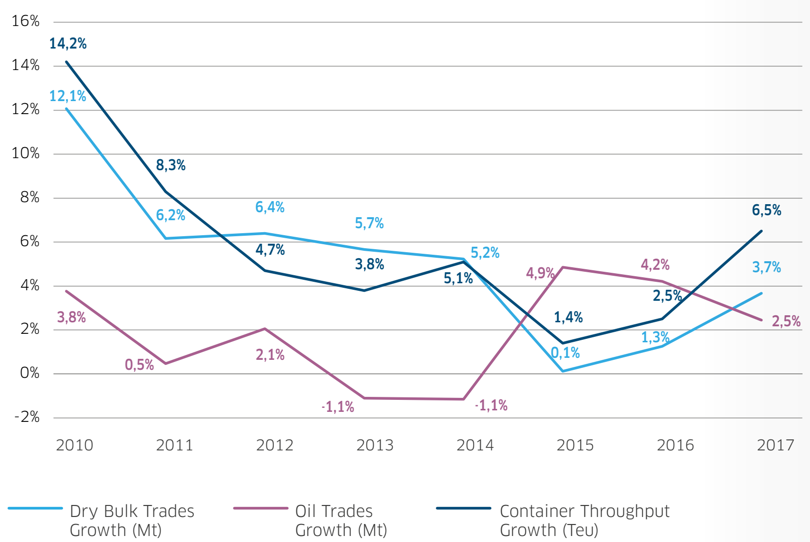
Global trade and world GDP & active fleet growth



Maritime Trade

Global dry bulk trade growth accelerated from 1.3% in 2016 to 3.7% in 2017, while the growth in the oil trade inched down slightly from 4.2% to 2.5%. Container throughput growth accelerated sharply from 2.5% to 6.5%.

Maritime trade growth



Seaborne trade growth accelerated from 2.8% in 2016 to 3.7% in 2017

Picture: ***DAMIA DESGAGNES****, product chemical tanker, 14,986 dwt, delivered by Turkish shipyard Besiktas in 2017 to Transport Desgagnes.*

Freight Rates

Dry bulk

After a dreadful 2016, which saw the Baltic Exchange Dry Index (BDI) log its lowest level (290 points) since launching in 1985, the dry bulk market improved throughout 2017.

The BDI steadily increased from 953 at the start of 2017 to hit the year's highest level of 1,743 on 12 December. This translated into a welcome increase in earnings for shipowners, from levels close to operating expenses to a level beyond breakeven. The quarterly average of the Baltic Capesize 5TC average was: Q1= $11,170/day, Q2= $12,043/day, Q3= $14,654/day, Q4= $23,057/day.

Tanker

Product tanker rates had come down substantially in 2016 and remained at low but stable levels throughout 2017. A one-year Time Charter on a MR2 fluctuated between $12,500 and $14,500 per day. The Baltic Exchange Clean Tanker Index started the year at 867 and ended at 720, reaching a year-low of 508 in August 2017.

Meanwhile crude tanker rates that had decreased significantly in 2016 continued to soften across the board in 2017. A one-year Time Charter on a VLCC fell during the year from $30,500 to $24,000 per day. The Baltic Exchange Dirty Tanker Index started at 1,088 and ended at 827, reaching a low of 614 in August 2017.

Seasons were well marked, with rate increases in the autumn which peaked at the start of winter, and then declines in spring before reaching a bottom in summer.

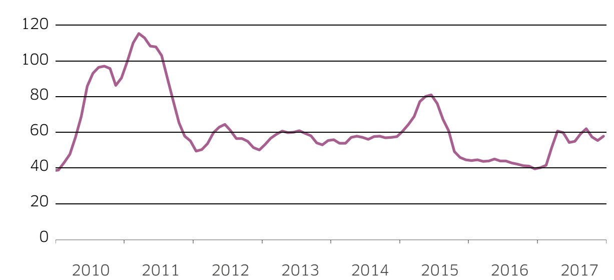
Container

Spot freight rates improved substantially in 2017 after touching record lows in 2016. The Alphaliner Charter Index rose to an average of around 60 in 2017 after hitting a low of 40 at the end of 2016.

However, while charter rates for containerships rose significantly in 2017, they remained only slightly above operating expenses as carriers consolidated into an even smaller number of large alliances and used their bargaining power to keep rates under check.

The idle or unemployed containership pool shrank from about 1.4m teu (7% of the active fleet) at the start of 2017 to about 0.4m teu (1.8%) at year end.

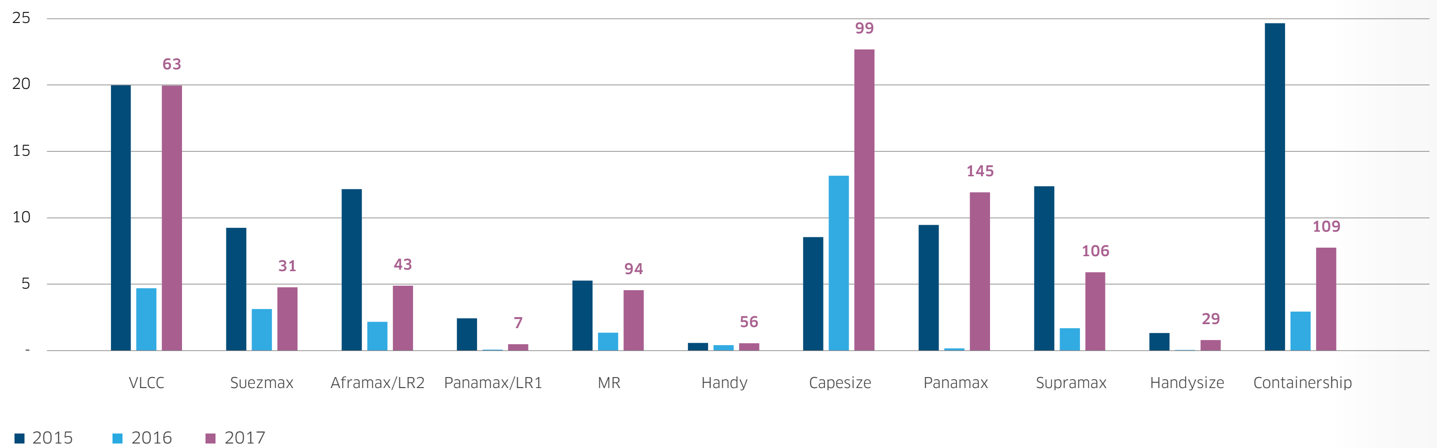
Alphaliner Charter Index since 2010



Picture: ***PORT VERA CRUZ****, bulk carrier, 63,558 dwt, delivered in 2017 by Japan's Imabari shipyard to Portline.*

New orders for standard vessels per year

Million dwt



ORDERS AND ORDERBOOKS

Orders and orderbooks for standard vessels

Overall, newbuilding orders increased by 169% from 33.1m dwt in 2016 to 89.1m dwt in 2017. The latter was similar to the yearly average seen since 2008 and only 10m dwt below the yearly average seen since 2000. It was quite a rebound from 2016, which logged the lowest levels since 2000! Orders for the three main shipbuilding segments - bulker, tanker (including chemical tankers), containership – benefitted equally from the demand.

Bulker orders rose from 15.1m dwt in 2016 to 41.2m dwt in 2017. The 2016 figure included a unique order for thirty 405,000 dwt VLOCs placed by Chinese owners with Chinese shipbuilders against long-term employment from Brazilian iron ore giant Vale. In 2017, a further order of two 405,000 dwt VLOCs and thirty-five 325,000 dwt VLOCs (with up to fifteen additional units to be reconfirmed) were placed by Chinese, Korean and Japanese owners.

Bulk		2016	2017
Orders	m dwt	15.1	41.2
Deliveries	m dwt	47.2	38.5
Orderbook	m dwt	91.3	91.1
Active Fleet	m dwt	761.5	800.1
Orderbook/Active Fleet		**11.99%**	**11.39%**
China orderbook	Market share	61.1%	60.9%
	m dwt	55.9	55.5
Korea orderbook	Market share	1%	8%
	m dwt	1.3	7.0
Japan orderbook	Market share	34%	27%
	m dwt	31.2	24.6

New orders per year (2009-2017)

m dwt	2009	2010	2011	2012	2013	2014	2015	2016	2017
Tanker	8.9	29.6	8.6	13.1	33.6	32.6	52.4	13.0	36.3
Bulk	23.4	88.4	39.8	23.8	75.3	56.9	31.9	15.1	41.2
Container	0.3	7.2	20.8	3.5	24.1	12.8	24.7	2.9	7.8
Other ships	1.2	4.3	6.8	6.0	8.9	12.0	7.0	2.1	3.8
Total	**33.8**	**129.5**	**76.0**	**46.4**	**141.9**	**114.3**	**116.0**	**33.1**	**89.1**

Yards that had appropriate contracts and keel laying certificates continued in 2017 to take newbuilding contracts on the basis of Common Structural Rules (CSR) requirements and IMO Tier II previsions. This enabled them to avoid the extra costs related to Harmonized Common Structural Rules (H-CSR) imposed as of 1 July 2015, and the new IMO Tier III NOx emissions as of 1 Jan 2016, especially in Japan. But this trend diminished in 2017.

Meanwhile the long-awaited implementation of the ballast water treatment regulations, which was supposed to come into effect in September 2017, was again postponed until September 2019.

In 2017, deliveries declined from 47.2m dwt to 38.5m dwt. At the end of the year, the dry bulk orderbook stood at 91m dwt and the dry bulk active fleet had grown from 761m dwt to 800m dwt. Newbuilding orders represent about 11.3% of the active bulker fleet broken down as follows:

- **Handysize and Handymax:** orderbook 7.0m dwt; fleet 118.8m dwt; ratio 5.9%
- **Supramax and Ultramax:** orderbook 13.1m dwt; fleet 162.4m dwt; ratio 8.0%
- **Panamax and Kamsarmax:** orderbook 21.3m dwt; fleet 162.1m dwt; ratio 13.1%
- **Post-Panamax and Babycape:** orderbook 2.9m dwt; fleet 53.9m dwt; ratio 5.3%
- **Capesize and Newcastlemax:** orderbook 17.9m dwt; fleet 246.6m dwt; ratio 7.2%
- **VLOC:** orderbook 26.7m dwt; fleet 63.2m dwt; ratio 42.2%

Chinese shipbuilders consolidated their dry bulk market share at 60.9%, while Japan's share fell from 34% to 27%. Korean shipbuilders, who had previously been forced out of this market due to the prevailing low prices, managed nonetheless to increase their market share from 1% to 8% in 2017. This was

mainly due to the VLOCs ordered by Korean shipowners Polaris, H-Line and Korea Line at Hyundai Heavy Industries against Vale employment.

Tanker orders, including chemical tankers, increased significantly in 2017 from 13m dwt in 2016 to 36.3m dwt. Korea continued to lead the segment with a 41% market share but its stake is under pressure from China (30%) and Japan (21%). Chinese shipyards are continually improving their reputation for tanker construction, and several leading western tanker players have put their confidence in the yards, while the Korean shipbuilding industry was unable to take certain newbuilding orders because of financial difficulties.

Tanker deliveries rose from 33.1m dwt to 38.4m dwt in 2017. The active tanker fleet grew from 550m dwt at the end of 2016 to 589m dwt at end 2017.

Tanker newbuilding orders represent some 14% of the active tanker fleet distributed as follows:

- **MR1:** orderbook 0.3m dwt; fleet 19.8m dwt; ratio 1.5%
- **MR2:** orderbook 9.5m dwt; fleet 73m dwt; ratio 13%
- **Panamax and LR1:** orderbook 2.4 m dwt; fleet 32.3m dwt; ratio 7.4%
- **Aframax and LR2:** orderbook 15.8m dwt; fleet 107.1m dwt; ratio 14.7%
- **Suezmax and LR3:** orderbook 12.1m dwt; fleet 88.6m dwt; ratio 13.6%
- **VLCC:** orderbook 35.7m dwt; fleet 222.8m dwt; ratio 16%

Containerships orders that had completely collapsed in 2016 to just 2.9 m dwt of orders, (after an exceptional 2015 vintage of 24.7m dwt, the third best year since 2000) increased by about 160% in 2017 to 7.8m dwt.

The focus was on Very Large Containerships (VLCs) with two groundbreaking orders, one by MSC and one by CMA CGM for a total of twenty 23,500 teu giant container carriers (400m length overall and 61m beam).

China once more increased its market share in this segment from 44% to 49%, to the detriment of Korea which held 23%, while Japan remained unchanged at 23%.

Deliveries rose from 10.2m dwt in 2016 to 12.5m dwt in 2017. The active container carrier fleet grew from 240.5m dwt at end 2016 to 253.1 m dwt at end 2017. The orderbook represents about 12.5% of the active container carrier fleet.

Figures based on units and teu are as follows:

- Number of container ships worldwide: 5,178
- Fleet capacity: 21.1 million teu
- Fleet growth since January 2017: 3.7%
- Unemployed fleet (in teu): 1.9%
- Confirmed newbuilding orders (in teu): 2.66 million teu
- Vessel orderbook as percentage of fleet capacity: 12.5%
- Average age of the world container fleet: 11.8 years

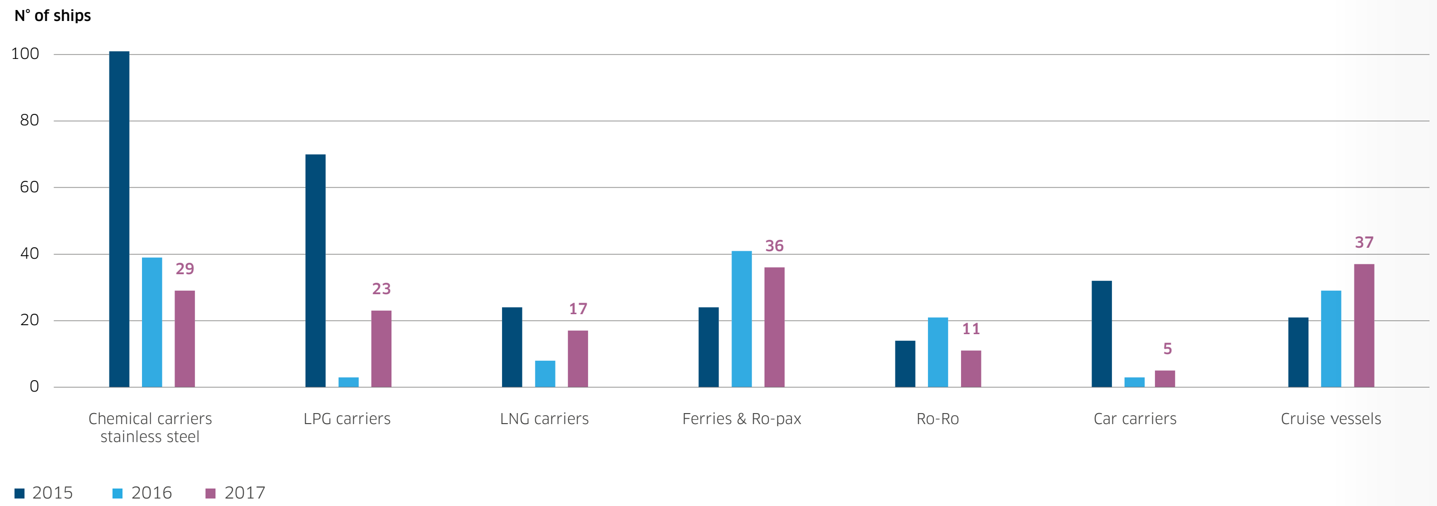
It is interesting to note that the container carrier orderbook shows newbuilding activity for the following segments: 1,000-4,000 teu and greater than 10,000 teu. There is essentially no newbuilding activity in the other segments such as below 1,000 teu and between 4,000 and 10,000 teu.

Tanker		2016	2017
Orders	m dwt	13	36.3
Deliveries	m dwt	33.1	38.4
Orderbook	m dwt	85.2	82.3
Active Fleet	m dwt	550.9	589.3
Orderbook/Active Fleet		**15.47%**	**13.97%**
China orderbook	Market share	33%	30%
	m dwt	28.1	24.8
Korea orderbook	Market share	37%	41%
	m dwt	31.9	33.4
Japan orderbook	Market share	21%	21%
	m dwt	18.2	17.7

Container		2016	2017
Orders	m dwt	2.9	7.8
Deliveries	m dwt	10.2	12.5
Orderbook	m dwt	36.5	31.6
Active Fleet	m dwt	240.5	253.1
Orderbook/Active Fleet		**15.18%**	**12.49%**
China orderbook	Market share	44%	49%
	m dwt	16.1	15.6
Korea orderbook	Market share	24%	23%
	m dwt	8.9	7.1
Japan orderbook	Market share	23%	23%
	m dwt	8.3	7.1

	Existing		Orderbook		O / E
Size range teu	**ships**	**teu**	**ships**	**teu**	**%**
18,000-23,000	66	1,279,161	59	1,247,776	**97.5%**
13,300-17,999	145	2,104,284	32	459,656	**21.8%**
12,500-13,299	100	1,325,068	13	182,814	**13.8%**
10,000-12,499	142	1,507,327	27	303,264	**20.1%**
7,500-9,999	480	4,223,873	-	-	**0.0%**
5,100-7,499	458	2,842,259	4	21,180	**0.7%**
4,000-5,099	644	2,918,621	2	8,000	**0.3%**
3,000-3,999	240	834,822	23	80,732	**9.7%**
2,000-2,999	625	1,584,809	89	231,439	**14.6%**
1,500-1,999	595	1,020,275	50	90,798	**8.9%**
1,000-1,499	703	810,213	31	34,654	**4.3%**
500-999	789	586,438	14	8,980	**1.5%**
100-499	191	62,584	2	590	**0.9%**
Total	**5,178**	**21,099,734**	**346**	**2,669,883**	**12.7%**

New orders for specialised vessels per year



Orders for specialised vessels

	2009	2010	2011	2012	2013	2014	2015	2016	2017
Chemical carriers stainless steel (dwt)	122,947	247,064	176,454	306,571	928,187	1,952,389	2,221,988	849,112	532,428
LPG carriers (cbm)	48,933	706,953	685,944	1,410,713	5,105,519	4,428,452	3,679,746	26,925	1,235,758
LNG carriers (cbm)	142,741	1,964,348	7,527,720	5,481,458	5,525,528	11,168,047	3,740,581	1,091,050	3,110,000
Ferries & Ro-pax (gt)	129,535	504,714	49,208	132,413	182,799	277,248	312,614	795,862	504,886
Ro-ro (lm)	25,770	6,000	49,304	88,940	12,770	8,583	30,246	95,142	47,752
Car carriers (cars)	1,750	124,150	57,502	145,522	260,979	155,263	202,017	19,248	38,000
Cruise vessels (gt)		1,068,805	819,891	660,312	742,688	2,126,224	2,485,596	2,741,660	2,842,738

Orders and orderbooks for specialised vessels

Because of their relatively high price and the fact the ships are usually traded cradle-to-grave, specialized vessels are often contracted when newbuilding prices are at their lowest.

Ferries and ropax followed the same brisk pace of ordering in 2017 than in 2016. Roro orders were strong too.

Cruise vessels reached a record level of contracting.

LPG and LNG carriers orders rebounded but continue to lag behind 2013-2015 levels due to the prevailing low rates in the segments during 2017. Stainless steel chemical tankers and car carriers attracted less interest than in the 2013-2015 period.

LPG and LNG carrier orders rebounded

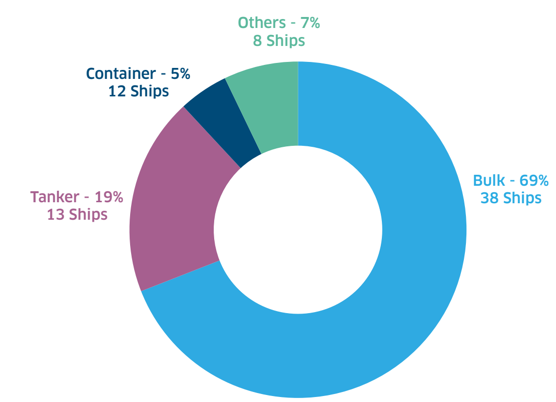
ORDER CANCELLATIONS IN 2017

The number of order cancellations - a potent sign of the crisis in the shipbuilding industry – fell substantially in 2017 to the lowest figure in over a decade at 4.2m dwt.

In 2016, we saw instances where owners could not arrange financing for tail-heavy delivery instalments (60% to 80% of the contract price) on their newbuildings. This was either due to their being no bank available to finance the instalment, or if there was one, the bank was only able to finance a percentage of the 'fair market value' of the vessel, which was often well below the contract price.

However, in 2017 the gap between resales prices and newbuilding prices almost disappeared, facilitating financing.

Cancellations in 2017



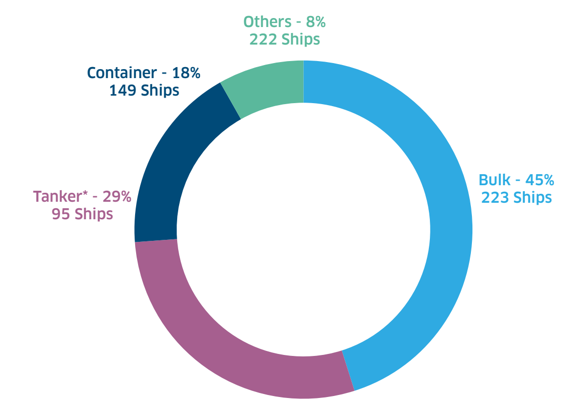
Orders vs cancellations (2008-2017)

m dwt	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Cancellations	19.1	36.7	38.6	23.3	16.7	31.4	15.2	12.2	12.9	4.2
Orders	135.1	33.8	129.5	76.0	46.4	141.9	114.3	116.0	33.1	89.1

Order cancellations fell substantially in 2017

__Picture:__ Besiktas Shipyard, builder of Transport Desgagnes' Dual Fuel Propulsion Polar Class product chemical tanker __DAMIA DESGAGNES__. Besiktas is also renowned for its expertise and market share in ship repair.

Demolitions in 2017



* *Incl. Chemical Tankers*

DEMOLITION IN 2017

Tonnage sent for demolition in 2017 declined from 44m dwt in 2016 to 31.7m dwt, reflecting the improved performance of the shipping market. That trend was accentuated in the bulk and container carrier markets where tonnage sent to scrap fell from 30.3m dwt to 14.2m dwt (bulk), and from 8.8m dwt to 5.6m dwt (container carrier). On the contrary, demolition in the tanker market rose from 2.5m dwt to 8.9m dwt.

The volume of demolished tonnage remains well below expectations and our forecast in January 2017 of a minimum 60m dwt. The final amount also lagged behind the 2011-2012-2013 average of 48.6m dwt.

Demolition prices hovered between $270 and $440 per lightweight ton, a rise compared to 2016 mainly as a consequence of increased steel prices and a reduced supply of ships for scrap.

In spite of a growing commercial pressure from oil majors, oil traders, bulk cargo owners and port authorities to avoid trading vessels over 15 years (ships can no longer trade on the Yangtze river if they are over 16 years), this has not translated into large amounts of additional scrapping.

The average age of demolition remains high, at 24 years for both bulkers (up from 23 in 2016) and tankers (down from 27 in 2016).

The average age also rose for container carriers to 20 years in 2017 versus 22 years in 2015 and 19 years in 2016.

We expect however that the upcoming rules and regulations related to the implementation of the Ballast Water Treatment System (BWTS) regulations in September 2019, and the necessary compliance with reductions in NOx and SOx emissions as of 1 January 2020, will have a significant impact on demolition rates.

The volume of demolished tonnage remained well below expectations

Demolitions vs deliveries (2008-2017)

m dwt	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Demolitions	13	36	29.4	41.5	59.4	44.9	34.3	36	44	31.7
Deliveries	92.4	115.1	150.1	162	152.3	107.1	88.1	95.2	98.6	95.9

Year	Bulk			Tanker			Container		
	Dwt scrapped	Ave Age of scrap	Scrap price range	Dwt scrapped	Ave Age of scrap	Scrap price range	Dwt scrapped	Ave Age of scrap	Scrap price range
2008	4,700,473	31	[205-700]	4,404,847	30	[205-750]	1,459,259	29	[220-660]
2009	13,652,367	31	[240-330]	8,870,379	27	[280-390]	6,037,153	27	[240-330]
2010	7,612,665	32	[350-450]	14,317,073	27	[400-500]	2,171,355	26	[350-450]
2011	25,025,990	30	[450-535]	9,370,165	28	[480-545]	1,214,599	29	[460-535]
2012	35,358,976	28	[375-485]	14,166,065	24	[400-510]	4,835,001	24	[395-510]
2013	23,049,210	28	[360-425]	11,503,298	24	[390-445]	6,148,826	22	[390-445]
2014	16,607,153	27	[410-455]	8,368,842	26	[435-485]	5,789,141	22	[450-500]
2015	28,836,861	25	[270-390]	2,707,475	28	[300-415]	2,692,250	22	[310-445]
2016	30,398,116	23	[222-282]	2,549,201	27	[252-307]	8,810,150	19	[260-310]
2017	14,222,375	24	[275-420]	8,994,237	24	[305-440]	5,658,121	20	[315-440]

DELIVERIES AND WORLDWIDE SHIPBUILDING CAPACITY IN 2017

Total shipyard deliveries fell slightly from 98.6m dwt in 2016 to 95.9m dwt in 2017. This was divided into 38.5m dwt of bulk carriers (down from 47.2m dwt in 2016), 38.4m dwt of tankers (up from 33.1 m dwt) and 12.5 m dwt of containerships (up from 10.2m dwt).

In China, annual shipbuilding production (which had increased sevenfold between 2006 and 2011 from 10m dwt to 69m dwt) inched up from 35.8m dwt in 2016 to 38.3m dwt in 2017.

In Japan, annual output (which rose from 28m dwt to 33m dwt between 2008 and 2010) slid from 21.6m dwt in 2016 to around 20.2m dwt in 2017.

In South Korea, annual production (which had previously doubled from 25m dwt to 53.4m dwt between 2006 and 2011) declined again in 2017 to 30.8m dwt from 35.9m dwt in 2016.

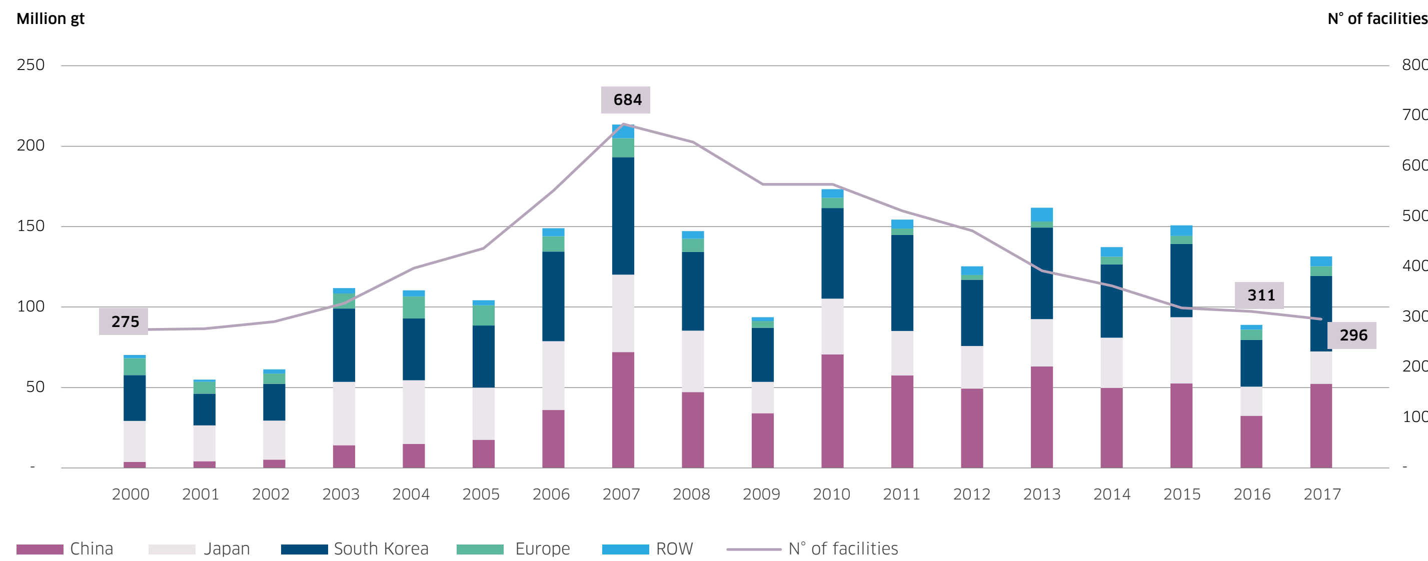
It is interesting to note that the number of active building facilities (yards that either won new contracts and/or delivered tonnage during a given year) fell again in 2017 to 302 facilities, after having dropped from a peak of 684 in September 2008 to just 311 at the end of 2016.

The number of active building facilities worldwide fell to just 302 in 2017

Ship deliveries in China, Korea & Japan (2008-2017)

Deliveries (million dwt)	2008	2011	2012	2013	2014	2015	2016	2017
China	22.3	68.8	65.0	43.0	35.7	37.9	35.8	38.3
South Korea	33.9	53.4	49.1	33.2	24.5	30.1	35.9	30.8
Japan	27.7	31.8	29.1	25.0	22.4	21.1	21.6	20.2

Active building facilities per year & region (excluding offshore)



*Picture: **IRELAND**, self-unloading bulk carrier, 68,000 dwt, built by China's Hantong shipyard and delivered to Vulica Shipping in 2018.*

NEWBUILDING PRICES IN 2017

Back in 2016, the quasi-disappearance of new orders plus the intensification of competition from the second hand market sent newbuilding prices below what had previously been thought of as the 'bottom'. Prices fell between 10% and 25% in 2016, depending on the type and size of ship, to reach new lows. To some extent, owners could dictate their own price to the yards, the implied reference being the level reached for yard resales.

At the start of 2017, the perception was that newbuilding prices had truly reached a bottom and that they could only rise again due to the enormous pressure on shipyards.

As a matter of fact, change came from the dry bulk market. An improvement in the bulk freight market, subsequent price increases in the second hand market, and a closing of the gap between newbuilding and resale prices (the ceiling of resales prices pushing the floor of newbuilding prices) all served to drive prices northwards.

This was assisted by an increase in the yards' building costs (steel prices, new rules and regulations) plus a weakening in the US dollar versus the main shipbuilding currencies.

In 2017, newbuilding prices increased as follows:

- Bulkers from 15% to 20% for the larger sizes (Newcastlemax and Capesize) and from 5% to 10% for the smaller sizes (Handysize to Kamsarmax)
- Tankers by around 5% for the large sizes (VLCC) and 10% for the smaller sizes (MR2 to LR2)

Newbuilding prices (million $)

	1993	Low 4Q 2002	Peak 2Q 2008	End 2015 China	End 2015 SK/Japan	End 2016 China 1st tier**	End 2016 SK/Japan	End 2017 China 1st tier**	End 2017 SK/Japan
Tankers									
VLCC	100	64	140-155	85-88	90	75-77	81-83	78	83
Suezmax	63	44	90-100	53-57	64	50-52	56-58	53	58
Aframax (A) LR2	45 (A)	34 (A)	70-75 (A)	45 (A) 48 (LR2)	51 (A) 55 (LR2)	40-42 (A) 42-44 (LR2)	45-47 (A) 47-49 (LR2)	46 (A) 48 (LR2)	50 (A) 52 (LR2)
MR2 IMO 3	32,5	27	48-51	34	36	31-33	34-35	33	36
Bulkers									
Newcastlemax (205k dwt)	N/A	N/A	N/A	50-55	58-60*	40-42	50-55*	48	50
Capesize (180k dwt)	48	36	90-101	47-50	55-57*	37-38	47-52*	46	48
Panamax (P) Kamsarmax (K)	29 (P)	21.5 (P)	53-60 (K)	25-26 (K)	26 (K)*	23-24	24-25*	26.5 (K)	28.5 (K)
Ultramax (U) Supramax (S) Handymax (H)	25 (H)	20 (S)	47-50 (S)	23-24 (U)	24(U)*	22-23 (U) 19-20 (H)	23-24 (U)* 21-22 (H)*	25.5 (U) 23 (H)	26.5 (U) 24 (H)

** Japan only, ** Prices at China's 2nd tier yards are an estimated 5% lower*

Second hand price evolution during 2017 for 5 year old vessels (million $)

	Jan 2017	High	Low	Dec 2017	Variation Jan- Dec
VLCC	59.40	61.60 05 Jun	58.60 13 Feb	61.25	3.1%
Aframax	27.50	29.93 21 Aug	27.30 13 Dec	29.37	6.8%
MR Tanker	20.25	24.30 29 May	20.25 02 Jan	23.49	16.0%
Capesize	22.15	33.30 04 Dec	22.15 02 Jan	32.80	48.1%
Panamax	14.10	20.50 13 Nov	14.00 16 Jan	20.40	44.7%
Supramax	13.75	17.50 27 Nov	13.75 02 Jan	17.25	25.5%

SHIPBUILDING IN THE WORLD

Shipbuilding in China

China maintained its position as the world's leading shipbuilder in 2017, ranking number one for its orderbook of 99.8m dwt (45% market share), number one for its 36.4m dwt of newbuilding orders (around 41%), and number one for its tonnage output of 38.3m dwt (around 40%).

At 36.4m dwt, Chinese yards secured around double the volume of orders in 2017 than in 2016 (17.3m dwt), although the increase was somewhat less than the global trend for the year. It is interesting to note that 80% of these orders were placed in just 11 shipyards out of the 105 so-called active building facilities in existence in 2017.

China		2016		2017	
		m dwt	Ships	m dwt	Ships
Orderbook	Market share	44.9%	1,351	44.9%	1,267
	Bulk	55.9	516	55.5	478
	Tanker	28.1	368	24.8	350
	Container	16.1	262	15.5	248
	All ships	**104.7**	**1,351**	**99.8**	**1,267**
Orders	Bulk	12.5	45	24.8	236
	Tanker	3.1	68	7.3	116
	Container	1.1	53	3.1	68
	All ships	**17.3**	**216**	**36.4**	**485**
Deliveries	Bulk	22.3	275	22.4	237
	Tanker	8.9	101	10.9	130
	Container	2.8	65	3.7	79
	All ships	**35.8**	**532**	**38.3**	**519**

With 24.8m dwt of dry bulk orders during the year, China continues to dominate this segment and bulk represented some two-thirds of its total order intake. But China had to concede supremacy in 2017 to Korea's yards for tanker and container carrier newbuilding orders.

After a slight fall in deliveries in 2016, the Chinese shipbuilding industry managed to increase its production in 2017 to 38.3m dwt (roughly the same level as in 2015), and the ratio between the current orderbook and current output is now about 2.5.

In January 2017, the Chinese ministry in charge of the shipbuilding sector issued future guidelines, setting a goal that the top 10 national shipbuilders should represent more than 70% of domestic output by 2020. Data shows that in 2011 the top 10 shipbuilders in China accounted for 35% of the total delivery volume, a figure which reached 63.7% in 2017. After the industry's expansion and privatization in the 2000s, consolidation and re-nationalization is the motto for the 2010s.

China ranked number one for orderbook, new orders and output in 2017

*Picture: **SONANGOL CAZENGA**, crude oil tanker, 156,899 dwt, delivered in 2017 by Korea's DSME shipyard to Sonangol.*

Some newsworthy events of the year

White List

Since its inception in 2014, seven yards have been removed from the White List. Six yards were added in 2017 :

- Nantong Huatai
- Jiangsu Dajin Co.Ltd
- Tsuneishi Group (Zhoushan) Shipbuilding Inc.
- Zhejiang Xinle
- Fujian Changxin Heavy Industry Ltd. Co.
- ZPMC Shanghai

A place on the White List can raise the profile of yards in the shipping and banking communities but it is not a guarantee of success. Of the 70 yards currently on the White List, fewer than half took orders in 2017.

Consolidation, Restructurings and Bankruptcies

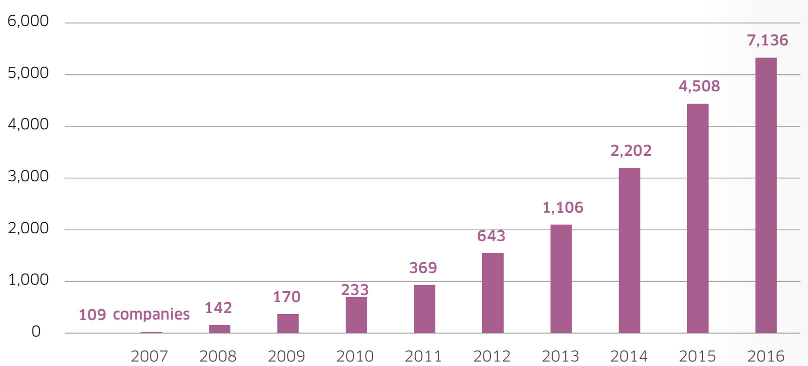
Newbuilding price pressure, a dearth of orders, yard closures and the realization of losses at both yards and banks are all driving further consolidation of the industry:

- **CIMC and SOE:** after a initial fruitless attempt in 2016, CIMC Enric, an affiliate of China International Marine Containers (CIMC), finally acquired Sinopacific Offshore & Engineering (SOE). SOE has a track record in the design and manufacture of LPG and LEG carriers, IMO type C tank liquid cargo handling systems for LNG and LPG carriers, as well as the production of marine oil and gas modules.
- **CSSC and CSIC:** 2018 could be the year of the merger of CSSC and CSIC. The rumour has become more and more persistent. The CSSC group split in 1999 into CSSC for South shipyards and CSIC for North shipyards. The merger of the two largest state-owned shipbuilding groups would have a major impact on the newbuilding industry.
- **Qingshan:** Qingshan Shipyard, an affiliate shipyard of state-run shipping and logistics giant Sinotrans & CSC, decided to quit shipbuilding as part of the parent group's latest effort to cut capacity.
- **GSI Liwan** (downtown Guangzhou) will deliver its last newbuilding in 2018 and all future production will be carried out at GSI Nansha, which has been in operation since 2007 and was purchased by the GSI Group in 2011.
- **Several state-owned companies invested in private yards in 2017:**
  - State-owned trading house **Sumec** took over ex Sinopacific Dayang which went bankrupt in 2016.
  - State-owned shipyard **Wuchang**, part of CSIC Group, plans to buy 51% of the shares of Zengzhou shipyard located in the Zhoushan area.
  - **CIMC** are in talks to invest some 50% in Zhoushan Changhong shipyard.

Chinese leasing companies

Chinese leasing companies have taken a prominent role in the ship finance industry in the wake of the difficulties experienced by traditional ship financiers. From 100 leasing companies with total assets of RMB 24 million in 2007, we counted 7,000 Chinese leasing companies at the end of 2016 with total assets of about RMB 5,330 billion.

Total assets committed by Chinese leasing companies



Chinese leasing companies have taken a prominent role

Picture: ***BIT ECO****, asphalt tanker, 9,922 dwt, built by Turkey's RMK in 2017 for Tarbit Shipping.*

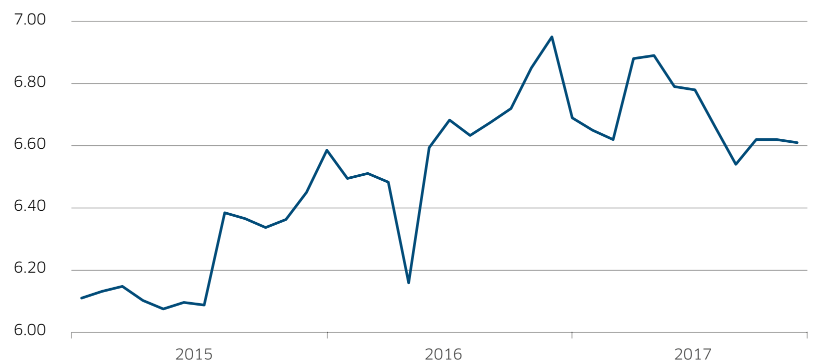
Leading Chinese leasing companies specialising in shipping and offshore:

Company	Total Value of Vessel and Offshore Assets (Billion $)
ICBC Leasing	10.81
Bank of Communication Leasing	7.52
Minsheng Financial Leasing	6.11
Cosco Shipping Leasing Co. LTD	5.64
CSSC Leasing	4.70
CMB Financial Leasing	4.70
CDB Financial Leasing	2.35
Civic Leasing	1.41
CCB Leasing	0.94
Others	2.82

Currency

China's currency weakened from about RMB 6.5 to the US dollar at the start of 2016 to RMB 6.95 at the end of the year, bringing some relief to the Chinese shipbuilding industry during the year. However, it went the other way in 2017, strengthening from RMB 6.69 to RMB 6.61 in 2017, increasing pressure on building costs.

Average exchange rates of the Yuan to the US Dollar



Some significant orders in 2017

- In 2016, ICBC Leasing, COSCO and China Merchant Group together placed a giant deal for thirty 400,000 dwt VLOCs at Chinese yards, with the ships to be chartered out to Brazilian mining giant Vale. Each company ordered ten ships, with the orders split between Yangzijiang (6 units), Beihai (8 units), SWS (14 units) and CMHI Jiangsu (2 units). One further Valemax was also contracted by Japanese owner NS with JMU. In 2017, Vale unexpectedly doubled down with another giant deal of thirty-seven VLOCs. Chinese yards again benefited, with 14 orders during the year: ICBC (China) placed 6 units with Beihai, Panocean (Korea) ordered 6 units with New Times and U-Ming (Taiwan) ordered 2 units with Beihai.
- CMA-CGM placed an order for nine 23,500 teu container ships with the CSSC group. Five units will be built by Hudong-Zhonghua and four at Shanghai Waigaoqiao Shipbuilding (SWS). This order is remarkable not only for the fact they will be largest container carriers ever built (loa 400 m, beam 61 m) but also because they will be equipped with dual fuel propulsion based on GTT membrane LNG bunker tanks.
- Maersk Tankers ordered ten 115,000 dwt LR2 product tankers at Dalian shipyard.
- BoCom Financial Leasing placed an order for six Suezmax tankers and four LR2 product tankers with New Times. These ships will be time chartered to the Trafigura Group.
- CDB Financial Leasing ordered five 208,000 dwt Newcastlemax bulkers at New Yangzijiang with an option for five additional units.
- Mitsui OSK Lines signed contracts for four 174,000 cbm LNG carriers at Hudong-Zhonghua in connection with YAMAL LNG project.
- COSCO entered into multiple shipbuilding contracts: with Dalian Shipyard for four 319,000 dwt VLCCs and three 158,000 dwt Suezmax tankers; with GSI for two 64,900 dwt crude oil tankers, two 109,900 dwt product and crude oil tankers and three 114,000 dwt crude oil tankers.
- Sunstone contracted two 85-cabin ice class 1A expedition cruise vessels with CMHI Jiangsu based on a design and a procurement package arranged from Scandinavia.
- Tsuneishi Zhoushan announced that it will build a 2,500-passenger cruiseship.

