Annual Review 2019

BRS GROUP

SHIPPING AND SHIPBUILDING MARKETS

Contents

Shipping & Shipbuilding Markets

530
Employees worldwide

225
Shipbrokers

100
Assets transactions per year

4,500
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.

Certainly uncertain

A very complicated year which allows us a glimpse of what is to come.

The macro political scene sets the tone for international trade and this year it had its twists and turns. The Trump-induced trade wars meant significant uncertainty in the three major sectors: dry cargo, tankers and containers. We were all hard pressed to foresee or even retrospectively anticipate the significance these would have on the shipping markets and it is clear this lack of certainty played a significant role. On the European scene, with Brexit looming, Italian populism, the Yellow Jackets, nationalism building, and the traditional axis within the community suffering, uncertainty is the backdrop for a region where a large part of the maritime community has its headquarters.

Uncertainty in the energy sector and more specifically in the oil trades had an ongoing negative effect on an overbuilt market. During the latter part of the year, uncertainty converted into speculation and various trades drew attention and some positive reactions.

The real uncertainty however remains the implication of the 2020 IMO regulations. The debate on the significant use of scrubbers to meet requirements dominated the press and left owners and freight users divided as to the implications. It seems that larger ships with standard trades make sense and are being installed with scrubbers but few believe this is a long term solution. The industry needs to make significant progress and contributions to the growing ecological issues in as much as political and public perception of shipping as a significant polluter is growing. The uncertainty surrounding this issue has probably the most influence on how international trade will evolve. Yards, shipowners and design companies all struggle with being in the know; LNG, solar, wind, low sulphur fuel, hydrogen, vie for market share and legitimacy. Regulations, coupled with economics, will eliminate the uncertainty but not in 2019.

Significant trade wars and trade sanctions added to the uncertainty surrounding everyday activity. Almost every major owner and charterer announced their withdrawal from activities sanctioned by the US - with Iran at the heart of these - despite often being legal in their national jurisdiction. The US Department of Justice in effect displaced sanctions' penalties to compliance of major banks who set their own rules and standards. Rare was a payment or a transfer that was without incident no matter what origin or purpose. Significant costs and uncertainty require more cash reserves. With the impending IFRS regulations coming into effect, cash reserves will continue to be an issue.

Pressure to dis-intermediate continues to grow, with traders and brokers on the front line. Cost cutting efficiency has led to various initiatives to promote more transparency at less cost. Electronic platforms, back-office and post fixing tools, ship tracking and its logical evolution into algorithmic trading tools, all speed up the pace of evolution in our industry but add significant uncertainty as to the long term structure and functioning of shipping markets. Indices as market indicators (and by extension shipbrokers' contributions) will surely be a growing issue.

The Chinese finance houses dominated the shipbuilding market and contributed to a significant increase in activity compared to 2017. Unfortunately the over-ordered Very Large Containership segment arrived at the heart of the trade wars, while the wave of tanker newbuildings ordered during the heady years of 2014/2015 felt like they were adding to long lines at soup kitchens, despite a record demolition of some 20 million dwt. Bulkers were the main concentration by the Chinese, as the dry cargo market has performed relatively well for the last few years, but some offshore and specialised sectors like ro-ro, LNG bunkering and ferries saw some renewed interest.

Undoubtedly the uncertainty in 2018 will provoke further developments in 2019. What transpired at the end of last year in the world stock markets could be an indicator but certainly tells us that uncertainty does not lead to strong markets but surely opportunities. Next year will require a constant review of strategy and a nimble approach to inevitable change.

Tim JONES
President

Shipbuilding

A promising first half, an uncertain second one

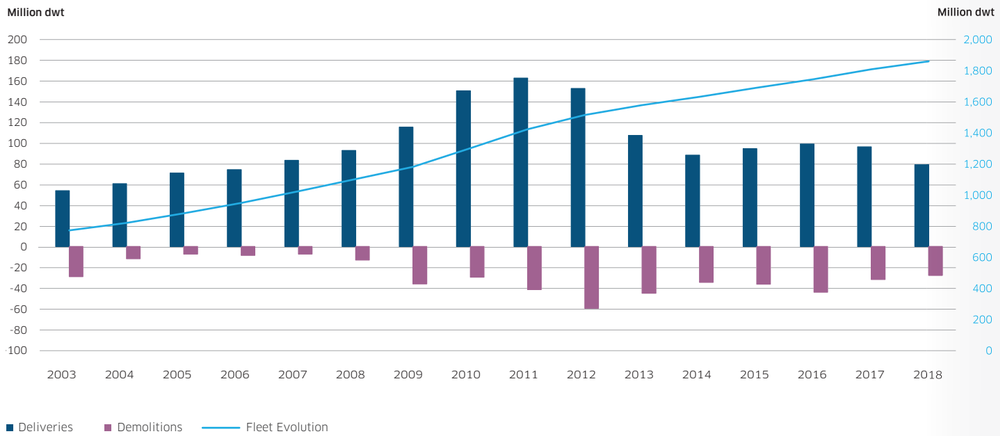
2018 started briskly in the wake of 2017. In the first half of the year, newbuilding orders were placed at a rate of about 10m dwt per month. However the pace dropped in the second half, as owners grappled with a rise in newbuilding prices and growing uncertainty over the IMO 2020 deadline.

Regardless, newbuilding orders rose to 95.5m dwt in 2018 versus 83.1m dwt in 2017. Demand for bulkers, container carriers and specialised ships increased, while for tankers it receded, reflecting low freight rates and poor sentiment. Thanks to this additional demand, shipbuilders succeeded in raising newbuilding prices by about 10%. This enabled them to pass on some of the additional building costs resulting from higher steel prices, new regulations and increased pressure from marine suppliers, who have also been struggling since 2008.

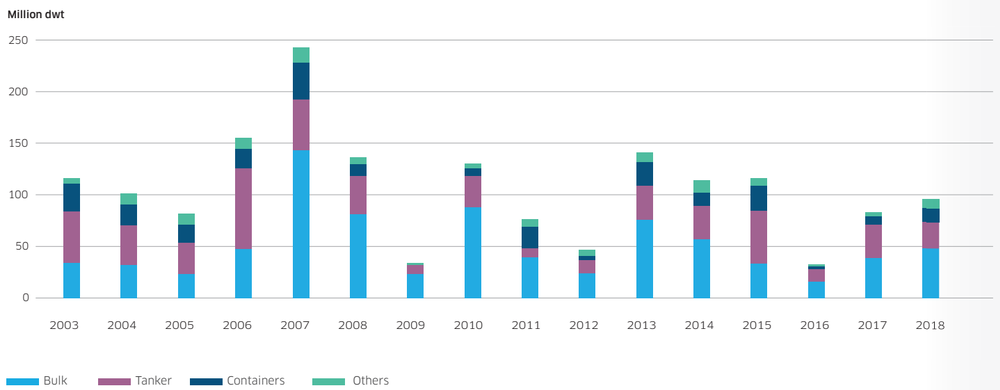
VIIKKI
LNG-fuelled forest product carrier, 25,600 dwt (B.Delta 25), built in 2018 by China's Jinling for Finland's ESL Shipping.

Deliveries vs demolitions

Fleet evolution



Orders



KEY POINTS OF 2018

The three Asian shipbuilding giants, representing almost 95% of the global orderbook by deadweight, continued to fight fiercely for market share. In 2018, China consolidated its top position with a 43.1% market share. In second place Korea increased its market share to 27.5%, while Japan slipped back to 24.0% in third place. The 'rest of the world' (RoW) and Europe registered a 3.8% and 1.6% share of the global market respectively.

Newbuilding deliveries fell to 78.7m dwt in 2018 against 96.1m dwt the previous year, reflecting the decline in newbuilding orders in 2016 (32.6m dwt). The global orderbook increased from 214.8m dwt to 231.7m dwt in 2018, while the world fleet increased from 1,805m dwt to 1,855m dwt (37,674 ships) during the year.

Shipowners sought to take advantage of low asset prices in early 2018 and many returned to the shipyards, but owners were equally active on the second hand market (110m dwt in sales in 2018 versus 132m dwt in 2017).

Newbuilding prices increased by some 10% during the year regardless of vessel size and type, even for tankers, which were less in demand. This was the effect of tension in the newbuilding market. Orderbooks stretched well beyond the two-year yardstick, reaching three years for the busiest yards.

The IMO 2020 sulphur cap caused more debate (and disagreement) than any other issue in the market in 2018. It raised numerous questions, many of which remain unanswered.