China's currency strengthened in 2017, increasing pressure on building costs

Shipbuilding in South Korea

After having lost its place as the world's second largest shipbuilder in 2016 to Japan, Korea rebounded sharply in 2017. It reclaimed its position, ranking number two for its orderbook of 55.1m dwt (25% market share), number two for newbuilding orders of 35m dwt (around 39%), and number two for its tonnage output of 30.8m dwt (around 32%).

This turnaround was the result of a strong push to win more newbuilding orders, and the country logged an increase far above the global trend (35m dwt in 2017 vs 6.6m dwt in 2016). In 2017, the world's largest shipbuilder, Hyundai Heavy Industries (HHI), exceeded its order target by 33%, recording 20.6m dwt of orders. SHI also exceeded its order target, achieving 4.7m dwt of orders, while DSME, struggling with a financial crisis, fell short of its target at 5.6m dwt. Overall, the 'Big 3' secured 88% of all orders placed in South Korea in 2017.

Korea's shipbuilders remain extremely strong in the tanker segment, capturing about 61% or 22.3m dwt of tanker orders worldwide. The remaining 13.9m dwt was split 7.3m dwt for China, 3.8m dwt for Japan, 1.0m dwt for Europe and 1.8m dwt for the rest of the world.

South Korea		2016		2017	
		m dwt	Ships	m dwt	Ships
Orderbook	Market share	22.0%	475	24.8%	422
	Bulk	1.3	10	7.0	23
	Tanker	31.9	253	33.4	240
	Container	8.9	60	7.1	50
	All ships	**51.4**	**475**	**55.1**	**422**
Orders	Bulk	0.05	1	6.9	21
	Tanker	5.3	52	22.3	143
	Container	0.6	4	4.1	31
	Gas	0.5	7	1.6	26
	RoRo	0.0	0	0.07	4
	All ships	**6.6**	**66**	**35.0**	**225**
Deliveries	Bulk	5.9	34	1.2	8
	Tanker	19.7	177	20.1	152
	Container	5.7	47	5.8	41
	All ships	**35.9**	**341**	**30.8**	**272**

Some significant orders in 2017

- HHI returned to the dry bulk market in 2017 after three years without orders, securing 6.9m dwt of VLOC contracts for the Vale project (21 units of 325,000 dwt, ordered by H-Line (4 units), Polaris (15 units) and Korea Line (2 units).
- HHI secured an order to build up to six LNG-fuelled Aframax tankers for Russian shipowner Sovcomflot, which will trade in the Baltic and North European areas.
- MSC placed an order (concomitantly with their rival CMA CGM) for eleven 23,500 teu container ships with DSME and SHI. In contrast to the CMA CGM orders, these ships will not be equipped with dual fuel propulsion.

Korea rebounded sharply in 2017, regaining its number two position

Most newsworthy events of the year

Consolidation, Restructurings and Bankruptcies

In 2017, the Korean shipbuilding industry continued its rigorous reorganization plan (building capacity reduction, labour cost cutting, lay-offs, closures). All the yards are intensifying their efforts to reduce building capacity and implement cost-cutting measures, under pressure from the authorities and national banks.

Hyundai Heavy Industries (HHI) successfully secured about 60% of the orders placed in Korea in 2017. It exceeded its order target by 33%, recording $10 billion of orders. HHI decided to shut down its yard facility in Gunsan but could reopen it in 2019 if at least 70 orders are won in 2018. However, HHI's main yard in Ulsan is suffering from a lack of orders and it has asked 5,000 of its 17,000 employees to take unpaid leave. The shipbuilder shut two docks in its Ulsan yard. The company remains optimistic for 2018 and has set a sales target of $13.2 billion for 2018, nearly double its $7.5 billion target for 2017.

Samsung HI (SHI) exceeded its order target, achieving $6.9 billion of orders compared to a target of $6.5 billion. As part of an effort to boost liquidity, SHI is seeking the consent of all its employees to return 10% of their salaries over the past 10 months. SHI has already undertaken intensive cost-cutting measures as part of its rescue plan. By the end of 2017, SHI had shed as many as 5,600 of its 14,000 permanent staff. Anticipating losses in 2017 and 2018, SHI executed a KRW1.5 trillion ($1.3 billion) rights issue in December 2017 and laid off 30% of its executives. The company has set a sales target of $7.7 billion for 2018, up 18% from 2017. The new CEO Nam Joon-ou is forecasting an operating profit in 2019 due to cost-cutting and an expected increase in orders in 2018. SHI agreed to create a joint venture with Zvezda Shipbuilding Complex (Russia) to jointly manage the construction of ice-class shuttle tankers (42,000–120,000 dwt). These tankers will be deployed to ship crude oil produced by Rosneft and other Russian companies.

Daewoo Shipbuilding and Marine Engineering (DSME) fell short of its sales target of $6.2 billion with $2 billion of orders. DSME was especially hard hit due to an accounting fraud that resulted in a massive $2.8 billion loss for 2015. DSME's main lenders, the Korea Development Bank (KDB) and the Export-Import Bank of Korea, launched a second rescue package worth KRW6.7 trillion ($6 billion), conditional on DSME cutting another 1,000 jobs and implementing more intensive cost-cutting measures. Hopefully, the yard has nearly completed the sale of its non-core subsidiaries, fulfilling its KRW5 trillion rescue plan. For 2018, DSME is aiming for more than $5 billion of orders.

Small and mid-tier shipbuilders are also struggling with falling orders and the reorganization of their building capacities and debt.

Hyundai Mipo Dockyard (HMD) is now largely dominating the small and mid-tier shipyard segment, accumulating about 60% of new orders placed at Korean small and medium size yards in 2017. It won 51 orders in 2017 against 25 in 2016, representing about 70% of its building capacity. Its main product is the MR tanker and the company succeeded in winning about 50% of these orders placed worldwide.

STX Offshore & Shipbuilding (STX) secured eleven orders in 2017 (six 50,000 dwt and five 11,200 dwt product tankers). This was vital for STX as their backlog ran only to the start of 2018. KDB agreed to issue the necessary bank refund guarantees. STX resumed restructuring efforts under its creditor banks' direction after emerging from court protection in July 2017. STX has set a target of winning 20 orders in 2018 against 7 units in 2017. Some rumours are suggesting a possible merger of Sungdong and STX.

Work at **Sungdong Shipbuilding & Marine Engineering** came to a standstill after the shipbuilder delivered its last ship in October 2017, forcing its employees to go on unpaid leave. Pending orders, including five 115,000 dwt tankers from Kyklades Maritime, have not been confirmed as Sungdong's banks are withholding refund guarantees over concerns that the ships are underpriced. However, officials of South Gyeongsang province where the shipyard is based refused to give up and have appealed for government and bank support.

Dae Sun Shipbuilding and Engineering secured nine ships in 2017 (6 small containerships and 3 small tankers). Korea Eximbank and other creditor banks have been working with Dae Sun to restructure its debts. KExim has not ruled out selling the yard in due course.

Daehan Shipbuilding, now under the management of DSME, secured orders for six Aframaxes in 2017 after receiving no orders in 2016.

Hanjin Heavy Industries & Construction (HHIC) entered into an autonomous restructuring agreement in 2016 with its main creditor, Korea Development Bank (KDB), after incurring debts of more than $1 billion. The engineering subsidiary Korea Engineering Consultants Corp is set to be taken over by its employees. HHIC is now concentrating on the construction of merchant ships at its yard in Subic Bay in the Philippines. No order has been registered at Hanjin Busan since 2015.

SPP Shipbuilding (SPP) shut down in 2017 having run out of orders and failed to find a buyer. Liquidation appears to be inevitable. The shipbuilder's banks, led by main creditor Woori Bank, appear to have given up hope that SPP can be revived, with the last two vessels in its orderbook nearing completion without any new contracts.

Small and mid-tier shipbuilders are struggling with falling orders

*Picture: **STENA IMMACULATE,** MR2 tanker, 49,729 dwt, delivered by GSI in 2017 to Stena Bulk, part of a 13-ship contract.*

Shipbuilding in Japan

In 2016, Japan moved up to become the world's second largest shipbuilding nation based on the size of its orderbook and orders won, overtaking Korea, which nevertheless remained ahead of Japan on volume of deliveries. In 2017, Japan could not retain this advantage. Japanese shipyards secured around 40% more orders in 2017 compared to 2016 (11.9m dwt versus 7.7m dwt), however the increase was less than the global trend for the year. Its orderbook decreased from 62m dwt to 53.1m dwt and its market share receded from 26.6% to 23.9%

Japan remains a strong player in the bulk segment, with a significant increase in new dry bulk orders in 2017 (7.2m dwt versus 2.4m dwt in 2016). In terms of tanker orders, yards secured around the same volume as 2016 (3.8m dwt).

Some 28 Japanese shipyards recorded an increase in orders in 2017, while the three largest (JMU, Oshima and Imabari) counted for 70% of total new orders, underlining the on-going concentration in the shipbuilding industry.

Some newsworthy events of the year

Japan considers shipbuilding as a strategic industry and plans to reinvigorate the sector, targeting a 30% market share of completed ships by 2025. New technologies, alliances and consolidations make up the major elements of Japan's strategy to recover market share. Industrial groups whose main activity is focused on shipbuilding, such as Imabari, Oshima, Namura, JMU, Tsuneishi and Shin Kurushima, will continue to adapt and expand so as to compete with their Chinese and Korean counterparts. Shipbuilders that are part of larger industrial companies, such as MHI, KHI, MES and Sumitomo HI, for which shipbuilding represents a minor part of total turnover, might in the years to come withdraw gradually from shipbuilding activities.

Japan lost its second place in 2017

Japan		2016		2017	
		m dwt	Ships	m dwt	Ships
Orderbook	Market share	26.6%	901	23.9%	717
	Bulk	31.2	435	24.7	325
	Tanker	18.2	266	17.7	225
	Container	8.3	68	7.1	55
	All ships	**62.0**	**901**	**53.1**	**717**
Orders	Bulk	2.4	29	7.2	97
	Tanker	3.9	56	3.8	37
	Container	1.1	9	0.5	7
	All ships	**7.7**	**112**	**11.9**	**166**
Deliveries	Bulk	17.1	241	13.7	205
	Tanker	3.0	66	4.3	75
	Container	0.6	7	1.6	12
	All ships	**21.6**	**366**	**20.2**	**337**

- **Mitsubishi Heavy Industries (MHI)** reached agreement with Imabari Shipbuilding, Namura Shipbuilding and Oshima Shipbuilding to form an alliance in the commercial ship business. This alliance will allow them to enhance their competitiveness in shipbuilding, focus on core engineering capabilities such as development of new ship designs and technologies, standardization of design and construction, and efficient shared use of tools and equipment.
- After a failed attempt in 2013 to merge with Kawasaki Heavy Industries (KHI) due to internal opposition in KHI, **Mitsui Engineering & Shipbuilding (MES)** reached an agreement with its compatriot and rival Tsuneishi Shipbuilding to form an alliance to compete with Chinese and Korean rivals. The plan is to design and build merchant ships jointly, especially bulkers. MES is also preparing a spin-off plan that will see its various business units become separate entities.
- **Imabari Shipbuilding** is progressively taking control of its rival Minami Nippon. Agreements have been signed to buy 25% of the shares from MES and 24% from MES shipping affiliate Mitsui OSK Lines (MOL). Imabari acquired Tsuneishi's subsidiary Tadotsu Shipyard in 2013 and Koyo Dockyard in 2014. It now controls 11 separate shipbuilding sites and has tied up a business cooperation pact with Mitsubishi Heavy, Oshima Shipbuilding and Namura Shipbuilding. It also built a new very large dock in Marugame (610-metre-long dock equipped with three 1,330-ton Goliath cranes) to accommodate ULCS, VLCC and VLOC. The owning Higaki family has confirmed its ambition to revitalise the local economy by investing in shipbuilding in Japan rather than shifting production abroad with new facilities, as has been the strategy of compatriots Tsuneishi Shipbuilding and Kawasaki Heavy Industries.
- **Fukuoka Shipbuilding** has acquired Watanabe Shipbuilding. Both shipbuilders are based on Japan's southern island of Kyushu. Fukuoka specialises in building stainless steel chemical tankers, while Watanabe previously took orders for small general cargo ships, tankers, and LPG carriers.
- Japanese shipbuilder **Kawasaki Heavy Industries (KHI)** will recognise an extraordinary loss of JPY13 billion ($115.3 million) after agreeing mutually with Norway's Island Offshore to cancel an order for a top hole drilling light well intervention vessel. Island Offshore, through subsidiary Island Navigation, placed the order in 2013 and at the time, KHI sought to diversify into the building of offshore vessels amid high oil prices.

Shipbuilding in Europe

European shipyards maintained their world market share in 2017 at about 2%. After steady increases between 2013 and 2015 (from 2.7m dwt to 5.8m dwt), the European orderbook shrank in 2016 and 2017 to finish the year at 4.2m dwt. This was mainly due to the fact that Daewoo Mangalia shipyard, the main European contributor in deadweight tonnage, is now up for sale as part of the recovery strategy of parent company DSME, and as a result did not take any new orders.

The number of new European orders fell slightly from 90 ships in 2016 to 76 in 2017 but in terms of deadweight tonnage, volumes almost doubled (from 0.8m dwt to 1.3m dwt). The main contribution came from Russia's shipyards which secured around 0.65m dwt of new orders, mainly at Zvezda yard with contracts from Sovcomflot/Rosneft.

Europe		2016		2017	
		m dwt	Ships	m dwt	Ships
Orderbook	Market share	2.0%	266	1.9%	252
	Bulk	0.1	8	0.1	4
	Tanker	3.0	75	2.8	66
	Container	0.01	2	0.01	1
	All ships	**4.6**	**266**	**4.2**	**252**
Orders	Bulk	0.00	0	0.00	0
	Tanker	0.1	17	1.00	21
	Container	0.0	0	0.0	0
	Cruise	0.23	28	0.18	28
	All ships	**0.8**	**90**	**1.3**	**76**
Deliveries	Bulk	0.6	6	0.04	4
	Tanker	0.7	22	1.2	30
	Container	0.2	2	0.0	1
	Cruise	0.09	9	0.09	9
	All ships	**1.9**	**74**	**1.7**	**90**

The surge in newbuilding orders by the cruise industry, which started in 2013, shows no sign of abating. A total of 37 cruiseships were contracted in 2017, mainly with the three major shipbuilders, Meyerwerft, Fincantieri, and STX France, which together signed up 20 units. Other major European yards such as Vard, Kleven and Ulstein in Norway, Barreras in Spain, De Hoop in the Netherlands and West Sea in Portugal managed to win 11 orders between them. 2017 will go down as a record year, after a total of 29 orders in 2016, 21 in 2015, 16 in 2014, 10 in 2013 and 4 in 2012. The orderbook of the four major European cruise shipbuilders now stretches until 2025.

The depreciation of the euro versus the dollar, which started in the summer 2014 and brought the euro/dollar rate of exchange from 1.35 $/euro during the first half of 2014 to an average of 1.10 $/euro during 2015 and 2016, proved helpful in reducing the price gaps with Asian shipyards. But in 2017 the continuous appreciation of the euro versus the dollar from 1.04 $/euro in January to 1.20 $/euro at the end of December hindered efforts by Europe's shipyards to attract more orders for sophisticated tonnage aside from cruiseships

Europe's shipyards are now under pressure, and they are losing ground in what used to be one of their fields of expertise, ferries and ropax. Several of these contracts were placed with Chinese yards (Stena's ropax at Avic Weihai, DFDS' roro at Jinling, and Viking Line's ferry at Xiamen). It is likely that some other European companies will follow suit, although Flensburger and Visentini managed to capture some key ferry contracts.

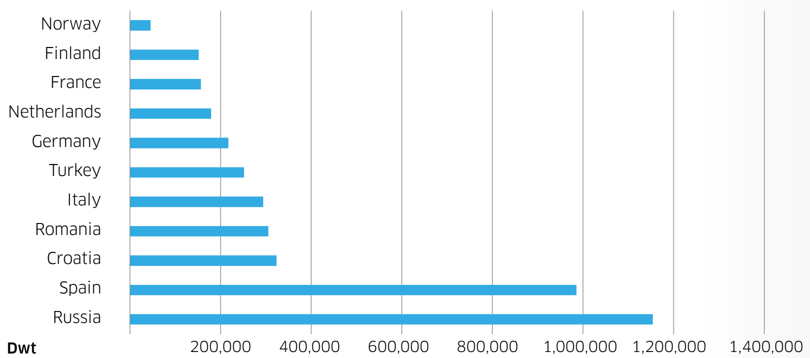
*Picture: **STOLT TENACITY**, stainless steel chemical tanker, 38,907 dwt, delivered by China's Hudong-Zhonghua in 2017 to Stolt Tankers.*

Most newsworthy events of the year

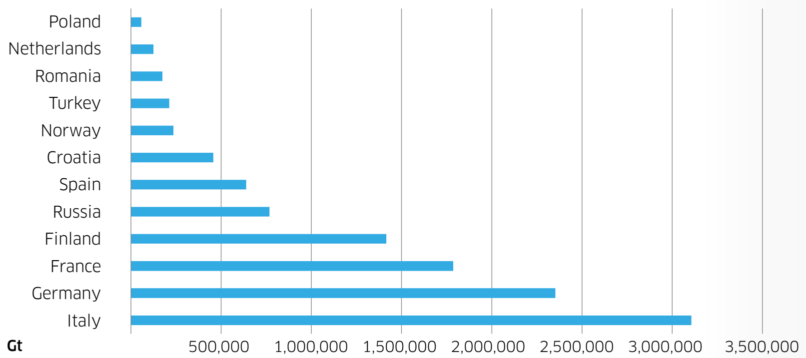
- Russia's shipbuilding industry jumped up seven places in 2016 to take the lead position in 2017, going from 0.2m dwt to 1.1m dwt on the back of several large domestic orders including four Aframax tankers with LNG propulsion from Sovcomflot and ten Artic shuttle tankers from Rosneft placed with Russian state-owned Zvezda Far Eastern Shipyard.
- The Spanish shipbuilding industry retained its second position in 2017 thanks to the six Suezmax tankers ordered by Ibaizabal with Navantia Puerto Real to be delivered in 2018. Barreras succeeded in entering the exclusive club of cruiseship builders with an order for a 300 passenger luxury cruiseship from Ritz Carlton. However, dredger and ropax specialist La Naval sought bankruptcy protection.
- Croatia meanwhile retained its third position, even if it did not secure any orders in 2017 and is currently experiencing some difficult times. The country relies on three yards: Uljanik/3Maj, Trogir and Brodosplit. The Croatian authorities are finalising a plan to restructure the Uljanik Group which would seek new investors and inject fresh cash to pay off debt.
- Romania is now in fourth position, having lost its leading position in Europe (orderbook of 0.3m dwt at end 2017 versus 1.5m dwt end 2016). It follows the lack of new orders at Daewoo Mangalia (DMHI) and the decision by parent DSME to sell the facilities as part of its own rescue strategy. But Romania can count on its other shipyards, such as Constanta, Vard Tulcea, Vard Braila and Damen Galatz.
- The Turkish shipbuilding industry has been able to maintain its sixth ranking in spite of the political uncertainty since the country's failed coup in July 2016. It is interesting to note that Turkish yards secured orders for 10 ships (tankers, ferries and general cargo for foreign accounts) in 2017.
- Norway's shipyards, which had lost a number of customers with the offshore crisis, managed very well in 2017 and took 15 newbuilding orders out of the 76 placed in Europe across nine different shipyards, rewarding them with fourth position in number of ships.

Romania lost its leading position in Europe

Orderbook of European shipyards 2017 (by dwt)



Orderbook of European shipyards 2017 (by gt)



- **The 8 largest shipbuilders in Europe (ranking in GT)**

Orderbook of European Shipyards	Gross Tonnage	Ships on order
Meyerwerft (Papenburg+Neptun+Turku)	4,449,566	28
Fincantieri	3,047,826	29
STX France	1,786,500	11
Navantia	495,632	6
Uljanik + 3 MAJ	420,275	13
Vard	167,054	17
Ferus Smit	85,335	15

Ranking Europe's shipyards on the basis of Gross Tonnage (GT) instead of Deadweight highlights those orderbooks based on high-value vessels with relatively small deadweights but larger gross tonnage. Ranking on this basis produces a totally different list, with the top four European shipbuilding nations being respectively Italy, Germany, France and Finland.

- **Russian and "Big 3" South Korean shipyards have signed several joint ventures :**

- Zvezda shipyard and Samsung HI created a joint venture to co-manage the construction of ice-class shuttle tankers (42,000–120,000 dwt). Rosneft has already placed an order for ten Arctic shuttle tankers of 42,000 dwt at Zvezda shipyard and also a letter of intent to build ice-class 70,000 dwt shuttle tankers. These tankers will be deployed to ship crude oil produced by Rosneft and other Russian companies.
- Far Eastern Design Institute Vostokproektverf, a subsidiary of Russia's Far Eastern Shipbuilding and Repair Center (FESRC), and Daewoo Shipbuilding & Engineering Co Ltd (DSEC), formerly the ship design subsidiary of Daewoo Shipbuilding & Marine Engineering (DSME), signed a joint venture agreement to provide design, engineering, procurement, management and supervision services.
- Zvezda shipyard and Hyundai HI created a joint venture to cooperate on building LNG-fuelled Aframax tankers for Rosneft.

- **The French and Italian authorities finally came to an agreement over the future of STX France.** The deal will split ownership of the French shipbuilder on a 50/50 basis but gives Fincantieri the majority it was requesting. France will loan 1% of the company's capital to Fincantieri, thus giving it provisional control, as well as the chairmanship of its board and the right to appoint the chief executive. The loan will have a 12-year term and the agreement between the two governments provides for regular reviews to ensure that its provisions are respected. France will hold 34.34% of STX, Naval Group 10% percent, STX employees up to 2.4% and local suppliers up to 3.26%. The partners must now find a new name for the yard.
- Dutch shipbuilder **Damen**, which already owns the Damen Galati shipyard in Romania and wishes to build larger ships, agreed to buy a majority stake in Daewoo Mangalia from DSME. However, the future is not clear as the Romanian government, which already has a 49% stake in the facility, indicated in early 2018 it might exercise its pre-emption rights to acquire the remaining 51%.

Shipbuilding in the Rest of the World

The orderbook in the Rest of the World (RoW) shipyards decreased slightly from 10.9m dwt to 10.2m dwt in 2017, albeit they retained about the same market share at 4.6%. But newbuilding orders jumped from 0.6m dwt (35 ships) to 4.4m dwt (83 ships), the highest since 2015. Four shipyards - HVS (Vietnam), CSBC (Taiwan), Tsuneishi Cebu and Hanjin Subic (The Philippines) - were responsible for more than 95% of the new orders.

With the exception of 2016, deliveries have been growing since 2008, from 2.5m dwt in 2008 to 5.0m dwt in 2017.

ROW		2016		2017	
		m dwt	Ships	m dwt	Ships
Orderbook	Market share	4.7%	234	4.6%	227
	Bulk	2.8	45	4.0	54
	Tanker	4.0	69	3.8	70
	Container	3.1	44	1.8	32
	All ships	**10.9**	**234**	**10.2**	**227**
Orders	Bulk	0.0	0	2.4	27
	Tanker	0.0	7	1.8	34
	Container	0.0	3	0.20	6
	All ships	**0.6**	**35**	**4.4**	**83**
Deliveries	Bulk	1.4	22	1.2	18
	Tanker	0.9	27	2.0	31
	Container	1.0	11	1.7	20
	All ships	**3.6**	**81**	**5.0**	**90**

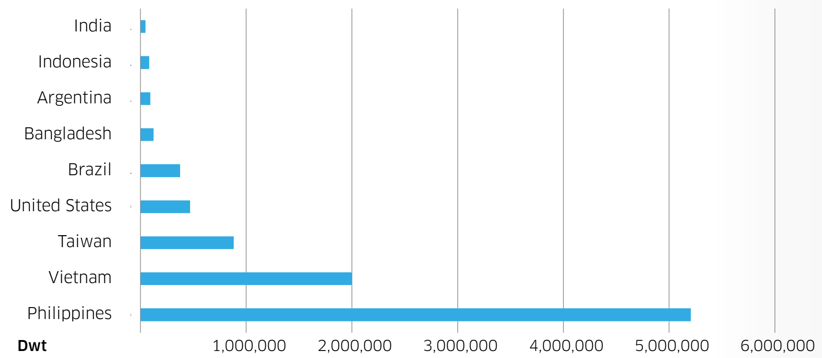
*Picture: **HAFNIA LOTTE**, tanker, 49,999 dwt, delivered to Hafnia Tankers in 2017 by Chinese shipyard GSI.*

Most newsworthy events of the year

- The Philippines remains by far the leader of the "Rest of the World" shipbuilding group with 56% of the total orderbook against 30% in 2016 (30% of the orderbook for Tsuneishi Cebu and 24% for Hanjin Subic).
- Vietnam consolidated its second position thanks to HVS which took 89% of the new orders in 2017. The country counts some other foreign-controlled shipyards such as Vard Vung Tau and Triyards, with the latter unfortunately experiencing some financial difficulties.
- Taiwan remained in third position but CSBC shipyard saw its orderbook shrink with only two Capesize contracts secured in 2017.
- The United States maintained its fourth position thanks to the order of two 2,500 teu containerships with LNG propulsion from the Pasha Group at Keppel AmFELS.
- Brazil is slowly emptying its orderbook, with no orders taken in 2016 or 2017. Only one shipyard, Eisa Ilha, still has orders (4 tankers and 3 containerships) lasting until 2019. Brazilian yards have been caught in the fallout from the Petrobras bribery scandal.
- Bangladesh displayed a great deal of dynamism in 2017 and now has an orderbook of twenty nine units to be built at nine different shipyards. It currently holds sixth position. The main yards are Western Marine and Meghna.
- Saudi Arabia's Ras Al Khair Shipyard opened in 2017. Its ambition is to become the largest shipbuilding and repair facility in the Middle East thanks to its venture partners Saudi Aramco, National Shipping Company of Saudi Arabia (Bahri), Lamprell, and Hyundai Heavy Industries (HHI).

There is a growing pressure to phase out old tonnage

Orderbook Rest of the World 2017 (by dwt)



PERSPECTIVES FOR 2018

Newbuilding prices rose significantly in 2017. That increase was driven by:

- **Increased building costs**, deriving mainly from: the rise in steel prices, implementation of new rules and regulations, the weakening of the US dollar against the Yuan, Won, Yen, Euro (the currencies of the main building countries).
- **A reduction in shipbuilding capacity** in Korea, China and Japan, exacerbating competition.
- **An increased reluctance by shipyards to take on loss-making contracts.**
- **A rise in newbuilding orders**: about 89m dwt in 2017 versus 33m dwt in 2016, reducing the pressure on shipbuilders.

We believe that prices will continue to rise in 2018 and intensify in the years to come, driven by age limits, technical obsolescence and fuel emission regulations.

Age limit

There is a growing pressure to phase out old tonnage, both in the oil industry and elsewhere.

While there are no written rules about age limitation, it is clear where the market is moving. Five years ago, the age limit for a VLCC or Suezmax tanker was 20 years. Since then it has dropped to 18 years, and more recently to 15 years. Those prepared to compromise on age were typically Far Eastern charterers, mainly Chinese and Korean, plus a handful of traders. But that is also changing. Chinese oil majors, namely UNIPEC, the largest VLCC charterer in the world, initially introduced a restriction of 'cap 1 on hull and machinery' but subsequently opted to enforce a maximum 15 years. All other Chinese charterers had to follow. Korean charterers for their part now also prefer maximum 15 years. Traders are also following the trend, with some saying that they will also not be able to fix tankers over this age. There is a preference for less than 15 years in the Aframax market, particularly due to the current low market and over-supply of tonnage, but a number of charterers still fix tankers above 15 years.

In the clean products market, spot charters are more flexible but some oil majors have been requested by their vetting departments to try to retain the younger vessels on offer, and going above 15 years looks now more and more improbable. Meanwhile, if most traders have no real constraints, the clean products market requires a certain flexibility: when ships are fixed, the cargoes are rarely sold and the tankers will have to be approved by the oil major receivers that control many of the destination terminals. Thus, even if a charterer would accept older tonnage, it has to rely on the trading chains and structures that involve suppliers, charterers, receivers, insurers, bankers and it is likely that somewhere along the chain an older ship may get rejected.

As a consequence, the older vessels are likely to enter alternative niche trades at often lower rates and with less known and demanding charterers. However, the question remains whether some charterers will be tempted by older and cheaper vessels once markets improve.

Some countries have also introduced new rules to protect sensitive navigation areas or ports. For instance, China's Ministry of Communications stipulates that oil tankers, chemical tankers, LPG tankers and bitumen tankers operated on the Yangtze River must be less than 16 years.

Looking at the demolition table above, it is interesting to note that the average age of demolition for bulkers, tankers and container carriers has fallen from 31, 30 and 29 years respectively in 2008 to 24, 24 and 20 in 2017. Old ships are not welcome any more.

Technical obsolescence

Is the industry really serious in its undertaking to get rid of old tonnage or will that concern disappear as soon as the freight market improves?

There is a legitimate argument that old tonnage should be eliminated to minimize risk, a risk that is further compounded in a poor freight market where maintenance costs are under pressure.

But if the fleet can be divided today between old and young tonnage, it can also be divided between non-eco (non-economic) designs and eco (economic) designs. In addition to economic pressure, there is a growing pressure from international authorities to reduce noxious emissions, be they SOx, NOx, CO2 or particle matters. This push favours eco designs and now so-called super-eco designs are emerging, where the difference in daily fuel consumption with non-eco designs has become significant. This should contribute to the phasing out of older tonnage.

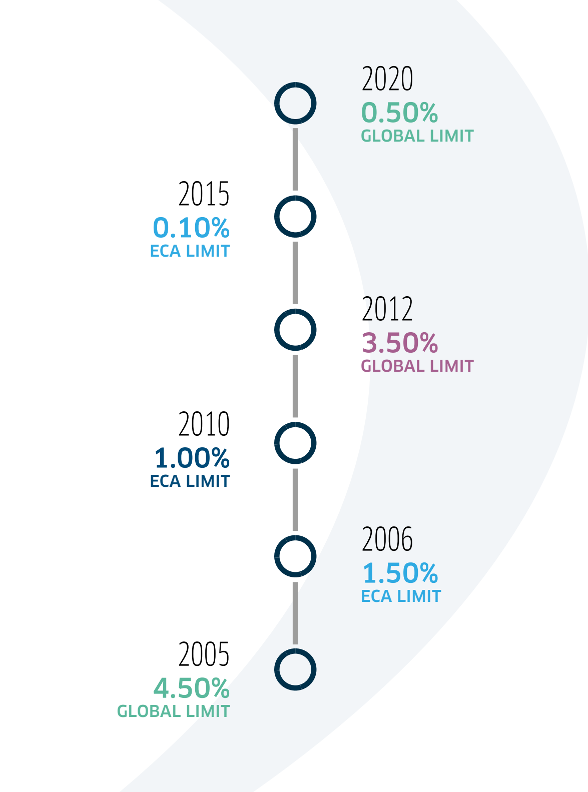
Fuel consumption comparison

		Laden (Knt)	Super Eco (mt)	Eco (mt)	Non Eco (mt)
Tankers	VLCC	13	46	52	80
	Suezmax	13	-	40	48
	Aframax	13	-	32	40
	Panamax	13	-	25	30
	MR2	13	-	20	28
Bulkers	Capesize	13	33	43	48
	Kamsarmax	13.5	-	29	31
	Supramax	13.5	-	25.5	33

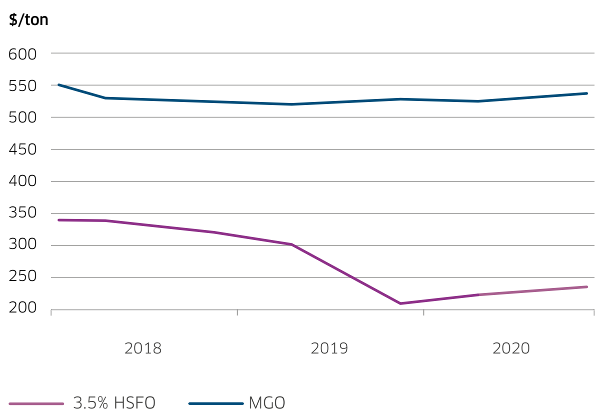
So-called "super-eco" ship designs are emerging

*Picture: **PALANCA MIAMI**, asphalt tanker, 36,681 dwt, delivered in 2017 by Korea's Hyundai Mipo to Wisby Tankers.*

Evolution of fuel oil sulphur cap regulations



Fuel forward price curves*



* Basis Rotterdam *source: CME, ICE, BRS estimates*

The marine fuel bunker market is set to undergo profound change

2020 fuel deadline

The 1st January 2020 deadline capping the sulphur content in Heavy Fuel Oil (HFO) at 0.5% is coming soon and the marine fuel bunker market is set to undergo profound change.

So far, refiners have managed to adjust production in line with the industry's requirements, which have changed as sulphur limits were first set in the Emission Control Areas (ECAs), and then on a global basis.

This time, however, there are some doubts that sufficient MGO and other compliant fuels will be available in every port on 1st January 2020, simply because of the magnitude of the shift. ECA areas represent a tiny proportion of the fuel consumption. Refinery output of compliant 0.5% HFO will increase and production of 3.5% HFO will decrease proportionally. But the change will still be a shock that will impact the price of MGO and 0.5% HFO, and therefore the cost of transportation.

As a consequence, it is expected that the industry will give priority to eco or super-eco designs, while vessel scrapping will rise and slow steaming will increase. As a further consequence, more newbuildings will be needed.

Of course, there is also some doubt whether or not the legislation will be enforced. And perhaps this is why forward prices for MGO fuel from 2020 onwards today (in early 2018) remain flat. But:

- Over 90% compliance with the new cap is expected, as the 89 states that have ratified Annex VI represent more than 90% of seaborne trade
- An amendment to Marpol Annex VI which prohibits the carriage of non-compliant fuel oils and makes it an offence is expected to be approved and come into force on 1st March 2020. Port State will only need to prove carriage of non-compliant bunkers, not actual use
- Enforcement will be by Port State Control, using MARPOL samples, remote sensing or portable devices, and possibly open-sea monitoring. Heavy penalties for non-compliance and criminal offence in some states will be implemented

A massive uptake of scrubbers in existing ships is not expected either. This is because they are costly (anything between several million dollars for a MR2, up to $10m for a VLCC) and because the availability of 3.5% HFO will become uncertain.

Scrubbers were originally devised as a solution to reduce today's 3.5% sulfur content to the 0.1% sulfur level needed in Emission Control Areas (ECAs). Could scrubbers be a global solution after 2020?.

Besides, it should not be forgotten that scrubbers require a lot of energy to run (between 400 kW for a MR2 and up to 4,000 kW for a large cruiseship). In short, to avoid SOx, we are prepared to inject tons of CO2 in the air and drop tons of acids in the sea!

It is likely that 0.5% HFO will come in greater supply because that is what the market requires and also that a greater quantity of 0.1% HFO will also be available and that the prices will then readjust and come down.

There is scepticism that scrubbers are a good global solution for the shipping industry, and thus dual fuel propulsion could become an interesting alternative. Container carrier operator CMA CGM opted to order nine megamax container carriers (loa 400 m, beam 61 m, capacity 23,500 teu) that will be propelled with a dual fuel engine. That decision by a major owner will certainly be followed by others.

It is interesting to note that out of the four criteria generally used to quantify pollution from exhaust gases i.e: SOx, NOx, CO2 and PM2.5 (Particle Matter below 2.5 mm), LNG is by far the cleanest when compared to other types of propulsion: 3.5% HFO, or 3.5% HFO with scrubbers, or LSFO (Low Sulphur Fuel Oil) – see table.

	HFO 3.5%	HFO + Scrubber	LSFO 0.1%	LNG
SOX	100	10	10	0
NOX	100	94	100	14
CO2	100	58	100	80
PM	100	100	37	0

If IMO regulations have focused over the years on SOx, NOx and CO2 in exhaust gas emissions, most health indices globally are generally based on PM2.5, as it is believed that particle matters are the main source of cancers.

On that count, LNG with 0 PM proves for the moment unbeatable, another reason why LNG could prevail in the near future despite additional investment costs and/or the current lack of logistics. The car industry is gradually phasing out diesel.

This will also have an impact on the demand for future newbuildings.

Consolidation of the industry and reduction in shipbuilding capacity

The shipbuilding industry is now in its ninth year of challenging conditions following the collapse of Lehman Brothers in 2008. This is a very long period of time both by historical standards, and in a world which has become used to faster cycles.

As mentioned above, be it in China, Korea, Japan or Europe, efforts are now underway to push for a reduction in worldwide shipbuilding capacity. The shipbuilding industry is restructuring either through massive capacity reductions on a voluntary basis (consolidation and restructuring), or on a forced basis (closure due to bankruptcy or lack of orders).

The number of active building facilities has fallen from 684 at its peak in 2008 to 302 in 2017.

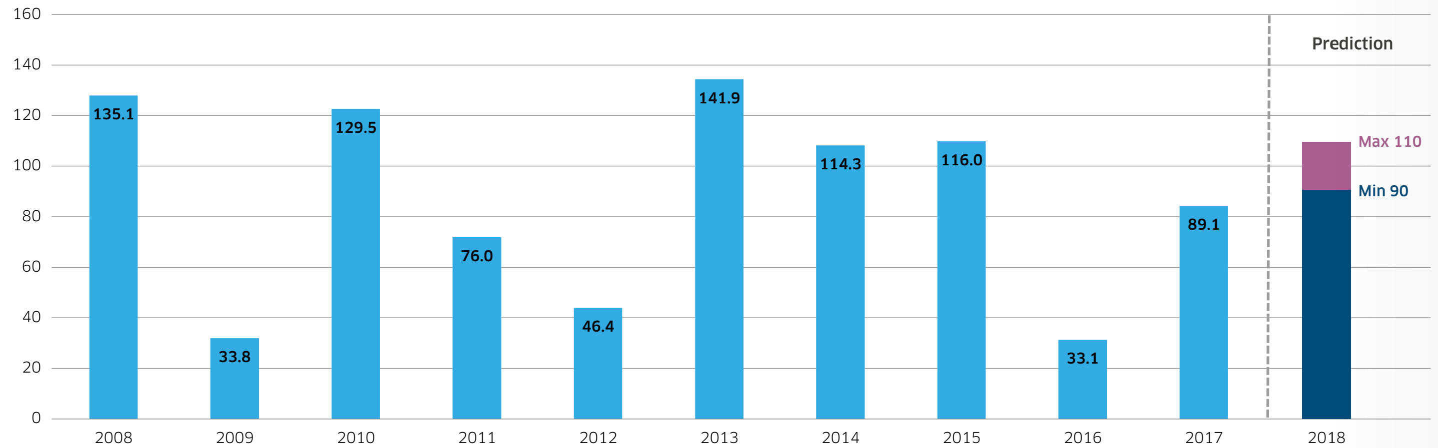
Some shipbuilding capacity is also being transferred to the naval sector, where the race for rearmament has intensified.

We believe there are a number of factors which suggest the market could recover sometime in 2018-2019, after which newbuilding prices will rise.

*Picture: **CASTILLO DE TEBRA**, Stainless steel chemical carrier, 13,020 dwt, delivered by Ningbo Xinle in 2017 for Elcano..*

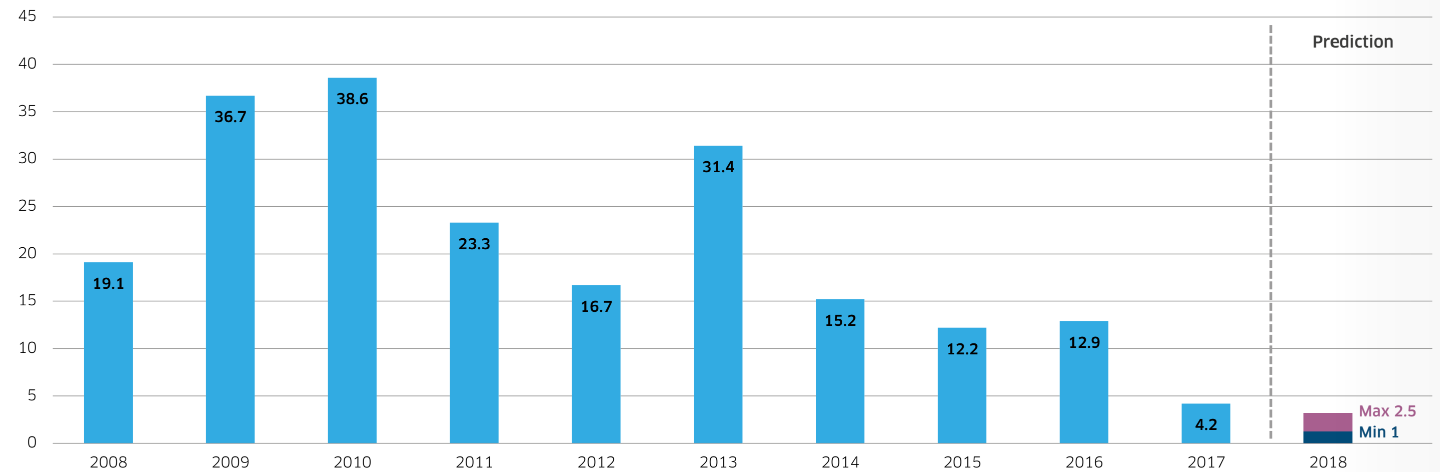
New orders

Million dwt



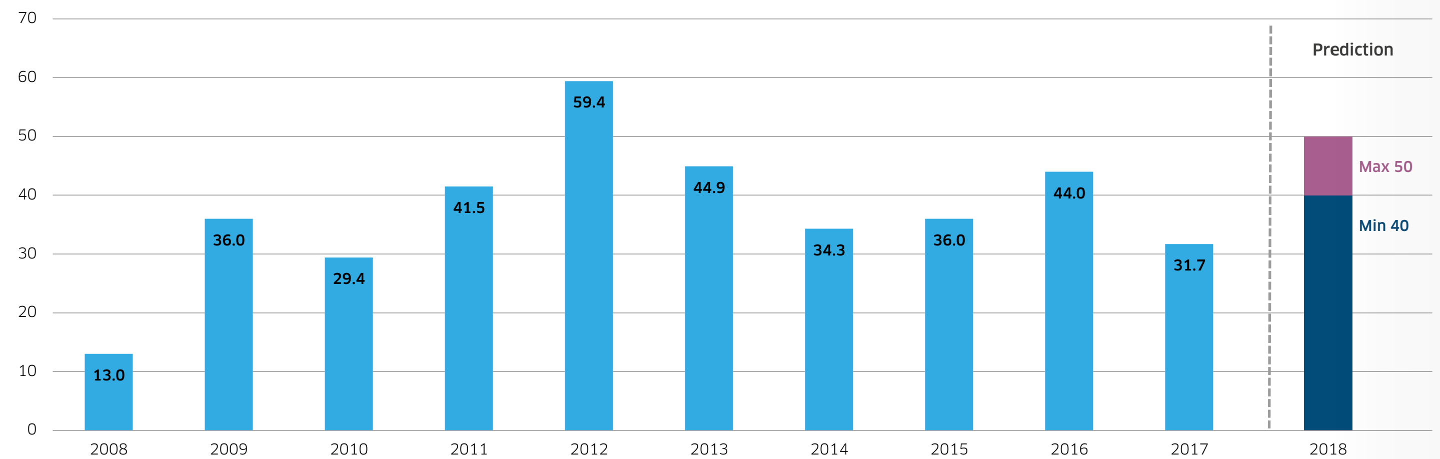
Cancellations

Million dwt



Demolitions

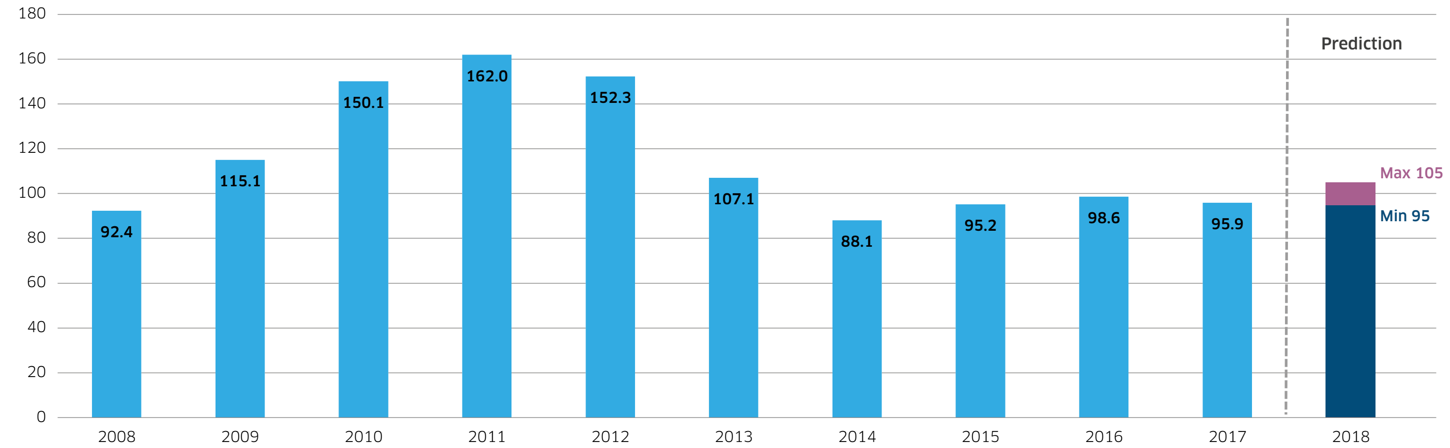
Million dwt



SHIPBUILDING
PERSPECTIVES FOR 2018

Deliveries

Million dwt



New orders

We underestimated in last year's review the amount of newbuilding contracts that would be placed in 2017, predicting between 40m and 50m dwt versus the 89.1m dwt actually ordered. We thought that the unique order of thirty 400,000 dwt VLOCs in 2016 was unlikely to be repeated. In fact, a total of thirty-seven VLOCs were ordered in 2017.

It appears that dry bulk and container freight markets have improved in what is now a more dynamic worldwide economy, and that rising second hand prices are also pushing up newbuilding prices. However, even if they are on the rise, newbuilding prices remain low and could still trigger interest among shipowners looking to take advantage of the market cycle.

We would therefore estimate that about 90m to 110m dwt should be ordered in 2018.

Deliveries

Theoretically, deliveries could reach about 105m dwt in 2018. We believe that there will be relatively little slippage and cancellation, and that actual deliveries in 2018 could reach a figure between 95m and 105m dwt.

Cancellations

In view of the figures recorded for 2017, we expect cancellations to be marginal in 2018.

Demolitions

Although demolitions came in lower than estimated last year at 31.7m dwt, several factors should favour a stronger demolition market in 2018 than in 2017. Therefore we estimate between 40m and 50m dwt of tonnage could be scrapped in 2018.

NEWBUILDING PRICES OUTLOOK

Newbuilding prices will continue to rise in 2018 due to greater demand and rising building costs. Much will also depend on the strength of the dollar versus the currencies of the main shipbuilding nations. The dollar appreciated against most of the currencies in 2016, helping yards reduce prices, but this situation changed in 2017. Steven Mnuchin, US treasury secretary, said openly at the World Economic Forum in Davos this year that a weak US dollar is good for America First. However, many pundits are unsure why the dollar lost some 16% of its value against a basket of currencies last year at the same time the US economy is performing strongly and the gap between US interest rates and foreign interest rates has never been so wide - both factors that in principle support a stronger US dollar.

Newbuilding prices will continue to rise in 2018 due to greater demand and rising building costs

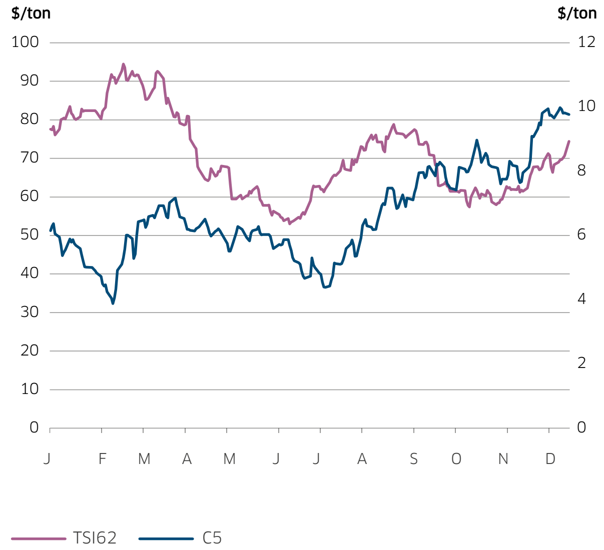
Dry Bulk

A long-awaited recovery

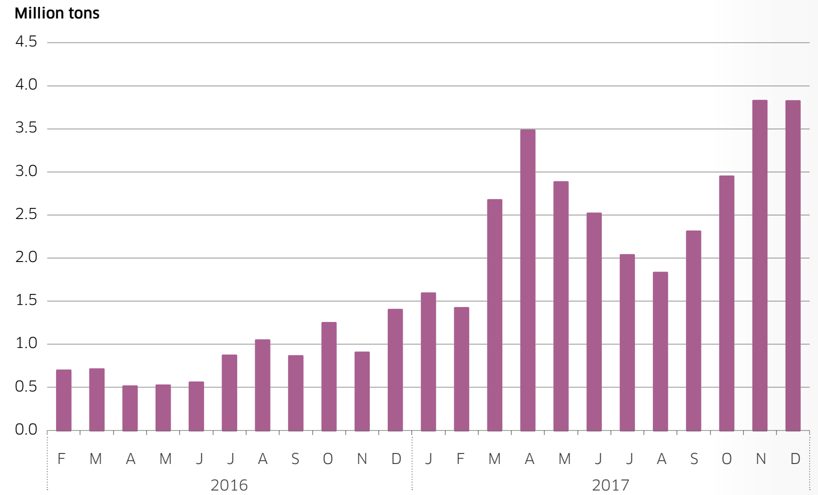
After the record lows of 2016, expectations for a better shipping market in 2017 emerged from the beginning. As usual, the Capesize sector closely followed developments in the commodity markets. In particular, higher iron ore prices encouraged miners to ship as much material as possible, as soon as possible, and this created inflationary pressure on freight. With spot cargoes deep in the money, shippers were content to pay a few cents more to secure prompt ships.

ANATOLI
Bulk carrier, 63,467 dwt, delivered in 2018 by Japanese shipyard Imabari Iwagi, operated by Empros Lines.

Baltic Exchange C5 route (Aus-China) vs iron ore price (TSI 62% Fe CFR Tianjin fines)



Capesize exports of bauxite from Katougouma, Guinea



CHARTERING

Capesize (>120,000 dwt)

After a typically slow February with bad weather in Australia and Brazil, the market saw a strong push in March. The Baltic Exchange Capesize 5TC Average advanced to $20,657 – higher than recorded in the whole of 2016. At the same time, activity out of Brazil was strong as Vale was busy on the spot market, taking up to 20 ships within the space of a couple of days and then once more disappearing. Furthermore, with the new S11D iron ore project kicking in, more volume was being shipped out of Ponta de Madeira instead of Tubarao, and this translated into more ton-mile demand (see right page graph showing Ponta de Madeira and Tubarao loading volumes).

Operators appeared to be happy with the higher market and fourth quarter FFA prices were trading in the $16,000s even during the usual summer lull when iron ore prices were in decline and market fundamentals were more balanced.

The bull run resumed in the third quarter and continued until the end of the year. Interestingly, throughout this period most owners were expecting a correction to lower levels and were ready to sell longer durations cheaper in order to lock in present rates. As an illustration of this, the long haul Brazil round voyage route C14 was generally trading lower than the Pacific round voyage route C10.

The year ended with a bang as December exceeded even the most optimistic forecasts. Bad weather in China caused long delays, resulting in multiple vessels missing their cancelling dates at next ports. West Australian miners had to book extra spot tonnage in order to fulfill annual targets and keep port infrastructure fully utilised. Charterers had to pay up to $12.50 on C5 and $21 on C3 – levels unseen since November 2014. Voyage numbers were also influenced by soaring bunker prices, which rose above $400. Time charter equivalents approached $30,000 in the Pacific while one-year period rates were being agreed in the high $17,000s.

Demand

In 2017 global economic growth was supported by low inflation, government stimulus packages and improved manufacturing conditions. Chinese GDP expanded at 6.9%, however the focus fell more on curbing pollution and taming financial risk.

Despite some capacity closures, Chinese steel output grew by a strong 6% to 832 million tons. In general, steel mills were aiming to use high quality raw material with higher iron ore content (Fe) and fewer impurities, while numerous domestic mines lost their licenses due to stricter environmental regulations. This was good news for foreign miners as they were able to increase their market share. Total Brazilian and Australian exports both grew by 2.5% to 384 and 839 million tons respectively. This being said, lower grade iron ore was more difficult to sell and occasionally loaded vessels were idling off discharge zones with no buyers for their cargo.

Overall, Chinese iron ore imports grew by 6% to 1,075 million tons. Hopes for further expansion are linked with China's Belt and Road initiative, which should add more steel demand in the next 10 years.

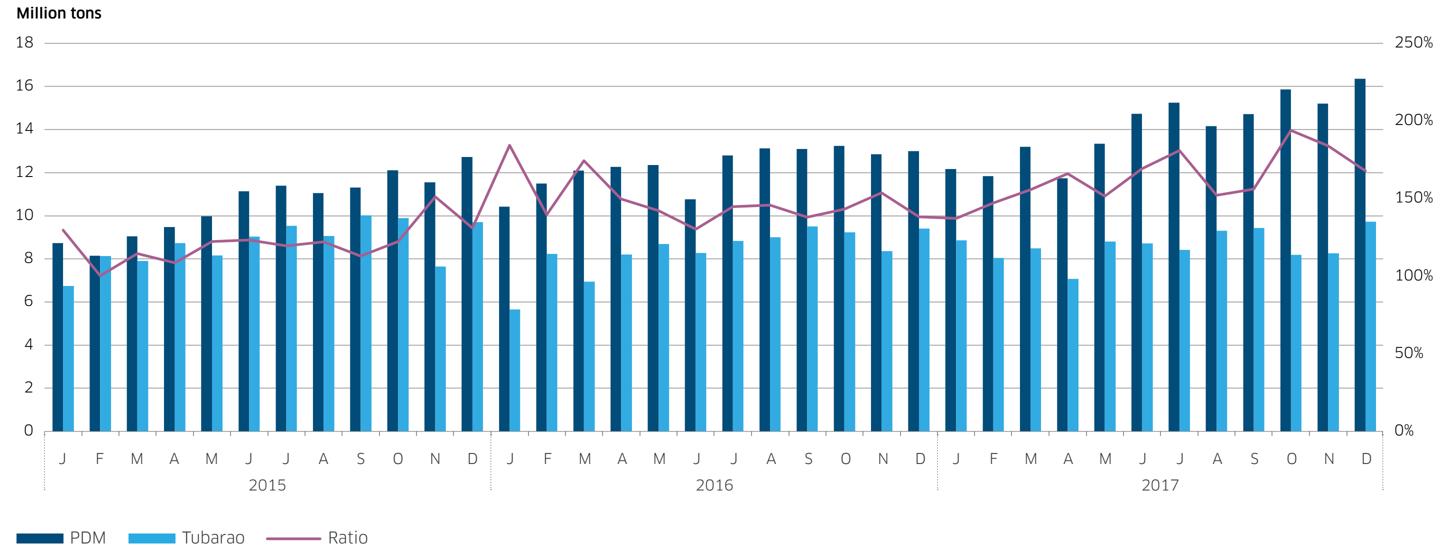
The picture was somewhat mixed on coal as China was restricting imports, again for environmental reasons, while India was encouraging domestic mining. Bauxite volumes, on the other hand, grew steadily and Guinea exported 31 million tons on Capesize tonnage in 2017, all into China.

More projects are being developed in the area, with potential for exports to increase by up to 50 million tons in the next 5 years.

The Panama Canal failed to gain prominence for Capesizes, and apart from the usual Colombia/west coast Mexico trade, only two other transits on Capesizes were recorded in 2017.

DRY BULK
CHARTERING

Ponta de Madeira-Tubarao loading volumes



Supply

The Capesize fleet continued to grow moderately in 2017 and at the end of the year comprised 1,569 ships of total 310 million dwt (a rise of 3% year-on-year).

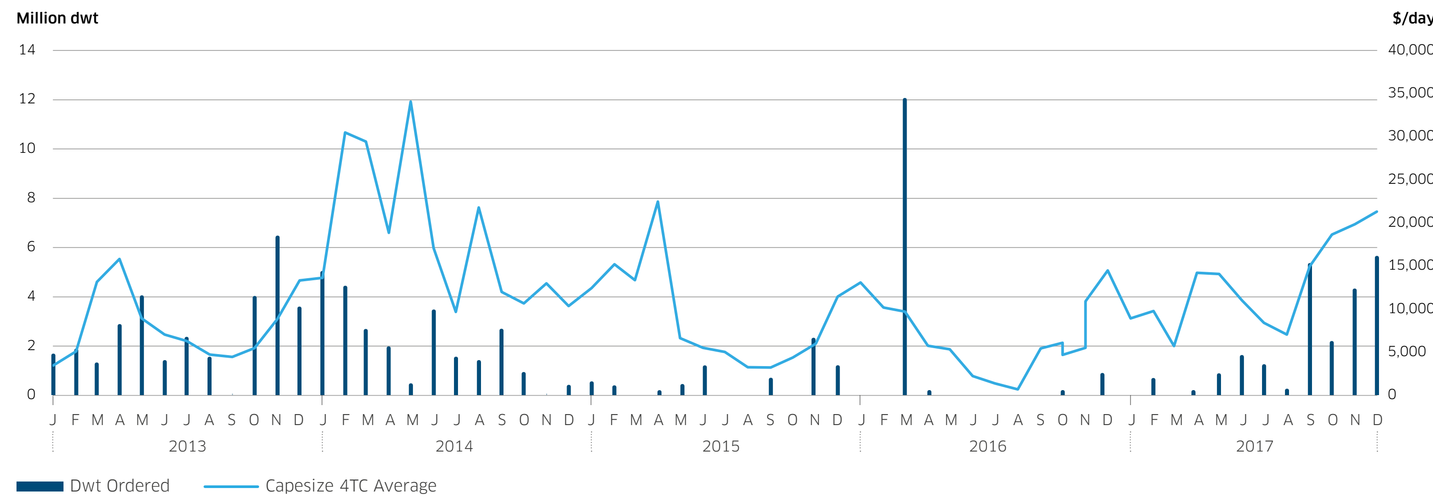
Despite earlier speculation that the new Ballast Water Treatment rules would result in more scrapping between 2017 and 2019, practical implementation was delayed, in some cases until 2024.

With the recovery in time charter rates, it came as no surprise that only 29 Capesizes were sent to the scrapyard during the year. This trend is likely to continue in the next couple of years as only 9% of the fleet is above 15 years old.

A large proportion of these vessels are Very Large Ore Carriers (VLOCs), which are performing consecutive voyages between Brazil and the Far East. These ships came under the spotlight in the first half of the year after the **Stellar Daisy** (266,141 dwt, built 1993) sank fully laden in the Atlantic Ocean. The fleet of older VLOCs will be gradually phased out in the years to come and replaced by newbuildings which are currently under construction.

Higher time charter returns tempted owners to place fresh orders, and ships of a total 19 million dwt were contracted in 2017. Consequently the orderbook expanded to 40 million dwt or 13% of the existing fleet. These vessels will hit the water in 2019 at the earliest, however, and as such the market will enjoy a window of modest fleet growth for at least another year.

Capesize ordering activity (>120,000 dwt)



To sum up, the Capesize sector saw a long-waited recovery in 2017. Expectations for the next few months are for a balanced market with healthy rates as iron ore and bauxite volumes continue to increase. Nevertheless, the outlook remains cautiously optimistic as the expanding orderbook and macroeconomic uncertainty pose some downside risks.

Babycape and Post-Panamax (87,000-122,000 dwt)

After the mire of the previous year, 2017 began brightly. The period market showed this early on with a Tsuneishi built TESS 98 re-fixing for another year in February at almost double the period rate paid in 2016 for the same vessel. As a macro trend, Japanese built post-Panamaxes would continue to receive improving percentage returns versus the Baltic Exchange Panamax 4TC Average throughout 2017, as firmer commodities markets encouraged charterers to maximise. Rates of 110%-120% of the Panamax 4TC Average were not uncommon to see for large shallow Japanese built tonnage on period during the year. The more standard 93,000 dwt Chinese built vessels, which have been struggling since delivery, also benefited from stem maximisation.

Pricing has been an art rather than a science

The use of the neo-Panama Canal transit has been the biggest change in trading, with owners starting to make use of the locks in laden transit and ballast. We are still waiting for more volume to be shipped through, as the Cape of Good Hope option remained cheaper in most cases.

The market remains dominated by Australian exports, with western Australian shipments on Babycape (100-125,000 dwt) and east Australian loads on post-Panamaxes (87-99,000) making up a third of their respective spot market cargos.

With the first six Babycapes loaded from the Rio Tinto Amrun project, the increased volumes in the Baltic Sea and from Takoradi, it will be interesting to see how this change affects the market dynamic. Given the projected volumes, we will need some more ships. While we wrote in 2016 that Babycape was an optional size, now the sector trades as a Capesize versus Panamax arbitrage. Due to port restrictions, Babycape is the optimal ship on certain routes, therefore establishing a market in its own right.

Meantime, the Babycape supply is set to become more concentrated. Oldendorff remains the largest pure player, whilst Swissmarine now have a mixed Babycape/post-Panamax tonnage book, like that of Cargill.

With no new deliveries joining the market fleet in 2017, the Babycape orderbook remains limited, whilst the post-Panamax 2017 deliveries and orderbook were also sparse. It will be interesting to see how the new TESS 99 size integrates into the 95-100,000 dwt fleet. With Panamax operators now becoming period takers in post-Panamax/Babycape, we suspect that the demand will increase for 95-120,000 dwt tonnage, with neo-Panamax fittings becoming the norm.

During the second half of 2017 the appetite for post-Panamax and Babycape tonnage exceeded the supply. Pricing for such vessels has been an art rather than a science. Changes in the Capesize/Panamax ratio remains a strong driver for this fragile market in transition.

Excluding long-term committed vessels, there are only 85 vessels available from 100,000 to 122,000 dwt and 250 vessels ranging from 87,000 to 99,999 dwt, counting 27 different designs that could potentially mislead charterers.

*Picture: **CIELO D'ITALIA**, bulk carrier, 117,438 dwt, delivered by Sanoyas Mizushima shipyard in 2015, operated by D'Amico.*

Panamax (68,000-89,999 dwt)

As expected, 2017 saw improvements across the board in the Panamax market. As we predicted in last year's annual review, both commodity and freight markets saw more volatility compared to previous years, which in turn presented more trading opportunities for market participants, leading to a livelier market.

In particular a swinging market in the second and fourth quarters presented opportunities to traders and owners, as well as operators. All this combined to create a more positive outlook for the year to come.

2017 started in a steady fashion, with the Baltic Exchange Panamax 4 Time Charter Average hovering around the $7,000 mark for a sustained period of time. The end of Chinese New Year and the start of the east coast South America (ECSA) grain seasons led to a pick-up in rates and increased activity in March, and on April 18, the 4 Time Charter Average reached a temporary high for the year of $12,987. Mid-April fronthauls ex India for trips via ECSA to the Far East were being covered at $13,000-$14,000 levels, whilst the Atlantic market was trading in the mid-teens for various routes.

Although fleet growth did not yet slow (recording a rise of 3.3% in 2017), and demolition was lower than in 2016 (at 46 vessels compared to the previous year's 110), owners were able to lock away their tonnage on period at decent levels.

Kamsarmax vessels were able to achieve $11,000-$12,000 for one-year period, depending on ship specifications. By the end of May the market had cooled with the east coast grain season unable to provide enough steam to maintain rates.

Quality Kamsarmax vessels were only able to fetch $10,000 + $400,000 ballast bonus arrival pilot station (aps) east coast South America for trips to the east, while Atlantic rounds were being concluded between $6,000 and $7,000 a day.

Naturally the summer saw a drop in market activity, though rates were largely stable. Nonetheless, we witnessed some small spikes in activity in mid-July and mid-August, which we had not seen in previous years and which underlined the increased volatility in the market.

As usual, the fourth quarter was a busy period in the Panamax market. US Gulf grains supported the market, though east coast South America grains also remained a strong factor for pricing reasons. Furthermore, stronger coal and iron ore markets in 2017 caused a busy spell throughout the whole of the last quarter of the year, with global iron ore shipments up 6% year-on-year, and coal shipments just 0.5%.

Mid-October saw the Baltic Exchange Panamax Index climb to 1,651. Fronthauls were being covered around the $20,000 mark, while translatlantic levels were in the healthy mid-teens. Throughout November, freight markets came off slightly, only to rebound towards the end of November/beginning of December. All in all, we witnessed a very active end-of-year period.

For 2018, we expect to see a similar level of activity with the market continuing to show a sustained recovery. A reduction in newbuildings being delivered, and a healthy amount of activity in commodity markets, should support this outlook.

Volatility presented trading opportunities

*Picture: **OLYMPIC HOPE**, Capesize bulk carrier, 182,631 dwt, delivered by Japanese shipyard JMU Ariake in 2016, operated by Olympic Shipping.*

Supramax and Handysize (25,000-67,999 dwt)

The Baltic Supramax Index (BSI) started the year at 843 points and slowly inched its way up on the back of surging demand out of China, coupled with the usual grain season ex South America, which brought the BSI to a peak of 899 in mid-April before retreating.

The seaborne coal trade in the Far East saw a surge as the growth in China's thermal demand outpaced its domestic coal output. Higher domestic coal prices saw a rise in import levels. Iron ore imports, too, were at a record high as the country ramped up steel output on back of rising steel prices and a growing demand for government infrastructure spending.

As a result, the BSI steadily progressed in the second half of the year, reaching a peak of 1,130 on 24 October.

As usual, sentiment was upbeat for a stronger third and fourth quarters, especially after the market pushed in September in the Far East, largely due to a lack of tonnage supply in the region. More ships were seen trading in the Atlantic, before an adjustment saw a return to more usual numbers in both the respective basins.

Uncertainty remains over the Indian coal trade

Perhaps the first notable feature of 2017 was the failed expectation for a stronger fourth quarter despite the third quarter push, and the index slipped to a low of 914 by the end of the year: a relatively modest growth of 8% over the year. This weaker growth could be attributed to China's coal imports restrictions, imposed in an attempt to manage the country's coal supply and prices. In the process it slowed the push in demand usually witnessed at year end.

The Baltic Handysize Index (BHSI) met with a similar fate, starting the year at 559 and closing at 625, a rise of just under 12%, somewhat lower than expectations at the start of the year.

Another surprise feature of the year was Indonesia's decision to relax its export ban on unprocessed ores. When first imposed, it had required miners to commit to building smelter projects over a 5-year timeframe.

As such, the market started to see an increase in Indonesian seaborne nickel trade. According to figures from AXSMarine Trade Flows, 2017 saw a 200% increase in vessels transporting nickel ore from Indonesia, equivalent to almost 4 million tons compared to 1.2 million tons in 2016. Indonesia could export as much as 20 million tons of nickel ore in the near future if expected future quotas are approved.

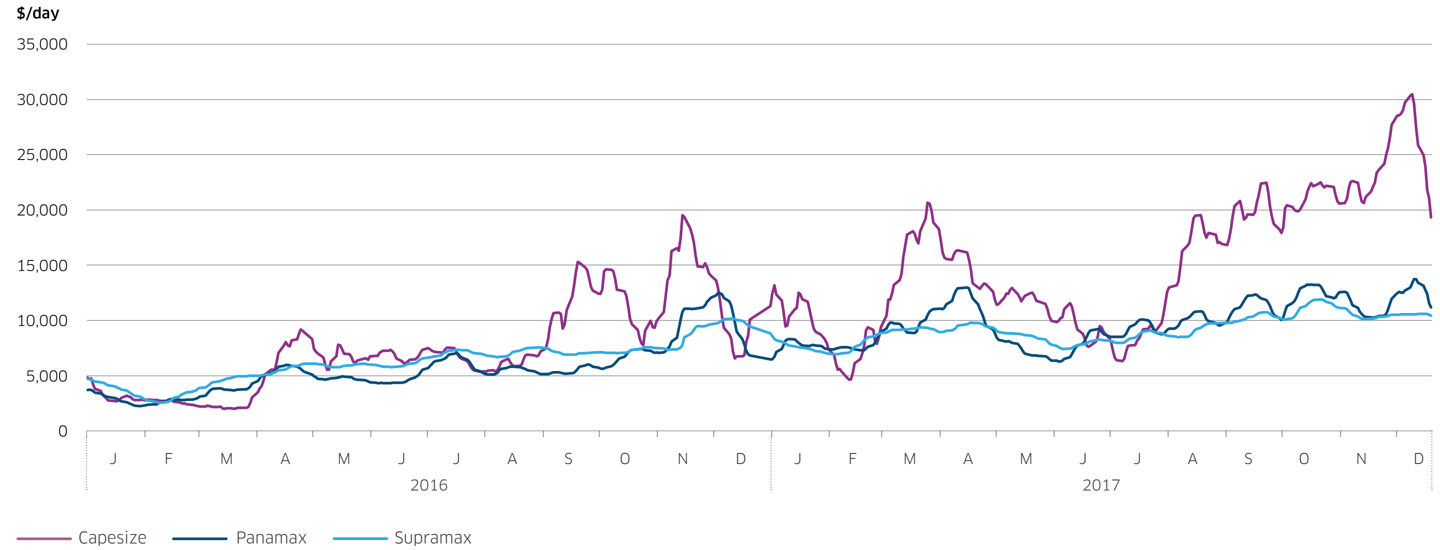
Shipowners could also take heart from the slowing pace of newbuilding deliveries, giving support to the growing optimism. Although demolition declined in 2017, a considerable chunk of older vessels have now been removed.

Despite disappointment in the fourth quarter, the market moves into 2018 with a positive outlook, even if some economic factors needs to be monitored closely.

One factor is the uncertainty over the Indian coal trade. On the one hand, Coal India plans to significantly increase domestic production by 2019 to meet the country's growing demand for energy, which could tip the import scales for thermal coal. Conversely, there remains a growing demand from India's steel sector, which might boost seaborne trade for imported coking coal.

*Picture: **BEKS MUNEVVER**, bulk carrier, 63,518 dwt, built at China's Yangfan shipyard for Beks Shipping.*

Dry bulk FFA prices by segment



THE FFA MARKET

2017 saw a year-on-year increase in volumes traded in the FFA market, with 1,148,550 lots changing hands or a 5% increase on 2016. The rise in volumes was predominantly generated by the smaller Panamax and Supramax markets, which saw a combined 32% increase in activity (Panamax rose 10%, while Supramax rose 22%).

The Capesize market showed a slight decrease of 5%, although a still-healthy 494,096 lots were exchanged. The volatility of the FFA market (circa 160% on average on the front month) once again provided the fuel necessary to attract the attention of market players throughout the year.

The Capesize spot market started the year in a better shape than in 2016 (at $11,276 vs $4,811), however the bottom of the year was reached during Q1 when the Baltic Exchange Capesize 5TC Average slid to $4,630 following the Chinese New Year, and at this point the paper market remained relatively subdued.

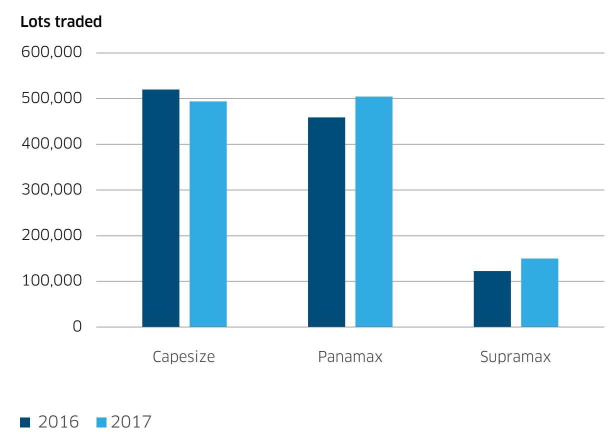
Towards the end of the first quarter, the Capesize spot market pushed to a firmer $20,656 (28 March), and with the FFA curve rising and larger profits to be made, we saw 140,980 lots traded in total for Q1, a 26% increase on the previous year.

Unfortunately this push was not sustained into the second quarter, as the flow of ballasters combined with Asian and Easter holidays to put some downward pressure on the market; subsequently spot rates progressively slid to a low of $9,965.

The uninspiring rates took their toll on FFA volumes and we saw a decrease of 7% compared to Q1, with the value in selling becoming far less appealing. During Q3 the spot market struggled to break through the $12,000 resistance barrier until August, when the Atlantic started to show some signs of tightness, pushing the Capesize 5TC Average to $12,602 (3 August).

This increase was accelerated as Q4 approached, and the Capesize 5TC Average shot up to $22,500 (25 September). However this could not inspire as much interest as Q2, and FFA volumes decreased 23% in Q3 (100,313 lots traded Q3 v 130,851 lots traded Q2).

Dry bulk FFA volumes by segment



Despite a rise in spot rates to their highest levels of the year in Q4 ($30,474.88 on 12 December), somehow paper activity was at its lowest quarterly level in the year ($100,313 lots traded).

Similar to the Capesizes, the Panamax physical market started 2017 in much better shape than 2016, and in January the Baltic Exchange Panamax 4TC Average opened at $6,492, a 75% increase year-on-year ($6,492 vs $3,705).

During Q1, the east coast South American market saw a healthy amount of activity, and this provided the

impetus to push the spot market to $11,025 by the end of March. With this fuel from the physical, paper trading was relatively active as we saw 126,655 lots traded during the first quarter.

This bullish sentiment on the spot continued until mid Q2 where we saw the spot level reach a first half of the year high of $12,987 on 18 April. However these heights were not sustained, as by 7 June we were back at $6,281 on the Panamax 4TC Average.

This volatile Q2 period was unsurprisingly the busiest for the Panamax FFAs as we saw 132,334 lots traded (a 28% increase on Q2 the previous year). With a busy grain season in Q3, and the historic Q4 sentiment playing a part, we finally reached a spot rate peak towards the end of the year of $13,740 (12 December - a four year high). With such movement it was a bit of a surprise to see the volumes for Q3 and Q4 combined increasing only 6% compared with the previous year.

Supramax volumes increased once again, notably in Q1 which saw a robust 90% year-on-year increase in volumes recorded. This quarter saw the lowest spot rates ($6,934), and healthy volatility as they ranged from $6,934 to $9,369 (+35%). Like the other FFA sizes, the highest spot level was reached in Q4 ($11,891, a 16% increase on last year's highest spot value).

2017 FFA volumes rose 5% compared to 2016

THE SECOND HAND MARKET

Capesize

At the end of 2016 we wrote that second hand Capesize values were likely to hold firm and rise in 2017, and this indeed occurred in quite a marked fashion.

We recorded just over 100 sale and purchase transactions during 2017 for bulk carriers over 100,000 dwt.

During the year there were many sales of vessels "en bloc". Plenty were done under pressure from financial institutions, with both opportunistic and traditional buyers, plus dedicated investment funds, stepping in to restructure the fragile state of several shipowners in difficulty.

Taking as our reference the value of a theoretical 180,000 dwt five-year-old ship built at a first-tier shipyard as evaluated weekly by the Baltic Exchange Sale & Purchase Assessment (BSPA) panel of brokers, we observe that prices rose by about 48% between the low point seen in early January and the high reached in mid-November, before stabilising at the end of the year.

We note the following price evolution for a vessel of this class built in 2012 ($m):

03/01/2017	$22.423
13/03/2017	$24.711
15/05/2017	$33.041
31/07/2017	$31.151
13/11/2017	$33.235
18/12/2017	$32.819

*Picture: **EVELYN SCHULTE**, Capesize bulk carrier, 115,340 dwt, delivered in 2012 by Chinese shipyard Jiangnan Changxing, operated by Schulte T.*

For the older vessels, a 10-year-old Capesize built in Japan was valued at around $16 million in early 2017, rose by about 50% to some $24 million in the second quarter of the year, then fell back to around $20.5 million at the end of the year (a drop of 14.5%).

In addition, we recorded some 33 demolition sales for bulkers over 100,000 dwt, including some 11 units of more than 200,000 dwt. This figure is well down on totals for 2016, when 82 bulkers over 100,000 dwt were scrapped.

However, while scrap sales have slowed sharply, a more favorable balance seems to have been found between supply and demand going into the new year. These more optimistic market prospects for 2018 should allow prices to hold, with a likely bullish trend in the short and medium term.

Panamax to Handysize

The motto "Who Dares Wins" is often credited to the founder of the SAS, Colonel Sir David Stirling DSO OBE (1915-1990), however he may well have been inspired by a much earlier statement from the Ancient Greek historian and soldier Thucydides (460-400 BC) namely "Fortune Favours the Bold".

As stated in our conclusion of last year's annual review, those bold enough to purchase quality second hand tonnage in 2016 and the first half of 2017 have witnessed a spectacular appreciation in the value of their investment and should certainly reap handsome returns in the future.

During the year, financial institutions continued to offload distressed assets and forced sales continued until the third quarter of 2017.

The disposal of the remaining ships in the United Ocean fleet continued, with vessels being sold off at a regular rate of about 2 units per month (23 units in total, 16 of which were modern Kamsarmax and Supramax bulk carriers, and the remainder modern PCTCs). The fact that these vessels were a "rare" commodity in a "starved" (for modern tonnage) second hand market created fierce competition among traditional and not-so-traditional players who were eager to acquire such modern tonnage.

Other noteworthy 'forced' sales which were successfully concluded included:

- February-March: the Greenship Bulk Trust (part of Jaccar Holdings) - a fleet of 14 modern (built 2012-2015) "Crown-63" type Ultramaxes (financed by China Exim, DVB Bank and HSH Nordbank) was up for sale. Ultimately nine were sold to Eagle Bulk and five were purchased by J.P. Morgan.
- May: the 7-strong fleet (Supramaxes, Panamaxes/Kamsarmaxes, built 2007-2013) of Bariba Corp, Greece, was placed in the market in May. By the end of December all had been sold except one Kamsarmax.

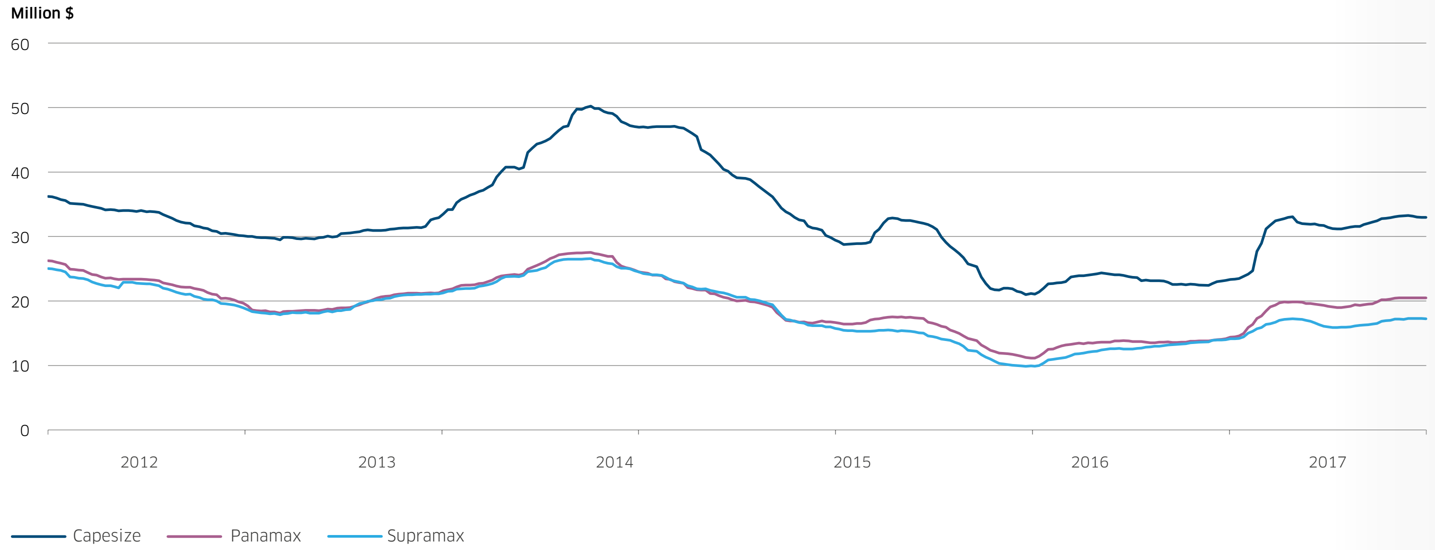
At the same time, there were a few "would be" sellers testing the market, although as of end 2017 no sales had been concluded:

- China's Rosco fleet of 10 Panamaxes/Kamsarmaxes and 1 Capesize (all Japan built 2002-2011)
- Turkey's Mardeniz fleet of 7 Supramaxes (all built Japan 2004-2013)
- China's HNA (Grand China) fleet of 18 units (8 Capesizes, 9 Panamaxes/Kamsarmaxes, 1 Babycape)

At the same time freight rates improved, arming buyers with increased confidence for the future. By the end of the year, the Baltic Exchange Dry Index had risen 42% to stand at 1,366 points, and second hand values recorded gains of a similar magnitude.

*Picture: **SUPER LUNA**, bulk carrier, 81,517 dwt, delivered by Chinese shipyard Jinhai Hi in 2016, operated by Kassian Maritime.*

Dry bulk carrier S&P prices 5 year old ships



Panamax-Kamsarmax values end 2017 (74,000-82,000 dwt)

10 year old: Year end values appreciated by a spectacular 65%-70% year-on-year, reaching $14-$14.5 million.

5 year old: At year end, values stood at about $22-$22.5 million, representing a significant increase of 32%-38% over the 12 month period.

Newbuilding resale: For prompt (3-6 month) delivery ex Korean or Japanese yard, Kamsarmax resales (basis NSF contract and 20%/80% payment terms) were pricing in the region of $29-$29.5 million by year end, as opposed to $23-$23.5 million 12 months earlier, a very respectable 25%-28% increase over the year.

Supramax asset values steadily moved upward

Values for 5-year old Handysizes rose 37%

Supramax-Ultramax values end 2017 (43/50,000-52/55-58,500/60-64,000 dwt)

10 year old: At the end of 2017, the value of this asset class was in the region of $13.5-$14 million, a very healthy gain of about 50%-55%.

5 year old: The price for this type/age of asset steadily moved upward, ending the year at $17.5 million, appreciating over the 12 month period by about 25%.

Newbuilding resale: Values continued the upward movement seen at the end of 2016; by the end of 2017 China-built units were valued at about $23 million whereas units built by Japanese yards reached $26-$26.5 million, in both cases an increase of about 24%-25%.