Should owners install scrubbers (exhaust gas cleaning systems) or not? If so, what type: open loop, closed loop or hybrid? Will open-loop scrubbers be banned by more countries? Who pays for the equipment: owners or charterers? And who is responsible in the case of scrubber breakdown? How reliable will scrubbers be in a high-temperature, high-corrosion environment, and operating with different engine outputs?

Will the price spread between 'compliant' fuel and high sulphur fuel widen or narrow, and what will be the availability of both fuel types? Are scrubbers just a temporary fix that will become redundant after a couple of years? What adjustments, if any, will the Baltic Exchange make to their indices (on which the FFA market and a good part of the physical market depends)? What proportion of the world fleet will in fact be fitted with scrubbers?

While all these questions were raised during 2018, the answers will only become apparent during 2019, 2020 and beyond. The uncertainty created by the sulphur cap poses a challenge for everyone in the industry: owners, charterers, traders, shipbuilders, oil refiners, bunker suppliers, banks and brokers. Opportunities for some, headaches for others.

The trade dispute initiated by the US constituted the second hot topic in 2018, but its impact was difficult to assess. Chinese exports shrank by 4.4% year-on-year in December 2018, the worst decline in two years and much worse than economists expected. The same month, Chinese imports slumped by 7.6% year-on-year, which also suggests that the world's second-largest economy is struggling. Reuters' analysts had expected a 3% decline and a 5% increase in exports and imports respectively but despite the year-end slump in exports, China's trade surplus with the US swelled to $323bn in 2018, the highest on record.

Summary		2017	2018
Orders	Ships	1,000	1,245
	m dwt	83.1	95.5
Deliveries	Ships	1,313	1,142
	m dwt	96.1	78.7
Orderbook	Ships	2,886	2,995
	m dwt	214.8	231.7
Active Fleet	Ships	36,972	37,674
	m dwt	1,804.7	1,855.7
Orderbook/Active Fleet	Ships	7.8%	7.9%
	m dwt	11.9%	12.5%

Orderbook		2017	2018
China	**Market share**	**43.7%**	**43.1%**
	Ships	1,234	1,283
	m dwt	93.9	99.8
Korea	**Market share**	**24.4%**	**27.5%**
	Ships	396	465
	m dwt	52.4	63.8
Japan	**Market share**	**25.1%**	**24.0%**
	Ships	750	730
	m dwt	54	55.5
Europe	**Market share**	**1.6%**	**1.6%**
	Ships	237	288
	m dwt	3.4	3.6
ROW	**Market share**	**5.2%**	**3.8%**
	Ships	267	229
	m dwt	11.1	8.9

Newbuilding prices increased 10% in 2018

WORLD ECONOMY, MARITIME TRADE AND FREIGHT RATES

World Economy

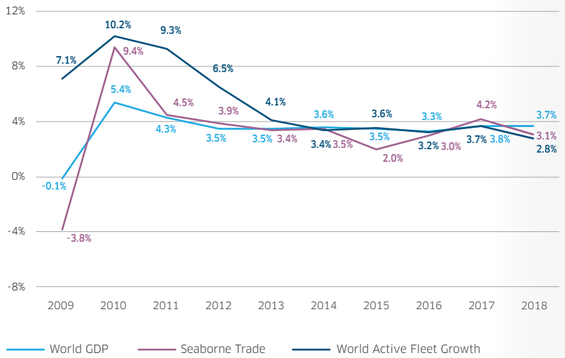
The world economy performed well in 2018, with a growth of 3.7%, just 0.1% less than in 2017. However, seaborne trade growth went down from 4.2% in 2017 to 3.1% in 2018. Inward-looking trade policies and the rise of protectionism threaten an otherwise positive outlook for seaborne trade, according to the 2018 United Nations Conference on Trade and Development (UNCTAD) review of maritime trade. Rising trade friction could derail the recovery seen in the past two years and reshape global trade patterns. UNCTAD also warned that competition authorities should remain vigilant over the acceleration of M&A activity in the liner shipping sector.

Overall, UNCTAD predictions for seaborne trade are positive, with a potential compound annual growth rate of 3.8% between 2019 and 2023.

While volumes across all sectors are expected to grow, containerized and dry bulk shipments are expected to rise the fastest, at the expense of tanker volumes. "Projections of the rapid growth in dry cargo are in line with a five-decade-long pattern that saw the share of tanker volumes being displaced by dry cargoes, dropping from 50% in 1970 to less than 33% in 2017," said UNCTAD.

However, the report warned the threat of growing global trade disputes would cloud prospects for shipping. Tensions between the world's two largest economies, the US and China, as well as with Mexico, Canada and the European Union are "an immediate concern".

Global trade and world GDP & active fleet growth



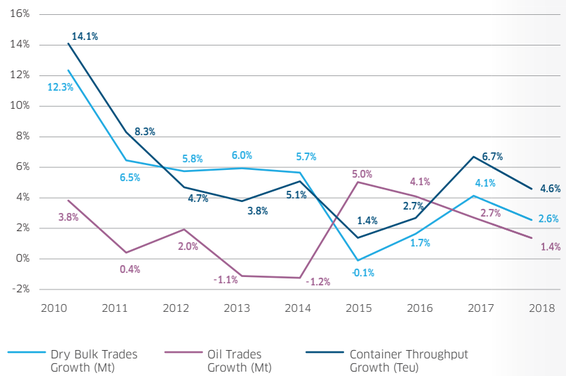
Maritime Trade

Dry bulk trade growth dropped to 2.6% in 2018, in contrast to 4.1% in 2017 and 1.7% in 2016.

Growth in the tanker trade continued to slow, from 4.1% in 2016 to 2.7% in 2017, to 1.4% in 2018.

Finally, container throughput growth fell to 4.6% in 2018, down from 6.7% in 2017 but up from 2.7% in 2016.

Maritime trade growth



Freight Rates

Dry bulk

After an extremely difficult year in 2016 (in which the Baltic Exchange Dry Index (BDI) fell to its lowest level since launch), the dry bulk market saw the recovery started in 2017 continue into 2018.

The BDI logged an averaged 1,352 points in 2018 versus 1,145 in 2017, albeit there was the start of a decline at the end of the year.

The Baltic Capesize 5TC averaged $12,962 in Q1, $14,980 in Q2, $22,207 in Q3, and $15,829 in Q4.

Tanker

Tanker rates were under greater pressure in 2018. The Baltic Exchange Clean Tanker Index (BCTI) started 2018 at 655 and ended at 813, and averaged 579 over the year, compared to 606 in 2017.

Average 1-year Time Charter rates were as follows:

- MR2: $13,147 in 2017 and $13,261 in 2018
- LR1: $13,725 in 2017 and $13,240 in 2018
- LR2: $14,789 in 2017 and $14,040 in 2018

During 2018, 1-year Time Charter rates fluctuated within the following bands:

- MR2: between $13,000 and $14,500 per day
- LR1: between $13,000 and $15,000 per day
- LR2: between $13,500 and $18,000 per day

In the crude segment, the Baltic Exchange Dirty Tanker Index (BDTI) started the year at 700 and ended at 1266, with an overall average of 798 in 2018 versus 787 in 2017.

Crude tanker rates had softened across the board in 2017 and the start of 2018. However, rates increased sharply in Q4 2018 as a consequence of the fall in the oil price, which plummeted by more than 40%.

Time Charter rates for VLCCs started the year at $27,000, dropped to a low of $19,000 during the summer, and ended at $31,000.

Average Time Charter rates were:

- Aframax: $14,833 in 2017 and $14,220 in 2018
- Suezmax: $18,196 in 2017 and $16,050 in 2018
- VLCC: ..... $26,539 in 2017 and $25,750 in 2018

Container

Container charter rates continued to improve in 2018 after the record lows seen in 2016 and the subsequent recovery in 2017. The Alphaliner Charter Index averaged 68 in 2018 versus 55 the previous year.

Despite this, charter rates remained only slightly above operating expenses. As carriers consolidated into ever smaller numbers of large alliances, they were able to use their bargaining power to keep rates under check.

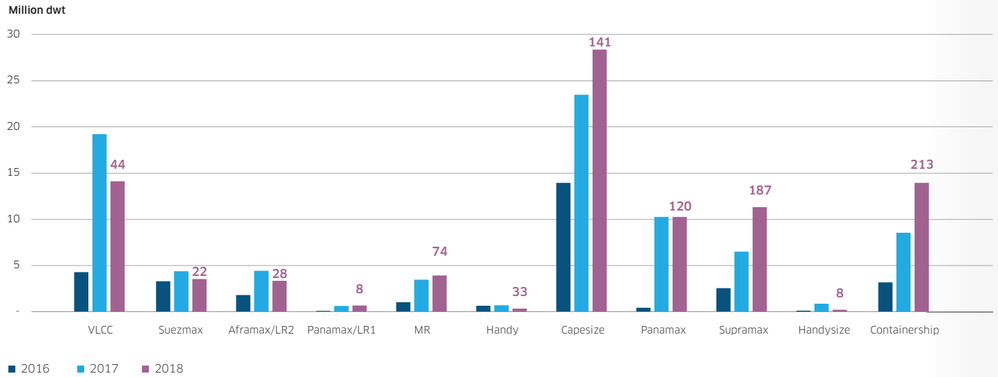
The idle or unemployed containership pool increased from about 0.4m teu (1.8% of the active fleet) at the end of 2017 to 0.6m teu (2.8%) at end 2018.

Charter rates for cellular ships (6-12 month fixtures)

Size	2016 avg $/day	2017 avg $/day	2018 avg $/day	Change 2018/2016
8,500 teu	8,667	13,396	15,538	79%
5,600 teu	6,129	12,063	13,078	113%
4,000 teu (Panamax)	5,133	7,533	11,204	118%
2,500 teu	5,979	8,179	10,792	80%
1,700 teu	7,004	7,404	9,646	38%
1,000 teu	6,621	6,375	7,242	9%
Alphaliner Index	**43.2**	**54.7**	**68.2**	**58%**

*Picture: **HAFNIA SHANGHAI**, 75,000 dwt shallow draft LR1 Tanker (IMO3), under sea trials at GSI before delivery to Vista Hong Kong.*

New orders for standard vessels per year



ORDERS AND ORDERBOOKS

Orders and orderbooks for standard vessels

Newbuilding orders increased by 15% in 2018 to reach 95.5m dwt. This follows the 155% increase seen in 2017 (83.1m dwt versus 32.6m dwt in 2016).

The 2018 figure is very close to the yearly average of 97.5m dwt registered since 2000. As mentioned, orders for bulkers, container carriers and specialised ships increased, while those for tankers declined.

Bulker orders rose by 23% to 48.1m dwt in 2018, up from 39.2m dwt in 2017, and above the yearly average of 44.5m dwt seen since 2000.

Contracting in both 2016 and 2017 was boosted by large orders for VLOCs to support the Brazilian ore trade (30 x 405,000 dwt VLOCs in 2016 and 2 x 405,000 dwt plus 33 x 325,000 dwt VLOCs in 2017).

Bulk Summary		2017	2018
Orders	m dwt	39.2	48.1
Deliveries	m dwt	38.6	28.1
Orderbook	m dwt	91.3	111.4
Active Fleet	m dwt	812.1	835.6
Orderbook/Active Fleet		**11.24%**	**13.33%**
China	m dwt	53.4	69.1
	Market share	58.5%	62%
Korea	m dwt	5.9	5.8
	Market share	6%	5%
Japan	m dwt	27.9	32.9
	Market share	31%	30%

New orders per year (2010-2018)

m dwt	2010	2011	2012	2013	2014	2015	2016	2017	2018
Tanker	29.6	8.6	13.1	33.6	32.5	50.7	11.6	31.9	25.4
Bulk	88.5	39.7	24.0	75.4	57.0	33.8	16.3	39.2	48.1
Container	7.3	20.9	3.5	22.9	12.5	24.1	3.0	8.1	13.3
Other ships	4.4	6.7	6.0	8.9	12.1	7.1	1.7	3.9	8.7
Total	**129.8**	**75.9**	**46.6**	**140.8**	**114.1**	**115.7**	**32.6**	**83.1**	**95.5**

In 2018, only 18 VLOCs were ordered, 14 to be operated by Vale and 4 by MOL. Owners gave priority to Ultramax and Kamasarmax orders, with 147 and 108 contracts placed respectively. Some 141 Capesizes (>85,000 dwt) were also contracted, of which 40% were Newcastlemax (55 ships).

Deliveries declined in 2018 as a consequence of the drop in orders in 2016. A total of 28.1m dwt was delivered versus 38.6m dwt in 2017. At the end of the year, the dry bulk orderbook stood at 111m dwt and the dry bulk active fleet had grown from 812m dwt to 835m dwt. Tonnage on order represented 13.3% of the active bulker fleet, broken down as follows:

- **Handysize and Handymax:** orderbook 6.0m dwt; fleet 121.0m dwt; ratio 4.9%
- **Supramax and Ultramax:** orderbook 19.2m dwt; fleet 167.3m dwt; ratio 11.5%
- **Panamax and Kamsarmax:** orderbook 24.6m dwt; fleet 166.9m dwt; ratio 14.7%
- **Post-Panamax and Babycape:** orderbook 5.0m dwt; fleet 54.9m dwt; ratio 9.1%
- **Capesize and Newcastlemax:** orderbook 31.6m dwt; fleet 248.7m dwt; ratio 12.7%
- **VLOC:** 21.7m dwt; fleet 71.8m dwt; ratio 30.2%

Chinese shipbuilders solidified their share of the dry bulk market at 62% in 2018, while Japan's market share slipped from 31% to 30%. Korean shipbuilders, who had previously been forced out of this market due to the prevailing low prices, continued to hold around 5%.

This was principally due to the VLOCs ordered by Korean shipowners Polaris, H-Line and Korea Line at Hyundai Heavy Industries backed by Vale employment. H-Line also ordered 3 Capesize bulkers at Hyundai shipyard, and the SM Group/ Korea Shipping Corp ordered 2 Handysize bulkers at Dae Sun Shipyard.

There was a steep decline in **tanker** (including chemical) **orders** at 25.4m dwt in 2018 (31.9m dwt in 2017). This is well below the average of 32.1m dwt recorded since 2000. All sizes of tankers were affected except MR2 and to a lesser extent LR1.

Korea continued to dominate the segment and managed to increase its market share from 42% to 50% in 2018. Both China and Japan conceded ground, falling from 29% to 24% and 20% to 18% respectively.

Tanker deliveries declined to 28.1m dwt in 2018 from 38.6m dwt in 2017. The active tanker fleet grew from 570m dwt at the end of 2017 to 577m dwt at the close of 2018. The tanker orderbook represented some 12.4% of the active tanker fleet at year end, distributed as follows:

- **MR1:** orderbook 0.1m dwt; fleet 19.5m dwt; ratio 0.5%
- **MR2:** orderbook 8.3m dwt; fleet 74.9m dwt; ratio 11%
- **Panamax and LR1:** orderbook 1.9 m dwt; fleet 32.3m dwt; ratio 5.8%
- **Aframax and LR2:** orderbook 10.4m dwt; fleet 109.1m dwt; ratio 9.5%
- **Suezmax and LR3:** orderbook 8.2m dwt; fleet 89.7m dwt; ratio 9.1%
- **VLCC:** orderbook 31.6m dwt; fleet 226.5m dwt; ratio 13.9%

Containerships orders continued to rise in 2018, after the recovery seen in 2017. Some 13.3m dwt of contracts were placed, compared to 8.1m dwt in 2017, although this was below the yearly average of 14.2m dwt since 2000.

It follows two highly volatile years: the complete collapse in orders in 2016, when just 3.0m dwt was contracted; and the vintage year of 2015 when 24.1m dwt was ordered, the third highest figure since 2000.

In 2017, the focus was on Very Large Containerships (VLCS) with two groundbreaking orders by MSC and CMA CGM for a total of twenty 23,500 teu carriers (400m length overall and 61m beam). In 2018, Hyundai Merchant Marine ordered 12 x 23,000 teu VLCS at Daewoo shipyard.

Contrary to previous years, China's market share in this segment receded, falling from 49% to 34%. This shortfall was snapped up by Korea, whose market share climbed from 25% to 34%. Japan's share remained unchanged at 23%.

In contrast to the bulker and tanker segments, container carrier deliveries rose in 2018 to 14.2m dwt in 2018 from 12.6m dwt in 2017. The active container carrier fleet grew from 253m dwt at end 2017 to 266 m dwt at end 2018. The orderbook represented about 11.3% of the active fleet at year end.

It is interesting to note that there is basically no newbuilding activity in the segments below 1,000 teu and between 4,000 and 10,000 teu.