Handysize values end 2017 (28,000-43,000 dwt)

10 year old: At the end of 2017 a Japanese built Handysize (28,000 dwt) was worth about $7.5 million, up by 15% compared to end 2016. At the same time, larger Handysizes (32,000 dwt) saw their value appreciate by almost 45% to reach $9.5 million at the end of the year.

5 year old: During the same period, the value of a Handysize (28,000 dwt) corrected upwards by about 37% to reach $11 million. Larger units (32,000 dwt) and (37,000 dwt) were worth close to $13.0 million and $15 million respectively at the end of 2017, appreciating by 11.5% and 7% over 12 months.

Newbuilding resale: Chinese-built vessels were worth close to $21 million at year end, appreciating by almost 29% over the period, while Japan-built tonnage was commanding a price of about $23 million, an increase of 28% compared to end 2016.

DEMOLITION / RECYCLING MARKET – END 2017

As expected, the recovery in the freight environment led to a big drop (of around 50%) in the total dry bulk deadweight 'removed' from the market. Around 14 million dwt (or 180 vessels) was scrapped in 2017 versus 28 million dwt in 2016).

The demolition breakdown by segment is as follows:

- Handysize to Kamsarmax: 147 vessels or about 8 million dwt
- Capesize: 33 vessels or about 6 million dwt

At the same time, recycling prices at the end of 2017 were as follows:

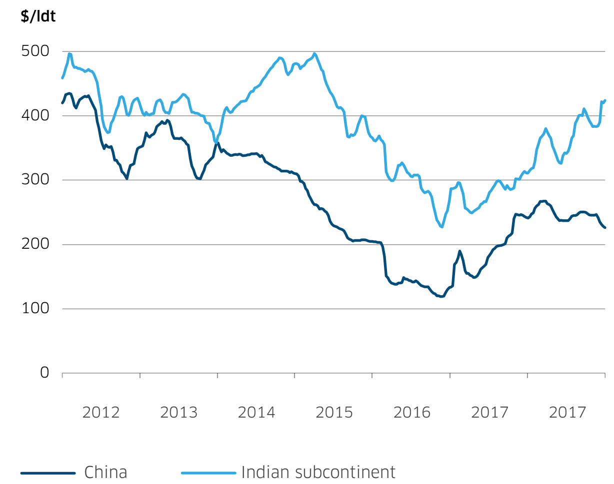
- India, Bangladesh and Pakistan: $420-$415/LT (+43%-50% from $290-$280/LT at end 2016)
- China $210/LT (-9% from $230/LT at end 2016).

We are 'cautiously optimistic' that the positive environment for investment in second hand tonnage will continue over the next 12-18 months, essentially because:

- The recovery in freight rates over 2017 is expected to continue, albeit at a slower pace.
- New orders are up but still "under check".
- Newbuilding prices are up, credit is tight and financing sources are more and more cautious.
- New regulations coming into force could result in owners being unsure as to what 'new' technology they should invest in (scrubbers, LNG fuel etc), thus keeping fresh newbuilding activity under control.
- Shipyard capacity has shrunk considerably.
- China's 'Belt & Road' initiative is expected to have a positive effect on freights.

We believe that as long as 'fresh' financing does not cause a surge in newbuilding orders, and new regulations keep sending a steady flow of older tonnage to the scrapyards, 2018 should bring further gains in the values of existing quality-built dry bulk carriers.

Bulk carrier demolition prices



Asset values as at end 2017 compared to those observed at the end of 2016: (Estimated Values are for Japanese, Korean and top tier Chinese yards – for units built at lower quality Chinese yards, a discount of at least 10-15% should be expected.)

2018 should bring further gains in values

***Picture: SAND TOPIC**, bulk carrier, 60,155 dwt, delivered in 2017 by Japanese shipyard Onomichi, operated by Marfin.*

Tanker

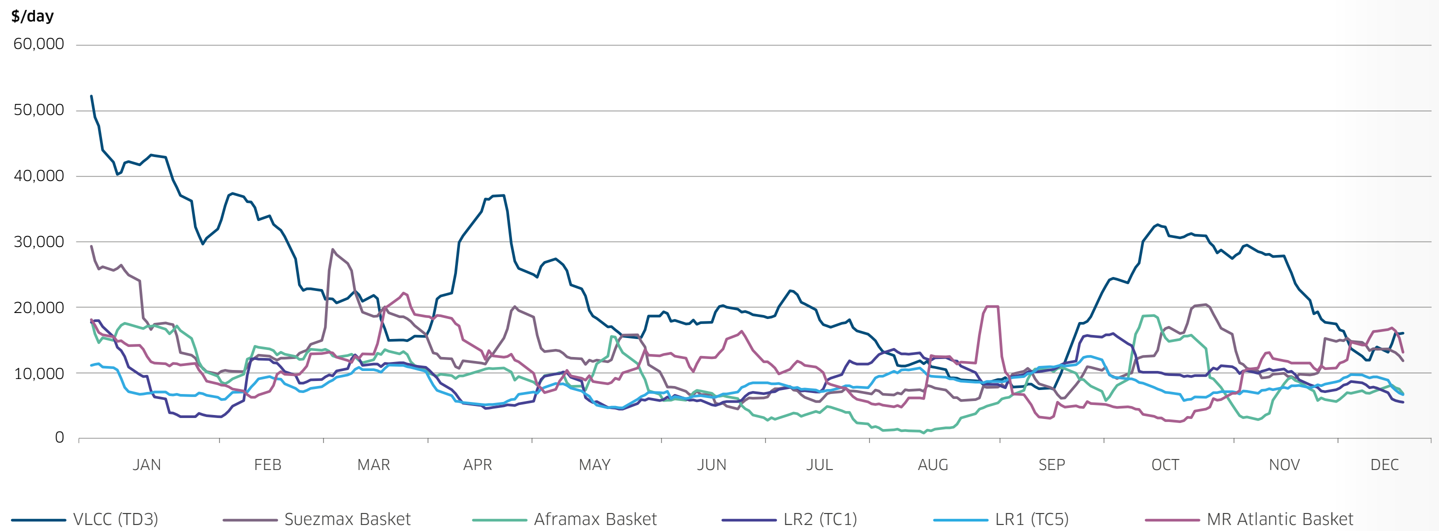
The perfect storm

"We must free ourselves of the hope that the sea will ever rest. We must learn to sail in high winds." (Aristotle Onassis).

Over 2016, tanker owners faced a more unstable sea with increasing headwinds and dark clouds on the horizon, leading to 'the perfect storm' of 2017. Owners had to face a new reality.

BW TAGUS
LR1 tanker, 74,158 dwt, delivered in 2017 by STX to BW.

2017 Tanker spot rates - TCE



Crude tanker owners saw their Time Charter Equivalent (TCE) earnings fall by between 45% and 55% over the year. TCE earnings for petroleum product tankers declined by between 10% and 40% compared to 2016. The combination of lower freight rates and higher bunker costs (up by 40% compared with 2016) brought the perfect storm to shipowners.

Looking at fleet growth, 2017 mirrored 2016, as fleet expansion remained strong. A total of 261 crude and clean tankers (above 34,000 dwt) were delivered during the year which was only two vessels more than 2016, meaning the last two years were the strongest in term of deliveries since 2011.

On the other hand, the number of vessels removed from the fleet increased strongly to its highest level since 2013: 74 tankers were converted or scrapped during the year compared to only 25 in 2016. This contributed to reduce the net tanker fleet growth to 187 units, significantly down from 2016 (which, with 234 net deliveries, was the strongest net growth since 2009).

Moreover, on the demand side, ton-miles have increased compared with 2016. 2017 will go down as the year that oil trade became truly globalised, resulting in a boost to long-haul trade. However, positive demand side factors including soaring US crude exports, rising global refining activity and rapidly shrinking oil inventories, were not sufficient to absorb the strong wave of new tonnage which swamped the market.

Crude tanker demand, unfortunately, will continue to face steady headwinds for the first half of 2018, which could easily prevail over the remainder of the year. While Middle Eastern crude exports remain stable for the foreseeable future as OPEC and its partners should maintain their output at close to current levels until towards year end, there is very little scope for optimism. Additionally, as Russian production remains curbed and with increasing pipeline links between Russia and China, Russian seaborne crude exports will fall, especially from western outlets.

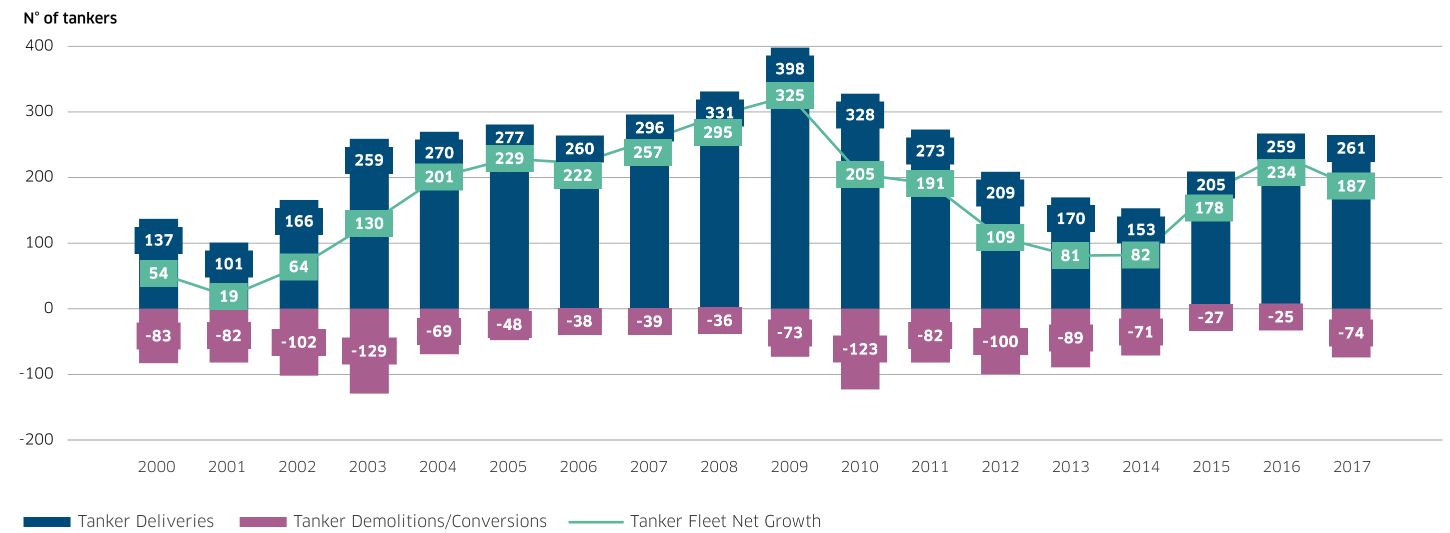
Elevated tanker scrapping is likely to be the theme of the year

However, some glimpses of light appeared between the dark clouds of second-half 2017, which are likely to continue into 2018. Notably, soaring US crude exports which pushed tanker ton-miles higher. Furthermore, because incremental Canadian crude production will feed US Gulf Coast refineries, competing Latin American barrels will be increasingly backed out from the US and diverted towards Asia. We expect 1 million barrels per day of incremental supply growth from the US, the majority of which will be exported. Together with higher Brazilian exports and still-recovering Nigerian production, we therefore expect Atlantic basin tanker demand to rise which will help to underpin ton-mile demand, as much of this demand will be to ship these volumes to Asia. Nonetheless, these 'bright spots' of demand will be insufficient to negate supply pressures.

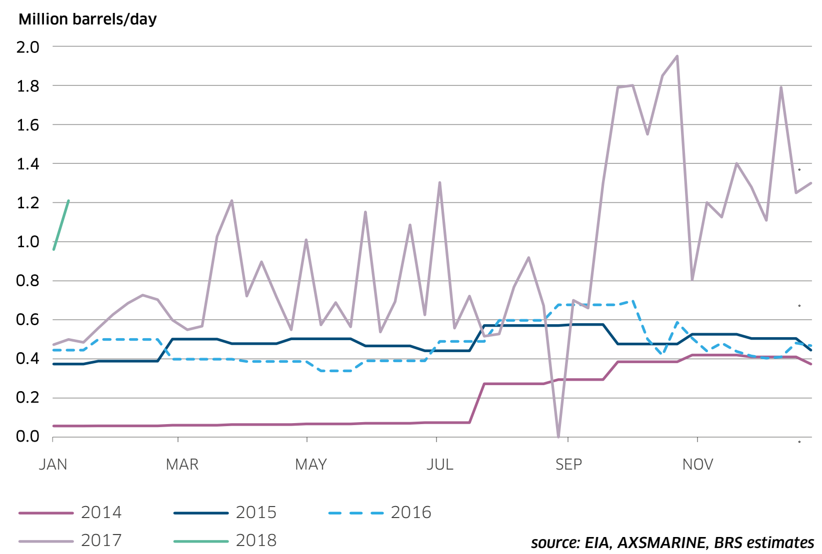
Product tankers, on the other hand, look to currently be in a better position as the New Year begins and as such we see more scope for rate gains than for their crude brethren. The product inventory overhang has largely been eroded over the past twelve months and we are now seeing a marked increase in demand. We expect the demand to ship middle distillate from East of Suez refiners to the Atlantic basin to intensify as the year progresses but the question remains, how much of this demand will be cannibalised by large newbuilding crude tankers. We also expect demand to be firm in the Atlantic basin as the import requirements of the Caribbean and Latin and Central America remain high amid ongoing refinery problems.

Elevated tanker scrapping, "we hope", is likely to be the theme of the year. Drivers this year are set to come from the rising number of older tankers, a persistent weak freight environment, higher scrap values and upcoming environmental regulations (the ballast water treatment system regulation for existing vessels in 2019 and the global cap on sulphur emissions in 2020). The elevated scrapping activity will help to partially offset new tanker deliveries which could touch their highest levels since 2010. Thus, while 2017 saw rates plunge to low levels, we would like to believe we can see some green shoots of a recovery in tanker rates for the latter half of 2018. Tanker players will still need to adjust to the persisting weak environment. As William Arthur Ward said, "The pessimist complains about the wind; the optimist expects it to change; the realist adjusts the sails."

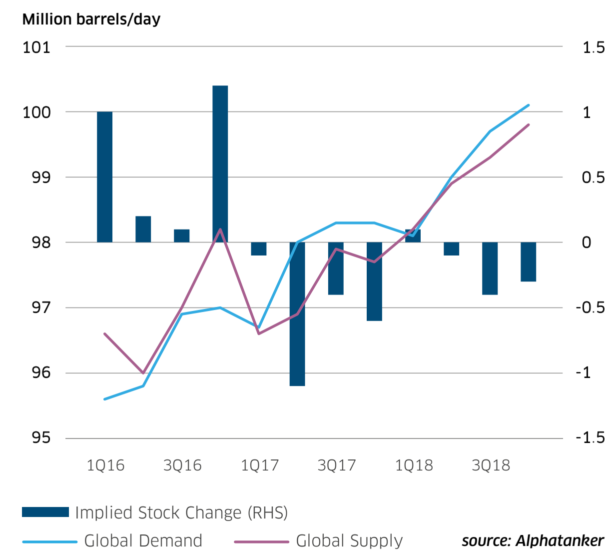
Crude and petroleum products tanker deliveries and removals



US seaborne crude exports



Global supply and demand balance



Picture: **MINERVA VERA**, *Suezmax, 158,023 dwt, delivered in 2009 by Hyundai Samho to Minerva.*

CHARTERING

Period

Tanker time charter rates declined steadily throughout 2017 while overall fixture activity followed a similar trend, albeit inconsistently. The first quarter was active, particularly in the VLCC and MR2 segments, while the second quarter and the beginning of the third quarter showed limited volumes. The latter half of the third and fourth quarters showed a gradual increase in activity, with strong demand for clean tonnage.

Market strategy and sentiment transitioned away from long term period structures - commonplace in 2014 and 2015 - towards short term period structures with optionality. The significant decline in time charter rates inevitably led to difficulty in bridging the rate expectations between charterers and owners.

Some owners decided to bite the bullet and accept lower fixed market rates. Others showed resistance, but eventually compromised by offering base rate plus profit sharing structures (either index linked or open book). This type of deal structure was increasingly promoted by charterers throughout the year enabling them to secure coverage at more manageable levels. An additional factor which hindered long term activity was the growing uncertainty regarding the new IMO 2020 cap on low sulphur emissions (0.5%), with both charterers and owners cautious on whether to install scrubbers and who will pay for it.

Category	Period	2017 TC Rate (average) $/day	2016 vs. 2017
VLCC	12 months	26,530	-38.84%
	36 months	28,700	-14.98%
SUEZMAX	12 months	18,220	-47.06%
	36 months	22,500	-16.44%
AFRAMAX	12 months	14,840	-40.06%
	36 months	16,850	-21.66%
LR2	12 months	14,795	-41.34%
	36 months	16,950	-21.83%
LR1	12 months	13,730	-33.97%
	36 months	14,875	-19.09%
MR2	12 months	13,120	-17.01%
	36 months	14,000	-08.57%
MR1	12 months	11,520	-22.64%
	36 months	12,800	-10.94%

Looking forward, we anticipate that the 2018 period market will exhibit contrasting fortunes. There needs to be an alignment in clean and dirty markets to create a more favorable environment. The preference for short periods with optionality is likely to remain, with clean time charter rates likely to perform better compared to dirty. With 2020 looming there should be more progressive market volatility which may have a positive impact on rates.

Crude Tankers

VLCC

VLCCs, the so-called 'supertankers', have certainly not proved to be a 'super' investment for owners in 2017. A market that has seen golden years in the past with ships performing only a handful of voyages to repay the full asset value, suffered last year with the average TCE of TD3 (260,000 tons Middle East Gulf/Japan) being $22,700/day compared to $41,800/day in 2016 and $67,800/day back in 2015.

Overall, the market has been flat throughout the year with limited volatility. The TD3 peak was back in January with TCE $41,900/day, and it bottomed out in September with TCE $10,700/day.

Compared to previous years, not only did the fleet increase by 50 ships in 2017 on top of an increase of 47 ships in 2016, but scrapping was not as active as predicted due to upcoming regulations such as the ballast water treatment system. This was even though scrap values increased from about $11 million back in January 2016 to around $18 million by December 2017.

Another reason that did not help rates was the fact that charterers watching the softer market re-delivered their relets rather than exercising additional optional periods, while they also stopped looking in the market for period business.

Port congestion in the Far East was not as important as 2016, whilst Chinese independent refineries did not import as much crude as expected following lower import quotas being issued by the Chinese administration.

Lower OPEC production contributed to an average of 133 monthly fixtures ex-Middle East Gulf compared with 136 during 2016. Inevitably, robust fleet growth of 5.5% applied downward pressure on rates.

The VLCC fleet growth will remain strong this year with more than 50 VLCCs expected to be delivered. However, the fleet is ageing rapidly with 21% of the fleet now over 15 years old and the average vessel age now 8.9 years compared to 8.7 years in early 2017.

On the positive side, we expect to see more ships heading for scrap (only 3 ships were demolished in 2016 and 12 ships in 2017). Many of the Far Eastern charterers have changed their requirements recently with a strong preference for vessels with a maximum age of 15 years. We need to wait to see whether these restrictions change in a more volatile market, as at the moment with rates depressed, the premium paid on modern vessels is relatively insignificant.

We do not expect a dramatic recovery in rates during the first half of 2018, especially after such a poor start. It goes without saying that owners will be trying to push the rates up in the second half of the year if we assume that several older units will already have been deleted and if OPEC will have opened the taps a little. Meanwhile, demand for long haul voyages should continue to increase and we expect owners to continue to slow steam.

TANKER
CHARTERING

Suezmax

The Suezmax market entered 2017 with relative confidence after its end-2016 recovery, but reality turned out to be a harsh one. On a year-on-year basis, earnings halved reaching around $12,400/day, due to lower rates and increased operating costs. At least the summer months - traditionally low in demand and especially in returns - did not go below operating expense (OPEX) levels this year, a small relief for owners.

The main issue the Suezmax market had to tackle in 2017 was the continuous and increasing competition by VLCCs, while Chinese actors implemented a maximum 15 year old age limit-no newbuilding-no ex-dry dock rule, making it more complicated for the 22% of the existing fleet which was over 15 years old.

On the demand side, Suezmax demand has decreased slightly due to the OPEC-led supply agreement which has curbed volumes leaving the Middle East Gulf. The exception was the Atlantic Basin where demand rose. Nigerian production rebounded in the second half of the year. Meanwhile, Brazilian exports to the Far East rose, while American crude deliveries to the UK-Continent, Mediterranean and especially the Far East soared. US and Brazilian exports contributed to an increased ton-miles ratio for the combined Suezmax fleet.

The downside of this concentration of activity in and from the Atlantic region was the vast volume of tonnage looking to position or re-position itself in the west. This trading pattern saw the MEG/west backhaul cargoes trade close to zero TCE and an endemic oversupply of modern tonnage in the west.

From a supply point of view, the Suezmax fleet got a little younger in 2017 with an average age of 9.1 years (down from 9.4 years in 2016). The year ended with 569 units, as 55 new ships were added throughout the year while 12 ships were scrapped. A sharp increase compared to 2015-2016 during which only 3 ships left the fleet.

The outlook for 2018 remains cloudy and earnings will remain in the low $10,000s/day for most of the year - at least until the third quarter - as demand is not expected to rise while the supply side pressures remain. We expect to see another 50 newbuildings enter the position list this year.

Aframax

2017 was one of the toughest years in recent history for Aframax owners in the west, with rates hitting rock bottom. To put things into perspective, the TD7 (North Sea/Continent, 80,000 tons) TCE average equated to $7,720/day for 2017, a 66% drop compared to 2016 while TD17 (Baltic/Continent, 100,000 tons) was not much better, averaging $10,085/day (57.5% less than 2016).

The severe market conditions can be attributed to two main factors: firstly, the decline in Russian oil production compared to end-2016. Russia's crude output decreased substantially especially out of the Baltic with 40 less stems from Primorsk and Ust Luga in 2017 (approximately 5% of the entire 2017 REBCO program ex-Baltic); and secondly, the increase of West Texas Intermediate (WTI) exports into North West Europe and the Mediterranean using Aframaxes, which added tonnage to a market that was already over-supplied throughout the year.

The main problem for 2018 will be new deliveries, 47 in total, which is almost as much as 2015 and 2016 combined. Interestingly, 25 Aframaxes were delivered in 2017 (with an additional 40 LR2s). Meanwhile there was the highest amount of scrapping/conversions since 2013 with 22 vessels deleted from the fleet. The impact of the elevated amount of deliveries will be partially offset by the 71 Aframaxes turning 15 years old in 2018.

At worst we hope 2018 will be similar to 2017 and that finally we see an upward freight curve for 2018 onwards. The increase in flat rates will not be enough but it will be a psychological improvement for owners more than anything. OPEC and Russia have already agreed to maintain their production cuts until end-2018, which means owners will not be able to bank on this yet.

The Mediterranean and Black Sea area was not much better unfortunately. As expected 2017 was a bad year, despite Libyan exports being almost back to normal; barring some spikes in January, June and November, the rest of the year traded at very low levels, often below OPEX. The oversupply of tonnage and a continued trend of LR2s dirtying up, meant that TD19 (Cross Mediterrean, 80,000 tons) saw a lot less volatility than 2016. Kurdish volumes remained steady for most of the year but halved in the fourth quarter due to the ongoing dispute between Baghdad and Erbil.

This year owners could not rely on the winter season to even partly offset their huge losses of 2017. An unexpectedly dull winter, one of the worst ever seen for Aframaxes in the Mediterranean, saw returns stuck at around $5,000-$6,000/day until the beginning of 2018. The outlook for the remainder of 2018 is not encouraging due to even more deliveries expected, which will probably maintain downward pressure on rates in the Mediterranean as well.

Picture: ***MAERSK TANGIER****, MR2 tanker, 49,835 dwt, delivered in 2016 by Sungdong to Maersk Tankers.*

Product Tankers

Fuel Oil

2017 started off in a similar fashion as 2016, with a depressed market which again succumbed to a decrease in Worldscale flat rates (20% on average) and low demand for dirty Handysize and MR vessels. On the Handysize, the average daily returns remained almost unchanged to 2016 floating from about $3,000 to $20,000 per day, with a year's average of $10,000 per day, barely covering OPEX.

Compared to 2016, the year varied in terms of how demand affected freight rates, however. Instead of brimming storage and a lack of demand keeping rates depressed, as was the case in 2016, we saw trading houses taking large positions for long haul voyages. This meant that, instead of Fuel Oil and VGO (Vacuum Gas Oil) moving in the local market, it went on larger vessels such as Suezmaxes and Aframaxes. Early reports of tenders being won by traders show a similar tendency to perform these types of trades again in 2018.

In 2016, we expected the surge of new deliveries to have a negative impact on the supply side, in that aged CPP vessels, and just a general oversupply of new tonnage, would push more vessels into the DPP market. Luckily, we did not witness as much of this as anticipated in 2017. Then again, one can say that we are still in the early phases of this phenomenon and therefore one could expect this to accelerate over the coming years.

The Panamax market also remained relatively unchanged from the previous year. This was mainly due to lacklustre demand, created by a well-saturated VGO market in the US Gulf, and also that product, exported from Europe, tended to move on larger Aframax-sized vessels. Therefore, TD12 (Antwerp-Rotterdam-Amsterdam (ARA)/ US Gulf, 55,000 tons) tended to remunerate owners at between $5,000 and $30,000 per day. The average was well-below the median at about $11,500 per day. In the later part of the year, we saw a dramatic shift in demand to the Panamax market mainly due to bad weather affecting the Aframax market in the USG. Sentiment has so far been able to buttress rates, but this is just a seasonal occurrence. Overall the market seems to have reached a bottom. The ageing fleet seems to be the only respite for this year, especially if we do not see an uptick or change in demand.

The ageing fleet seems to be the only respite for this year

Vegetable Oils Soya & Sunflower Oils + Biodiesel

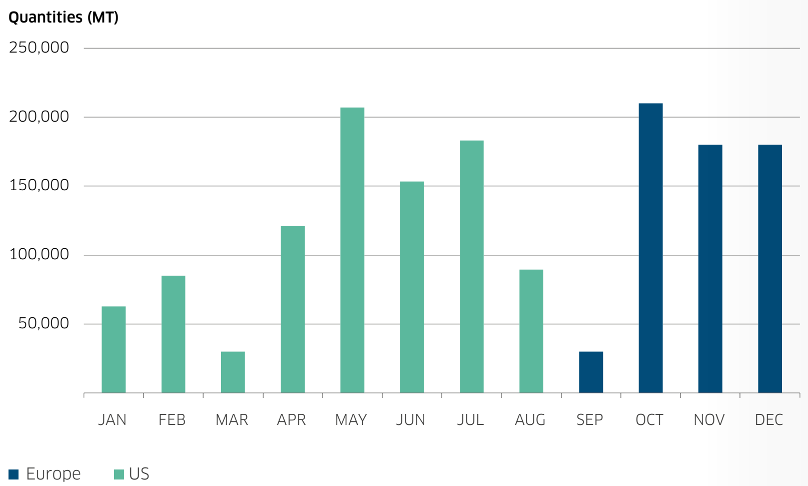
Vegoil exports from South America fell in 2017, with approximately 6.5 million tons shipped, 10% lower than in 2016. Exports rose during the spring and summer periods, due to seasonally higher production, while volumes plummeted during the fourth quarter. Some 188 MR1s and MR2s have been chartered, of which 134 went to India, which remains the main importer of vegoil. Biodiesel flows saw an important change during the summer as the US imposed an anti-dumping tax for imports of Argentinian biodiesel. After an uncertain few weeks, Europe finally implemented a regulation encouraging the import of this displaced commodity. Approximately 1.5 million tons of SME (Soya Methyl Esther) were transported in 2017, of which 38% were shipped during the fourth quarter. Freight rates remained relatively stable throughout the year, varying between $35 and $45 per ton for 40,000 tons going to India. These rates produced daily returns of between $10,000 and $15,000 per day.

This year again, Black Sea sunflower oil exports increased and reached about 5.5 million tons. This market saw volumes shipped to various destinations on every segment from small tankers to MR2s. Almost 400 voyages were confirmed by year-end. Notably, MR1s discharging in India were fixed basis 30,000 tons at around high-$30s to mid-$40s per ton.

Palm Oils

The palm oil market was again quite active in 2017 with around 270 MR2s and MR1s fixed into Mediterranean/Continent and the US. In 2017, 33 MR2 newbuildings (out of a total of 59 delivered in Asia) fixed palm oils on their maiden voyage; a similar number compared to 2016. Rates were relatively stable throughout the year, around $14,000 per day on average for the year, increasing slowly from $12,000 per day in August to $17,000 per day by December. Stena remained the main charterer with more than 50 MR2s fixed for time charter trips. Volumes are likely to remain steady in 2018; but there should be enough FOSFA (Federation of Oils, Seeds and Fats Associations) tonnage to absorb the demand. Rates will most likely depend on the clean petroleum market in Asia.

Destinations of Argentinian SME



Clean petroleum products - West

MR1

Handysizes kicked off 2017 with a bang. As tonnage was short and activity rose, the market firmed even before the ice managed to solidify. This market remained strong throughout winter, which was important for owners as it partly offset their summer losses.

Indeed as the ice started to disappear so did owners' earnings. Weak rates persisted throughout the summer. The occasional disaster, such as pipeline outages in the US, and an active hurricane season, propelled MR rates higher, to levels for Handies to become competitive on certain routes. However, rates quickly dropped back, reflecting an oversupplied market. After several months of low rates owners finally started to see some upturn in December as activity increased.

Rates in the Mediterranean and the Black Sea remained under pressure in 2017 as these typically short voyages resulted in permanent tonnage availability. This almost systematically prevented rate gains. It is of note that there are only 404 MR1s of less than 15 years of age trading clean worldwide with only 8 newbuilding deliveries slated for 2018 and zero in 2019. Ships over 15 years of age are becoming extremely complicated to fix as safety regulations are becoming ever stricter.

MR2

The first half of 2017 was marked by the open arbitrage to ship reformate from ARA to China as traders were encouraged to send product ahead of the expected implementation of new Chinese regulations in July, which were then postponed. The growing voyages to the east not only reduced the tonnage availability in the west, but also balanced out the MR market but for only a short period.

The oversupplied market was reflected during Hurricane Harvey at end-August when MR2 freight rates in the Continent spiked, anticipating stronger demand. But the rapid reopening of the Colonial Pipeline (transporting petroleum products from the Gulf Coast to the Atlantic Coast), reduced the need for imports into the US. As owners repositioned their tonnage from the east, MR2 Continent rates slumped to levels below where they stood before the Hurricane.

LR1

The west LR1 market remained difficult in 2017. On a few occasions the market showed positive signs but failed to move higher. This led some owners to consider west cargoes as backhauls rather than Middle East Gulf (MEG)/Red Sea cargoes which boasted significantly lower returns. Also, LR1s have suffered from continuous competition from other segments: MRs for West Africa runs and LR2s for West/East runs. Overall this made it difficult for owners to yield value from their ships in the west except on a few short-lived occasions. On a more positive note, the second half of the year has seen a lot of MEG gasoline short voyages being covered on LR1s ex-ARA. The activity generated by this trade pattern absorbed tonnage and upheld freight rates.

LR2

The west market has been frustrating for owners. The petrochemical industry still relies on cheap LPG as feedstock, and therefore Asian demand for Western naphtha remained low for much of the year. When the arbitrage window did open, it was too narrow to support any activity other than that of producers. The west and east markets were never strong at the same time. Owners tried to avoid having ships open in the west as those positions often ended up idle for too long and heavily impacted ships' returns. Only a handful of players having Red Sea programmes have been able to minimize their exposure. In this low activity environment, the main cargo flows were reformate to China in first-half 2017 and gasoline cargoes to MEG/Singapore. Middle distillate cargoes ex-Baltic have supported the segment throughout the year, together with West African demand which also played a modest but not insignificant role in absorbing tonnage for extended periods of time. Owners anticipate 2018 to be average in the west but remain hopeful for 2019 and 2020.

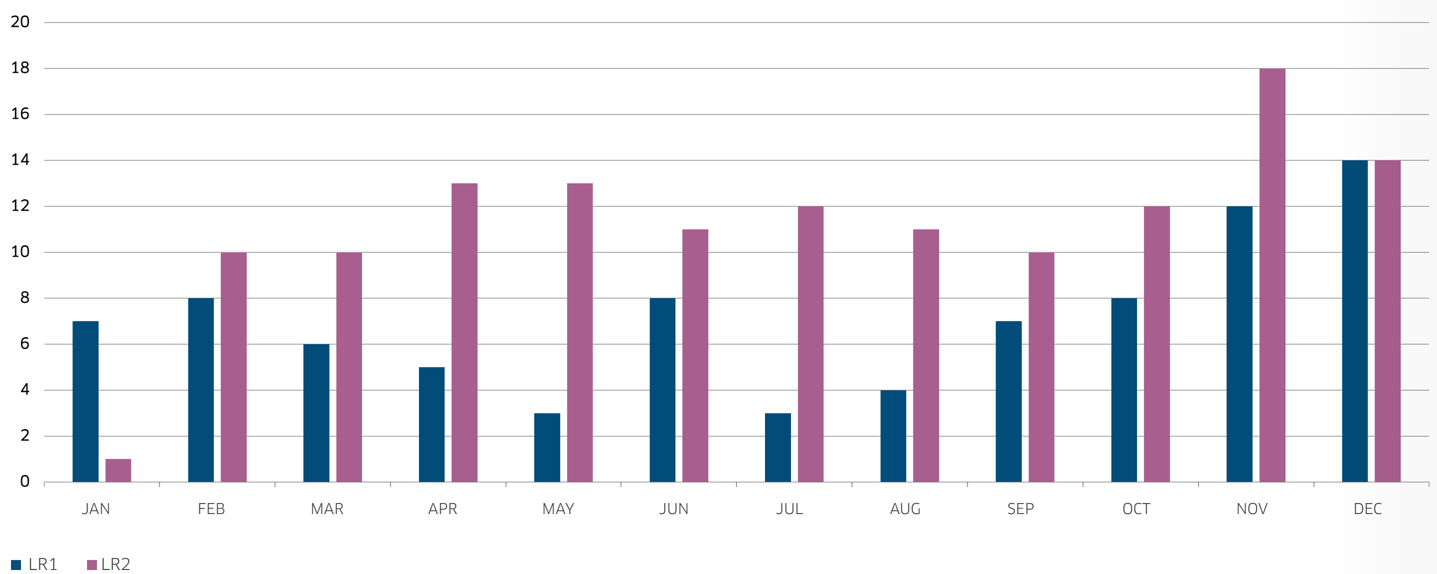
MR/Handysize WAF

2017 kicked off with stable rates which were maintained through the first two months with the usual STS Lome/ Lagos run floating between $150,000 and $170,000. However, 2017 saw less STS Lome or Abidjan to Lagos liftings considering that the majority of Nigerian imports were being fixed directly ex-ARA on MRs. We even saw our first LR1 berth in Lagos, which was shortly followed by a part-loaded LR2.

Congestion offshore Lagos was arguably less important in 2017. The average turnaround for MRs with gasoline off Lagos was 8-12 days through the year compared to previous years when the wait to discharge the full cargo could last up to a quarter of the year.

2017 saw more STS Lome to Congo (DRC) deliveries on Handies and MRs as owners were able to compete with small tankers (20,000 dwt). Though the rates had been fixed as low at $210,000-$215,000, these levels remained more attractive than a ballast north. Condensate/naphtha flows were maintained through the year, with a bonny NLNG cargo being exported in 30,000 ton lots every 15-20 days or so. We also saw the Tema oil refinery offering naphtha cargoes to traders for export, and also Soyo naphtha export cargoes in the market. Overall, the cross-West Africa market for MRs was reflective of the European market, and thus was weaker than 2016 as the volumes and returns from demurrages were lower.

LR West to East Naphtha and Condensate voyages



Clean petroleum products - East

MR2

The east of Suez MR2 segment followed its usual cyclical pattern with a slight twist in 2017. The first quarter saw the residual activity from end 2016 contribute positively to earnings but things soon started to dip on the back of low volumes and tonnage oversupply. The second quarter saw yearly-lows as rates continued to dip. Overall the first half of 2017 averaged $9,000-$10,000 per day earnings for most operators. The third and fourth quarters saw activity counter-seasonally step up and be sustained until end-year which was unusual. This was mainly due, it is thought, to the knock-on effects of Hurricane Harvey which tightened demand in the west and subsequently deprived the area of tonnage. This translated to earnings around $14,000-$15,000 per day across the second half of the year. On average, earnings for MR2s over the whole year were $12,000-$13,000 per day, a 20% drop from 2016.

As anticipated in 2016 and like in the west, the segment suffered from competition from the bigger LR1s and LR2s on short-haul business. In view of this relative parity on freight, traders decided to stem up cargoes on longer runs, in order to increase the dollar per ton. 2018 is expected to follow a similar pattern than 2017, but market players seem slightly more optimistic as the world economy continues its recovery which is expected to increase demand for products, especially in the Middle East.

LR1

The LR1 segment probably suffered the most in 2017. As has always been said, LR1s have struggled to find their place as a hybrid tonnage option which falls in and out of favour, victim to the MR2 and LR2 segments. Indeed LR1s always seem to lose the battle for short-haul cargoes with MRs (unless they compete at similar freight) and with LR2s on long-haul cargoes as traders decided to move larger stem sizes due to extended periods of parity on freight, and margins being made on volume. The trend for MEG and Pakistan to source gasoline from western markets helped with backhaul earnings but also continued to supply the region with tonnage which added to the supply overhang. The average time charter equivalent earnings for the segment for the year was $11,000-$12,000 per day and this was based on TC5 voyages with backhaul combinations in the Far East. A straight TC5 (MEG/Japan, 55,000 tons) roundtrip voyage would probably earn roughly $7,000-$8,000 per day in 2017, so owners relied on a relatively active backhaul market in the Far East to improve earnings. Overall earnings dropped by 35%-40% compared to 2016.

2018 is expected to be better for the same reasons stated in MR2 segment, with few deliveries and the segment trying new trades which were previously exclusively dedicated to MRs as infrastructure improvements in terminals, notably in Iraq and East Africa, make the berthing of LR1s now possible.

LR2

The LR2 segment fared reasonably well in comparison to MR2s and LR1s in 2017 as the segment delivered the highest earnings with an average of $13,000-$14,000 per day across the year, only a 10% drop compared to 2016. This was mainly due to a resilient naphtha arbitrage in the west which kept tonnage employed and from ballasting back to the MEG market. Furthermore the Red Sea market was buttressed by increased Saudi refining capacities and increased long-haul voyages as the middle distillates arbitrage remained open to ship product westwards throughout the year. This was accentuated by Hurricane Harvey which increased US ULSD imports in the second half of the year. The segment also benefited from cannibalising the active LR1 backhaul market in the Far East when LR1s would overheat. Nevertheless, an excess of deliveries and a more depressed freight rate environment saw earnings decline. 2018 is expected to be better overall earnings-wise with an orderbook which peaked in 2017, and we anticipate global demand increasing which will help digest the flurry of tonnage delivered last year.

FFA MARKET

On the 2017 FFA wet freight paper market, we observed an increase in the total volume traded of 7% compared to 2016, but this remained below the volume traded in 2015. Clean routes had slightly less (-2%) volume than last year whereas dirty routes traded 16% more. During Hurricane Harvey, TC2 (Continent/USAC, 37,000 tons) rates soared from WS120.6 to WS247.8 in the space of a week as TC14 (USG/Continent, 38,000 tons) slumped from WS127.8 to WS94.4.

During this period, we observed a spike in volumes traded on the TC2 market. Between late April and early May, a sudden drop in the TC2 rate of nearly WS55 points occurred due to lack of demand for gasoline imports. For that same period, we observed the same phenomenon for dirty routes. Notably, TC6 (Cross Mediterranean, 30,000 tons) has come back into fashion: it used to be an illiquid route, but was the most traded clean route during the two last months of last year.

Meanwhile, we started to observe illiquid routes being traded during the third and fourth quarters of the year, notably TD8 (Kuwait/Singapore, 80,000 tons) and TC12 (West Coast India/Japan, 35,000 tons) which we believe will be traded even more in 2018. Finally, TD19 (Cross Mediterranean, 80,000 tons) will soon be priced on the futures market, and we know that major players already have significant interest in trading this route.

During 2017, on the second hand market, crude tanker owners had no other option but to remain 'undecided'

SECOND HAND MARKET

Crude Tankers

"Indecision hurts all our successes; there is no good wind for the sailor who does not know which port he wants to call." John Petit-Senn (1792-1870). The author was a Franco-Swiss writer and satirical poet based in Geneva. He is recognized for his humoristic and intelligent recollection of spiritual and moral thoughts.

During 2017, crude tanker owners had no other option but to remain 'undecided'. They faced too many uncertainties to be able to present clear strategies to their shareholders or to take actual decisions for themselves. There was no clear deadline on important technical issues such as the Ballast Water Treatment System - enforcement delayed by two years - and little visibility on future Low Sulfur Fuel Oil pricing and its availability in the years to come. Meantime, the clock is already ticking on the global 0.5% SOx cap on vessel emissions, to be introduced in January 2020.

Furthermore, how not be 'undecided' when you face contradictory commercial signals? Newbuilding prices were, and are still, low but have strengthened during the year helping to keep modern vessels' prices stable or firm. At the same time, low earnings and maintenance costs pushed the value of 10 to 15 year old units downwards, although prices for the oldest tankers were sustained by a strong demolition market. Demolition prices increased by $100/LT from January to December.

Further indecision was also provoked by the additional weight of Compliance responsibilities creeping into owners' daily work, and the US administration's failure to position itself towards the Joint Comprehensive Plan of Action signed in 2015 with Iran regarding their

*Picture: **RIDGEBURY ALICE M**, Aframax Tanker, 105,745 dwt, delivered in 2003 by Sumitomo Yokosuka shipyard to Ridgebury Tankers.*

nuclear programme. Shipping has been, and still is, a business mainly conducted in US dollars but the dollar's influence is decreasing in favour of the Euro, the Yuan and - sooner or later - cryptocurrencies.