	Existing		Orderbook		O / E	Orders in 2018	
Size range teu	ships	teu	ships	teu	%	ships	teu
18,000-23,000	92	1,808,559	46	1,018,278	**56.3%**	12	276,000
13,300-17,999	34	571,375	3	45,846	**8.0%**	21	312,972
12,500-13,299	237	3,253,587	52	751,004	**23.1%**	5	63,450
10,000-12,499	160	1,707,703	34	401,098	**23.5%**	25	296,250
7,500-9,999	480	4,228,654	0	0	**0%**	-	-
5,100-7,499	456	2,832,080	0	0	**0%**	-	-
4,000-5,099	641	2,905,500	0	0	**0%**	-	-
3,000-3,999	245	851,765	17	54,5	**6.4%**	10	30,488
2,000-2,999	664	1,689,771	107	271,172	**16.0%**	55	138,072
1,500-1,999	591	1,014,554	87	157,48	**15.5%**	41	73,898
1,000-1,499	711	818,382	48	57,016	**7.0%**	25	28,640
500-999	777	576,28	25	17,644	**3.1%**	5	3,280
100-499	196	62,865	1	120	**0.2%**	1	120
Total	**5,284**	**22,321,075**	**420**	**2,774,158**	**12.4%**	**200**	**1,223,170**

Tanker Summary		2017	2018
Orders	m dwt	31.9	25.4
Deliveries	m dwt	38.4	28.9
Orderbook	m dwt	75.4	71.9
Active Fleet	m dwt	570.2	577.8
Orderbook/Active Fleet		**13.22%**	**12.44%**
China	m dwt	22.1	17.1
	Market share	29%	24%
Korea	m dwt	31.5	35.7
	Market share	42%	50%
Japan	m dwt	15.4	13.3
	Market share	20%	18%

Container Summary		2017	2018
Orders	m dwt	8.1	13.3
Deliveries	m dwt	12.6	14.2
Orderbook	m dwt	30.7	30.3
Active Fleet	m dwt	253.5	266.1
Orderbook/Active Fleet		**12.11%**	**11.39%**
China	m dwt	14.7	10.2
	Market share	48%	34%
Korea	m dwt	7.6	10.4
	Market share	25%	34%
Japan	m dwt	7.0	6.9
	Market share	23%	23%

There was a steep decline in tanker orders

*Picture: **PAUL A DESGAGNES**, chemical/product tanker (IMO2), 15,100 dwt, delivered by Turkey's Besiktas shipyard in 2018 to Groupe Desgagnes.*

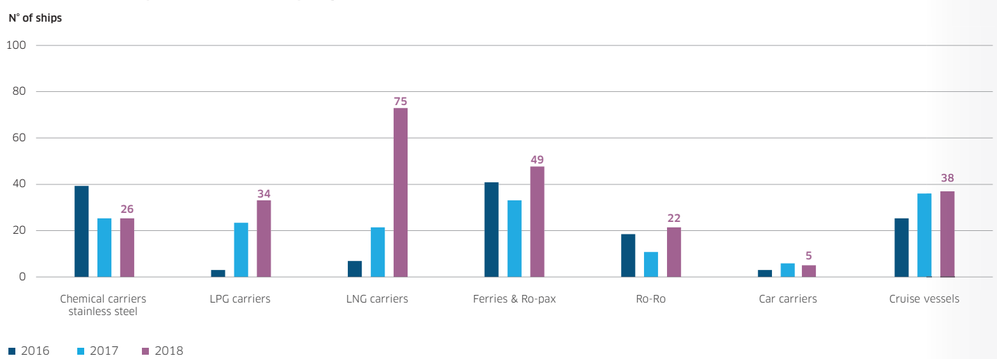
Historical LNG carriers orders

	Cbm	Ships
2000	2,334,224	17
2001	3,574,503	26
2002	1,972,148	14
2003	2,934,074	20
2004	9,940,342	66
2005	7,489,377	43
2006	6,049,231	31
2007	4,197,061	24
2008	969,241	6
2009	142,741	1
2010	1,964,348	13
2011	7,527,720	49
2012	5,481,558	34
2013	5,518,446	35
2014	11,157,622	69
2015	3,903,963	25
2016	903,550	7
2017	3,173,000	22
2018	11,593,794	75

Orders and orderbooks for specialised vessels

In the specialised vessel segment, there was particular interest in LPG carriers, LNG carriers, ro-ros, ferries and cruise ships in 2018. Both LNG carriers and cruise vessels saw a record level of contracting.

New orders for specialised vessels per year



Orders for specialised vessels

	2013	2014	2015	2016	2017	2018
Chemical carriers stainless steel (dwt)	964,459	1,959,079	1,923,549	845,228	398,675	392,298
LPG carriers (cbm)	5,092,657	4,239,880	3,551,472	26,768	1,182,734	1,429,174
LNG carriers (cbm)	5,518,446	11,162,935	3,903,963	903,550	3,173,000	11,419,794
Ferries & Ro-pax (gt)	6,057,116	6,198,959	5,475,021	871,996	1,581,409	1,821,472
Ro-ro (lm)	12,770	8,583	30,246	60,534	37,148	114,740
Car carriers (cars)	260,979	148,263	217,776	19,248	38,360	21,100
Cruise vessels (gt)	742,688	2,140,430	2,497,605	2,460,708	2,898,725	2,549,014

N° of Ships	2016	2017	2018
Chemical carriers stainless steel	40	26	26
LPG carriers	3	24	34
LNG carriers	7	22	75
Ferries & Ro-pax	42	34	49
Ro-ro	19	11	19
Car carriers	3	5	5
Cruise vessels	26	37	38

*Picture: **WISBY PACIFIC**, MR2 tanker, 49,686 dwt, built by GSI in 2018 for Wisby Tankers and on charter to Sweden's Stena.*

ORDER CANCELLATIONS IN 2018

Order cancellations - a potent sign of the crisis in the shipbuilding industry after 2008 - fell to their lowest level in over a decade in 2017, at 4.4m dwt. 2018 saw a slight increase, at 5.9m dwt.

Orders vs cancellations (2009-2018)

m dwt	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Cancellations	36.6	38.4	23.3	16.6	31.2	15.1	11.6	12.3	4.4	5.9
Orders	33.9	129.8	75.9	46.6	140.8	114.1	115.7	32.6	83.1	95.5

DEMOLITION IN 2018

Demolition activity declined in 2018 to 27.6m dwt from 31.7m dwt in 2017, reflecting the improvement in rates in most shipping markets. That trend was accentuated in the bulk and container carrier markets, where demolition plummeted from 14.3m dwt to 4.6m dwt and from 5.6m dwt to 1.3m dwt respectively. On the contrary, tanker scrapping surged from 9m dwt to 19.7m dwt.

Demolition prices in the Indian subcontinent rose sharply in 2018 and reached an average of $420/LT for bulkers and $430/LT for tankers ($350 and $375 in 2017).

Scrap prices for container carriers also rose, reaching an average of $445/LT versus $375/LT in 2017.

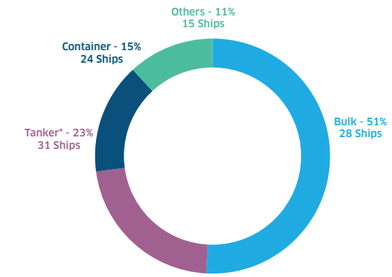
The average age of demolition climbed substantially in 2018, to 31 years for bulkers (25 in 2017) and 23 years for container carriers (20 in 2017). However, the average age of tanker scrapped fell from 24 to 23 years.

Going forward, the upcoming rules and regulations related to the Ballast Water Treatment System (BWTS) and the 2020 sulphur cap will likely have a positive impact on demolition.

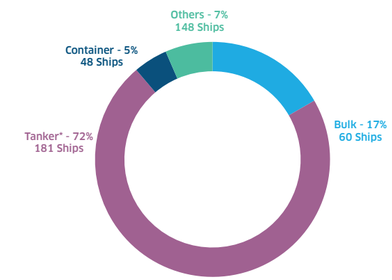
Demolitions vs deliveries (2009-2018)

m dwt	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Demolitions	36	29.4	41.5	59.5	44.9	34.3	36.1	44	31.7	27.6
Deliveries	115.1	150.1	162.2	152.4	107.1	88.1	94.3	98.8	96.1	78.7

Cancellations in 2018



Demolitions in 2018



** Incl. Chemical Tankers*

LNG carriers saw record levels of ordering

Demolition Activity

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 ($)
2009	13,652,367	31	275.4	8,228,123	27	326.3	6,037,153	27	275.4
2010	7,612,665	32	390.4	13,258,957	27	436.7	2,171,355	26	399.2
2011	24,988,666	30	484.6	8,775,202	28	510.8	1,214,599	29	491.7
2012	35,358,976	28	426.3	13,686,965	24	450.0	4,835,001	24	446.7
2013	23,049,210	28	398.8	11,286,945	24	421.3	6,148,826	22	424.2
2014	16,607,153	27	431.3	8,098,733	26	470.4	5,789,141	22	476.3
2015	28,933,863	25	335.6	2,566,945	28	361.5	2,697,788	22	371.3
2016	30,420,562	23	254.2	2,283,380	27	283.3	8,817,506	19	289.6
2017	14,327,343	25	354.0	9,060,651	24	375.4	5,664,959	20	375.0
2018	4,612,036	31	423.3	19,794,808	23	432.9	1,307,344	23	445.8

DELIVERIES AND WORLDWIDE SHIPBUILDING CAPACITY IN 2018

Total deliveries fell to 78.7m dwt in 2018, compared to 96.1m dwt in 2017. This was divided into 28.1m dwt of bulk carriers (38.6m dwt in 2017), 28.9m dwt of tankers (38.4m dwt) and 14.2m dwt of containerships (12.6m dwt).

In China, annual shipbuilding production (which increased 63% between 2006 and 2011 to reach a peak of 97.7m dwt) fell slightly from 38.5m dwt in 2017 to 34.5m dwt in 2018.

In Japan, annual output (which declined 35% between 2006 and 2011 to 45.1m dwt) inched down from 20.2m dwt in 2017 to 19.8m dwt in 2018.

In South Korea, annual production (which rose only slightly by 2% between 2006 and 2011 to 82.7m dwt) fell quite significantly from 30.8m in 2017 to 19.0m dwt in 2018.

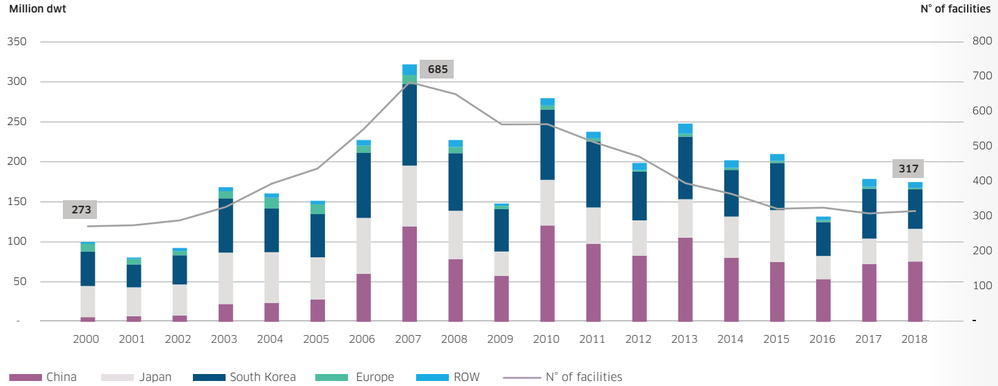
It is interesting to note that the number of active building facilities (yards that either won new contracts and/or delivered tonnage during a given year) rose slightly in 2018 to 317, a sign of the additional demand. The number of yards had previously fallen from a peak of 685 in 2007 to 310 facilities in 2017.

The number of active yards rose slightly in 2018

Ship deliveries in China, Korea & Japan (2008-2018)

Deliveries (million dwt)	2008	2012	2013	2014	2015	2016	2017	2018
China	22.4	65.0	43.0	35.7	37.9	35.9	38.5	34.5
South Korea	33.9	49.1	33.2	24.6	29.2	35.9	30.8	19.0
Japan	27.7	29.1	25.0	22.4	21.1	21.6	20.2	19.8

Active building facilities per year & region (excluding offshore)



NEWBUILDING PRICES IN 2018

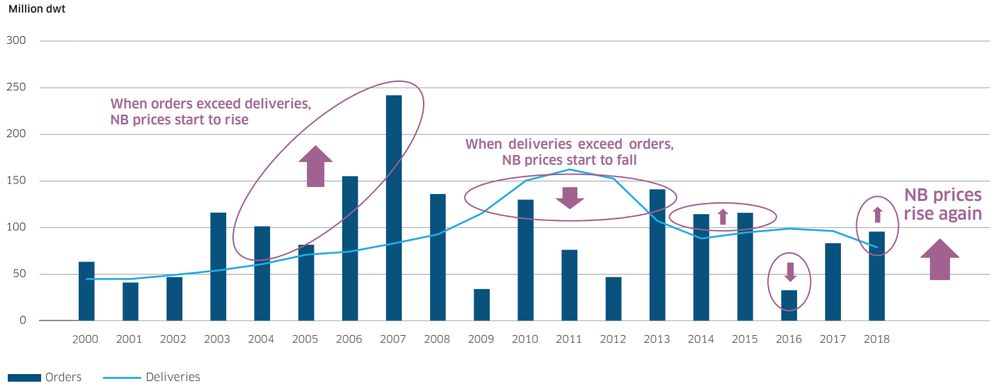
Due to increased demand, shipbuilders succeeded in raising newbuilding prices by some 10% across the board in 2018. This was less overall than in 2017, but reflects a more even distribution of price rises.

By contrast, increases were more targeted in 2017, when we saw hikes of 15%-20% for larger bulkers, but more modest increases of 5%-10% for tankers of all sizes and smaller bulkers.

We note that historically there is a certain correlation between newbuilding orders and deliveries, and that when the number of orders exceeds or is about to exceed the number of deliveries, prices tend to rise (see graph below).

When orders exceed deliveries prices usually rise

World new orders and deliveries (2000-2018)



*Picture: **LA LOIRAIS**, logger bulk carrier, 39,800 dwt, delivered by Jiangmen Nanyang in 2018 to LD Bulk.*

*Picture: **STOLT EXCELLENCE**, stainless steel chemical tanker, 38,000 dwt, delivered by Hudong Zhonghua in 2018 to Stolt Tankers.*

Price rises were more evenly distributed in 2018

Newbuilding prices (million $)

	1993	Low 4Q 2002	Peak 2Q 2008	End 2016 China 1st tier**	End 2016 SK/Japan	End 2017 China 1st tier**	End 2017 SK/Japan	End 2018 China 1st tier**	End 2018 SK/Japan
Tankers									
VLCC	100	64	140-155	75-77	81-83	78	83	85/90	90
Suezmax	63	44	90-100	50-52	56-58	53	58	55/59	64
Aframax (A) LR2	45 (A)	34 (A)	70-75 (A)	40-42 (A) 42-44 (LR2)	45-47 (A) 47-49 (LR2)	46 (A) 48 (LR2)	50 (A) 52 (LR2)	47 (A) 48 (LR2)	51 (A) 55 (LR2)
MR2 IMO 3	32,5	27	48-51	31-33	34-35	33	36	34/35	37
Bulkers									
Newcastlemax (205k dwt)	N/A	N/A	N/A	40-42	50-55*	48	50	52/54	58/60*
Capesize (180k dwt)	48	36	90-101	37-38	47-52*	46	48	50/52	55/57*
Panamax (P) Kamsarmax (K)	29 (P)	21.5 (P)	53-60 (K)	23-24	24-25*	26.5 (K)	28.5 (K)	29/30 (K)	34 (K)*
Ultramax (U) Supramax (S) Handymax (H)	25 (H)	20 (S)	47-50 (S)	22-23 (U) 19-20 (H)	23-24 (U)* 21-22 (H)*	25.5 (U) 23 (H)	26.5 (U) 24 (H)	27/28 (U)	31 (U)*

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

Second hand price evolution during 2018 for 5 year old vessels (million $)

	Jan 2018	High		Low		Dec 2018	Variation Jan- Dec
VLCC	61.25	63.41	10 Dec	60.00	5 Feb	63.25	3.2%
Aframax	29.37	30.42	26 Nov	28.50	10 Sep	30.33	3.2%
MR Tanker	23.49	26.42	26 Nov	23.25	8 Jan	26.11	11.1%
Capesize	32.85	38.20	2 Jul	32.40	8 Jan	35.16	7.0%
Panamax	20.16	21.89	26 Jun	20.16	2 Jan	21.33	5.8%
Supramax	17.10	18.50	20 Aug	17.10	2 Jan	17.91	4.7%

*Picture: **GOTHIA SEAWAYS**, 6,700 lm on 7 decks plus 1 car deck. Delivered in January 2019 by Jinling Shipyard to DFDS and operated by DFDS.*

SHIPBUILDING IN THE WORLD

Shipbuilding in China

China retained its position as the world's leading shipbuilder in 2018, ranking number one in all three categories: the largest orderbook at 99.8m dwt (43% market share), the most newbuilding orders at 40.4m dwt (35% share), and the largest number of deliveries, at 34.5m dwt (44% share).

Chinese yards won some 20% more new orders in 2018 compared to 2017, while the other zones (Korea, Europe and Rest of World) registered a decrease. Japan was the exception in securing a remarkable 90% increase in new orders. It is interesting to note that 72% of Chinese orders were won by just 10 shipyards out of a total 117 active facilities in 2018.