New orders 2012 to 2017

N° of Ships	2012	2013	2014	2015	2016	2017
VLCC	15	40	42	64	15	63
Suezmax	6	5	43	62	20	31
Aframax & LR2	18	67	44	109	19	43
Panamax & LR1	3	0	28	33	3	7

Units sold for scrap per year

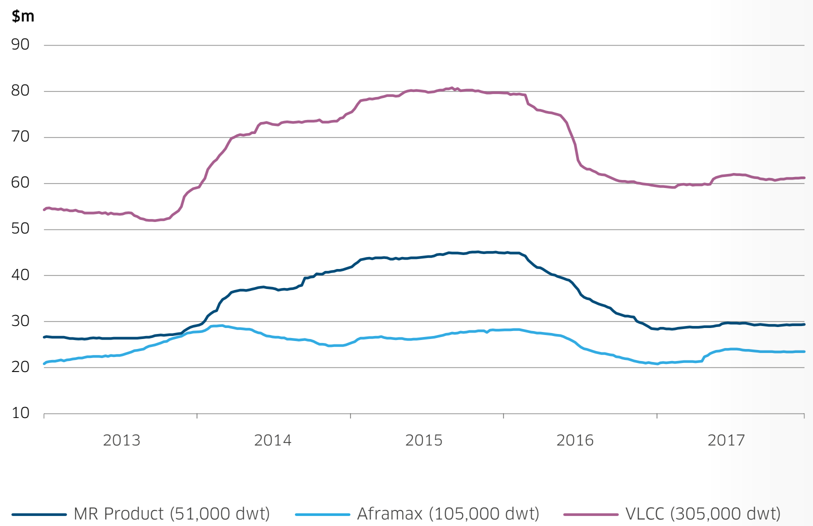
N° of Ships	2012	2013	2014	2015	2016	2017
VLCC	18	24	11	1	2	12
Suezmax	21	8	10	1	1	12
Aframax & LR2	21	25	27	3	9	22
Panamax & LR1	17	9	14	8	3	5

The few tanker owners who refused to remain 'undecided' took their chances and argued that one of the parameters was more important than another. Some felt newbuilding prices were too tempting not to take their chance, and this was clearly the case for VLCC owners since that segment saw a boom in 2017 with 63 new orders, as the table above shows. Others felt the pain of the low income received and opted to take advantage of strong scrap prices. While less than 15 large tankers were sold for scrap in 2015 and 2016, we finally saw a scrap revival with 51 units heading to the breakers in 2017.

This year's price evolution (value changes from January to December 2017) for second hand crude tankers showed further declines in all segments for the oldest units, while modern ships managed to gain a few percentage points.

Suezmax and Aframax values were hit particularly hard again this year, bearing in mind the dramatic drop they faced in 2016. One should remember, for example, that a 15 year old Suezmax was worth $27 million in January 2016, but worth only $14 million in December 2017. No surprise, this additional general price decrease was motivated by the low spot and time charter markets during the year. The table below shows the value changes and includes for comparison MR2 vessels. We can easily see that better spot and time charter market conditions enabled this segment to perform very differently.

**Baltic Exchange Sale & Purchase Assessments
5 year old ships**



Value changes from January 2017 to December 2017

N° of Ships	Resale	5 years	10 years	15 years
VLCC	-2.5%	1.5%	-5%	-6%
Suezmax	-3.5%	-8%	-9%	-12%
Aframax & LR2	-1%	7%	-5%	-15%
Panamax & LR1	-5%	2%	-3%	-16%
MR2	1.5%	5%	17%	-4.5%

Finally in 2017 the volume of transactions picked up somewhat and reached 131 units compared to the 94 vessels which changed hands in 2016. These numbers represent the large tankers from VLCC to Panamax (LR2 and LR1 included) but exclude OBOs. The main award goes to the VLCC and Suezmax segments, both of which witnessed substantial enbloc or corporate transactions. The reality is even higher in fact, as these 131 units do not include the changes related to the sale of the Maersk Tankers and Wilbur Ross fleets.

S&P activity for further trading

N° of Ships	2012	2013	2014	2015	2016	2017
VLCC	26	60	51	55	28	48
Suezmax	9	20	34	38	19	29
Aframax & LR2	33	41	67	52	39	42
Panamax & LR1	10	25	22	18	8	12
Total Number	**78**	**146**	**174**	**163**	**94**	**131**

VLCC

Activity was again spread quite evenly among the age classes. Among the 48 units sold, 24 VLCCs of less than 10 year old changed hands, with a similar number for vessels older than 10 years. Contrary to last year, we witnessed numerous spectacular transactions among the big players. We should highlight the enbloc sale of the BW Group's ten units to DHT Holdings, and the seven ships sold by Gener8 to International Seaways. There were several classic deals such as the sale of the **Crude Med** and **Crude Progress** (built 2017 at HHI) sold to Olympic Shipping for $80.5 million each. Among the older vintages, Dynacom also discreetly snapped up several units such as the **Gener8 Poseidon** (built 2002 at Daewoo) for a reported $22 million.

The VLCC fleet saw an extra 50 units delivered in 2017, against our forecast last year of 53 vessels. As of December 2017, the total VLCC orderbook remained high with no less than 112 units, 54 of which should start trading in 2018.

Suezmax

There were several refinancing transactions seen in this category and all age classes were part of it. This includes the refinancing of the Palmali fleet with clients of Socar, and the sale of two Nordic American Tankers newbuilding resales ex Samsung for delivery in 2018 for $43.2 million each to clients of Ocean Yield against a ten year bareboat charter. This year saw several vessels being sold to Indian owners due to a change in regulations in India favoring imports on Indian flag vessels. We can illustrate this with the sale of the **Devon** and **Eugenie** (built Samsung in 2010 and 2011 respectively) sold enbloc for $75 to clients of Great Eastern.

We saw just 55 Suezmaxes entering the fleet this year (compared to our expectation of 70 vessels). The orderbook comprised 73 units at the end of 2017 and theoretically no fewer than 50 ships should hit the water in 2018.

Aframax and Panamax

Older units made up the lion's share of sales this year as no less than 19 units aged 10 to 15 years changed hands out of a total number of 42 sales. Indonesian buyers were quite busy purchasing several units including the **Seaborne** (built Tsuneishi in 2003) for a price of $11.25 million. TMS Tankers also had an active year, purchasing at least three modern units including the five year old **Nissos Anafi** (built Samsung) for $28.5 million.

As for the Aframax (LR2 included), finally we saw 65 vessels enter the fleet in 2017 against an anticipated number of 83 units at 31 December 2016. The total orderbook at the end of 2017 consisted of 143 units, of which 75 are due in 2018.

The number of Panamax tanker sales marginally increased to 12 units in 2017 from 8 the previous year. While we saw Prime Marine regularly active in this segment in the past years, it appeared the tonnage on offer in 2017 did not capture its attention. Instead German owners or KG companies dominated the scene. Hellespont managed to refinance several vessels around ten years old, while Hansa Hamburg Shipping sold its **Jill Jacob** and **Tanja Jacob** (built Samsung in 2003) for around $9 million per vessel.

Of the 38 Panamax (LR1 included) we expected at the end of 2016 to be delivered during 2017, we saw just 21 ships hit the water. In 2018, we should see another 21 vessels delivered, while the total orderbook stood at 36 units at the end of 2017.

48 VLCCs changed hands in 2017

*Picture: **NORDIC SPACE**, Suezmax Tankers, 157,587 dwt, delivered in 2017 by Sungdong to Nordic American Tankers and operated by Shell.*

OBO

Turkish owners who had speculatively bought several mid 1990s-built 109,000 dwt OBOs in recent years for conversion to electric power ships were forced to sell three of these for scrap. Two other OBOs, including a large 310,000 dwt vessel built in 1987, were also sold for demolition. It is however worth noting that Klaveness and EGD Shipholding took delivery of a 83,500 dwt CABU type newbuilding during 2017. A sister ship is due in 2018.

Crude S&P outlook for 2018

Recent history has shown us that we can shave about 20% off the number of tankers scheduled for delivery in 2018 (for slippage and delay). Thus, next year, we could theoretically assume an extra 45 VLCCs, 40 Suezmaxes, 60 Aframaxes and 15 Panamaxes to enter the tanker fleet. That is a total of 160 vessels.

The recent past also shows that the highest number of tankers demolished in a single year was in 2012 with 77 units. We do not expect even half that figure in 2018. It will take much more scrapping, or many more cargoes, if we are to hope for better earnings in the short term.

Tanker owners are unlikely to do much regarding a decision on Low Sulfur Fuel Oil or a scrubber solution in 2018 as there are still too many risks and insufficient confidence in the equipment. There is growing concern over the cost, efficiency and maintenance of this technology at present. However, many will need to take a decision on installing Ballast Water Treatment Systems or not. This will depend on the timing of their drydock survey, their faith in the US Coast Guard approved systems, the associated costs, the design and adaptability of their engine room, and last but not least the prevailing market conditions. Some 150 large tankers are due for their third Special Survey in 2018 and it is quite possible that several will opt not to go through.

As from 2018, It is therefore likely that stronger owners with better access to finance will seek to offload their oldest units (selling some for demolition and some to second tier counterparts), while preparing themselves for better days by ordering new vessels at still historically attractive newbuilding prices. With the same objective, medium size owners will seek to rejuvenate their fleets but may struggle to do so in view of the scarcity of modern second hand tonnage available, and their asking prices which are likely to be disconnected from their earning potential.

There are good reasons to be optimistic in the medium term, however, as the demand for oil is there and growing in China and the Far East. Furthermore, additional ton-miles will quickly impact freight rates and values in a positive manner as soon as the inevitable scrapping takes its toll on the fleet.

Clean tankers

MR1/MR2

Average values for second hand MR2s saw an improvement of 10% during 2017, with the Baltic Exchange Sale & Purchase Assessment valuing 5 year old vessels at $20.8 million in January 2017, rising to $23.4 million by December.

Around 140 MR2s changed hands in 2017, showing much improved activity compared to 2016. Some 55 of these transactions were financial transactions, including sale and lease back deals, with mainly Japanese and Chinese counterparts. The average age of the vessels – excluding sale and lease back units – was about 10.3 years.

MR1s, however, saw less price improvement, as well as less liquidity, with only 63 vessels changing hands in 2017.

On the supply side, 2017 was a more balanced year, with some 65 MR2s delivered versus 15 scrapped. We say more balanced, as during the course of 2016 there were more than 90 units delivered (97) against only 11 scrapped.

There are good reasons to be optimistic

*Picture: **STI SLOANE**, LR2 Tanker, 109,999 dwt, delivered in 2014 by Hyundai Samho to Scorpio.*

The MR2 fleet expanded at a slower pace than previous years. It logged growth of 3.7% in 2017, compared to 6.5% in 2016 and 8.5% in 2015. This means that fleet growth is decelerating at a time when scrapping is picking up.

It is important to note that while fleet growth decelerated during 2017, there are still around 200 ships on order, with 82 of them scheduled for delivery in 2018. The average age of the MR2 fleet has increased to 9 years and could reach 9.5 years by the end of 2018.

The situation is entirely different for the MR1s: just 5 new ships were delivered in 2017, against 5 sold for scrap. MR1s have a much smaller orderbook, with only 8 ships on order, all scheduled for delivery within 2018. At the time of writing this article, several MR1s remain on the market for sale. This is a clear reflection of the demand from charterers, who prefer the MR2s due to common shipment sizes.

Most charterers redelivered expensive ships earlier in 2017 and chartered in similar vessels at lower levels.

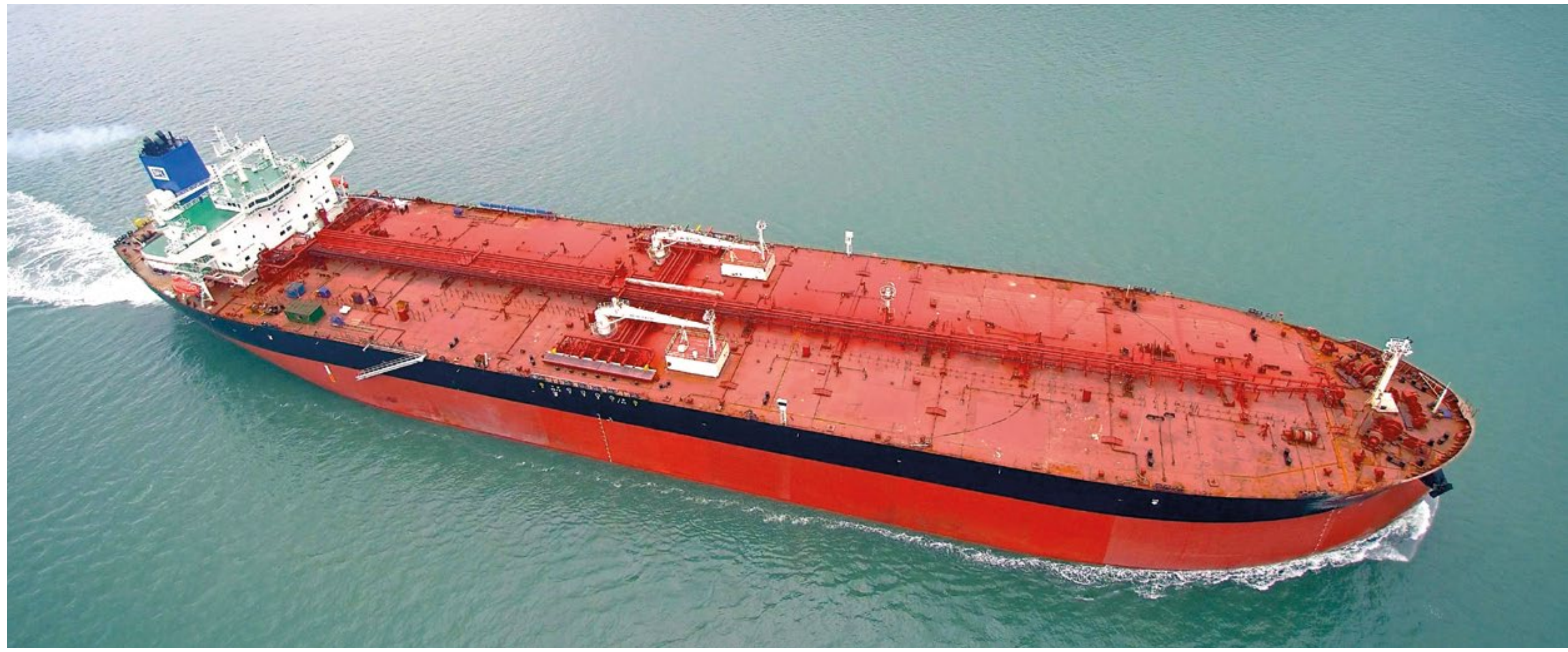
We anticipate more activity by Asian financial funds

Clean S&P outlook for 2018

Going forward, we anticipate more activity by Asian financial funds in the product sector, mainly in the form of sale and lease backs or bareboat hire purchases.

We also expect a modest increase in appetite for modern units, and reduced interest on units over 15 years.

Further, we expect the pace of scrapping to accelerate as the fleet ages. The average age of vessels sold or demolished in 2017 fell from 27 years to 24 years. We expect this trend to continue.



*Picture: **SFL SABINE**, LR2 tanker, 115,711 dwt, delivered in 2017 by Deahan Haenam to Fredriksen Group and operated by P66.*

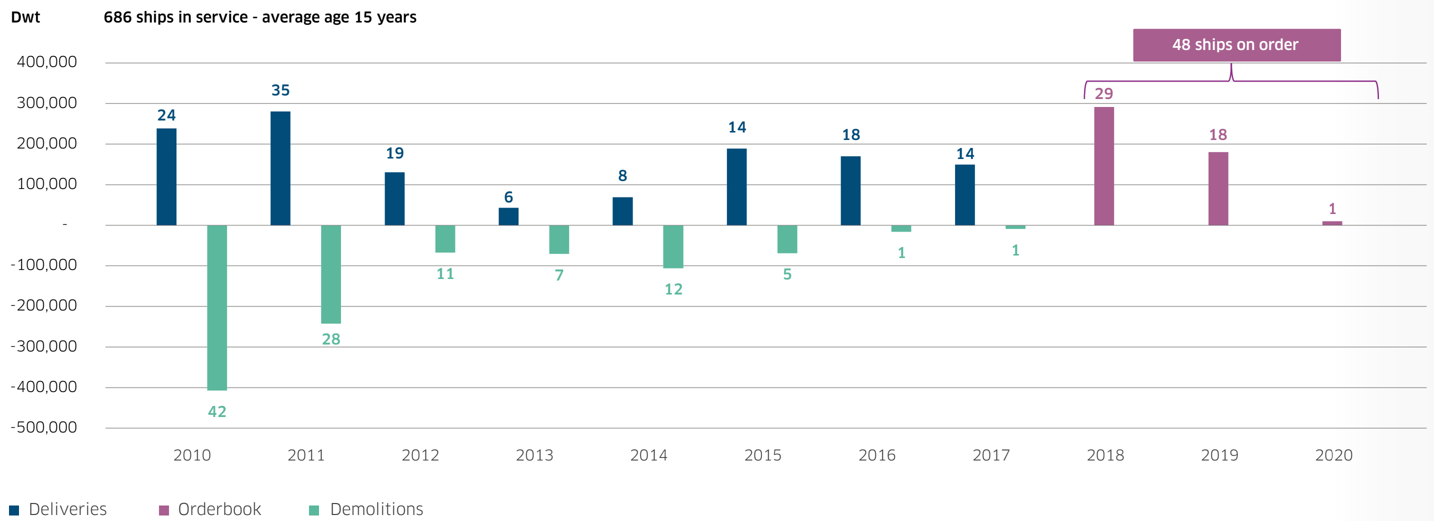
Chemicals & Small Tankers

Is the order fever over?

At the start of 2017 we could already foresee a challenging year to come. The large volume of newbuildings coming onto the market each month strengthened the existing tonnage oversupply, and every addition to the fleet increased the competition between shipowners.

SUN PLOEG
Chemical/Oil tanker, 19,976 dwt, built by Fukuoka Nagasaki shipyard in 2015, operated by Hansa Tankers.

SST & part SST chemical tanker fleet - deliveries, demolitions & orderbook per year (up to 18,999 dwt)



CHARTERING

Supply-demand balance under pressure

Overcapacity will remain a key factor in 2018, a phenomenon that is well illustrated by the stainless steel market. Stainless steel deliveries in the chemical market were high again in 2017: at the end of 2017 the stainless steel fleet comprised 1,149 vessels or 17.7 million dwt, of which 58 were delivered last year, equivalent to 5% of the fleet. Over the next three years, the stainless steel segment will receive newbuildings equivalent to 13% of the fleet. Taking all sizes, 90 ships are scheduled for 2018, 57 for 2019 and 9 for 2020 – see charts above.

However, the improvement in the global economy may provide some light at the end of the tunnel. The chemical seaborne trade is set to follow this trend, with gradual growth predicted. Shipowners hope that with a healthier fleet evolution in the coming years, it is only a question of time before the market absorbs the current tonnage oversupply and achieves a more comfortable balance.

It remains to be seen what will happen in the interim. If there is healthy demand in the Clean Petroleum Products (CPP) market, we may see fewer MRs competing with the chemical tanker fleet for easy chemicals.

Shipowner consolidation

The end of 2016 was marked by consolidation between two Norwegian chemical tanker owners when Stolt Nielsen acquired Jo Tankers' chemical fleet.

Last year, Odfjell continued its strategy to grow the fleet to 100 vessels, acquiring five 25,000 dwt stainless steel units initially ordered by Chemical Transport Group. In addition, it signed an agreement with Sinochem Shipping to take in four 40,900 dwt newbuildings on bareboat charter. Odfjell will put these vessels in an 8-strong pool with Sinochem. In doing so, Odfjell will replace some of its older units with these modern, sophisticated vessels.

Recently, Essberger Tankers announced the purchase of the Danish chemical tanker operator Crystal Nordic, owners of 14 ships between 4,000 and 12,000 dwt. The deal will take Essberger's fleet from 23 to 37 vessels.

Borealis Maritime also restructured, establishing a tanker management joint venture in Turkey with new partners. The new company, BT, will concentrate on the management of coated vessels up to 8,500 dwt.

Regulatory challenges to come

The implementation of the main new IMO Ballast Water Management regulation has been deferred until September 2019 but installation of a management system remains a challenge for owners: not only is it a substantial financial investment, but the technical requirements of adapting the existing space on a vessel can be challenging.

The global cap on emissions will further limit sulphur content in marine fuels from today's 3.5% to 0.5% as from 2020 and it will increase owners' operational costs. Owners will have the option to either use bunkers within the limit, or to reduce emissions by installing onboard scrubbers.

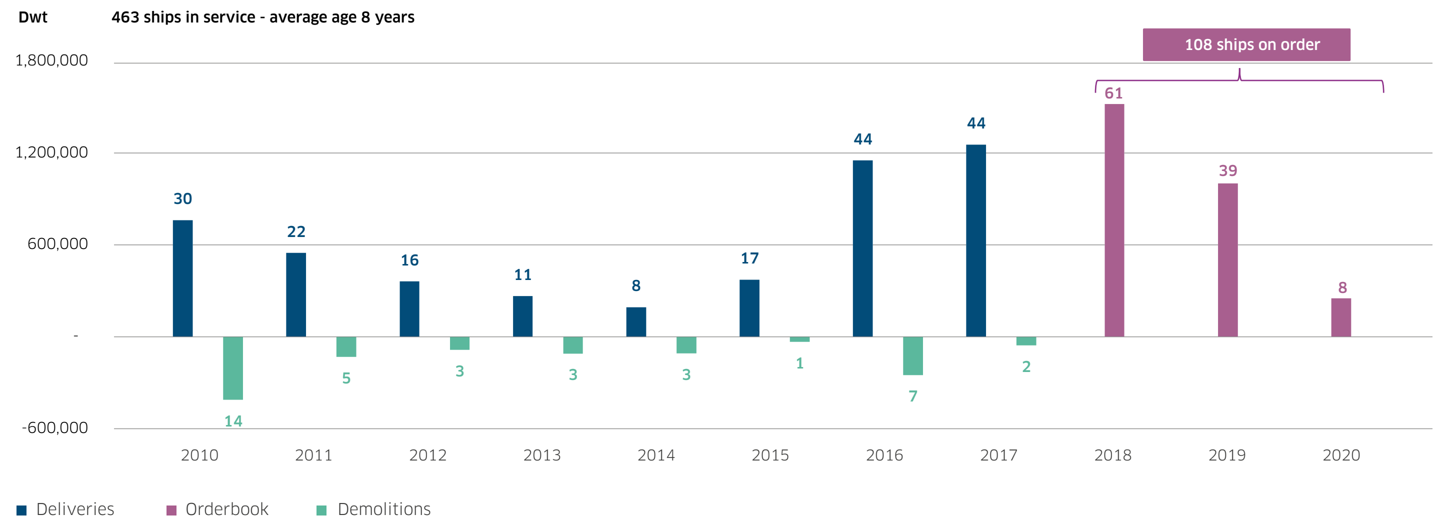
The decision will be mainly driven by owners' assessment of the price differential between low sulphur bunkers and the high cost of retrofitting vessels with scrubbers.

It is expected these measures could push owners to scrap some of their older tonnage, which could help reduce overcapacity.

Focus on North West Europe/small tankers (CPP-DPP)

Unlike 2016, where there was at least decent activity in the first quarter, 2017 was a poor year from the beginning for CPP (Clean Petroleum Products) freight rates. Earnings started the year at low levels, and unfortunately continued to drop throughout the year, with only occasional spikes. Such spikes were never sustained for more than one or two weeks. Finally, the market showed a hint of 'recovery' in the fourth quarter. However, to put

SST & part SST chemical tanker fleet - deliveries , demolitions & orderbook per year (19,000 to 45,000 dwt)



this into perspective, rates only just managed to regain the levels of the first quarter - in other words, they were still pretty poor.

The DPP (Dirty Petroleum Products) market was so low on intermediates in 2016 that a number of owners opted to clean their vessels for deployment in the CPP trade in the hopes of better market conditions. Unfortunately their timing was not ideal, and they added to the negative trend in rates in the CPP market. By contrast, the DPP market maintained a semblance of stability during the year.

Overall, Time Charter Equivalent rates for the intermediate segment (CPP + DPP) were traded at around $10,000-$11,000 per day over the year, similar to 2016 levels.

In the coaster/small tanker market (below 10,000 dwt), the year ended with Essberger taking over the Crystal Nordic fleet. Meanwhile North Sea Tankers handed back a number of coated vessels belonging to Borealis, which the latter will now operate as part of its new start-up.

Biodiesel continued to be one of the dominant grades shipped in this segment. There were significant exports from Argentina (namely SME/Soya Methyl Esther), helped by the European Union's decision to lift its anti-dumping ban on the country's exports in September. Argentine imports into Europe were subsequently parceled off and redistributed on small tankers (3,000-7,000 dwt) to the Mediterranean out of Huelva and to the Continent from the Amsterdam-Rotterdam-Antwerp area. Nonetheless market levels remained stable (low) throughout the year.

The translatlantic market

2017 began on a bright note for the eastbound transatlantic route, but the rate levels could not be maintained and quickly returned to the low levels first seen in 2016. Despite this, COA volumes provided a good basis for those owners based permanently in the area.

In contrast, the absence of a steady spot market for the larger cargoes left tramp owners struggling. Instead, the regular owners were left in charge, which only allowed for small, sporadic, and unsustainable increases in freight rates.

The westbound leg enjoyed a promising first quarter. Despite the threat of tonnage oversupply, and some vessels sailing light, the market managed to hold up until May. However a subsequent drop in demand brought freights to new lows. Overall, we have seen a fair amount of activity and fixing on this westbound trade, but nothing enabling absorption of the tonnage available on this route. Demand will have to grow further to absorb the steady flow of newbuildings entering the market since 2016.

Overcapacity will remain a key factor in 2018

*Picture: **BOW PALLADIUM**, Chemical/Oil tanker, 24,764 dwt, built by Avic Dingheng shipyard in 2017, operated by Odfjell.*

Focus on North East Asia

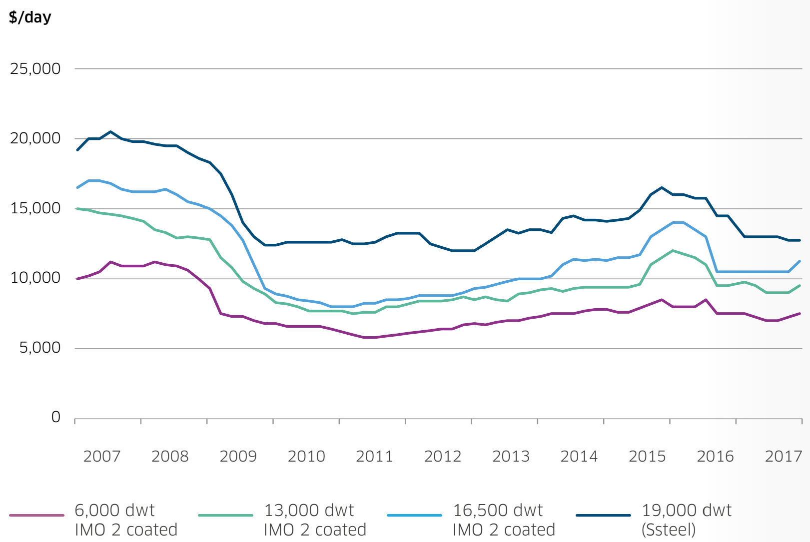
The North East Asia market saw significant volatility in 2017. At the beginning of the year, winter season demand and bad weather delays created a robust market, and freight rates rose by 20% to 30%. This trend did not last long, with a sharp halt related to the Chinese New Year holidays. During the second quarter, freight rates declined slightly and owners were willing to accept lower rates to compete for cargoes. Cargo volumes on Contract of Affreightment (COA) remained stable.

The summer season remained in the doldrums while Chinese exports of acids, lubes and small parcel sizes to India remained stable during the second and third quarters.

Finally, the fourth quarter was marked by a strong increase in freight rates due to weather delays, high bunker prices and good demand. We expect trading to cool off after the Chinese New Year, and rates to decline slightly before stabilizing.

The Chinese domestic market meanwhile enjoyed better than average conditions throughout the year, with strong demand from local manufacturers.

Time charter rates - basis 1 year



The North East Asia market saw significant volatility in 2017

Conclusion

2017 has seen a significantly oversupplied chemical tanker market. This situation is expected to continue in 2018 given the large number of deliveries scheduled, making it difficult to forecast any short term improvement in freight rates.

However, the gradual growth in chemical demand, a slowdown in newbuilding orders and the new environmental rules, which could lead to more scrapping, give hope for the years to come. There is expectation that by then the laws of a balanced supply and demand would be within sight.

SECOND HAND MARKET

Small tankers and chemical carriers (3,000-25,000 dwt)

Shipowners' pockets have been further emptied in 2017: on the supply side, deliveries were steady while demolition remained negligible, while demand remained stable at best but with increased competition from MRs. Vessel profitability was further hit by a 15% increase in bunker costs during the year (reaching $50 per ton for HFO and $90 per ton for MGO). Rates were volatile and saw only short-lived spikes.

A total of 111 sales were concluded in 2017 (including 32 stainless steel vessels), which represents another year of falling activity, and a drop of about 10% on 2016. Simply, the market lacked buyers.

Low profitability across the board deterred financiers from investing in the segment, and buyers had to resort to older and more affordable vessels. As a result, the average age of vessel sold on the second hand market increased to 12 years (compared to 11 in 2016).

With the flight away from smaller vessels, the average size of vessel sold rose again, reaching 12,200 dwt for 2017. The median size of vessel sold also increased by 700 dwt to 11.200 dwt, showing the continued appetite among buyers for bigger vessels. Overall, they are more attractive due to the higher ton-miles available, and less exposed, in relative terms, to higher bunker and operating costs.

Scrapping showed a faint improvement, with 16 vessels equivalent to 153,000 dwt sent to the beach. The average age of vessels scrapped was 32 years, another reminder that a re-balancing of the fleet will not result from demolition alone.

Prospects for 2018

We note several reasons to be more optimistic for 2018, and even more so for 2019.

- Our hope that there would be more scrapping in 2017 was dashed by the deferral of the D2 ballast water regulation making Ballast Water Treatment Systems (BWTS) compulsory on vessels in service. By giving a two-year respite for the older part of the fleet, it will postpone the expected turnaround in the market. This, combined with IMO's decision to reduce the sulfur cap in marine fuels to 0.5% from 1 January 2020, gives further comfort that significantly stronger levels of scrapping will come into play as from the end of 2019. But this alone will clearly not be sufficient to balance the fleet, given today's orderbook represents 13 years of demolition.
- Higher ton-miles are forecasted for the future. Rising oil prices have not been entirely negative for the industry as they have rendered the US a more competitive producer and exporter of chemical products. The ton-mile boost from shale gas should support the intermediate chemical tanker vessels with IMO2 notation, while refinery capacities in Europe are expected to decline further between now and 2020. Europe's mounting dependence on imports will also call for higher inventories to avoid seasonal shortages.
- The fundamentals in the MR sector are also improving in 2018 thanks to declining newbuilding deliveries. This should affect positively the intermediate tanker segment and limit MR competition on key trades such as ethanol and caustic soda.
- The orderbook looks sizeable in quantitative terms (168 coated units of 1.7 million dwt) but the eligible fleet according to oil major quality standards accounts for less than 40% of this total. The picture is a less rosy for stainless steel vessels: there is 1.8 million dwt currently on order, which will put freight rates under pressure for a second year in a row. No less than 70 stainless steel vessels are expected to be delivered in 2018 (against 33 delivered in 2017).

Conclusion

We expect 2018 to be a pivotal year for the coated tanker market, with increased ordering of vessels in the 15,000 to 25,000 deadweight range, but a more moderate appetite for stainless steel units.

This should open up opportunities for Chinese shipyards, while Turkish shipbuilders may struggle to compete on such sizes. Rates are also likely to rise due to increased ton-mile demand and the approaching regulatory deadlines (BWTS in September 2019 and the low sulfur cap in 2020). These are two good reasons for owners to invest in younger vessels or newbuildings.

The tsunami of vessels that was delivered in the market's boom years (2006-2009) will progressively hit their critical 15 year anniversary in the years to come. Let us hope that the expected turnaround in the market that looms on the horizon will not provoke the same speculative fever that owners are still paying for.

We expect 2018 to be a pivotal year for the coated tanker market

*Picture: **TERN SEA**, Chemical/Oil tanker, 14,879 dwt, built by Avic Dingheng shipyard in 2016, operated by Terntank Rederi.*

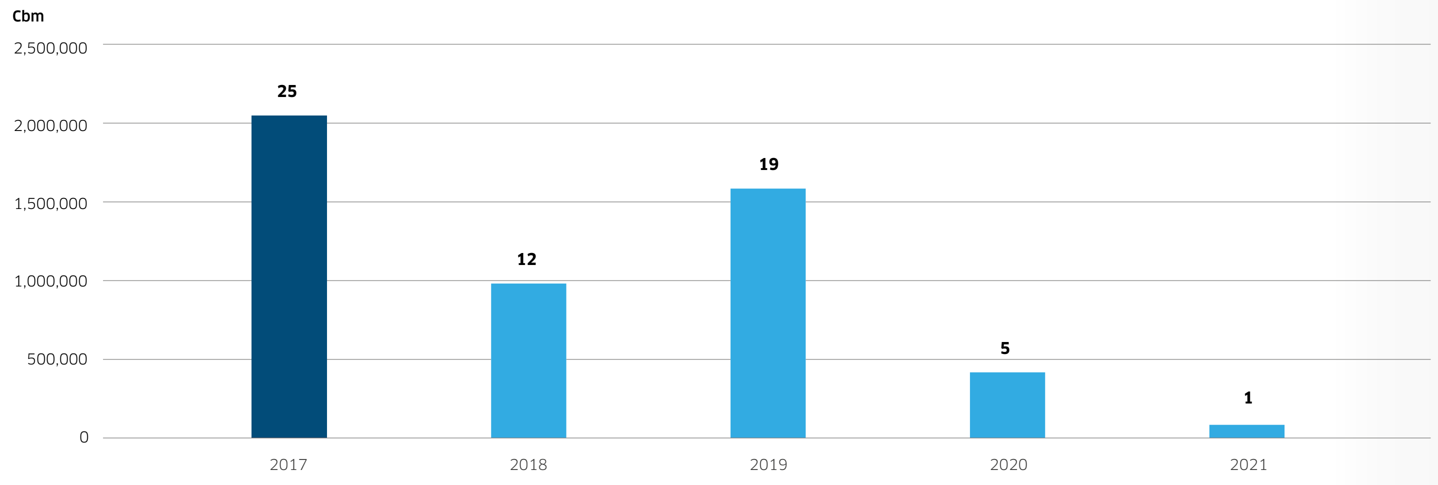
LPG

A test of owners' resilience

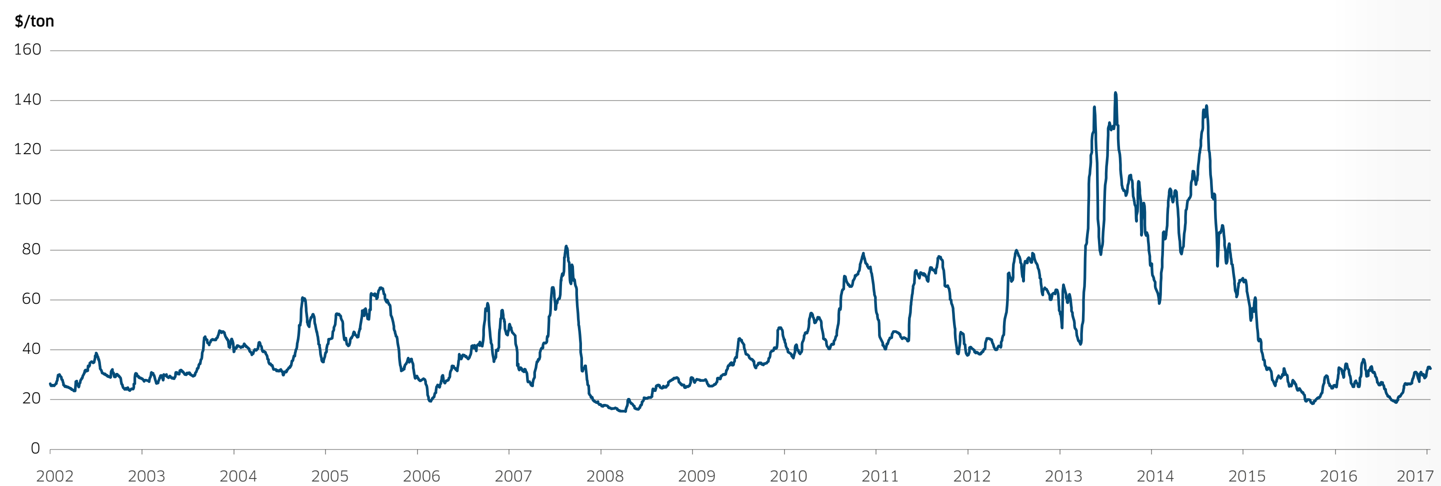
Another turbulent year has passed, and thankfully most players have survived what can only be considered a very rough year. The sheer oversupply of vessels in all segments combined with an extremely fragile 'arbitrage' across all geographical trade lanes, both for LPG and petchems. This was the main contributor of the weak market conditions and sentiment. The larger segments have really struggled, and were forced to fight hard to sustain the already depressed rates. Owners were really put to the test, and had to prove their survival skills and fight for every last dollar on freight rates.

NAVIGATOR ATLAS
LPG Tanker, 21,000 cbm Ethylene carrier, delivered in 2014 by Jiangnan Changxing in China, managed by Navigator Gas.

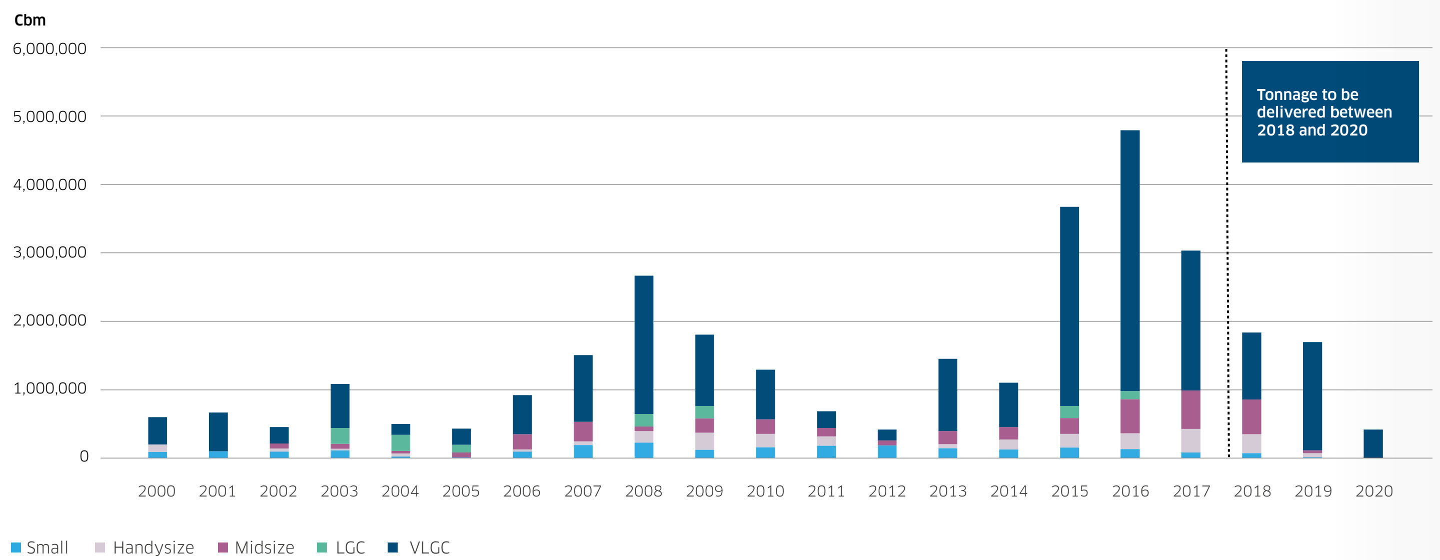
VLGC deliveries & orderbook



Baltic Exchange liquid petroleum gas index



LPG tonnage delivery and orderbook by vessel type since 2000



Picture: ***CHALLENGER****, LPG Tanker, 84,000 cbm, delivered in 2015 by Hyundai Samho in South Korea, managed by Helios/Dorian.*

CHARTERING

VLGC – 75,000 cbm +

As mentioned in last year's annual review, coming into 2016 most owners were still hungover from 2015's party, but 2017 turned out to be a very sobering experience indeed. The year started on a low note and the market continued to fall throughout the first and second quarters, with a 'mayhem' of cancelled cargoes especially during the spring months.

Although US propane inventories hit an all-time high, the sheer amount of vessels available for US Gulf liftings put further pressure on rates, and we ended up very much in a 'Dutch Auction' situation. We also saw a decline in activity out of the Arabian Gulf, which did not help the already desperate situation. These factors, combined with an increase in bunker costs, really impacted VLGC vessel earnings.

In terms of Time Charter Equivalents (TCE) for the segment, we saw numbers below $15,000 per day for most of the year, with some publicly-owned owners showing average TCE for the quarters below $10,000. The few vessels on long-term deals pulled up average earnings for the owners, but this is not going to be sustainable in the long run.

On the assets side, we saw quite a few newbuilding orders placed, most notably from Vitol which announced their four-vessel purchase, in addition to Exmar being awarded the Statoil tender for two 79,500 cbm Panamax newbuilds. A few more newbuilding projects are still either yet to be confirmed or just rumoured, but we expect the orderbook to have close to 10 newbuildings confirmed once we reach the end of first-quarter 2018.

At the risk of repeating ourselves, there is no doubt that owners have been hit hard this year, and one might wonder how some of the players can survive and how the market will look at the end of 2018. We believe further consolidation is on the horizon. With the increase in trader relets, there will without doubt be a 'new normal' for this segment as it moves towards being fully industrialised.