China		2017		2018	
		m dwt	Ships	m dwt	Ships
Orderbook	Market share	43.7%	1,234	43.1%	1,283
	Bulk	53.4	472	69.1	630
	Tanker	22.1	341	17.1	264
	Container	14.7	232	10.2	209
	All ships	**93.9**	**1,234**	**99.8**	**1,283**
Orders	Bulk	23.1	213	32.6	300
	Tanker	6.6	108	3.8	85
	Container	3.1	65	2.7	81
	All ships	**34.0**	**441**	**40.4**	**548**
Deliveries	Bulk	22.5	238	16.8	142
	Tanker	10.9	134	8.8	162
	Container	3.7	81	7.2	106
	All ships	**38.5**	**528**	**34.5**	**502**

In the dry bulk segment, China maintained its lead with 32.6m dwt of new orders (about 70% of the global bulk orderbook). These ships represented 80% of China's total order intake in 2018. In the tanker and containership segments, it had to settle for second place, with 15% (3.8m dwt) and 20% (2.7m dwt) respectively of world orders.

Chinese shipbuilding output declined, however, in 2018 to 34.5m dwt, down from 38.5m in 2017. However the ratio orderbook/output rose from 2.4 at the end of 2017 to 2.9 at the close of 2018.

72% of China's orders were won by just 10 yards

*Picture: **VISBORG**, High Speed 30 knot ropax, 1,600 passengers, ice class 1A with Dual Fuel (LNG) Propulsion, delivered by GSI in 2018 to Sweden's Gotlandsbolaget.*

Some newsworthy events of the year

- **The world's first VLCC with a wind-power auxiliary sail propulsion system** was successfully delivered by Dalian Shipbuilding (DSIC) in 2018. This is not only a major innovation, but also a remarkable initiative that underlines cooperation between China's shipbuilding and shipping industries. It is also another major breakthrough for DSIC and China Merchant Energy Shipping (CMES) in their bid to jointly build a VLCC brand.
- **GSI successfully delivered the world's fastest ropax ferry to Swedish owner Gotland**. This high-specification, environmentally-friendly ropax vessel will be driven by LNG fuel engines and sail in the Baltic.

White List

In 2018, two yards (Nantong Huatai and Ouhua) previously listed in the official White List went bankrupt. The government has now adjusted the guidelines for the list and inclusion is no longer a condition for banks to provide finance to yards. The rationale behind the White List is increasingly under threat. Since its inception in 2014, 70 yards have been registered on the list and 9 have been removed due to bankruptcy.

Consolidation, Restructurings & Bankruptcies

- China's **Yangzijiang** Shipbuilding (YZJ Group) entered into a joint venture with Japan's Mitsui E&S Shipbuilding (MES) and Mitsui & Co, thus combining MES' technological strength, Mitsui's sales capabilities, and Yangzijiang's building expertise. Production will be based at Yangzijiang's existing Taicang facilty in Jiangsu and the venture is expected to commence operations in April 2019.
- **Yangfan Group** is cutting its shipbuilding capacity by 25%. The group, which has three yards in the Zhejiang province city of Zhoushan, will close Zhoushan Shipyard, the oldest of the three. Founded in 1952 as a state-owned company, the shipyard was privatized in 2005 and taken over a year later by Yangfan's current parent company, Jianlong Group. Zhoushan Shipyard's annual shipbuilding capacity reached 500,000 dwt at its peak and the yard was capable of constructing vessels up to 92,500 dwt.
- **Qingdao Yangfan Shipbuilding** has successfully completed a lengthy restructuring, having gone into bankruptcy protection in October 2016. State-run Huatong Group, which holds a 22% equity interest in Qingdao Yangfan, has proposed a new restructuring plan in which it will buy the remaining 78% of the yard's equity from the Jianlong Group. Jianlong decided to sell after Yangfan's employees strongly opposed its earlier restructuring proposal.
- A court finally ruled to liquidate **Zhejiang Ouhua Shipbuilding** after the shipyard applied for bankruptcy protection in May 2018. Ouhua has unfinished orders for four containerships and six multipurpose vessels.
- **New Dayang Shipbuilding** was established after the yard formerly known as Dayang Shipbuilding completed a restructuring with new investor SUMEC. It was previously an affiliate of Sinopacific Shipbuilding but filed for bankruptcy protection. Since restructuring, the yard has secured orders for 11 bulkers including an order from AVIC International Leasing for 8 x 63,500 dwt units. It has also signed a letter of intent with CDB Leasing, a unit of China Development Bank, for the construction of 12 x 63,500 dwt Ultramaxes.
- China's state council has given preliminary approval for **China Shipbuilding Industry Corp (CSIC)** to rejoin **China State Shipbuilding Corp (CSSC)**. Together, CSIC and CSSC will have more sales capacity than all of the South Korean shipbuilders combined, and a larger order backlog than any other shipbuilding conglomerate in the world.
- It is also rumoured that **China Merchant Group** could take over the shipbuilding activities of **AVIC**, giving the company control of AVIC Weihei and AVIC Dingheng yards.

The world's first VLCC with auxiliary wind power was delivered

Chinese leasing companies

Financial leasing companies have become a force to be reckoned with in shipping. In the last few years, Chinese financial lessors, usually but not always the subsidiaries of leading Chinese banks, have filled the funding gap left by European commercial lenders.

But some of these Chinese financial lessors have also entered into speculative shipbuilding contracts to take advantage of prevailing low prices and also support the Chinese shipbuilding industry.

In 2018, Chinese leasing companies allocated about $13bn to shipping, versus $11bn in 2017. Both the number of companies and the value of their shipping portfolios will continue to expand. The market has already evolved from a core of 5 top leasing companies some eight years ago, to more than 30 companies today.

In 2018, some $3.3bn of lease finance was provided by ICBC Leasing, followed by $2bn from Bank of Communications Financial Leasing, with CMB Financial Leasing with $1.5bn in third place. New entrants to the market included SIPG Financial Leasing and SPDB Financial Leasing, part of Shanghai Pudong Development Bank.

*Picture: **NEW VITALITY**, the world's first VLCC with wind-power auxiliary sail propulsion, 306,752 dwt, built by Dalian Shipbuilding in 2018 for CMES.*

Most leasing companies took out mortgage loans from traditional shipping banks to finance deals. Western banks such as BNP Paribas, Crédit Agricole, DVB, Société Générale and Standard Chartered are also providing finance to Chinese leasing companies.

Ship finance drawdowns of Chinese leasing companies since 2016 ($m):

Company	2016	2017	2018
ICBC Leasing	2,700	2,200	3,200
Bank of Communications Leasing	2,900	3,000	2,000
CMB Financial Leasing	1,500	1,700	1,500
Minsheng Financial Leasing	1,800	1,200	1,200
CDB Financial Leasing	800	700	1,200
AVIC International Leasing	300	700	1,100
CCB Leasing	600	400	1,000
CSSC Leasing	1,000	1,000	800
Huarong Leasing	-	200	600
Cosco Shipping Leasing Co Ltd	-	200	600

Leading Chinese leasing companies specialising in shipping and offshore:

Company	Total value of vessel and offshore assets (Million$)
ICBC Leasing	12,000
Bank Of Communication Leasing	9,200
Minsheng Financial Leasing	6,000
CMB Financial Leasing	5,300
Cosco Shipping Leasing Co Ltd	5,200
CSSC Leasing	3,200
CDB Financial Leasing	3,200
AVIC Leasing	2,100
CCB Leasing	1,700
Others	3,400

Some significant orders in 2018

- **Shandong Shipping** signed a significant dry bulk order for 10 x 180,000 dwt Capesize bulkers at Shanghai Waigaoqiao Shipbuilding (SWS), financed by Bocom Leasing and Huachen Leasing. The ten units will be taken on long-term charter by Germany's RWE.
- **Shanghai Waigaoqiao Shipbuilding** (SWS) won an order for 2 Vista-class luxury cruise vessels for delivery in 2023 and 2024 from CSSC Carnival, a joint venture between Chinese state-owned CSSC and the Carnival Group. The ships will have capacity for over 5,200 passengers, and have an en-bloc contract price of $1.54bn. If a further four options are exercised, the contract could total $4.62bn (RMR32bn), which would represent the largest ever order in China's shipbuilding history.
- **Jiangsu New Hantong Ship Heavy Industry** signed orders for 8 x 208,000 dwt Newcastlemax and 10 x 82,000 dwt Kamsarmax with German shipowner Oldendorff for delivery in 2020 and 2021.
- **Nantong Xiangyu** won orders for 19 x 64,000 dwt Ultramax from Japanese owners (15 for Nisshin Shipping and 4 for Doun Kisen). Nisshin Shipping has now contracted a total of 25 Ultramax bulkers at Xiangyu.
- We note a growing interest among Japanese owners for Chinese yards. In 2018, they contracted 65 orders in China, including 46 bulkers, 13 container carriers, 5 tankers and 1 LNG bunker carrier, as follows:
  - Nantong Xiangyu: 19 bulkers
  - Tsuneishi Zhoushan: 13 containers
  - Jiangmen Nanyang: 9 bulkers
  - Yangzijiang: 6 bulkers
  - Hantong: 5 bulkers
  - Samsung Zhoushan: 5 tankers
  - Nacks: 4 bulkers
  - SWS: 2 bulkers
  - Dacks: 1 bulker
  - Hudong-Zhonghua: 1 LNG bunker vessel
- **Guangzhou Wenchong** signed 12 x 2,000 teu container carriers with Taiwan's Wan Hai Lines for delivery 2020 and 2021.
- **ENN Energy ordered China's first LNG bunkering vessel**. The 8,500 cbm vessel will be built by Dalian Shipbuilding, and will operate in the waters around Zhoushan when it is delivered in May 2020.
- **Hudong-Zhonghua and MOL signed an order for the world's largest LNG bunkering vessel**. The 18,600 cbm vessel will supply LNG fuel to the world's largest 23,500 teu container ships under construction at Hudong Zhonghua and SWS for CMA CGM. The ship is the first LNG bunker vessel in the world to use the membrane Mark III Flex containment system.
- 8 Ropax orders were placed in China by European owners in 2018:
  - 4 at **AVIC Weihai** by Stena (3,600 lane meters/1,200 passengers) that follow an initial order in 2016 of 4 similar units. The first ship is to be delivered in 2020 and thereafter every 6 months.
  - 3 at **GSI** including 1 by DFDS (4,500 lm/600 passengers) for 2021 delivery plus 1 by Algerian state owned ENTMV (3,000 lm/1,800 passengers) also for 2021 delivery.
  - 1 at **Jinling** for TT-Line (4,600 lm/866 passengers) for delivery in 2022. An option should be declared in 2019.

China's leasing companies allocated $13bn to shipping

Shipbuilding in South Korea

Korea maintained its position as the second largest shipbuilder in 2018, ranking second for its 63.8m dwt orderbook (a 27.5% market share) and also for its 30.4m dwt of newbuilding orders (26% market share). However, it ranked third for its tonnage output 19m dwt (24%), just behind Japan's shipbuilders with 20m dwt (25%).

Korean shipyards won 5% fewer orders by deadweight in 2018 compared to 2017 but managed to increase the number of orders by about 20%. They also succeeded in securing all 65 large LNG carrier orders placed during the year, and nearly 55% of all new containership orders. A sign of the consolidation in the country, 92% of orders in 2018 were secured by the 'Big Three': Hyundai Heavy Industry with 46%, DSME with 29%, and Samsung with 17%.

Korean shipbuilding output decreased from 30.8m to 19m dwt, but the ratio between the current orderbook and output rose from 1.7 at end 2017 to 3.4 at end 2018.

Korea's shipbuilders maintained their lead in the tanker segment, capturing some 63% (16m dwt) of tanker orders worldwide.

South Korea		2017		2018	
		m dwt	Ships	m dwt	Ships
Orderbook	Market share	24.4%	396	27.5%	465
	Bulk	5.9	19	5.7	21
	Tanker	31.5	219	35.7	217
	Container	7.4	47	11.9	95
	All ships	**52.4**	**396**	**63.8**	**465**
Orders	Bulk	5.9	18	0.5	5
	Tanker	20.1	118	16.0	98
	Container	4.3	28	7.2	66
	Gas	1.6	25	6.5	75
	All ships	**32.0**	**193**	**30.4**	**247**
Deliveries	Bulk	1.2	8	0.7	3
	Tanker	20.1	152	11.9	100
	Container	5.7	41	2.7	18
	Gas	3.4	61	3.7	53
	All ships	**30.8**	**272**	**19.0**	**178**

Some significant orders in 2018

- The 'Big Three' secured all of the 65 large LNG carriers ordered globally in 2018 (25 units for HHI, 20 for DSME and 20 for Samsung). Rates for LNG carriers reached as high as $220,000 in 2018, while a shift towards clean energy and lower emissions is also encouraging natural gas consumption. The industry last saw a boom in ordering in 2011–12 in the wake of Fukushima catastrophe.
- The 'Big Three' also picked up an order for 20 large containerships from Hyundai Merchant Marine (HMM). This domestic order (8 x 15,300 teu at HHI, 7 x 23,000 teu at DSME and 5 x 23,000 teu at Samsung) is supported by state-controlled Korea Ocean Business Corp (KOBC).
- Hyundai Mipo secured an order to build up to 12 x 1,800 teu feeder containerships for Japanese tonnage provider Nissen Kaiun which are understood to be for long-term charter to Korea Marine Transport Co (KMTC).
- H-Line shipping has formalized orders for 3 x 180,000 dwt LNG-fuelled Capesize bulkers from HHI. These ships will be chartered to POSCO and will receive subsides of up to 6% of the newbuilding cost from the Korean state.

Korean yards won 100% of all LNG orders in 2018

Most newsworthy events of the year

Consolidation, Restructurings and Bankruptcies

The Korean shipbuilding industry continued its vigorous reorganization in 2018 (including capacity and labour reductions, lay-offs, and closures). Under pressure from the government and national banks, all the yards are working to reduce building capacity and cut costs.

The 'Big Three' might become the 'Big Two'. For decades, Hyundai Heavy Industries (HHI), Samsung Heavy Industries (SHI), and Daewoo Shipbuilding & Marine Engineering (DSME) dominated the Asian shipbuilding scene. However, the South Korean government is pushing for a consolidation that would see just two dominant South Korean shipbuilders.

DSME escaped bankruptcy in 2017 following two bailouts from its main lenders, Korea Development Bank (KDB) and the Export-Import Bank of Korea. As part of the bailout, DSME had to cut more than 1,000 jobs, sell non-core subsidiaries, and implement a series of extensive cost-cutting measures. KDB and the Export-Import Bank of Korea, which holds more than $2bn of DSME's bonds, began a sale process in the second half of 2018. They aim to complete the transaction in 2019 when DSME's situation is expected to stabilise.

The establishment of KOBC was part of the South Korean government's five-year plan to revive its maritime industry. KOBC plans to support the construction of 200 ships. In its effort to help a struggling shipping and shipbuilding industry, South Korea has been criticized for its protectionist approach by other countries. The Shipbuilders' Association of Japan has written to its Korean counterpart, the Korea Offshore and Shipbuilding Association, to express concern at the Korea Development Bank's loans to struggling shipbuilders. The European Community Shipowners Association and the European shipbuilders' association, Sea Europe, issued a joint statement decrying perceived unfair trade practices in South Korea.

Hyundai Heavy Industries (HHI) secured some 46% of new orders placed in Korea in 2018 versus 60% in 2017. The group met its sales target of $13.2bn for the year, in fact receiving 132 new contracts worth $13.7bn. The company remains optimistic for 2019 and has set a target of $15.9bn for the year ($8bn for Ulsan, $4.3bn for Samho and $3.5bn for Mipo). This represents a near 20% increase on 2018. Faced with fierce competition from Chinese yards, the group plans to establish a new research and development center in Pangyo to focus on core technologies in shipbuilding and other businesses operated by the group.

Samsung HI (SHI) secured $6.0bn of orders compared to its target of $8.2bn. Due to a lack of new orders, the company called on its workers to accept a program of unpaid leave in order to survive. SHI also agreed to build smaller MR tankers for the first time, which had been previously reserved for Samsung Ningbo in China. It secured 5 MR2 tankers from Japanese trading house Mitsui for long-term charter to Chevron (2 units) and Cargill (3 units). For 2019, the yard remains quite optimistic and is targeting $7.8bn of orders, which represents an increase of about 30% year-on-year.

Daewoo Shipbuilding and Marine Engineering (DSME) exceeded its $5.0bn sales target for 2018 with $6.2bn of contracts. DSME is aiming for more than $8bn of orders in 2019.

Hyundai Mipo Dockyard (HMD) continued to dominate the small and mid-tier shipyard segment, accumulating about 82% of new orders placed at Korean yards of this size in 2018. It won 54 orders in 2018 against 51 in 2017, representing about 70% of its building capacity. Its main product is the MR tanker and the company (including its Vietnamese subsidiary HVS) succeeded in winning about 45% of MR orders placed worldwide.

STX Offshore & Shipbuilding (STX) escaped receivership in 2018. Its main shareholder Korean Development Bank (KDB) decided to give the company more time to pursue its self-rescue plan after the shipbuilder secured support from its labor union. The shipbuilder secured orders for 7 x 50,000 dwt MR tankers in 2018, far below its target of 20 ships, but they were nonetheless vital for its survival.