One thing is for certain, it will be another very challenging year for the owners, who really have to be resilient and at the same time very clever in order for the market to re-balance and thereby minimize the already bleeding bottom-lines of the traditional shipowners. It is essentially coming down to the shareholders' patience, and whether they can still find this segment attractive in the short term.

LGC – 50,000 to 75,000 cbm

It is no secret that the LGC market had a fairly dull and uneventful year. This market is characterized by a real lack of a spot market, where most of the action is tied to term and asset deals rather than conventional fixing.

On the assets side, the most interesting element to mention is the handful of LGCs scrapped in 2017, and the expectation that further units will be demolished in 2018. The ammonia market is crucial for the LGCs and remains an important source of term business for the LGC players. This was an area of focus for owners in 2017.

The prospects for LGCs remain uncertain, and there are several variables that need to improve in order for this segment to really see a spike. For now, as in 2017, the market is stable although at fairly low levels. However, with the recent issues in Marcus Hook and taking into account possible Panama Canal congestion and delays, could we see this segment shine in 2018 if the stars align? Ultimately, it will depend on the performance of the VLGCs and MGCs.

The Baltic Index hit sub $25 in June

Midsize – 30,000 to 50,000 cbm

As with the larger ship segment, the MGC market had a really tough year in 2017. Rates for both spot cargoes and term business dropped continuously over the year, mostly due to the almost complete lack of spot cargoes and the transatlantic arbitrage being shut for most of the year.

On quite a few occasions, the freight economics made more sense on a VLGC for these typical MGC cargoes, and we saw several vessels lying idle for weeks without employment. However, at the end of the year there were some positive signs on the horizon with the developments in the east, where the Indian markets created a demand for MGCs due to the unfortunate detention of Varun's vessels. This rendered the position list extremely tight towards the end of the year.

In early 2018, there were no prompt vessels available and the strong short-term demand for MGCs was expected to continue in the first 2 months before owners were put to the test again. With another couple of vessels yet to be delivered, we remain cautious optimists for 2018, and believe that this year may be tough. The owners remain bullish for now, and we hope that our slightly bearish outlook for 2018 will be proven wrong.

Handysize - 12,000 to 30,000 cbm

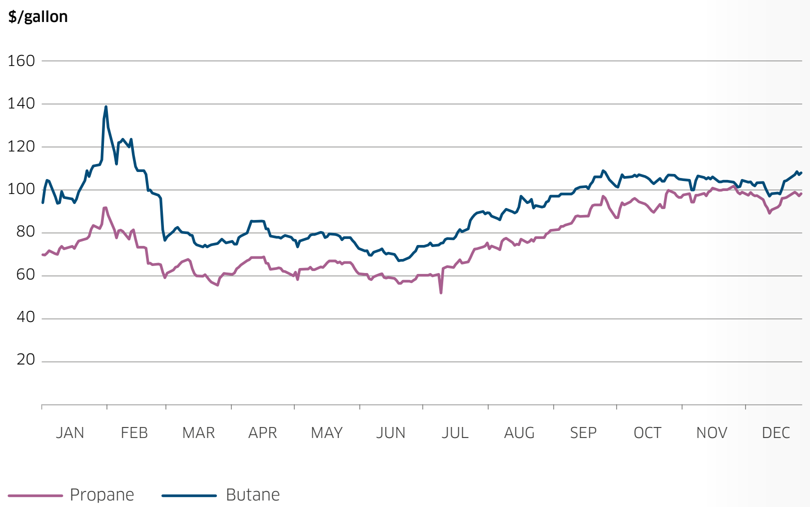
For most owners, 2017 can only be described as close to an 'annus horribilis', with the market falling below levels only dreamt of in owners' worst nightmares. It was extremely difficult for owners to secure employment, and a constant battle to resist falling rates. During the spring and summer months we saw some very low rates and some traders managed to secure short-term Time Charters at levels below $250,000 per month, which really sent the wrong signal across the market.

The main reason for this sharp decline in rates was the complete absence of a spot market combined with a lower number of petchems cargoes being quoted in the market. In addition, we saw more ships added to the market. Most traders and majors were covered due to their own ships being available, and owners were left fighting hard for the few spot cargoes out there. At some point traders were building up cargoes to ship on VLGCs rather than Handysizes as the freight economics actually worked better by scaling up.

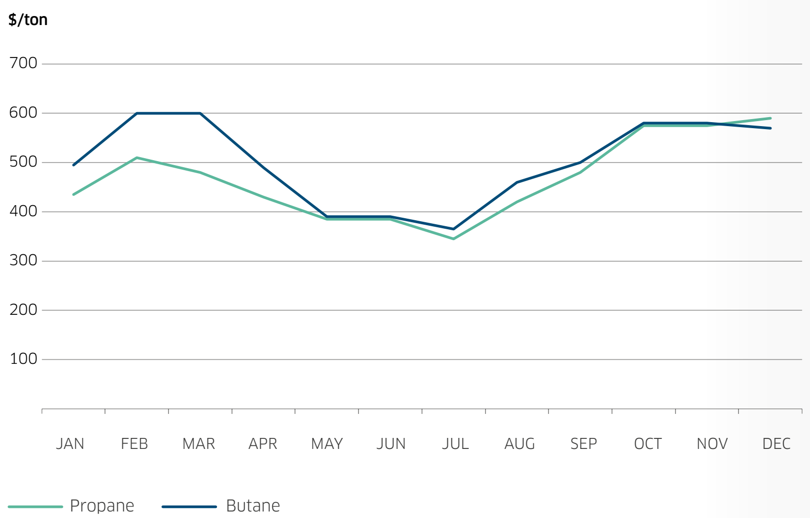
An 'annus horribilis' for Handysize owners

Luckily for owners, the market started to pick up again in the fourth quarter, with both the west and the east more or less tight for positions. At the end of the year, we saw signs of the market bouncing back again, as the position list suddenly became more or less empty due to term business combined with a slight increase in long-haul petchem cargoes. How long this situation will last we do not know, but 2018 will be an interesting year for this segment.

Mont Belvieu Propane & Butane prices



Saudi Arabia Propane & Butane prices



Picture: *JS INEOS INTREPID*, LPG Tanker, 27,500 cbm Ethylene carrier, delivered in 2015 by Nantong Sinopacific in China, managed by Evergas.

SECOND HAND MARKET

2017 continued the downward trends seen in 2016, with some significant lows but some slight signs of improvement towards the end. While the volume of second hand activity recovered after 2016 to reach levels equivalent to 2014 and 2015, prices remained low, leading to some interesting transactions.

VLGC – 75,000 cbm +

The VLGC segment saw moderate sale and purchase activity in 2017. We note the sale of 4 vessels by BW LPG: two Kawasaki Heavy Industry-built units (**BW Boss** and **BW Energy**, built respectively in 2001 and 2002) to a joint venture specially created with Global United PVT to create a base in India; another Kawasaki-built vessel **BW Vision** (built 2001) to the Shipping Corporation of India; and one 1991-built vessel for demolition (sold in December 2016 but delivered to the yard in January 2017). The market has been mainly driven by buyers in the east for operations in India.

Midsize – 30,000 to 50,000 cbm

As with the VLGCs, the Midsize segment has shown moderate activity, particularly focused on modern units and including two resales and a 2007 built unit. The price levels present an interesting reduction on previous historical levels: two fully refrigerated 38,000 cbm Hyundai Heavy Mipo resales (Hulls 2883 and 2884) that were originally ordered by Phoenix Energy Navigation were sold for some $5 million below their initial $50 million contract price.

Handysize – 12,000 to 30,000 cbm

This market saw remarkably limited activity with few vessels sold and only one reported sold for demolition. With such a limited number of transactions, it is difficult to assess price level changes as in other segments.

Small LPG – 12,000 cbm and below

The smaller segment has been more active, with some 8% of the existing fleet changing hands during the year. The activity has been evenly distributed among the different age segments, showing some slight signs of higher appreciation for modern (built post 2007) and vintage tonnage (vessels built in the 1990s). Among the sale of modern units it is interesting to note that several transactions included a leaseback.

Examples of this trend were the 3,300 cbm semi-ref **Daviken** and **Goviken** (built 2007 in Turkey) sold for $8.5m each by Viken Shipping to clients of Pareto with a 10 year bareboat charter back. We also note the 11,000 cbm **Epic Salina** (built 2017 in Japan) sold by Epic Gas to Japanese owners with a bareboat back of 10 years. Among the vintage sales, Stealthgas sold four Japanese-built pressurized units, with price levels for early 1990s builds in the region of $3m.

Following an increase in operating activity in the east, the number of east Asian buyers has simultaneously increased. The scene has been dominated by FGAS in Vietnam, which fortified its position by taking delivery of 11 small LPG vessels, mainly pressurized vintage units between 2,500 and 5,000 cbm.

Sales volumes returned to 2014-2015 levels but prices were low

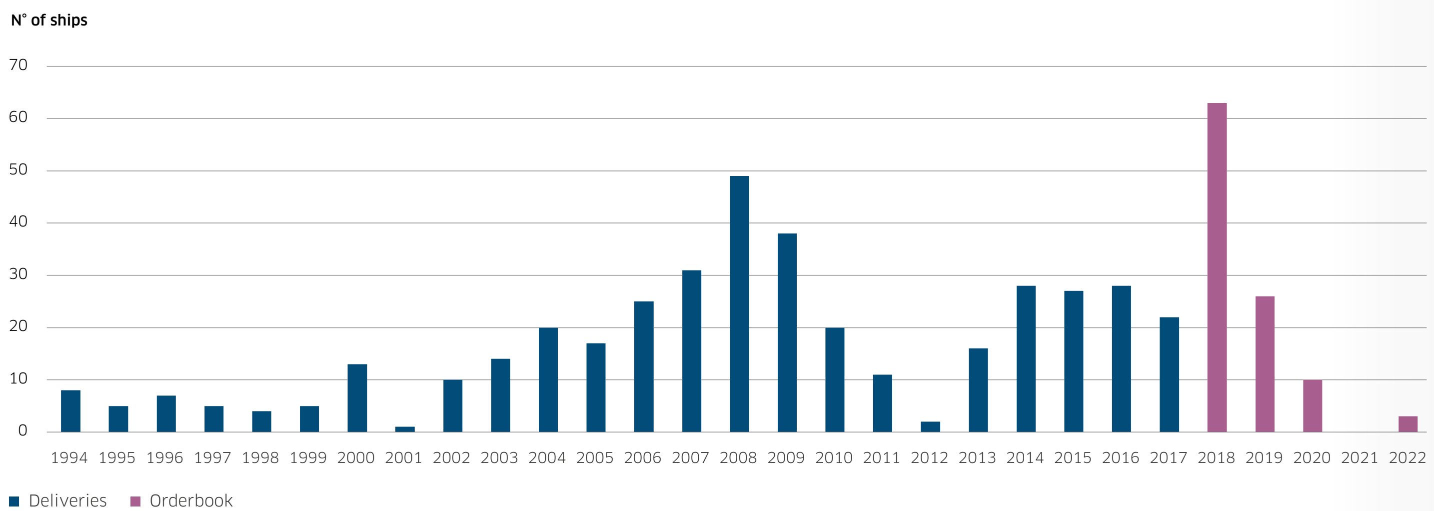
LNG

A transition year

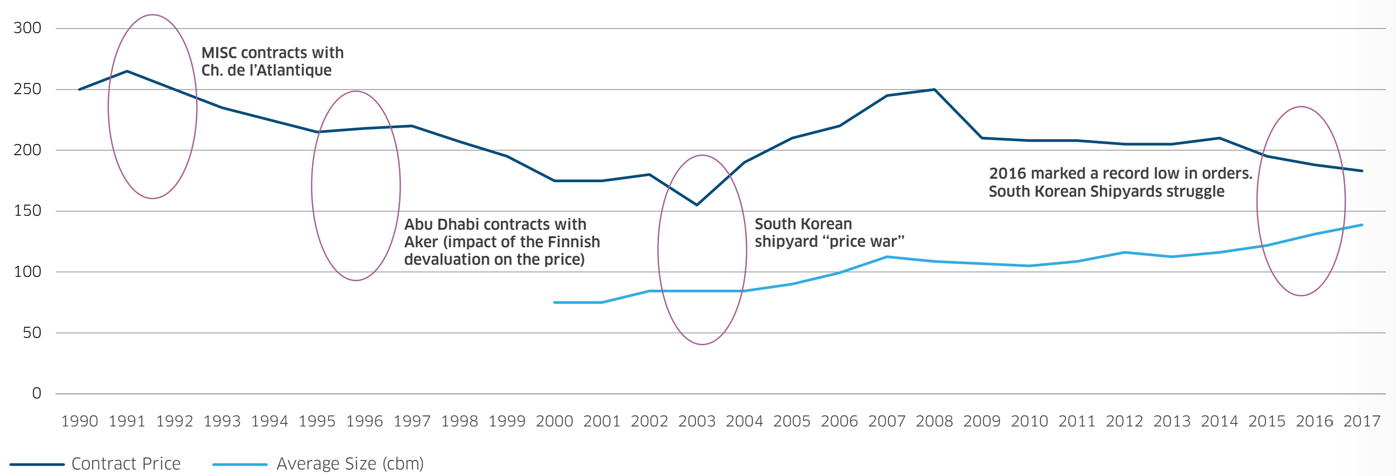
At the close of 2017, there were 440 LNG carriers over 100,000 cbm in service, including 22 vessels delivered during the year. Some 40 vessels were initially slated for delivery during 2017. Thus we note a deferral in the delivery of around 20 carriers from 2017 to 2018. This was a reflection of the poor market conditions during the year, with many owners anxious to take delivery of their ships at the latest date possible depending on the outcome of negotiations with yards.

GASLOG HOUSTON
174,000 cbm, built at Hyundai Heavy Industries, delivered to Gaslog in 2018.

Conventional LNG carrier deliveries and orderbook



LNG newbuilding prices



Picture: ***SAMSUNG HEAVY INDUSTRIES*** *shipyard, South Korea.*

THE FLEET

The situation has created a record number of potential deliveries for 2018, with some 64 conventional LNG carriers over 150,000 cbm due for handover. This is an unprecedented number. Japan's shipbuilders are scheduled to deliver 22 newbuildings in 2018, equivalent to some 80% of their 26-strong LNG orderbook. South Korea is scheduled to deliver 37 LNG carriers in 2018, or 60% of their LNG orderbook.

Analysis of the South Korean data reveals some interesting disparities: Samsung Heavy Industries (SHI) should deliver 9 ships in 2018 and 3 in 2019; DSME's schedule shows the same trend, with 24 carriers for delivery in 2018, falling to 13 in 2019. However, Hyundai Heavy Industries (HHI) shows the opposite trend with 4 scheduled deliveries in 2018, rising to 6 in 2019.

Orderbook

At the end of 2017, the orderbook comprised 105 LNG carriers over 150,000 cbm and 9 Floating Storage and Regasification Units (FSRUs).

Ordering activity was extremely weak in 2017, although slightly higher than 2016's low of 8 ships. A total of 9 LNG carriers and 8 FSRUs were ordered in 2017.

HHI stood out from the crowd, winning contracts for three FSRUS and two LNG carriers; DSME secured orders for three LNG carriers and one FSRU; and SHI signed contracts for 2 FSRUs from Hoegh.

In total, South Korea's yards secured 11 LNG orders (including FSRUs) in 2017. China's Hudong-Zonghua shipyard also confirmed an order for 2 FSRUs for Dynagas and 4 conventional LNG carriers of 174,000 cbm for MOL destined for the Yamal project.

2017 marked a milestone in the construction of LNG carriers. For the first time, the number of orders for conventional LNG carriers was equal to the number of regasification ships ordered. Also for the first time, a Chinese shipyard, Hudong-Zhonghua, led the field in contracts, with orders for 6 ships during 2017, against 5 ordered at HHI. It marked a symbolic change in an otherwise depressed market: China pre-eminent and Japan in retreat.

Another milestone was reached in 2017 with the delivery of the first ever LNG bunkering vessels. Three vessels joined the market: a 6,500 cbm vessel for Shell, a 5,800 cbm unit for Anthony Veder, and ENGIE/NYK's 5,000 cbm vessel. The development of LNG propulsion for large containerships will inevitably lead to an increase in the number of LNG bunkering vessels in the coming years, while carrying capacity is also forecast to rise (a study is currently underway for bunkering vessels of 18,000 cbm).

2017 also saw bitter competition between the various shipyards offering standardized LNG carriers (i.e. 174,000 cbm, rate of natural evaporation lower than 0.08%, a membrane system of containment, and propulsion by slow injection gas engines).

All the leading shipyards are now able to build this type of vessel, though South Korea's yards remain the most experienced: DSME has already delivered several vessels with MEGI (MAN) propulsion, and SHI delivered the first ever vessel with XDF (Wartsila) propulsion.

We also observed a drop in ship prices for the first time since 2003, principally from the South Korean shipyards in a bid to maintain market share. This gave HHI a competitive advantage in 2017, and the yard secured a number of orders due to its more aggressive commercial policy.

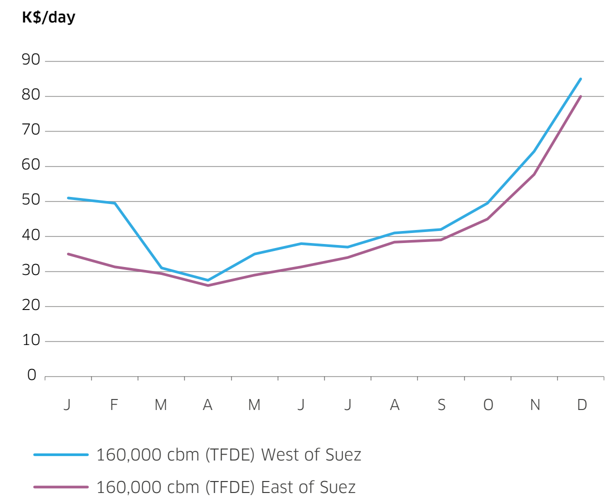
THE CHARTER MARKET

Spot market: a year of recovery

After more than two years of weak rates, the spot market finally showed signs of life with rates more than doubling from April's low to the highest recorded monthly average since 2014 at the end of the year.

The market enjoyed steady growth with around 200 fixtures registered. Around 60 were done West of Suez and the balance East of Suez with some 50 fixed for Middle East delivery.

LNG spot rates by basin in 2017



105 LNG carriers >150,000 cbm including 9 FSRUs were on order end 2017

2017 started with shipowners' expectations running high, as available tonnage hit its lowest level in eighteen months. Sustained demand linked to wider arbitrage opportunities between Atlantic LNG prices ($7/MMbtu) and Asia LNG prices (around $10/MMBtu) kept Atlantic LNG spot rates for a 160,000 cbm/TFDE (tri-fuel diesel electric propulsion) vessel in the $50,000/day range in January.

In the following months, however, shipping demand declined as the spread between Asia and Atlantic LNG prices decreased and arbitrage opportunities almost vanished. Vessels fixed for the 2016-2017 winter period were also progressively redelivered, adding to the tonnage supply and putting pressure on rates.

As a result, rates for a 160,000 cbm/TFDE unit fell below $30,000/day in March and April for West and East of Suez, with ballast bonuses covering only fuel costs at best. Due to the reduced activity and a surplus of vessels on the market, charter rates remained at low levels below $50,000/day until October.

After October, a rapid increase in the Japan Korea Marker (JKM) benchmark price triggered new arbitrage opportunities, and a number of European cargo reloads and some US cargoes were diverted to Asia. As a result, demand forLNG shipping increased dramatically, pushing the rates to bullish levels for the rest of 2017. In the Atlantic, the higher demand progressively removed the available spot tonnage, and by December there were virtually no vessels available in the Atlantic, pushing spot rates up to their highest level since early 2014.

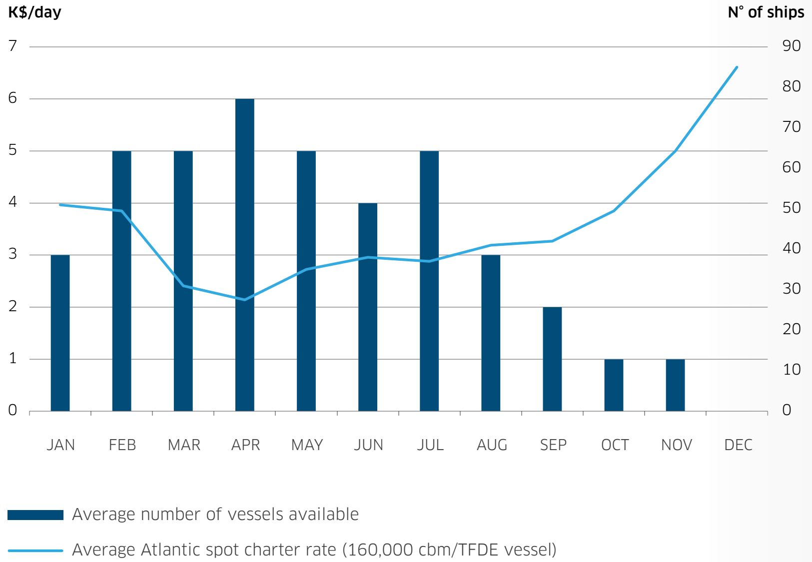
There was a similar trend in the East of Suez market with a decline in the number of available vessels, albeit more than in the Atlantic due to the redelivery of most vessels East of Suez. During the last quarter of 2017, the situation for shipowners improved to the point that they could ask charterers to pay high positioning fees, sometimes from Asia to the Atlantic basin, plus ballast bonuses equal to 100% of the fuel and hire rate.

The spot market is driven mainly by commodities trading companies like Vitol and Trafigura, who together represent around 30% of the spot market. Cheniere has also been a strong spot player. On the shipowning side, the Cool Pool (comprised of Golar LNG, Gaslog and Dynagas) represents around 23% of spot fixtures, followed by TMS Cardiff which has been marketing its TFDE vessels effectively.

Short term charter market (< 1 year duration)

Around 40 fixtures were concluded for periods between 1 month and 1 year in 2017, with the vast majority signed for durations of 3-6 months. Half of these were signed between September and December. In the main, these fixtures were used as a hedge by charterers against rising spot rates and fears of a tonnage scarcity

Atlantic spot charter rates vs vessel availability in 2017



during the winter season. As a result, many vessels were pulled out of the spot market, therefore reducing the available tonnage which contributed to rising rates. We expect seasonality to play an important role again in 2018 and for charterers to again use short term time charters to cover the next winter season.

Prospects for 2018

While the final months of 2017 saw the return of higher spot rates, we can wonder whether they are here to stay in 2018.

In the long term, the outlook seems bright. The low number of newbuilding orders since 2016, coupled with the new export projects coming online, will progressively reduce the available tonnage on the spot market. Given the nameplate capacity of these new projects, we estimate their tonnage needs at around 170 conventional LNG Carriers. Of these 170 vessels, only around 110 have been ordered. In 2017, only 9 conventional LNG Carriers were ordered. As the new export projects gradually take shipping positions to cover their tonnage needs, we expect the excess supply to gradually reduce and return to equilibrium around 2020.

Looking at 2018, however, we might need to temper expectations. The spread between Atlantic and Asian LNG prices was the main driver of additional shipping demand at the end of 2017. While Asian LNG prices remain high at the start of 2018, the spread is expected to narrow as spring arrives. Uncertainty over trade routes, especially those from the US export projects, will also have an impact on ton-miles in 2018 and consequently on charter rates.

Furthermore, as already stated, 2018 is expected to be a record year in term of deliveries, in part due to deferrals from 2017. These considerations suggest caution should be taken over when predicting 2018 rates. While the long-term outlook looks bright, it may be a bumpy ride in 2018 on the road to recovery for the LNG spot market.

PROJECTS

Global consumption of LNG rose 10% in 2017 to an estimated at 297 million tons. This was principally due to the ramp-up of projects in the US, which increased its supply by 10 million tons during the year to reach a run rate of 30 million tons/year by the end of 2017. Australian projects also played a part, increasing their supply by just over 11 million tons during the year, mainly to satisfy Chinese demand. It should also be noted that West Africa's return to production, particularly in Angola, increased LNG supply by 5 million tons during the year.

2017 also saw the launch of liquefaction trains for the Cove Point project in the US and the Yamal project in Russia, plus the start of complementary trains in the Gulf of Mexico for the Sabine Pass project (Trains 3 & 4). These major projects have maintained their scheduled start dates and only the Ichthys project, which had been due to start in the first half of 2018, has fallen behind. 2017 also saw the delivery of the first floating liquefaction vessel with a capacity of 3.6 million tons/year, destined for Australia's Prelude project.

The US projects under construction alone will pump an additional 45 million tons/year of LNG onto the market in 2019. There are also several projects still awaiting government approval which together represent 80 million tons/year of potential additional capacity.

Just one project received investment approval during 2017: the "Coral" project in Mozambique from Italian oil company ENI, which has ExxonMobil as a new shareholder. SHI will build a floating liquefaction unit for the project. This is a major event for the LNG industry, since Mozambique with its high production potential is now on track to join the exclusive club of LNG producing countries.

The lack of new projects during the year inevitably impacted the number of shipping tenders issued, and charterers were able to adjust their needs, benefiting from a balance of power which is still firmly in their favour. The market remained gloomy throughout the year, with just a slight shake-up at the end of the year when there was a gradual increase in spot market rates.

It is interesting to note that the new accounting standards applicable from 2019 onwards have changed the approach of charterers, who are now looking to sign charters for shorter periods. The year saw several examples of newbuildings signed on 7-year charters.

Conclusion

Shorter charter durations, standardized vessels with optimized fuel consumption, and shipyards in pursuit of orders were the three elements that characterized 2017. Extremely attractive newbuilding prices combined with the improving performance of ships has succeeded in reducing the overall cost of transporting a molecule of LNG, limiting its cost increment in the LNG supply chain.

2018 will be a crucial year for the supply-demand balance of the LNG shipping market. The deferment of numerous LNG carrier deliveries from 2017 to 2018 will inevitably have a short-term impact on charter rates. By contrast, the gradual implementation of export projects in the US will lead to demand for additional tonnage from 2020 onwards. The limited number of orders in the last two years will therefore begin to have a real impact on the availability of tonnage, due to the typical 30-month lead time between contracting and delivery.

2018 will be crucial for the supply-demand LNG shipping market

*Picture: **SK AUDACE**, 180,000 cbm, built at Samsung Heavy Industries, delivered to SK Shipping in 2017.*

Offshore

A wake-up call

The demand for offshore services slowly increased through 2017, with tendering activity showing a sharp increase. Despite this, utilisation rates for the active fleet were little changed.

MAERSK DISCOVERER
Semi-submersible drilling rig.

OVERVIEW

By the end of 2017, a certain optimism had returned to regions such as the North Sea on the back of higher oil prices. Robust oil demand and production cuts have brought crude oil fundamentals to their strongest levels since early 2014.

The offshore oil and gas industries are now looking forward to capitalizing on both stronger oil prices and the effects of the industry's restructuring and cost reduction.

However, an oversupply of tonnage kept rates low – sometimes below operating costs - in all segments in 2017. Many operators and offshore service suppliers are still struggling for cash and may be forced to financially restructure.

EXPLORATION & PRODUCTION

While the first half of 2017 was relatively quiet, the second half of the year saw a strong increase in short-term maintenance and development projects such as tieback in shallower waters, although few had been authorized by year end.

However, after years of 'waiting and see', it seems companies must now go ahead and seek budget and project approvals. Shell awarded its North Sea, Sevan design-based Penguins FPU to Fluor, which will sub-contract the fabrication work to COEEC. This is the first time a major Chinese offshore contractor has won the business for a North Sea-bound production unit.

Deep water projects were not left behind. Approvals for three notable Mobile Offshore Production Units (MOPU) were granted in 2017: ExxonMobil's Liza in Guyana, Shell's Vito in the Gulf of Mexico and Statoil's Johan Castberg in the Barents Sea. The newbuilding contract for the latter was awarded to Sembcorp Marine, confirming that the Singaporean yard is now a first tier engineering and fabrication contractor which can compete against the South Korean and Chinese majors for large production units.

Crude oil fundamentals are at their strongest since 2014

Petrobras´s divestment program generated $17 billion in 2017 and the company maintains plans to sell a further $21 billion worth of assets.

Two production sharing bidding rounds for pre-salt areas were held by Brazil's National Agency of Petroleum, Natural Gas and Biofuels (ANP) in 2017, with majors Petrobras, Shell and Statoil among the winners. Three further rounds are scheduled in 2018.

Finally, on the back of its improved financial situation, Petrobras approved the tenders for the Sepia and Mero Floating Production Storage Units (FPSOs), awarding them to MODEC. These projects had been much anticipated and mark for many the start of a turnaround in Brazil.

Meanwhile Mexico's strategy to open up its offshore fields to foreign companies proved to be a success, after several rounds of bidding.

On the supply side, 11 new FPSOs were delivered in 2017. No new Floating Liquified Natural Gas (FLNG) units went online although Perenco/Golar's **Hili Episeyo** is planned for early 2018 following its conversion at Keppel Singapore.

Decommissioning activity remained very low during 2017 although a few sizeable projects were awarded, including the Buchan Alpha in the North Sea.

There were few consolidation deals but those that occurred were significant. Total's acquisition of Maersk Oil reinforced the former's already strong presence in the North Sea.

There remain many challenges ahead, not least the wider global trend to replace carbon-based fuels. The industry is taking a cautiously optimistic view, however, that the outlook will improve.

DRILLING

2017 saw the drilling market start on the path to recovery. We saw the first signs of consolidation, and while the number of mergers, acquisitions and strategic alliances was relatively low, they were symptomatic of the mindset of executives. Companies are now thinking about the future, and how to be competitive going forward. It is a sharp contrast with the 'survival mode' widely adopted in the previous three years.

However, many players are still struggling to survive, and the past twelve months saw its fair share of bankruptcies and restructuring. Some restructurings, such as Paragon, have taken longer to negotiate and the future of the post Chapter 11 entity is still unknown. Others, such as Pacific Drilling, were more structured and the resulting company is now leaner and more agile than its peers. Others still, such as Seadrill, have not found a solution to the challenge posed by complex ownership structures and continue to seek a compromise that satisfies all stakeholders.

Entrepreneurs and financial players are now looking to the drilling sector for opportunities, and the downward revision in asset values has bright minds pondering how to take advantage of a future recovery.

Borr Drilling became the newest entrant to the drilling market, formed around a pure jackup play, and the company has surprised everyone with its fast-paced purchasing spree. Since December 2016 the company has acquired 26 new units in four distinct transactions, buying in a distressed sale, from two shipyards and an industrial player. Shelf Drilling, which struggled to find the right time for a stock market listing, has now found a home on the Oslo OTC (Over The Counter) market, demonstrating that investor sentiment is changing, and finance players are now looking for ways to invest in the sector.

We saw another form of vertical integration and strategic alliance come to the market in 2017. Schlumberger, the world's largest oilfield service company, has openly supported Borr Drilling and currently holds a significant stake in the company, confirming its renewed interest in the heavy asset segment since selling the former Sedco-Forex to Transocean. The alliance between US offshore driller Rowan and Saudi Aramco illustrates how oil companies and drillers are thinking outside the box and creating new structures to better serve their clients.

On the supply side, 2017 saw a considerable number of retirements: 29 floaters, 5 drillships and 16 jackups exited the market. By contrast, there remain 92 jackups on order.

There is a long way to go before we can expect a supply-demand balance, but South Korean and Singaporean yards delivered 7 floaters and 13 jackups in 2017, and deals are again being struck, ending the stalemate that had set in.

One notable event was the purchase of several drilling jackups by independent oil company Perenco, which will convert some of the units into MOPUs but will now also move into drilling itself with the establishment of a new company, Petrofor, which will own and operate the assets.

Several major US OSV owners exited Chapter 11

OFFSHORE SUPPORT VESSELS

General

There was little improvement in activity in the OSV segment in 2017, with marginal tendering recorded for most of the year, and just a slight increase going into the last quarter. There was plenty of consolidation and restructuring activity during the year, with multiple owners exiting restructuring agreements, while three Norwegian OSV owners joined forces to form the biggest fleet in the country's history, Solstad Farstad.

Several major US owners emerged from Chapter 11 proceedings, and both Gulfmark and Tidewater exited their restructurings with leaner and stronger balance sheets. Speculation is now focused on whether more consolidation and mergers will be necessary in the US in order to further cut costs. Gulfmark and Harvey Gulf are among the possible participants.

Over the course of the year we have seen more speculative buyers entering the market, from small asset players to funds and listed companies. Standard Drilling has picked up the pace and made several PSV plays, tightening its relationship with managers Fletcher Shipping in order to remain a purely financial endeavor.

Scrapping remained low, but there was increased interest in converting oil and gas vessels for use in other industries. This included looking at everything from yacht conversions to renewables, LNG bunkering and fish farming, bringing some slight relief to the over tonnaging.

*Pictures: **JACK RYAN**, 5th generation Drillship. **NETWORKER**, Installation Barge (Photo courtesy of Global Marine Group).*

Owners with surplus cash on hand have considerable leverage

Asia Pacific

In our last review, we posed the question: "Who is next?" In 2017, several companies entered renegotiations or restructurings without the need for judicial management. Shipowners have continued to implement short-term measures such as delaying deliveries from yards, laying up vessels and downsizing operations in order to maintain cash flow.

However, the problem of tonnage oversupply remains. Despite calls for consolidation in the offshore support industry by financiers and markets experts, no major consolidation took place in Asia Pacific in 2017. However, we can speculate there may be a couple of vertical acquisitions by companies in 2018 aimed at expanding in-house capabilities and providing a more comprehensive service to clients.

Given the current lack of finance currently available in the offshore service industry, owners with surplus cash on hand have considerable leverage in the current market. Kim Heng Offshore & Marine snatched up 3 DP2 AHTS of 10,800 bhp for a total consideration of about $9 million, allowing Kim Heng to enter the OSV market. Berlitz Marine continue to expand its fleet by buying 6 AHTS of 5,000 bhp in the fourth quarter of last year, to add to the two DP 1 AHTS of 6,000 bhp purchased from Pacific Richfield. Eastern Navigation also purchased the ex **Sanko Energy** from Sanko at an extremely attractive price. Eastern also has several newbuildings on order in China.

Middle East

The Middle East proved itself to be one of the brighter spots in the offshore market in 2017. OSV owners and EPIC companies such as McDermott, Saipem, Vallianz, Atlantic Maritime and Mermaid Maritime were all awarded tender contracts from various oil companies. With increased utilization and an abundance of opportunities in the Persian Gulf, smaller local companies have been purchasing vessels at attractive levels in order to gain a stronger foothold in the market.

With oil prices at their current levels, owners are keen to explore the market and its prospects despite the high barriers of entry for vessel compliance and low rates. The region has shown itself to be a proven market in terms of good demand and vessel utilization rates.

US

The US market saw a large number of layups in 2017, with owners struggling to find employment for their manned/working vessels.

In 2017, two major players, Tidewater and Gulfmark Offshore, filed for and managed to rapidly emerge from Chapter 11 shortly before the end of the year.

Following debt-for-equity swaps, both companies have strong finances, which will certainly give them a competitive advantage in the current environment of low rates and low utilization.

Toisa is expected to exit Chapter 11 during the first quarter of 2018.

President Trump's proposal to open up 90% of the US outer continental shelf to oil and gas exploration in the largest single expansion of offshore drilling activity ever proposed might bring an unexpected boost to American OSV owners, though it is yet to be approved.

Seacor was the only OSV player in the US actively looking at expansion. It acquired the fleet of four UT755Ls in operation in West Africa from the distressed Hellespont Offshore. In January 2018, Seacor confirmed its new joint venture with affiliates of Cosco Shipping, SEACOSCO, had purchased eight UT771 PSV under construction, which it intends to operate worldwide.

Brazil

In 2017 the OSV market in Brazil felt the double impact of the wave of international mergers (meaning there were fewer foreign players in the market), plus a greater utilization of Brazilian flagged units under local cabotage rules. The latter enables Brazilian flag units where available to take priority over international units.

The impact could be seen in the figures. Analysis shows there were 110 foreign flag vessels demobilized and 58 Brazilian flag vessels added to the market in 2017 compared to November 2015. Some 21 vessels exchanged their foreign flag for the Brazilian flag.

At the end of 2017, the Brazilian OSV fleet numbered 373 units (311 under Brazilian flag and 62 under foreign flag).

North Sea

2017 was little better than 2016 for the North Sea market, with rates still firmly in the doldrums. There were a few seasonal peaks which resulted in higher rates in the spot market, but they were not sufficient to bring a general improvement to the market.

Picture: **NORMAND MASTER**, *AHTS.*

One of the biggest stories of the year was the merger between Solstad, Farstad and Deep Sea Supply, creating one of the biggest OSV players in the world with more than 150 vessels. The newly created giant, Solstad Farstad, was officially merged in June and is now in the process of consolidating its asset base and organization. Other owners in the North Sea concluded restructurings this year, including BOA, Island Offshore, Viking Supply and Olympic.

Asset players also had a busy year backed by both small and institutional investors. Sevnor made some interesting plays, starting with the purchase of the **Olympic Poseidon** from Nordea in the wake of the Olympic restructuring, which it followed by buying the newbuilding **Troms Polaris** from Troms Offshore, a subsidiary of Tidewater. In one of the bigger transactions, Hartmann Offshore sold its entire anchor handling fleet to Breakwater and Hayfin Capital. Hartmann will continue with its technical nautical operations.

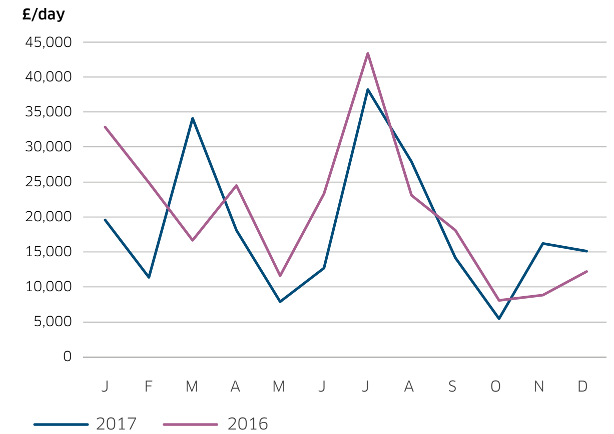
More than 120 units are now in layup, and there is speculation whether or not all of these vessels will return to the market. Many units have been in layup for several years, and the reactivation costs could prove too much for some already distressed owners.

West Africa

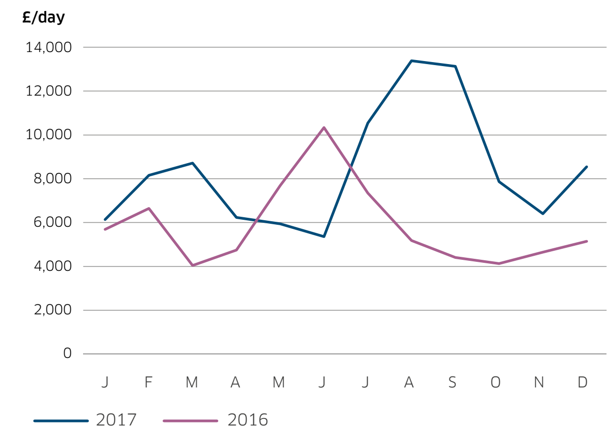
The West Africa market was not left unscathed by the turmoil in the oil and gas markets. Tendering activity was extremely low and the market remained oversupplied. Consequently, rates remained at rock bottom levels in all sizes. Only the mid-size PSV segment managed to hold or slightly raise rates, thanks to an increase in the number of rigs working.

The trend for owners to warm or cold stack their vessels continued at the start of the year, resulting in lanes of vessels piling up in Walvis Bay or Abidjan. The unexpected consequence was a shortage of vessels on the spot market, which charterers initially had trouble comprehending. Activity was quite busy on the mature fields.

AHTS spot rates in the North Sea



PSV spot rates in the North Sea



Picture: **SEMINOLE**, *Derrick Lay Barge.*

*Picture: **SIEM COMMANDER & SIEM CHALLENGER**, Anchor Handlers, loading mooring equipment at Mongstad, Norway.*

*Picture: **HYWIND SCOTLAND**, last turbine sailing away from Stord (Photo courtesy of Øyvind Gravås/Statoil).*

SUBSEA & OFFSHORE CONSTRUCTION

Subsea

Despite a gradual increase in tendering activity, conditions remained challenging in the subsea market in 2017. The number of tender awards was still low compared to four years earlier, and there was significant price competition. Many modern, high specification vessels remain idle or in cold stack, and 2017 saw both restructurings and bankruptcies, as well as plenty of assets changing hands.

In June Subsea 7 picked up several strategic assets from distressed company Emas Chiyoda Subsea, following the company's bankruptcy protection filing in February. This was one of several transactions seen during the year in which companies with a strong capital base were able to acquire assets at heavily discounted prices.

In November, Boskalis took control of two of Harkand's DSVs, the **Atlantis** and **Da Vinci**. The former was purchased outright for a price of around $60 million, while the latter was taken on bareboat charter. Boskalis also completed the takeover of Gardline, adding the missing 'survey' string to its bow. Meanwhile Allseas bought the DP3 150m 250 passenger 900t **Toisa Patroklos** from Hyundai Heavy Industries, abandoned after Toisa filed for bankruptcty. The vessel is expected to support the ultra-large construction and decommissioning vessel **Pioneer Spirit**.

In the newbuilding market, Subsea7 ordered a new reel lay vessel at Royal IHC. On delivery in 2020, the vessel will replace the company's **Seven Navica**, and as a result there will be no net impact on the active fleet.

All the major Tier I players are now gearing up for better markets and greater demand for subsea services.

After TechnipFMC started the year as a newly merged company, McDermott International opted to end 2017 with the unexpected purchase of CB&I (Chicago Bridge), part of its strategy to match the other prime majors in size. The merger creates an integrated onshore-offshore company with a broad engineering, procurement, construction and installation (EPCI) service offering.

DREDGING AND RENEWABLES

Dredging

Global demand for land reclaim, and its associated civil engineering work, rose slightly in 2017, but the pressure on rates and prices remain despite a more positive outlook. China Harbour Engineering Corporation (CHEC) led the field in terms of backlog intake.

On the supply side, DEME ordered the world's largest cutter suction dredger (CSD) at Royal IHC, the 44 MW diesel electric **Spartacus**, which will also be the first ever LNG powered dredger of this type. Elsewhere, the Jan de Nul Group ordered a series of 18,000 cbm trailing hopper suction dredgers from Cosco Dalian. Meanwhile, several vessel deliveries will be further delayed as a result of the bankruptcy at La Naval Bilbao, although both DEME and Van Oord have managed to reach deals with judicial management.

Renewables

The offshore wind farm market returned to growth in 2017 after a difficult year in 2016. Some 3 GW of new capacity was installed in 2017 versus 2 GW in 2016. The largest farms were commissioned in the Netherlands (Gemini – 600 MW), Germany (Gode Wind - 582 MW and Veja Mate – 402 MW) and the UK (Dudgeon – 402 MW), and around 80% of new activity during the year took place in Europe.

Planned developments in France saw significant delays, and the first offshore wind farm should come online in the country in late 2020 at the earliest.

Meanwhile, the US confirmed its interest in developing offshore wind energy.

The launch of Statoil's Hywind floating offshore wind project was another notable event during the year, and the floating market is now being expanded.

In general, average lead times from project approval to grid connection have often been too long, in some cases a decade or so. The main challenge remains the overall cost per kW for projects. The forthcoming larger turbines (8 MW to 12 MW), with greater power management and fewer foundations, should greatly improve operators' economics.

There has been a significant increase in the conversion of PSVs to SOVs in hand with the development of these wind farms. In addition, we have seen new orders linked to tenders such as Louis Dreyfus Armateurs' contract at CEMRE for Dong and Esvagt's order for a SOV backed by a 15 year contract with MHI Vestas Offshore Wind.

Faced with the growing size of turbines, contractors have upgraded their vessels: Van Oord added a 1,500t crane to its **Aeolus**, while DEME's **Orion** will be the first ever LNG-powered wind farm construction vessel. Renewable-related backlog represents an ever larger portion of the turnover of the dredging and offshore works contractors.

PROSPECTS FOR 2018

The prospects for the market are undoubtedly better going into 2018, with demand for offshore services predicted to rise. 'All-in' activity in the North Sea, a key indicator in the industry, is forecast to reach its highest level in four years in the summer of 2018.

After more than three years of cold stacking or mothballing rigs, it remains difficult to justify reactivating units, and there is still some way to go before there is a significant reduction in the laid-up fleet. Elder units might never return to the market. Thus, in all regions, rates will continue to benefit from the non-participation of this laid-up tonnage.

In spite of these positive signs, many companies will continue to struggle with weak cash flows and a lack of available financing. Oil and offshore-related portfolios are still regarded as high risk in the finance industry. Dedicated debt and/or equity funds are becoming more active in filling the gap, and this will inevitably pave the way for more consolidation.

Improved visibility and higher margins have already lead to quicker investment decisions, however, and the offshore service industry is eagerly awaiting the impact of this increased Exploration & Production spending.

Prospects for the market are undoubtedly better in 2018

Cruise

A stellar year

2017 was another excellent year for the cruise industry, with a burgeoning orderbook and a further increase in the overall number of passengers taking a cruise worldwide. Elsewhere, China continued to develop its potential, while the specialised expedition market went from strength to strength, with an ice-breaking vessel set to open up new cruise passenger horizons.

PONANT ICEBREAKER
The first electric hybrid cruise icebreaker with LNG propulsion, ordered by Ponant at Vard for delivery in 2021.

Photo: Stirling Design

DELIVERIES

2017 saw the delivery of 10 ships over 40,000 gt, slightly higher than in 2016. Princess Cruises took delivery of the **Majestic Princess** (144,200 gt/1,780 cabins) built by Fincantieri, while fellow Carnival group company Aida Cruises received the **Aidaperla** (125,500 gt/1,643 cabins) from Mitsubishi Nagasaki.

The Meyer Turku yard delivered the latest of TUI Cruises' Mein Schiff series, the **Mein Schiff 6** (98,800 gt/1,253 cabins), while sister yard Meyer Werft completed the **Norwegian Joy** (168,000 gt/1,925 cabins) for Norwegian Cruise Line and the **World Dream** (151,300 gt/1,680 cabins) for Dream Cruises.

MSC took delivery of two ships during the year, the **MSC Meraviglia** (171,500 gt/2,250 cabins) from STX France and the **MSC Seaside** (160,000 gt/2067 cabins from Fincantieri, which also handed over the **Silver Muse** (40,700 gt/298 cabins) to Silversea Cruises.

Finally, Viking Ocean Cruises received two vessels during the year, the **Viking Sun** and **Viking Sky** (47,800 gt/465cabins), both from Fincantieri.

67 ships over 40,000 gt are on order with deliveries stretching out until 2025

NEW ORDERS

The orderbook now comprises some 67 units over 40,000 gt, with deliveries stretching out until 2025. This figure could grow further if a number of options are also declared. New orders in 2017 included:

Fincantieri and Vard

Norwegian Cruise Line ordered four 140,000 gt cruiseships of 1,650 cabins each from Fincantieri, with yearly deliveries from 2022 onwards. Viking Ocean Cruises also ordered a batch of four vessels (47,800 gt/465 cabins) from Fincantieri, this time with yearly deliveries ranging from 2021 to 2023.

MSC confirmed contracts for two 169,300 gt cruiseships (2,000 cabins) with delivery scheduled for 2021 and 2023.

Three brands in the Carnival Group placed orders; Holland America Line signed a contract for one vessel (99,500 gt/1,330 cabins) for delivery in 2021, while Cunard placed an order for one 113,000 gt unit (1,500 cabins) for delivery in 2022. Finally Princess Cruises also ordered one vessel (145,000 gt/1,780 cabins) for handover in 2022.

Silversea contracted the **Silver Moon** (40,700 gt/298 cabins) for delivery in 2020.

At Vard (Fincantieri-owned), Ponant confirmed an order for a pioneering ice-breaking expedition vessel (30,000 gt/135 cabins) to be delivered in 2021.

STX France

MSC placed orders for two 200,000 gt ships at STX France (2,760 cabins) for delivery in 2022 and 2024.

Meyer Werft and Meyer Turku

Meyer Werft secured a contract from Disney Cruise for one ship (135,000 gt/1,250 cabins) for delivery in 2022, while Carnival Cruise Line also placed an order for two vessels (184,000 gt/2,250 cabins) at the yard for 2020 and 2022 delivery.

Royal Caribbean Cruise Line firmed up contracts for two 200,000 gt, 2,500 cabin vessels at Meyer Turku for 2022 and 2024 delivery.

Saga Shipping confirmed an order for a second unit, the **Spirit of Adventure** (58,250 gt/500 cabins), which will be delivered in 2020.

Shanghai Waigaoqiao

Carnival Corp signed an order for two vessels (135,000 gt/2,500 cabins) at Shanghai Waigaoqiao under its groundbreaking joint venture with Fincantieri, the China State Shipbuilding Corp and China Investment Corp. The vessels will be delivered in 2023 and are destined for the Chinese market.

Meanwhile, among the smaller units we saw orders for two 4,500 gt/85 cabin ships by Sunstone at CMHI Jiangsu with Ulstein design for delivery in 2019. Hotel group Ritz Carlton will also take delivery of a 22,800 gt/149 cabin luxury vessel in 2019 from Spain's Astillero Barreras.

Celebrity Cruises ordered the 5,635 gt/50 cabins **Celebrity Flora** at De Hoop. The vessel is specifically designed for the Galapagos Islands and will be delivered in 2019. Lindblad Expeditions will take delivery of a 10,000 gt/69 cabin cruiseship from Ulstein Verft in 2020.

Finally, Tsuneishi Shipbuilding is set to venture into cruiseship construction at its Chinese yard Tsuneishi Zhoushan, and is reported to have signed a contract for a 10,000 gt/400 cabin cruiseship for delivery in 2020 to an affiliate of the Tsuneishi Holdings group.

SECOND HAND SALES

The following transactions were reported for further trading:

The **Sea Discoverer** (4,954 gt/110 cabins, built USA 2004) was sold to clients of Victory Cruise Lines.

The **Royal Iris** (9,159 gt/360 cabins, built Dubigeon in France 1971) has been committed reportedly to clients of Rosmorport-Black Sea Cruises.

Clients of Hoteles Dinamicos in Mexico picked up the **Voyager** (5,817 gt/254 cabins, built Union Naval de Levante 1990).

Meanwhile the **Saipan Star** (20,295 gt/175 cabins, built Finnyards 1992) was bought by clients of United Empire Investments.

The **World Odyssey** (22,496 gt/302 cabins, built Howaldtswerke in Germany 1998) was sold by clients of Absolute Nevada to clients of Delos Cruise with charters attached for the summer and winter seasons over the next five years.

Clients of Azamara picked up the **Adonia** (30,277 gt/350 cabins, built at Chantiers de l'Atlantique in 2001).

Finally, the **Costa Neo Classica** (53,015 gt/654 cabins, built Fincantieri 1991) was purchased by a so far unreported company.

There were three demolition sales during the year:

The **National Geographic Endeavour** (3,132 gt/62 cabins, built AG Weser Seebeck 1966), the **Oasia** (24,492 gt/376 cabins, built 1973 Swan Hunter) and the **Hen** (47,678 gt/747 cabins, built Kockums 1986).

The number of passengers taking a cruise vacation increased by 4.5% in 2017

*Picture: **VIKING SKY**, 47,842 gt, 472 cabins, delivered by Fincantieri Ancona to Viking Ocean Cruises in 2017.*

MARKET DEVELOPMENTS AND PERSPECTIVES

The number of passengers taking a cruise vacation increased in 2017 by 4.5%. According to Cruise Lines International Association (CLIA), totals reached some 25.8 million in 2017, versus 24.7 million in 2016. This number is expected to rise to approximately 27.2 million in 2018, a forecast 5.5% year-on-year increase.

This represents steady growth, but is still moderate when compared to global land-based tourism.

Attention is of course still very much turned towards the Chinese market, which has grown rapidly in recent years, reaching some 2.8 million passengers in 2017 (more than 10% of the global market). If the long-term trend remains positive, it seems however that this market's pace of growth may slow somewhat over the coming two years.

Dual fuel or full LNG propulsion is now commonly being considered for newbuildings

Major cruise companies are reducing their tonnage deployment in China and overall cruise capacity in China will fall in 2018. This is taking place to a backdrop of tightly regulated ticket sales and distribution, which have contributed to falling prices and lower yields than anticipated.

The political row between China and South Korea following the latter's decision to install the THAAD anti-ballistic missile system, and the resulting travel ban imposed by China, also led to a steep decrease in the number of Chinese passengers visiting this country.

Going forward, the cruise companies face several challenges in China, such as seasonality, infrastructure, demographics, client expectations, visa restrictions and potentially also lower-than-expected onboard spending. This, plus a limited number of short-haul international destinations, may hamper a more rapid development in this potentially huge market, where the penetration rate is still very low (estimated at around 0.2%, compared with some 3.5%-4% in the US).

In November, President Trump announced a hardening in the country's policy toward Cuba. This may lead to future travel restrictions from the US, reversing previous policies and leading to lower numbers of American passengers taking cruises there.

In the shipbuilding sector, Fincantieri finally reached an agreement to acquire a majority stake in STX France. This ongoing consolidation in the cruise shipbuilding industry will reduce further the choice available to shipowners, impacting owners' ordering strategies.

Elsewhere, in the wake of financial difficulties, Kleven Shipyard saw the owners of one of its main clients, Hurtigruten, become its largest shareholder. The Lürssen Group, which last year took control of Blohm & Voss, also became an investor in the yard.

On a regulatory note, the approaching 2020 emissions deadline which will place a 0.5% sulphur cap on marine fuels will also have a significant impact on cruise companies. Already many owners have moved to fit their existing ships with scrubbers, while dual fuel or full LNG propulsion is now commonly being considered for newbuildings. This will require the development of LNG bunkering infrastructure, and several companies from the shipping and oil industries are looking to work together on this, including Shell and Carnival who have signed a partnership deal.

Interestingly, the Chinese authorities had already introduced "cold ironing" in several container terminals in 2016, and this was apparently extended in 2017 to several cruise terminals.

China's market reached 2.8 million passengers in 2017 but the growth pace is slowing

Conclusion

Cruise vacations are becoming more and more diversified, and cruise companies are offering ever increasing market segmentation to cater for the greater variety of clients' tastes and purchasing powers. We anticipate this trend will continue in 2018, with new ships boasting an ever growing variety of new features.

One also notes the renewal of the specialised cruise expedition fleet, which is seeing a boom in demand, and a number of newbuilding contracts placed. The latest is Ponant's cruise icebreaker, which will open new exploration possibilities as yet unknown in this segment.

Major cruise companies are reducing their tonnage deployment in China for 2018

*Picture: **MSC MERAVIGLIA**, 171,589 gt, 2,250 cabins, delivered by STX France to MSC Crociere in May 2017.*

*Picture: **COSTA FORTUNA**, 102,587 gt, 2,720 cabins, delivered by Fincantieri Sestri to Costa Crociere in 2003.*

Yachting

A buoyant year ahead

The 2017 sales market saw an overall growth in brokerage, with a 10% increase in deals completed in yachts of 24m and above. The cumulative asking price of yachts sold during the year was €3,719 million - up from €3,370 million the previous year. The average length sold was 40.5m, but 2017's largest brokerage deal was Ulysses, an exciting and highly innovative 107m explorer vessel built at Kleven in Norway.

52m SEVEN SINS
Launched in 2017, for sale and charter with YPI.

SALES, LAUNCHES AND BUILD PROJECTS

Details of very large yachts over 100m are often clouded in secrecy, so it is difficult to give exact figures of all launches and contracts signed, but some of the most significant under-the-radar launches in 2017 included the 136 metre Nobiskrug **Sailing Yacht A**, the 110 metre Oceanco **Jubilee** and the 136m Lürssen **Al Lusail**, all built to PYC (Passenger Yacht Code).

In terms of projects, there are currently 760 yachts under construction, up from 719 in 2016. Italy remains the largest producer of superyachts by a significant margin, followed by the Netherlands. However, when it comes to value per yacht, Germany holds first place. The large yacht sector over 100m has underpinned the growth in value for the last few years, and is set to lead the way for the foreseeable future.

Buyers looking for very large yachts with high gross tonnage are looking beyond traditional yacht shipyards to the commercial yard sector (as is the case for **Ulysses**). This trend is further underlined by Lürssen/Blohm+Voss acquiring a significant stake in Kleven, and by the Italian commercial shipyard Rosetti, among countless others, entering the superyacht sector.

There has been a significant shift to yachts becoming more adventurous in style and capability. Most 85m+ yachts under construction are building to the 13-36 Pax rule (PYC), with a large proportion being built to PC6 Ice Class enabling them to cruise the Arctic and Antarctic with guests onboard.

Our brokerage outlook for 2018: more of the same. We predict an accelerated growth in large yacht construction and some price stabilisation in the sub-50m market. The American market will continue to grow and outpace the rest of the world, followed by Europe.

The American market will continue to grow

Asia insight

The Asia superyacht market is experiencing a slow yet perceptible growth. There remains a lack of awareness and understanding of boating in the region, and brokerage marketing in the area is too low to benefit anyone but the core shipyards. Benetti announced the sale of a 35.5m yacht for Hong Kong owners and the 70m Damen **Game Changer** support vessel was also sold to Asian owners. Royal Huisman announced the construction of an 81m three-masted schooner for an Asian client, Lürssen's 135m **Project Thunder** will be delivered towards the end of 2018 and is expected to cruise mostly in Asian waters, and Feadship has six yachts in build for Asia-Pacific owners. Several transactions throughout Asia and to Asian owners were also reported for pre-owned yachts in the 40-50m range.

Despite the downturn in the brokerage market in this region, governments in popular destinations such as Thailand have already shown a willingness to change regulations in order to open up the region to charter yachts. Singapore also now offers flexible policies to make cruising in the region more accessible.

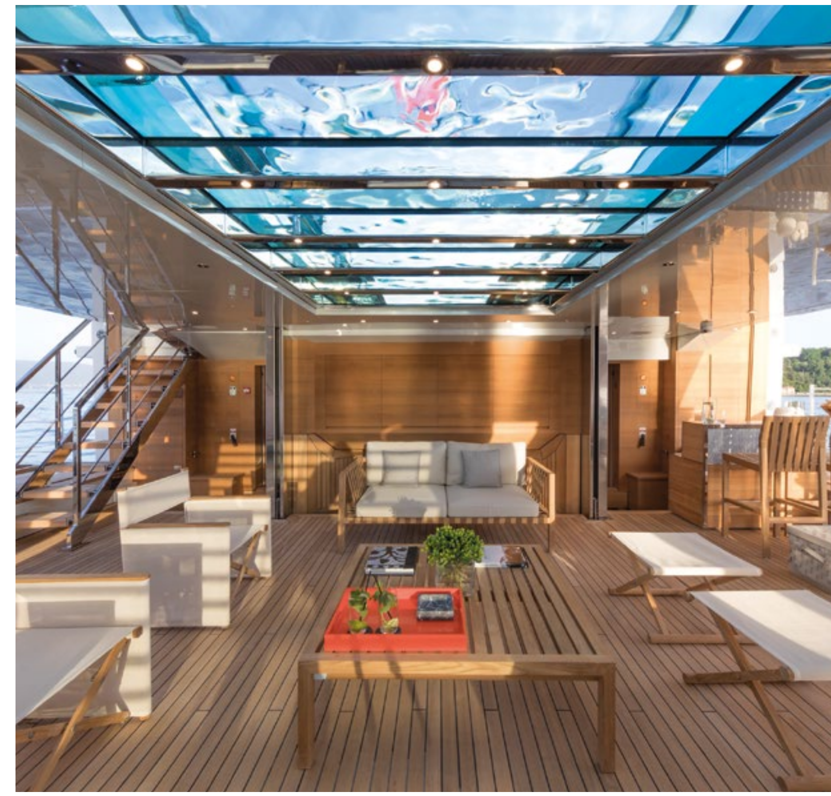
In 2017, while adapting to a downturn in China's domestic yacht market, builders in the region turned their focus to the export market. There are currently 54 projects under construction in Taiwan, with the popular yard Ocean Alexander building 28 projects with a total length of 872m. There are also a total of 20 projects under construction in China, including 9 projects at the leading yard Heysea, totalling 277m in length. Pride MegaYachts in Yantai China have the 88m **Illusion Plus** in the final stage of construction for a 2018 launch.

In October, China Zhongwang Group, the second largest developer of aluminum products in the world, acquired a majority stake in Australia-based all-aluminum superyacht builder SilverYachts, marking a strategic move for both parties to make further inroads in expanding the application of aluminum in the marine sector. Chinese companies are also targeting the yacht industry as a means of diversifying their investments in valued added industries.

For 2018, we foresee progress slowly but surely. Education and understanding of the yachting lifestyle will be core to the success of future superyacht sales in Asia.

*Picture: **SEVEN SINS** offers strong charter potential for a new owner.*

SALES AND CHARTER



Russia insight

The Russian and CIS market showed signs of growth in 2017 after a few years of decline. According to the Superyacht Report, 18% of the 80m+ global superyacht fleet was owned by Russian clients in 2017, compared with only 3% of the 30m+ fleet. The average gross tonnage of Russian yachts far exceeded the industry average. Key shipyards have reported a return in enquiries to the level attained before the 2008 crisis. Heesen Yachts, Feadship and Oceanco, among others, underlined a significant growth in enquiries coming from the Russian and CIS market.

2017 also saw a tendency in this market to focus more on potential future yacht operations. Today's Russian and CIS newbuild buyers frequently consider ways to optimise the yacht for charter. In terms of charter, 2017 has shown a steady 10% increase in charter by clients from Russian and CIS countries. There is a growing demand for expeditionary and adventurous destinations, such as Alaska and Norway, however traditional itineraries such as the Cote d'Azur still predominate.

After a contraction period in the Russian economy, and therefore in the economies of most CIS countries, the economic forecast for 2018 is more stable. The GDP of Russian and CIS countries is expected to grow by 2%, with growth also predicted in the oil price and exports. This, together with the positive short-term economic impact of hosting the FIFA World Cup, is reason to believe that the Russian and CIS market will exceed average growth in the industry over the next 12 months.

*Pictures: **37m SHOGUN** underwent an extensive 10-year refit in 2017; the extraordinary beach club and glass pool on **SEVEN SINS**.*

CHARTERING

The 2017 summer season kicked off with a healthy number of charter bookings in the popular Mediterranean hubs such as the Balearics, South of France, Italy, Croatia and Greece. The only exception was Turkey, where numbers suffered due to general apprehension in the region and many Turkish yachts repositioned to the Adriatic for their summer season.

After a successful summer, winter saw a significant decline in charters booked in the Caribbean due to the destructive impact of Hurricanes Irma and Jose on the islands of St. Maarten, the British Virgin Islands and St. Barts. Although St. Barts, a hugely popular island, has rallied and rapidly picked itself up with many restaurants and beach bars re-opened, it's clear that clients were put off going there and made alternative plans for their winter vacations this season. This is also demonstrated by the unusually high number of charter yachts throughout the industry advertising last-minute Christmas and New Year deals, significant discounts and appealing offers for the remainder of the season.

Despite offering clients alternative itineraries in less-affected regions of the Caribbean, and assurances that this is a great time to go with more yachts and deals available than ever, bookings have remained slow industry-wide, and we are seeing an unusually high number of yachts, even the first-rate vessels that usually book up fast, promoting special deals. Despite more yachts being available and the increased promotion of attractive alternative winter charter destinations such as South East Asia and the Maldives, the majority of clients still prefer to opt for more traditional, familiar destinations.

Looking ahead, we are optimistic about a strong summer 2018 season. Clients are already planning ahead, with early bookings steadily coming in. The western Mediterranean remains the most popular charter destination, with most clients wanting to cruise around the south of France and Italy. However, Croatia is becoming increasingly popular, with demand for this region increasing every year and more yachts are prepared to be flexible and reposition to the Adriatic. We also saw more clients heading to the Greek islands in 2017, perhaps as an alternative to Turkey, with the Cyclades remaining the most popular destination in this region.

As of 5th December, Greece brought in new legislation stating that non Greek flagged commercial yachts will no longer be permitted to embark or disembark charters in Greece. Many yachting companies in Greece have contested the soundness of this new measure, and proposed that instead, and like most other European countries, Greece should collect VAT and allow any yacht to pick-up and drop-off charters in Greece. So far two Greek ministries have accepted to revoke the law, but one remains in favour of the law and has not communicated its willingness to revoke it. We have been advised that by early 2018 the situation should be clearer, and we very much hope that a compromise will be reached.

Pictures: ***30m GATSBY****, offered for charter with YPI; Yacht management teams are seeing an increased demand for remote exploration.*

YACHT MANAGEMENT

Successful yacht management today requires constant adaptation to an evolving environment, as yachts and their owners change and new regulations impact every element of the day-to-day operations of yachts based in Europe, from technology to finance. Today, even yachts under 500 gt, which could previously operate independently, now need shoreside support.

In 2017 we experienced an increase in yachts made for far-flung exploration. This year saw the rise of PYC yachts, which enable cruising with 36 guests onboard instead of 12, including the astonishing 110m **Jubilee** and the innovative 142m **Sailing Yacht A**.

Furthermore, last year saw a rise in yachts designed to explore remote areas: what was before reserved for highly specialised passenger vessels is now accessible to yachts. Recent years saw the extensive refit of the 77m **Legend** and the launch of **Ulysses** for this purpose. We saw the wonderful 74m **Naia** cruising the most remoted areas of East Asia and Papuasia.

The entire management market has been shaken by this trend. For management companies, this new way of operating requires adapting to new skillsets and competencies: extensive knowledge of deep water cruising, ability to work in multiple time zones, familiarity with technical support and shipyards worldwide including the most secluded areas. We have also seen the Polar code coming into force to rule shipping and yachting in Polar areas. Management support industry-wide needs to adapt, to permanently add to our competencies in order to open up new playgrounds for adventurous yacht owners and support vessels anywhere around the world.

Looking to 2018, with the increasing number of PYC yachts in build and the growing interest in these type of yachts for charter, there is no doubt that management will focus more and more on the very specific requirements of this market segment. We also predict that more management companies such as YPI will start their mission not when the yacht hits the water, but far earlier in the genesis of the project. The new construction market is the perfect opportunity for renewed growth, with technical expertise of paramount importance during build. Finally, with the yachting industry ruled by English Maritime Coastguard regulations since it began, Brexit, and particularly the way the European Commission will handle regulations recognition, will certainly present a new challenge for yacht operations and therefore management companies.

Report and Analysis prepared by the YPI Group, a wholly-owned subsidiary of the BRS Group.

Picture: Enjoying life on the water onboard ***SEA PEARL****, managed by YPI.*

Containerships

Light at the end of the tunnel

There were fears that protectionism and isolationist politics would affect international trade in 2017 but they proved unfounded. Although these trends were to impact large corporate deals outside the liner shipping industry, trade in 2017 not only showed a strong resilience but seemed largely immune to the political discourse. 2018 started in a similar fashion.

CMA CGM TANYA
10,034 teu, delivered in 2016 by Samsung, operated by CMA CGM.

Photo: Christian Costa

GLOBAL CONTEXT

Throughput growth rose 6.5% in 2017, a sharp increase on the paltry 2.5% recorded in 2016. It is expected to remain above 5% in 2018. The year was also marked by a flat peak summer season, and an almost non-existent low winter season, in stark contrast to previous years.

Despite the improved context, box rates remain lacklustre while charter rates, although on the rise, are still moribund. Box rates could remain under pressure in 2018 due to the influx of extra capacity on most trades and the lack of carrier discipline. Charter rates for small containerships of up to 4,000 teu should climb to more attractive levels, while the prospects are poor for the larger vessels.

When unveiling their spring/summer 2018 programmes in late 2017, the OCEAN Alliance and THE Alliance did not announce new Far East-Europe or Far East-North America loops. Meanwhile, the 2M partners have yet to announce their 2018 programme and an extra loop, at least on the Far East-US trade, cannot be excluded.

In fact, the expected increases in capacity will be achieved through the injection of Ultra Large Containership (ULCS) newbuildings displacing smaller units. Overall, this does not bode well for the numerous vessels of 8,000-10,000 teu that will be squeezed out from the east-west trades. Forced cascadings will continue to keep the charter rates of medium-sized ships of 4,000 to 10,000 teu under pressure.

The smaller ships, under 4,000 teu, will benefit from both a sustained trade and a low orderbook. While the capacity of the fleet of ships larger than 10,000 teu is expected to rise by some 20%, the capacity of the 4,000-10,000 teu segment is expected to regress, while the fleet of ships under 4,000 teu is expected to increase by only 5%-6%.

The ongoing consolidation among carriers is increasingly concentrating the fleet in a few hands, and the top five carriers will soon control some 65% of the containership capacity, versus just 45% five years ago. This growing concentration is driving the charter market towards an oligopsony, ie many sellers but only a small number of buyers, with a handful of giant carriers facing a fragmented ship lessor sector.

Although Non Operating Owners (NOOs or ship lessors) continue to combine their ship marketing resources in wider chartering pools, they are still far from offering a serious counterweight to the largest carriers.

Consolidation is concentrating the fleet in a few hands

CHARTER MARKET

A brighter outlook

7,500-10,000 teu

2017 review

Charter rates for conventional 8,000-9,000 teu-class tonnage improved during 2017, from rock bottom values of $8,000 at the beginning of the year to $15,000-17,000 during the summer. The annual average stood at $13,500, against $8,700 teu in 2016. They remain however well under the $31,000-$35,000 that such ships require during their first 10-12 years of life, especially for those ordered at high prices. Only the owners that purchased ships through distressed sales turned a profit from the year's rates.

2018 outlook

Although the situation has improved, the prospects for this year remain grim as numerous 8,000 teu-class Very Large Containerships (VLCS) will become redundant due to the ongoing cascading triggered by the massive ULCS deliveries. Run-of-the mill 8,000-9,500 teu VLCS also face competition from the highly efficient compact neo-Panamaxes of 9,000-11,000 teu that have invaded in particular the north-south trades in the recent years.

These latter neo-Panamaxes can now obtain rates of $25,000-$30,000 for 12 month periods, while the prospects for the standard 8,000-9,500 teu VLCS are mixed, with seven spot units in January 2018 and a further 50 units having their charters expire over the year. The likelihood of rates climbing over, say, $25,000 depends on cargo volumes.

5,300-7,500 teu

2017 review

The Large Containership (LCS) segment (5,300-7,500 teu) followed a rising trend in parallel to the VLCS, with a doubling of the average rate from $6,000 to $12,000 during the year. This segment of the fleet did not suffer from previous high unemployment levels. There is however a long way to go to reach the $20,000 level needed to recoup operating expenses (OPEX) and capital costs for those owners which bought the ships as newbuildings.

2018 outlook

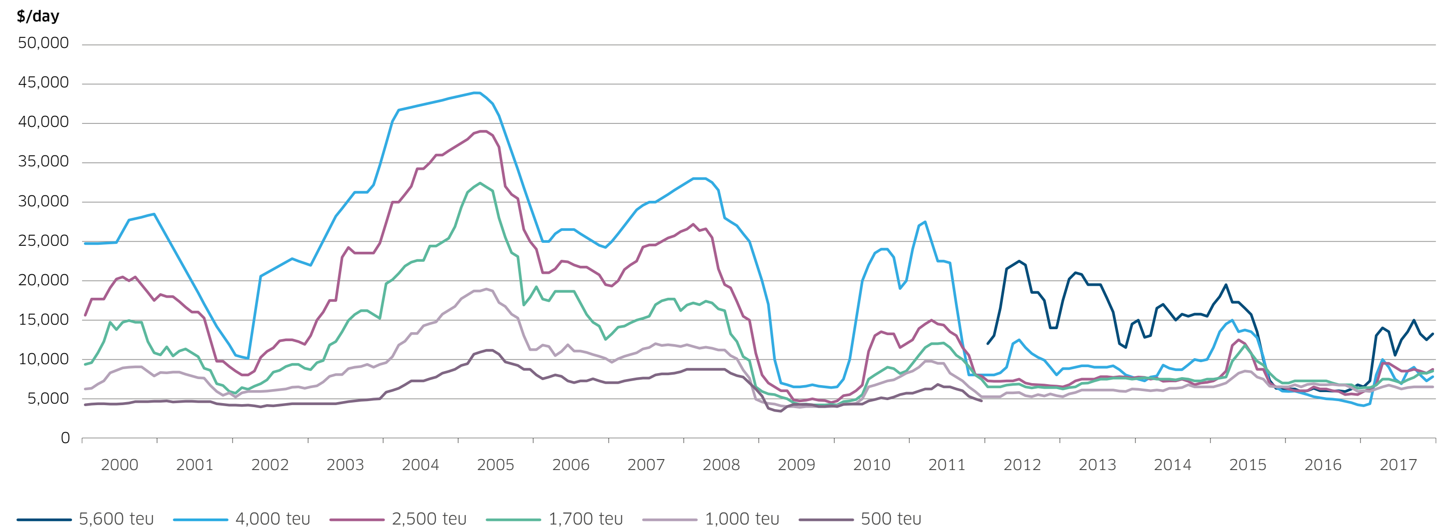
Despite a favourable trend in the supply-demand balance, the outlook for 2018 is uncertain. On the one hand, the sustained cargo demand should continue to support such tonnage on their current trades. On the other, it is hard to predict how the cascading will play out in the coming months.

Classic Panamax 4,000-5,100 teu

2017 review

Rates for 4,000-5,100 teu classic Panamaxes have doubled, from $4,100 at the beginning of the year to levels reaching $8,000 as the year closed. This segment continued to be affected by the cascading triggered by ULCS deliveries, but their situation has improved thanks to the launch of several

Charter rates from 2000 to end January 2018



loops employing, in particular, ships in the 4,000-4,500 teu range. However, carriers were enticed to organize such loops using cheap tonnage hired at $5,000-$7,500 per day. This gave them a competitive edge which allowed for a more comfortable negotiation margin on box freight rates.

51 Panamax units left the international market during the year, of which 33 units were sold for scrap and 18 units were sold to Chinese owners for trading in the Chinese domestic market. In total, 77 units changed hands during the year, of which 59 were sold to non-Chinese buyers.

2018 outlook

Surplus capacity in the classic Panamax segment has dwindled from 88 units in early 2017 to some ten units in early 2018. The launch in early 2018 of several new services with such tonnage will allow them to maintain the momentum. This should help rates reach the mid-$10,000s in the near term.

The situation remains fragile however as carriers could restructure those services running Panamaxes in order to employ larger tonnage that has become redundant through cascading. This is especially the case if Panamaxes rates pass a threshold that changes the economics of the cheap loops that have been launched in recent months.

3,000-3,900 teu

2017 review

While an excess of 10-15 ships was observed during the first eight weeks of 2017, the 3,000-3,900 teu segment remained in relatively short supply for the rest of the year, with no more than five ships trading spot at any time. In spite of this, charter rates remained unrewarding due to the competition offered by cheap classic Panamaxes.

2018 outlook

With less pressure from the classic Panamaxes, which saw a doubling in charter rates and reduced oversupply, the prospects for 3,000-3,900 teu ships appear brighter today, with rates expected to rise substantially.

2,000-3,000 teu

2017 review

Charter rates have improved by around 50% during the year to flirt with the $9,000 level as the year closed. Further scrappings and sales to Far East carriers for use on domestic services helped to improve the supply-demand balance.

2018 outlook

The oversupply has dwindled to the point that a scarcity is starting to develop, which obviously would support further rate increases. The situation is however complicated by the delivery of Evergreen's thirteen 2,800 teu newbuildings in 2018 (part of a 20-ship program), which should dampen the demand for chartered tonnage. 2018 will also be marked by the delivery of numerous 2,700 teu ships with 'Chittagong max' dimensions, which command rate premiums which are expected to be sufficient to cover financial costs.

***Picture: FENJA**, Baltic feeder, 822 teu, delivered in 2003 to Peter Dohle by Sietas Shipyard in Germany. Photo: Christian Costa.*

Picture: ***YM WHOLESOME****, 14,080 teu, delivered in 2015 by Hyundai Ulsan for Seaspan, operated by Yang Ming Marine. Photo: Boris Paulien.*

1,500-2,000 teu

2017 review

The spot numbers for this size bracket went from moderate in the first half of 2017 to single-digit figures for most of the rest of the year. Rates did not fully reflect this improvement as they rose from $6,500 levels at the beginning of the year to a still modest $8,500 at its end.

2018 outlook

The supply-demand balance is expected to remain tight, paving the way for further rate improvements. The orderbook (9% of the existing fleet) is not a concern when one considers the age of many ships in this range which makes them good scrap candidates. This will likely counterbalance the influx of tonnage. However, the overall prospects will be affected by the deliveries of numerous 2,700 teu 'Chittagong max' units that will displace in particular 1,500-1,800 teu vessels from the Bengal Bay feeder routes.

Numerous "Chittagong max" will displace 1,500-1,800 teu vessels from the Bengal Bay feeder routes

1,000-1,500 teu

2017 review

Despite a much improved supply-demand situation, charter rates for standard units failed to impress and even remained stuck throughout the year at the $6,500 level for 1,100 teu vessels. Only the high reefer capacity units of the 1,300 teu-class segment were better off, ending the year at $8,900 levels, up from $7,000 figures during the first few months of the year.

2018 outlook

The supply-demand situation is fairly tight in the first weeks of 2018, while the orderbook stands at a low 4.3% of the existing fleet. For the smaller 1,000-1,200 teu bracket, the prospects will however be affected by the trend of running larger units on numerous feeder services or operating vessels specially built to fit the needs of specific regional trades. In the Baltic area in particular, several economic newbuildings of 2,500-3,700 teu with an 1A Ice-class notation will displace vessels. Elsewhere, the trend by carriers to assign on-spec 1,000-1,200 teu newbuildings designed for specific services will also darken the prospects of the run-of-the-mill charter market units.

500-1,000 teu

2017 review

Numerous sales of small ships to niche carriers for use mostly on their own domestic networks have brought down the surplus in substantial proportions, in particular in the 500-700 teu range.

2018 outlook

The smaller vessels continue to benefit from a substantial reduction in the ship pool traded on the charter market and from the extra demand generated by the launch of new niche loops, especially between China's secondary ports and Japan or between South China, the Philippines and southeast Asia.

THE FLEET
Supply growth at all time lows

The global containership fleet grew by 3.7% to reach 21.1 million teu at the end of the year, according to Alphaliner figures. New containership deliveries reached 1,195,000 teu in 2017, while scrappings receded to 414,000 teu.

The sustained cargo demand both absorbed the new deliveries, and brought down the idle containership fleet by 1 million teu to 416,000 teu between end 2016 and end of 2017. The surplus capacity overhang remains a headache, and numerous deliveries of large ships have recently been deferred from 2018 to 2019.

Regarding the orderbook, orders placed in 2017 reached a cumulative 672,000 teu versus the low 280,000 teu contracted in 2016. Despite the increase, the orderbook-to-fleet ratio fell from 15.7% to 12.6%.

The fleet grew by 3.7% to reach 21.1 million teu at the end of 2017

Alphaliner - 2017-2018 - Cellular ships - Essential figures

	Ships	TEU	% Change YoY
Fleet as at 1 Jan 2018	**5,178**	**21,099,734**	**3.7%**
Orderbook as at 1 Jan 2017	**345**	**2,667,389**	**-16.3%**
Ratio O/E		12.6%	-19.3%
2017 - Containerships activity			
Ordered 2017	**109**	**671,641**	**139.5%**
Value of new orders (Est.)		*US$ 6.05 Bn*	*90.3%*
Delivered 2017	**160**	**1,195,650**	**26.6%**
Deleted 2017	**161**	**427,030**	**-35.8%**
Breakdown			
Scrapped	*147*	*413,982*	*-36.8%*
De-celled	*9*	*5,090*	*47.3%*
Lost	*5*	*7,958*	*24.3%*
Average idle fleet 2016		**703,595**	**-44.7%**
Idle fleet at end Dec		*416,643*	*-70.7%*
Average CCFI 2017		**820**	**15.1%**
CCFI end Dec		*771*	*-5.0%*
Ave. Alphaliner charter index 2017		**54.7**	**26.7%**
Index at end Dec		*58*	*46.1%*
Average FO $/ton 2017 (Rtm/Sin)		**319**	**42.3%**
FO $/ton end Dec		*378*	*15.2%*

	Ships	TEU
Fleet as at 1 Jan 2017	**5,178**	**20,344,589**
Orderbook as at 1 Jan 2016	**413**	**3,187,665**
Ratio O/E		15.7%
2016 - Containerships activity		
Ordered 2016	**75**	**280,480**
Value of new orders (Est.)		*US$ 3.18 Bn*
Delivered 2016	**146**	**944,485**
Deleted 2016	**201**	**664,717**
Breakdown		
Scrapped	*192*	*654,862*
De-celled	*7*	*3,455*
Lost	*2*	*6,400*
Average idle fleet 2016		**1,272,332**
Idle fleet at end Dec		*1,419,649*
Average CCFI 2016		**712**
CCFI end Dec		*811*
Ave. Alphaliner charter index 2016		**43.2**
Index at end Dec		*40*
Average FO $/ton 2016 (Rtm/Sin)		**224**
FO $/ton end Dec		*328*

Alphaliner - Cellular fleet as of 1st January 2018

- **The cellular fleet counts 5,178 ships of 21.1 million teu - of which 54.6% is chartered from non-operating owners**
- **The cellular fleet represents 98.1% of the total capacity deployed on liner trades in teu terms**
  > Total capacity active on the liner trades is 6,046 ships of 21.51 million teu and 264.1 million dwt
- **The orderbook counts 346 ships of 2.67 million teu representing 12.7% of the existing fleet) (firm orders only)**
- **The orderbook includes 160 ships for 1.1 million teu with charter status representing 41.1% of the total orderbook**

01 January 2018 - Existing						01 January 2018 - Orderbook					
Size ranges	All		Of which chartered fm NOO			All		Of which chartered fm NOO			
teu	ships	teu	ships	teu	% Cht	ships	teu	ships	teu	% Cht	O / E
18,000-23,000	66	1,279,161	26	502,556	39.3%	59	1,247,776	12	241,832	19.4%	**97.5%**
13,300-17,999	145	2,104,284	74	1,065,413	50.6%	32	459,656	24	339,542	73.9%	**21.8%**
12,500-13,299	100	1,325,068	54	713,712	53.9%	13	182,814	1	14,414	7.9%	**13.8%**
10,000-12,499	142	1,507,327	83	866,790	57.5%	27	303,264	25	281,244	92.7%	**20.1%**
7,500-9,999	480	4,223,873	272	2,411,087	57.1%	0	0	0	0	0.0%	**0.0%**
5,100-7,499	458	2,842,259	237	1,464,317	51.5%	4	21,180	4	21,180	100.0%	**0.7%**
4,000-5,099	644	2,918,621	360	1,627,061	55.7%	2	8,000	2	8,000	100.0%	**0.3%**
3,000-3,999	240	834,822	140	490,204	58.7%	23	80,732	4	15,320	19.0%	**9.7%**
2,000-2,999	625	1,584,809	398	1,013,230	63.9%	89	231,439	33	88,179	38.1%	**14.6%**
1,500-1,999	595	1,020,275	304	524,519	51.4%	50	90,798	36	65,163	71.8%	**8.9%**
1,000-1,499	703	810,213	413	482,838	59.6%	31	34,654	18	21,004	60.6%	**4.3%**
500-999	789	586,438	447	342,426	58.4%	14	8,980	0	0	0.0%	**1.5%**
100-499	191	62,584	37	13,822	22.1%	2	590	1	453	76.8%	**0.9%**
Total	**5,178**	**21,099,734**	**2,845**	**11,517,975**	**54.6%**	**346**	**2,669,883**	**160**	**1,096,331**	**41.1%**	**12.7%**

Note on neo-Panamaxes: *The ships of 13,300 to 14,500 teu with neo-Panamax gauge are counted in the 10,000-13,299 teu segment*

Note: *The existing chartered fleet takes into account ships chartered out by non-operating owners to operators, thus it does not take into account 92 ships for 233,263 teu which are normally owned by an owner-operator but chartered out to another operator, either for operational reasons (operational exchanges within alliances or partnerships) or because they are surplus to their owners' requirements.*

THE CARRIERS

Consolidation wave goes on

2017 began with 17 largescale international carriers and ended with only 15, equivalent to 85.1% of the global container ship capacity, based on Alphaliner's carriers league. This resulted from the acquisition of Hamburg Süd by the Maersk Group and the merger of Hapag-Lloyd and the UASC container businesses into a single entity.

This number will shrink further in 2017-2018 to 14 carriers, with the pending conclusion of the purchase of OOCL by COSCO Shipping and Shanghai International Port (Group) Co (SIPG), and the integration of the container businesses of Japanese carriers NYK, MOL and K Line into a new joint venture, 'Ocean Network Express' (ONE).

One remarkable evolution of 2017 concerns the Chinese domestic carriers, which have grown their fleet at a fast pace in recent times, thanks to newbuilding programmes and the timely purchase of classic panamaxes at bargain prices. Apart from COSCO's domestic branch, which operates a fleet totalling 280,000 teu, two prominent domestic carriers, Zhonggu Logistics Corp. and Antong Holdings (QASC) climbed to the 18th and 19th rank with their respective fleets of 123,800 teu and 111,000 teu. The growth has been steep: the fleet of Zhonggu Logistics has trebled within the last three years while the Antong fleet doubled in the same period.

Alphaliner Top 25 Operators as of 1st January 2018

		Total existing		Orderbook	
#	Operator	teu	ships	teu	ships
1	**APM-Maersk**	4,151,807	774	240,310	22
2	**Mediterranean Shg Co**	3,147,525	505	355,045	20
3	**CMA CGM Group**	2,514,170	504	325,834	24
4	**COSCO Shipping Co Ltd**	1,801,243	335	497,759	28
5	**Hapag-Lloyd**	1,547,865	215		
6	**Evergreen Line**	1,060,224	193	270,132	28
7	**OOCL**	689,118	100	21,413	1
8	**Yang Ming**	594,806	99	70,000	5
9	**MOL**	584,236	81	20,182	1
10	**NYK Line**	557,781	95	98,182	7
11	**PIL (Pacific Int. Line)**	384,807	132	107,907	10
12	**Zim**	366,292	76		
13	**Hyundai M.M.**	347,136	61	22,020	2
14	**K Line**	341,354	58	69,350	5
15	**Wan Hai Lines**	235,591	90		
16	**X-Press Feeders Group**	140,112	92		
17	**KMTC**	127,585	59	1,000	1
18	**Zhonggu Logistics Corp.**	123,836	99	31,592	14
19	**Antong Holdings (QASC)**	110,920	101	29,676	21
20	**SITC**	105,312	77	6,066	6
21	**IRISL Group**	96,383	46	58,000	4
22	**Arkas Line / EMES**	77,283	44	12,400	4
23	**TS Lines**	73,744	33	3,808	3
24	**Simatech**	68,735	21		
25	**Sinotrans**	63,287	41		

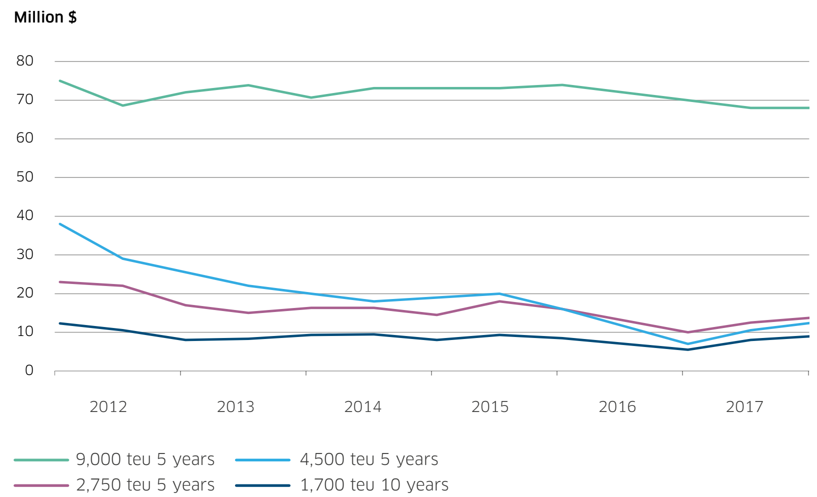
SECOND HAND MARKET

The year of the rebound?

After close to ten years of darkness with a couple of short rays of light, non-operating owners at last generated some profits in 2017. Higher daily rates and improved assets values were both a cause and a consequence of this phenomenon.

The superior chartering rates and higher volumes described in the previous paragraphs go some way to explaining the explosion in the containership sale and purchase market in 2017.

Containership second hand prices



We note the following figures for this segment:

- 393 sale and purchase (S&P) transactions for further trading, equivalent to 1,512,421 teu (or 7.4% of the total containership fleet!).
- Only 147 vessels sold to demolition (413,982 teu, and an average age of 21), versus 192 vessels in 2016.

The German banks' continued clearout of tonnage which started in 2015-2016, combined with better market prospects, was largely behind the numbers. This incredible figure of 393 transactions is the highest ever seen in the boxship S&P market.

The banks' practice of selling distressed assets at attractive prices to reduce their portfolios should, however, progressively slow down after nearly three years of active disposals.

Picture: MSC SVEVA*, 19,224 teu, delivered in 2015 by Daewoo, operated by MSC. Photo: Jan Tiedemann.*

*Picture: **ELEONORA MAERSK**, 17,816 teu, delivered in 2007 by Odense Lindo, operated by Maersk Line. Photo: Jan Tiedemann.*

The above encouraged shipowners to form, or renew, their fleets. If the traditional players like Maersk, CMA CGM, Technomar and Capital Ship Management are either still present or back in this market, other 'newcomers' also helped make the 2017 boxship market a record year.

The top four companies purchasing tonnage in 2017, with a total of 103 units between them, were:

- MPC Container Ships, with 46 units purchased
- Navios Maritime Containers with 23 vessels purchased
- SM Line with 19 vessels purchased
- Antong Holding Co (China) with 15 vessels purchased

The CMA CGM group has been consistently active in the newbuilding market, but last year after a break of many years it returned to the second hand market with 6 units purchased (ranging from 1,100 to 7,400 teu).

In terms of vessel size, the two most active markets have been:

- The Panamax segment, with 81 transactions compared to just 22 the previous year. The above four companies were involved in more than one-third of the Panamax transactions. Prices in this segment more than doubled (and sometimes tripled) between the start and end of 2017. The **Hanjin Monaco** (4,275 teu, built 2009 at Samsung) was committed in December 2016 for $5.2 million to Seaspan, which resold the vessel to Asiatic Lloyds in August 2017 for $9.7 million, which finally resold it in December 2017 to Antong Holding for $15 million. This gives a good picture of the containership sale and purchase market in 2017.
- 2,000-3,800 teu: 106 transactions completed, compared to 40 in 2016.

Analysis of 2017 S&P transactions by size

	2007	2008	2009	2010	2011	2012	2013	2014
< 900 teu	44	58 incl.18 mpp	43	33	33	55	40	39
901 - 2,000 teu	85	54	64	92	33	76	84	84
2,001 - 3,000 teu	51	22	19	25	9	15	41	39
> 3,001 teu	45	20	6	54	29	13	44	86
Total	**225**	**154**	**132**	**204**	**104**	**159**	**209**	**248**

	2015	2016	2017
< 900 teu	67	47	35
901 - 2,000 teu	77	75	97
2,001 - 3,000 teu	83	40	106
Panamax	44	22	81
Over-Panamax	32	24	58
> 10,000 teu	2	27	16
Total	**305**	**235**	**393**

Analysis of 2017 transactions by size

The Large Containership (LCS) segment (5,300-7,500 teu) followed a rising trend in parallel to the VLCS, with a doubling of the average rate from $6,000 to $12,000 during the year. This segment of the fleet did not suffer from previous high unemployment levels. There is however a long way to go to reach the $20,000 level needed to recoup operating expenses (OPEX) and capital costs for those owners which bought the ships as newbuildings.

Ships over 10,000 teu: 16 sales (27 in 2016)

A total of 14 of these 16 transactions related to the sale of 6 x 20,000 teu and 8 x 13,500 teu newbuilding units contracted by CSTC and leased to Cosco Mercury.

By contrast, there were only two secondhand units sold this year: 2 x 13,000 teu units sold by German bank HSH to Japan's Nissen Kaiun. Despite strong purchase enquiries, there was no real available tonnage on the market. The segment remains very illiquid, and without sale and leaseback or contract and leaseback deals like the above, activity would be extremely low. There are some 80 ships in this segment scheduled for delivery in 2018 and 42 in 2019.

Over Panamax: 58 sales (24 in 2016)

There were 938 vessels (of 7,066,132 teu) trading in this segment at end 2017, or 33.4% of total container capacity (4 ships scheduled for delivery in 2018 and none in 2019).

The most representative sales in this segment included the 19 units sold by Hanjin Shipping to Capital/SM Lines/Kyowa Kisen, and the takeover of Diana Shipping's 6 x post Panamax units by Technomar (deal not yet finalised by end January 2018).

We notice a strong buying interest for the 6,500-7,000 teu units, where daily rates doubled in 2017 compared to 2016. The arrival of the neo Panamaxes

(9,000-11,000 teu) penalized the 7,000-8,400 teu segment, and prices remained very attractive for buyers. For example, the **Conti Le Havre** and a sistership (7,471 teu, built 2005) were purchased by CMA CGM for $14.5 million each, having originally been contracted for $66 million.

We can compare this with the purchase by Tufton Oceanic of the **Santa Lucilla** and **Santa Louisa** (9,200 teu, built 2007 at Samsung) for $40 million each.

Panamax: 81 sales (22 in 2016)

At the end of 2017, there were 540 vessels in this segment, equivalent to 11.6% of total containership capacity (versus 12.7% at end 2016).

The Panamax segment was the second most active in 2017, and prices remained cheap despite a more than doubling in rates since 2016.

The segment also benefited from an excellent scrap price (averaging $400-$430 per LT), which improved the residual risk for buyers and enabled sellers to more easily sell their units. As mentioned above, we noted a 100%-200% increase in purchase prices since December 2016.

New loops unveiled by the traditional carriers, and new carriers like SM Lines created a positive cascading effect which increased demand for this size on the inter-Asia trades, another factor which contributed to the bullish trend in this segment.

Notable deals:

- Navios purchased 19 units, the majority from the bankrupt Rickmers Maritime trust, and the rest from Hanseatic Lloyds, NSC and H. Schuldt.
- Seaspan sold 4 x 4,275 teu units built in 2008-2009 to the largest buyer in 2007, MPC Container Ships, for $9.5 million each.

It interesting to note that in 2016, 79 Panamaxes were sold during the year, of which only 22 went for continued trading (less than 3% of the Panamax fleet), while the remaining 57 went for scrap. In 2017, the situation was reversed, with 116 units sold in total of which only 35 went for demolition.

2,000-3,800 teu: 106 sales (40 in 2016)

There were 865 vessels in this segment at the end of 2017, representing 11.4% of total container capacity (compared to 13% in 2016).

Similar to the Panamax segment, in 2016 total sales of vessels reached the figure of 101, including a record level of 61 ships sold for demolition. In 2017, 141 units were sold of which only 35 units were recycled.

German owners and banks being the major owners in this segment, it was logical that among the 106 units sold, 79 were from German sellers.

Despite an increase of between 40% and 100% in prices year-on-year, levels remained attractive in comparison with newbuilding prices.

900-2,000 teu: 97 sales (75 in 2016)

This segment recorded 1,298 vessels in the fleet at 31 December 2017, or 8.6% of total container capacity.

The major buyer in this market was MPC Capital, with 21 vessels mainly purchased from Cido (8 x CSBC 1,700 teu) and Ahrenkiel (5 units).

Sales in this segment were split as follows between the two main markets: 38 x 1,500-1,700 teu and 59 x 900-1,200 teu.

A total of 43 vessels were sold for demolition, against 24 in 2016.

The segment remains stable, with a slight increase in purchase prices at the end of the year of between 10%-15%.

900 teu and less: 35 sales (47 in 2016)

This segment consisted of 980 vessels as of 31 December 2017, or 3.1% of total container capacity.

The majority of buyers came from Asia, such as China's Antong Holding, which purchased 9 x 700 teu (Mawei 437) units from various German owners. Many other single-vessel purchases were made by other Chinese, Indonesian or Philippine buyers.

Despite slightly better rates for the 500-900 teu segment, there was no real underlying increase in second hand prices, except mathematically higher values due to the higher scrap price.

A total of 22 vessels were sold for demolition against only 17 newbuildings delivered. As mentioned last year, the fleet continues to age with the average age of vessel scrapped in 2017 at 25 years, versus an average of 20 years for the containership market as a whole.

*Picture: **CHICAGO EXPRESS**, 8,749 teu, delivered in 2006 by Hyundai Ulsan to Hapag-Lloyd. Photo: Christian Costa.*

81 Panamax changed hands in 2017 vs only 22 in 2016

Ro-Ro

Good momentum

Overall, 2017 turned out to be a positive year for the ro-ro industry. On the back of robust, stable cargo volumes, the charter market showed healthy returns for both owners and operators, encouraging industry players to continue the cycle of new investment that started in 2015.

CELINE
7,972 lm on 5 decks plus 4 car decks. Delivered in September 2017 by Hyundai Mipo Dockyards (HMD) in South Korea to CLdN Ro-Ro/Cobelfret.

Services to North African countries continued to suffer due to low economic activity

ECONOMIC ENVIRONMENT

A key feature of 2017 was the synchronised growth seen in the global economy. This was fuelled by recovery in Russia and Brazil, the continued strong performance of China, as well as sustained economic activity in the United States (US) and the European Union (EU). Overall, European economies performed well, posting a growth rate of about 2.4% in 2017 versus 1.8% in 2016, which resulted in even stronger demand in most trade areas. In light of Brexit and the country's significant weight in the ro-ro sector, market players paid particular attention to the performance of the United Kingdom (UK), where growth slipped from 1.9% in 2016 to 1.7% in 2017.

Although oil prices have increased by more than 15% in 2017, we have yet to see a positive knock-on effect on the purchasing power of the emerging market and developing economies (EMDEs) on Europe's periphery, as well as in West Africa, which are important generators of ro-ro activity.

Throughout the year, a large number of non-economic factors continued to affect economic and consequently transport activity – tensions in Libya; the civil wars in Syria and Yemen, as well as the resulting immigration to Europe. Although it seems that the danger created by the Islamic State will be diffused and the situations in Syria and Libya might gradually be resolved, socio-economic developments in Saudi Arabia and rising civil tensions in Iran threaten to spill over into the rest of the Near East and beyond.

Activity in the North European and Baltic regions showed no signs of slowing down in 2017

*Picture: **ML FREYJA**, 2,800 lm on 3 decks plus 1 car deck. Delivered in June 2017 by Visentini Shipyard and operated by Mann Lines.*

REGIONAL MARKETS

In terms of ro-ro activity, the Mediterranean region performed well in 2017. Operators registered very solid cargo volumes in the French, Italian and Greek domestic markets as well as in Turkey's export/import market. Turkish operator UN RoRo added capacity by lengthening tonnage while compatriot EKOL Logistics added a pair of newbuildings and an additional call in Lavrion, Greece, to its service. These investments were accompanied by upgrades to terminal infrastructure and inland rail links to Central and Northern European destinations.

Ro-ro activity in Spain also performed above expectations in 2017, however some fears remain for the year ahead due to the effects of domestic political uncertainty on confidence and demand.

Throughout the year, the fierce rivalry in the Italian domestic market between the Grimaldi Group and the alliance between Moby/Tirrenia and Grandi Navi Veloci (GNV) continued. Both groups continued to re-shape and adjust their services to Sardinia, Sicily and Malta. The Grimaldi Group relied on its immense internal resources, namely the largest owned ro-ro fleet in the world, which allowed it to adjust capacity at will. On the other hand, Moby/Tirrenia and GNV beefed up their services with chartered tonnage, thereby generating significant activity in the charter market.

Services to North African countries continued to suffer due to low economic activity, with import quotas in Algeria and political instability in Libya and Tunisia. CMA CGM ceased its ro-ro service from Malta to Libya and Tunisia, mostly focused on containerised cargo, and instead in November launched a new direct high speed service aimed at unaccompanied traffic between Casablanca, Tangiers Med and Marseilles, with a second loop connecting Tangiers Med, Marseilles and Genoa. The idea was to attract road traffic from congested Spanish coastal highways.

Activity picked up in the Black Sea compared to 2016, mostly as a result of the end of the Russian import ban on certain Turkish products, particularly fruit and vegetables.

In March, Spanish operator Marguisa decided to stop operating its own vessels on its dedicated service to West Africa (Togo, Benin and Equatorial Guinea) and instead started loading its cargoes with Grimaldi, which now remains the only dedicated operator serving West Africa from the Western Mediterranean. Ro-ro volumes from the Continent to West Africa remain fiercely contested by car carrier operators, which are increasingly loading high & heavy cargoes.

Due to difficult trading conditions over the past years, Weco RoRo (formerly Nordana) finally pulled the plug on its historic trans-Atlantic ro-ro service, linking the Mediterranean with Latin America, the Caribbean and the US Gulf.

Ro-ro activity in the North European and Baltic regions, the heart of Europe's ro-ro trade, showed no signs of slowing down in 2017. The Brexit negotiations and slightly weaker economic activity in the UK seemed to have no immediate impact on freight volumes between the UK and the Continent/Baltic, which continued to grow throughout the year. As a consequence, most operators carried on adding capacity to services throughout the year, be it through charter activity or investment in newbuildings.

Although bunker prices again increased by almost 20% between January and December 2017 resulting in higher operating costs, North European operators continued to post impressive financial results. Finnlines reported 12% year-on-year (y-o-y) growth for the first three quarters of 2017 and its best ever quarterly financial result in the third quarter. This was on the back of a more than 10% expansion y-o-y in Finnish import and export levels. Finnlines continues to invest in new environmental technologies and has also decided to lengthen up to six existing vessels by approximately 30%, thereby further reducing its energy consumption and overall costs per transported unit. Finnlines' mother company, the Grimaldi Group, has also announced the imminent order of at least four new "G5GG" class energy efficient vessels with capacity of about 500 trailers.

Danish operator DFDS repeated its record breaking results from 2016, reflecting the increasing volumes in freight in most of its trading areas. It was also boosted by a better-than-expected performance on its UK to Continent routes, particularly due to UK export levels which picked up after the British pound (GBP) depreciated in the wake of the Brexit vote. Freight volumes were however down on the Channel services and on the Marseilles/Tunis corridor by about 5% compared to 2016.

At the very end of the year Cobelfret/CLdN took delivery of its first newbuilding from Hyundai Mipo Dockyard (HMD) in South Korea, Celine. Equipped with 7,970 lane meter (lm) capacity, the vessel is by far the largest ro-ro ever built. A sistership, Delphine, is due for delivery in January 2018. These behemoths have been earmarked to upgrade the capacity on services from the Continent to the UK and Ireland. It is expected that Irish transport companies may increasingly circumvent lines via the UK post-Brexit, because of potential customs delays and congestion in ports.

Compagnie Maritime Nantaise (CMN), owner of 5 ro-ro vessels, has been acquired by compatriot company Sogestran, the largest operator of tonnage on the French inland waterways.

Despite a 20% increase in bunker prices through 2017, North European operators continued to post impressive financial results

CHARTERING ACTIVITY

Throughout the year, the number of chartering transactions remained steadily low. This comes as no surprise in this heavily consolidated industry where the majority of operators own the tonnage they deploy. Actual demand was thereby limited, as operators catered to their needs by internal fleet shuffling.

Looking ahead, a significant number of vessels is expected to be delivered between 2018 and 2019, which will create further tonnage migration and cascading effects.

Fuelled by consistent demand, charter rates increased by roughly 10% on average y-o-y for the 2,500+ lane meter (lm) capacity category. When it comes to smaller tonnage under 2,000 lm capacity, rate improvements were slightly more modest, with the bulk of demand coming from the Spanish and Italian markets.

Chartering activity stagnated somewhat between July and September as well as at the very end of the year. Nevertheless, overall, demand was persistent for all sizes, but particularly for larger tonnage with good speed (minimum 17 knots) and equipped with scrubbers. The spot/tramp market remained virtually non-existent and did not contribute significantly to the overall demand for tonnage.

THE FLEET

Demolition activity

Demolition activity rose substantially in 2017 at 16 units, twice the number of ships compared to the previous year. The average age was 34.3 years, while the average vessel size fell to approximately 1,431 lm, compared to 1,899 lm in 2016. Only four vessels of less than 30 years of age were recycled.

The primary victims were smaller units, with 8 vessels of under 1,000 lm and only 5 vessels of more than 2,000 lm. The total lane meter capacity removed accounted for approximately 22,890 lm, a 33% increase y-o-y. We expect demolition activity to remain steady in 2018 due to strong demand for tonnage, coupled with stable or even increasing lightweight prices.

16 ships demolished in 2017. Double the figure of 2016

Sale and purchase activity

Sale and purchase activity accelerated in 2017 with a total of 27 transactions registered against 19 in 2016. This amounted to a total of approximately 22,060 lm capacity sold with an average size of about 816 lm per vessel, compared to last year's 20,665 lm with an average size of 1,033 lm per vessel. The average age of the vessels sold was 23 years. The focus was on smaller tonnage with only seven vessels over 1,000 lm capacity. Most of the vessels sold had quarter stern ramps and a number of them were geared. Only two vessels were purchased by EU buyers. The bulk of the activity was coming from the Far East where Korean interests bought eight vessels while Chinese and Filipino buyers purchased one vessel each. The remaining buyers were from USA (3), Russia (2), UAE (2), Mexico (2), China (1), Germany (1), British Virgin Islands (1), Turkey (1), and Lebanon (1).

New deliveries in 2017

Twelve new vessels were delivered to the fleet during the course of the year for a total of approximately 45,200 lm capacity. In comparison, 8 vessels were delivered in 2016 with a total capacity of approximately 20,400 lm, which represents an impressive increase of almost 55%. The average size of the vessels delivered was about 3,766 lm.

Two large con-ro vessels were delivered to Atlantic Container Line (ACL). Meanwhile, the Siem Group/Flensburg shipyard delivered 3 x 4,100 lm vessels on long term bareboat charters: 2 to DFDS and 1 to EKOL Logistics. The Visentini shipyard in Italy delivered and chartered out the 2,800 lm ML Freyja to Mannlines.

With the exception of the Seaspan Reliant, which was delivered to Canadian operator Seaspan, the 6 remaining vessels were equipped with quarter stern ramps and delivered to Japanese operators for their domestic market. None of the ships delivered in 2017 ended up on the tramp market.

At the turn of the year, the total orderbook stood at 28 vessels, all earmarked for delivery in 2018 and 2019. Concentrating on 2018, barring construction delays 8 vessels are expected to be delivered to European operators in 2018 with a total capacity of about 40,300 lm; 12 vessels are earmarked for delivery to Japanese companies; two x 3,000 lm vessels will be delivered to Australian operator Toll Shipping, while US operator Crowley is expected to take delivery of two large liquified natural gas (LNG) powered con-ro vessels specially designed for its service to Puerto Rico. All of the vessels expected to be delivered in 2018 are already earmarked for specific services.

New orders in 2017

11 new orders were registered in 2017, a decrease of 35% compared to the previous year. Five vessels have been ordered by Japanese operators for the domestic market, while Bermuda Container Line ordered one con-ro vessel for its New York to Bermuda service which is expected to be delivered in first-quarter 2019. CLdN/Cobelfret signed up for 4 x 5,450 lm units from HMD, while DFDS added to its current orderbook with another pair of 6,700 lm units from Jinling Shipyard, with delivery expected towards the end of 2019. Gigantic vessels allowing economies of scale and lower emissions per transported unit are still very much "à la mode", especially for European trades. The declining number of newbuilding orders should definitely not be wholly attributed to the rise in shipyard prices in 2017. As we can see from the brimming orderbook, most of the major operators are already well underway with their fleet rejuvenation programmes and have satisfied most of their capacity needs for the years to come.

FORECAST

The global economy is likely to maintain its positive route with the IMF projecting global output growth at 3.9% in 2018. In Europe, growth is expected to be sustained at or very close to 2017 levels.

The UK will however continue to be in the spotlight considering the importance of British imports and exports for the ro-ro sector as a whole. The unpredictable repercussions and unclear modalities of Brexit remain a potential danger for the European ro-ro industry.

The markets on Europe's periphery, notably in North and West Africa as well as the Near East, remain unstable and are not expected to generate significant demand. We anticipate strong cargo flows to persist in the Continent, Baltic and Mediterranean. Newbuildings with more than 40,000 lm total capacity are expected to join the European fleet and this injection of tonnage will probably not be counterbalanced by demolition or tonnage migration. As strong as the demand side may be, we predict that some overcapacity could possibly be recorded as from the second half of 2018.

Charter rates and asset values are expected to remain steady in the first half of the year but it is possible that they might stabilise or even soften towards the end of the year if the cargo volume growth is unable to digest the incoming newbuilding capacity.

Newbuilding prices may well continue to rise in the year ahead but we expect ordering activity to continue at a strong pace. The Grimaldi Group alone has announced a substantial order of large vessels, which by itself should bring the ordering tally for 2018 very close to 2017 levels.

When it comes to new technology - irrespective of oil prices - emission abatement and a reduced carbon footprint per transported unit remain key parameters for the future. LNG has not yet entirely convinced the European ro-ro industry, while new trends point to batteries and cold ironing as the solution for zero emissions during port operations. With the International Maritime Organization's (IMO) 2020 Global Sulphur Cap swiftly approaching, these concerns will soon be shared by the industry as a whole.

11 new orders placed in 2017. A 35% decrease compared to 2016

*Picture: **GARDENIA SEAWAYS**, 4,094 lm on 4 decks. Delivered in July 2017 by Flensburg Shipyard (FSG) and operated by DFDS.*

Car Carrier

Clear skies in sight?

The car carrier sector's regression in 2016 seems to have been halted and perhaps reversed in 2017. Demand side indicators spell out a mixed picture. Sales of vehicles in the key markets of China, the European Union (EU) and the United States (US) posted strong performances, but compared to 2016 slowed down in China (+3%) and the EU (+3.4%), and even slipped overall in the US (-1.8%).

NOCC BALTIC
12 decks incl. 4 hoistable. 53,884 square meters equivalent to 6,450 CEU.

Delivered in March 2017 by Hyundai Heavy Industries (HHI) at the Samho yard in South Korea to Norwegian Car Carriers (NOCC). Operated by Liberty Maritime Corporation, who renamed her Liberty Peace.

Heavy demolition activity coupled with negligible investment in newbuildings over the past 24 months resulted in sluggish growth of the fleet

Prices rose year-on-year (y-o-y) for both oil (+23.1%) and nonfuel commodities (+6.5%), but the positive externalities on the purchasing power of emerging market and developing economies (EMDEs) were slow to be felt. Cargo volumes therefore might have improved relatively compared to the past year, but they still have a considerable way to go.

It is therefore on the supply side that we find the keys to reading the performance of the sector in 2017. Heavy demolition activity coupled with negligible investment in newbuildings over the past 24 months resulted in sluggish growth of the fleet. Within this prevailing demand and supply context, operators streamlined their fleets and sought more efficient vessel utilization, so that any extra-ordinary shortage of space could be met through tonnage from the charter market, which was in abundance. As a result, the idle tonnage overhang started drying up, particularly during the fourth quarter, when better than expected cargo volumes out of South Korea and end-of-the-year export quota targets from vehicle manufacturers drove up chartering activity and led to a temporary supply shortage, mainly in Asia-Pacific. Over the course of the past 12 months, the sector's supply side balance had therefore achieved an impressive reversal.

The International Monetary Fund (IMF) is forecasting rises in 2018 in global growth of 3.9% as well as in world trade volume of 4.6%. However, geopolitical and protectionist risks remain on the horizon, most notably Brexit and any eventual renegotiation of the North American Free Trade Agreement (NAFTA). Nevertheless, we expect that the rebalancing of the supply side is likely to continue in 2018 and that this will act as a buffer to demand side volatility, the extent of which will determine the pace of recovery of charter rates.

*Picture: **THRUXTON**, with post-Panamax beam. 12 decks incl. 4 hoistable. 62,700 square meters equivalent to 7,400 CEU. Delivered in January 2018 by Shin Kurushima Dockyard at the Onishi yard in Japan to Zodiac Maritime.*

CHARTERING ACTIVITY

Chartering activity was consistently sustained throughout the year, with an average of 20 deals registered each month, with the exceptions of September and October when activity slowed down to around 15 deals per month. During the first three quarters of 2017, durations of employment generally did not exceed two months, but they grew to between four to five months in the last quarter. The duration of employment is intrinsically related to the confidence that operators have in their cargo volumes, so the fact that they were unable to commit to long term durations (3+ years) should not come as a surprise. Nevertheless, the size of the idle fleet gradually shrunk from its peak of approximately 30 ships at the start of the year to none at all by November-December in Asia-Pacific, and only a few exceptions in Europe-Atlantic. Downward pressure on charter rates was finally released, but their firming up has proven to be a painfully slow process with only minor improvements so far.

The Ongoing Anti-Trust Investigation

As anticipated, the sweeping investigation into the global car carrier price fixing scandal produced further results throughout the year. In March, South Africa's Competition Commission (CC) proceeded to refer a complaint to the Competition Tribunal against K Line for engaging in prohibited practices in respect of tenders issued by Toyota South Africa Motors (TSAM) for the shipment of Toyota vehicles from South Africa. As a result, the CC is seeking to slap an administrative penalty onto K Line equal to 10% of its annual turnover.

In June, Mexico's Federal Economic Competition Commission (COFECE) imposed fines totalling 581,660,000 Mexican pesos ($32.0 million) on five car carrier operators – CSAV, K Line (including K Line America), MOL (including Mitsui OSK Bulk Shipping), NYK and WWL – after finding them responsible of monopolistic practices and price fixing.

In July, the United States (US) District Court of Baltimore indicted Messrs. Anders Boman, Arild Iversen and Kai Krass, all former executives of WWL, on charges of price-fixing. This brings the number of executives to have been charged by the US Department of Justice (DoJ) since the start of the investigations to eleven. In August, the Federal Court of the Australian Competition & Consumer Commission (ACCC) convicted NYK of criminal cartel conduct and ordered it to pay a fine of $25.0 million, making it the second highest fine imposed in ACCC history and the first successful prosecution under the criminal cartel provisions of the Competition and Consumer Act 2010 (CCA).

During the month of September, Hoegh Autoliners was first referred to South Africa's CC's Tribunal for prosecution on seven charges relating to collusive tendering, price fixing and market division, and then agreed a settlement with the US DoJ, including a fine of $21.0 million in relation to exports from the US to the Near East. In October, Fiat Chrysler Automobiles (FCA) filed a complaint with the US Federal Maritime Commission (FMC) seeking damages from seven shipping companies, namely WWL, EUKOR, NYK, MOL, K Line, CSAV, and Hoegh Autoliners, for losses suffered from their price-fixing practices in their seaborne shipments of vehicles. Inter alia, FCA is arguing that it is still being damaged because the prices for transport services currently in force are based on the rigged prices of the past, which were never filed with the FMC. In November, in the aftermath of Hoegh Autoliners' agreement with the US DoJ, Ingar Skiaker stepped down as CEO of the company.

Just like we wrote last year, given the seemingly endless proportions that the scandal is reaching, with some probes by governmental authorities still underway (Australia, Brazil, South Africa, US, etc.), we anticipate that in 2018 more convictions and penalties will follow and that possibly new investigations are likely to emerge.

Chartering activity was sustained in 2017 with an average of 20 deals each month

*Picture: **VIKING DESTINY**, 12 decks incl. 4 hoistable. 56,794 square meters equivalent to 6,700 CEU. Delivered in March 2017 by CSC Jinling Shipyard in China to Gram Car Carriers (GCC) and operated by Hoegh Autoliners.*

THE FLEET

The dark clouds that were looming on the sector's supply side horizon appear to have dissipated, with clearer skies perhaps in sight. Based on a capacity of 1,000 CEU and above, at the turn of the year, the fleet counted 757 vessels equal to approximately 4.1 million CEU, with an average age of 10.9 years. It marks the first time ever that the 4.0 million CEU threshold is breached. Compared to 2016, the fleet expanded by 0.4%, capacity rose by 5.1% and the average age increased by 2.8%. The fleet's growth rate had actually contracted in 2016 for the first time since 2009 and averaged approximately 5% over the past 5 years.

CAR CARRIER FLEET:

757 vessels

Average age 11 years

Orderbook 32 vessels

The overall orderbook ended the year at 32 units, representing 4.2% of the current fleet, stretching out into 2021, and accounting for a total of approximately 230,000 CEU. The orderbook-to-fleet ratio fell to its lowest level in six years and was close to half of the average rate of the past six years. 21 units, or approximately 66% of this orderbook, are post-Panamax beam vessels, accounting for approximately 160,000 CEU, equivalent to 70% of the CEU capacity on order. Compared to 2016, the number of post-Panamax beam ships on order without committed employment plunged to only 4 units from the previous 12. This 67% drop is the result of CIDO's conversion of 4 out of its 6 ship order into 2 product tankers, Ray Car Carriers selling its 2 newbuildings at Hyundai Mipo Dockyard (HMD) to Hyundai Glovis, and Zodiac Maritime having taken delivery of 2 out of its 4 post-Panamax newbuildings and fixing them out. From a macro perspective, it reflects the subdued sentiment prevailing in the sector throughout the year which continued to restrain investment by tonnage providers and in particular for the post-Panamax size, which has failed to supplant the 6,500/6,700 CEU size as the industry workhorse.

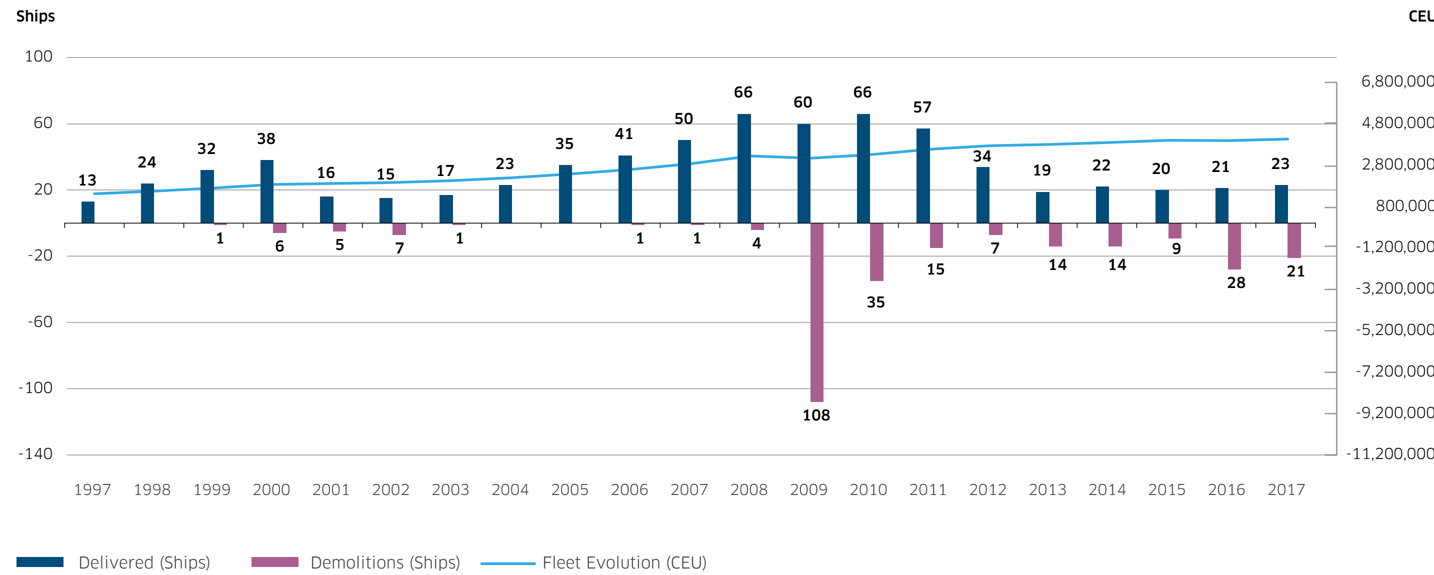
Only 5 new orders were placed during 2017, equivalent to approximately 38,000 CEU with an average intake of 7,500 CEU. 2 of the units will be the first ever post-Panamax units powered by liquefied natural gas (LNG) and were ordered by Siem Car Carriers at Xiamen Shipbuilding Industry on the back of a cargo contract with the Volkswagen Group between Europe and North America, marking the first order in the industry in over 6 months. The remaining 3 units were commissioned by Shoei Kisen Kaisha at Imabari on the back of an employment commitment with K Line. In other words, there were still no speculative orders placed in 2017, in line with the trend of the previous year that has seen tonnage providers shy away despite favourable newbuilding prices. We can only hope that this trend will continue also in 2018 if the sector is to return to a more organic growth of its fleet.

There are only 4 ships in the orderbook that are still uncommitted, a contraction of 69% y-o-y. The drought in newbuilding orders caused by the sector's poor earnings is starting to bear its fruits on the supply side.

In a sign of the greater awareness by vehicle manufacturers to shipping emissions, as witnessed by the order of Siem for the Volkswagen Group, Toyofuji, the shipping subsidiary of Toyota Motor Corporation, together with

*Picture: **SIEM CICERO**, 13 decks incl. 3 hoistable. 59,270 square meters equivalent to 7,000 CEU. Delivered in June 2017 by Uljanik Shipyard in Croatia to and operated by Siem Car Carriers.*

Car carrier fleet evolution



NYK and K Line were reported to be mulling an order of around 20 LNG-fuelled ships, evenly distributed amongst themselves, but so far nothing has materialized.

23 units were delivered during the course of the year, accounting for approximately 154,000 CEU versus last year's 21, with an average capacity of 6,709 CEU, down approximately 2.2% y-o-y. While the number of deliveries represents a 9.5% growth y-o-y, it also marks a contraction of approximately 38% in the number of ships originally set for delivery in 2017.

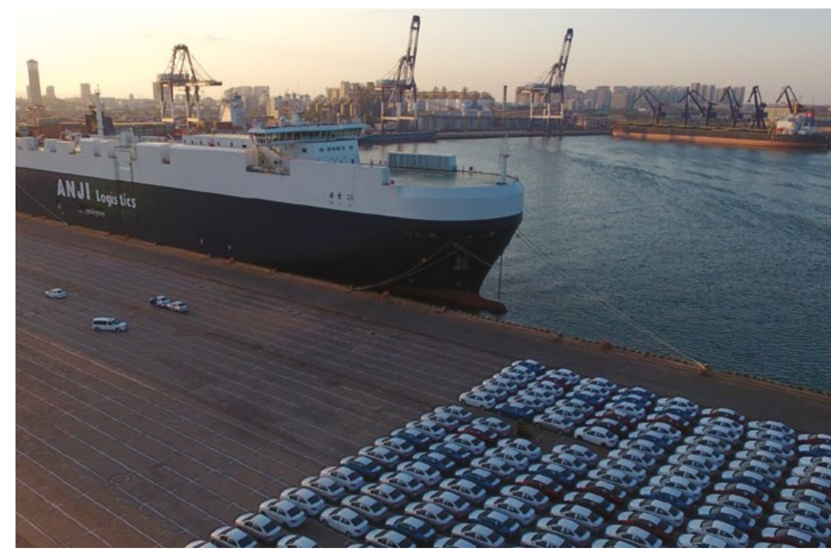
Indeed, 16 units saw their delivery dates deferred beyond 2017, accounting for approximately 115,000 CEU. In addition, 2 units on order were cancelled, equivalent to 15,000 CEU.

As we had hoped for, demolition activity witnessed another strong year with 21 ships being beached, accounting for approximately 89,000 CEU. Although this year's tally is 25% lower than last year's, it still remains substantial when compared to the annual average of 14 demolitions over the last 5 years. Average age was 28.9 years, so consistent with last year's figure, and continued evidence of the light that some owners and operators have seen in sending their vintage ships for recycling. Indeed, 6 ships, or approximately 29%, belonged to tonnage providers, whereas the balance of 15 ships was owned by operators. This year, MOSK was the most active with 5 units, with K Line close behind at 4.

Looking ahead, 20 ships, or approximately 81,000 CEU, representing 2.6% of the current fleet, will be 28 years and above in 2018. In 2019, 23 ships, or approximately 85,000 CEU, representing 3% of the current fleet will be 28 years and above. It is interesting to note that of the 20 ships due to be 28+ years old in 2018, only 3 units, or 15%, belong to tonnage providers, of which 2 have charter contracts due to expire in 2018. It also means that the remaining 17 ships, accounting for 85% of the fleet of 28+ years old, belong to operators. Here, all eyes will be on UECC, whose charters from parent company Wallenius of the four 1983 built "Breeze" class ships expire in 2018. NYK, curiously the second parent company of UECC, will be another one to watch with 4 vintage ships under operation.

Sale and purchase activity registered a whopping 147% surge with 37 transactions, including 8 sale and leaseback deals and 2 newbuilding resales.

The average age was 11 years and the average size was 5,393 CEU, for a total of approximately 200,000 CEU. As anticipated last year, the high tally was driven by opportunistic deals, with the fleets of bankrupt International Shipholding Corporation (5 units), United Ocean Group (7) and Bertram Rickmers (2) changing hands. In addition, German tonnage provider Lauterjung exited the sector with the sale of its 2 vessels, whilst compatriot peer Laeisz sold off 2 units of its 8 ship fleet. We expect the level of sales to dampen in 2018, on the back of an improving charter market, which is giving some respite to tonnage providers. However, the risks to the charter market remain and could usher another round of opportunistic deals.



*Picture: **ANJI 23**, 10 decks incl. 2 hoistable. 56,794 square meters equivalent to 3,800 CEU. Delivered in April 2017 by CSC Jinling Shipyard in China to and operated by Shanghai Ansheng Automotive Shipping.*

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