Sungdong Shipbuilding & Marine Engineering, which filed for court receivership in March 2018, is now for sale. A restructuring plan involving the removal of 500 jobs, to follow the 300 cut earlier in May, failed to get approval. Sungdong was established in 2003 and was originally a ship block manufacturer for DSME before becoming a shipbuilder in 2005. During the shipping boom, Sungdong grew into the world's eighth-largest shipbuilder. It entered voluntary restructuring in 2010. However, the yard won only 5 orders in 2017 compared to 43 in 2013.

Dae Sun Shipbuilding and Engineering secured 5 orders in 2018 (2 Handysize bulkers, 1 Handy Tanker and 2 small ferries). Korea Eximbank and other creditor banks are still working with Dae Sun to restructure its debts.

Daehan Shipbuilding regained its autonomy in 2018. The yard was previously placed under the management of DSME in 2017 to assist in its restructuring. The yard's focus is now on standard large tankers and it secured orders for 12 Aframax and 4 Suezmax in 2018. This compares to 6 Aframax in 2017 and no orders in 2016.

Hanjin Subic applied for rehabilitation at the end of 2018, a process where an insolvent company may ask for court and creditor approval to restructure its debts. Hanjin Subic had entered into an autonomous restructuring agreement in 2016 with its main creditor, Korea Development Bank (KDB).

Samkang Shipbuilding & Construction signed contracts for 4 Aframax for foreign owners but unfortunately failed to issue the refund guarantees. Samkang's facility is the former Goseong yard belonging to embattled STX Offshore & Shipbuilding. It was set up in 2017 when Seoul-listed Samkang M&T joined forces with asset manager UAMCO to acquire the yard as part of STX's restructuring. Samkang M&T is involved in steel-pipe production and the manufacture of ship blocks for domestic shipyards. It is currently building 2 x 6,600 dwt, IMO type 2 chemical tankers for a domestic owner at its existing site.

The 'Big Three' Korean yards could become the 'Big Two'

*Picture: **TORM HERDIS**, LR2 tanker, 115,109 dwt, delivered by GSI in 2018 to TORM in Denmark.*

Shipbuilding in Japan

Japan maintained its third place in 2018, ranking third with an orderbook of 55.5m dwt (29.9% market share) and also third for its 21.3m dwt of newbuilding orders (18%). However, it placed slightly ahead of Korea for tonnage output, at 19.8m dwt (25%) versus its competitor's 19 m dwt (24%).

Japanese shipbuilders doubled their new orders in 2018, at 21.3m dwt compared to 2017's 11.2 m dwt. Demand was higher in all three of the main segments (bulker, tanker, container carrier). Although 35 Japanese yards secured orders in 2018, Japan's three largest shipyards Imabari, JMU and Oshima picked up 75% of the total (51%, 16% and 8% respectively). Japan remains a strong player in the bulk segment, with a significant increase in dry bulk orders in 2018, at 14.2m dwt versus 7.7m dwt in 2017.

Japan recorded a slight increase in output from 19.8m dwt in 2017 to 20.2m in 2018. The ratio between the current orderbook and output remained flat at 2.8 end-2018 versus 2.7 end-2017.

Japan		2017		2018	
		m dwt	Ships	m dwt	Ships
Orderbook	Market share	25.1%	750	23.9%	730
	Bulk	27.9	368	32.9	412
	Tanker	15.4	215	13.3	164
	Container	7.0	53	6.8	63
	All ships	**54.0**	**750**	**55.5**	**730**
Orders	Bulk	7.7	98	14.2	178
	Tanker	2.8	36	3.9	44
	Container	0.5	6	2.8	36
	All ships	**11.2**	**167**	**21.3**	**292**
Deliveries	Bulk	13.6	205	9.2	134
	Tanker	4.3	75	6.1	95
	Container	1.5	12	2.9	26
	All ships	**20.2**	**337**	**19.8**	**312**

Some newsworthy events of the year

- Japanese shipbuilders face intense competition from China and Korea. Japanese shipowners, traditionally extremely supportive of their national shipbuilding industry, are now more and more inclined to build vessels in China or Korea where they can secure lower prices and earlier delivery dates.

Japan lodged a complaint with the World Trade Organization (WTO) alleging Korea was violating free-market principles by subsidising struggling shipbuilders with loans granted by state lenders and export credit agencies. This includes Korea Development Bank (KDB), the Export-Import Bank of Korea (KEXIM), Korea Ocean Business Corporation, and Korea Trade Insurance Association (K-Sure). Daewoo Shipbuilding & Marine Engineering (DSME) was a particular target of criticism, with Japan criticising the substantial bailouts provided by KDB and KEXIM. The restructure of STX Offshore & Shipbuilding, Daehan Shipbuilding, and Sungdong Shipbuilding & Marine Engineering were also criticised.

- **Mitsui Engineering & Shipbuilding (MES)** will cease production at its Chiba facility after delivery of its last tanker at the end of 2019. Opened in 1940, Chiba was one of the main Japanese sites for building VLCCs. The decision follows MES' alliance with Tsuneishi which produces large units in Zhoushan, China, and Cebu, Philippines. MES' Tamano site will also cease merchant shipbuilding to concentrate on military vessels.
- **Fukuoka Shipbuilding** acquired Usuki Shipyard, following its earlier acquisition of Watanabe Shipbuilding. Both are located on Kyushu Island. The Japanese stainless steel chemical tanker market will now be dominated by three shipbuilders: Fukuoka (with Watanabe and Usuki), Kitanihon Shipbuilding and Shin Kurushima.
- **Sanoyas Shipbuilding Corporation** won its first merchant shipbuilding contract in three years. Local tonnage provider Shunzan Kaiun ordered two 82,000 dwt bulk carriers for delivery in early 2020.
- **Spanish shipping company Elcano** took delivery of its 2 MEGI 178,000 cbm LNG carriers from Imabari, the first ever LNG carriers built in Japan using the membrane Mark III Flex containment system.

Some significant orders of the year

- **Kawasaki Heavy Industry** won an order from Kumiai Navigation (KN) of Singapore for a VLGC with LPG propulsion. It will be only the fourth vessel worldwide with LPG propulsion, together with 2 units ordered by Exmar at Hanjin Subic (if these are built, taking into account the latest developments at the yard), and 1 by China's Tianjin Southwest Maritime at Jiangnan.
- **Imabari** secured 17 x 11,000 teu neo-Panamax containerships from Shoei Kisen Kaisha, the shipowning and leasing arm of Imabari Shipbuilding. Twelve units will be chartered by Green Compass Marine (6 units) and Evergreen Marine Hong Kong (6 units), subsidiaries of Evergreen Marine Corp. The other 5 units will be chartered by Evergreen compatriot, Yang Ming.

Japan's new orders doubled in 2018

Shipbuilding in Europe

European shipyards saw a 37% increase in orders in 2018, at 106 contracts versus 77 in 2017. This increase was mainly due to orders of cruise ships (36 units), dry cargo ships (30) and ropax/ferries (21).

A total of 36 cruise ships were contracted in 2018 compared to 30 in 2017 (25 in 2016, 21 in 2015, 16 in 2014, 10 in 2013 and 4 in 2012). The three major builders, Fincantieri, Meyer Werft and Chantiers de l'Atlantique, received 20 orders, while the remaining 16 orders were shared among eight other shipyards. Europe's yards are determined to hold onto the market for small cruise ships. The orderbook of the three major European builders now stretches until 2027.

Europe		2017		2018	
		m dwt	Ships	m dwt	Ships
Orderbook	Market share	1.6%	237	1.5%	288
	Ferry/ro-ro	0.09	30	0.1	42
	Tanker	2.0	53	1.9	47
	Cruise	0.01	1	0.8	104
	All ships	**3.4**	**237**	**3.6**	**288**
Orders	Ferry/ro-ro	0.1	36	0.7	21
	Tanker	0.6	11	0.4	8
	Cruise	0.2	30	0.2	36
	All ships	**1.1**	**77**	**0.9**	**106**
Deliveries	Ferry/ro-ro	0.08	26	0.02	10
	Tanker	1.2	30	0.6	14
	Cruise	0.09	9	0.0	12
	All ships	**1.7**	**89**	**0.8**	**56**

Most newsworthy events of the year

Ranking Europe's shipyards on the basis of deadweight, as for the other countries, would produce the following list:

- Russia's shipbuilding industry retained its leading position in 2018, with the largest orderbook by deadweight at 1.5m dwt. This was largely on the back of several large domestics orders placed in 2017 by Rosneft and Sovcomflot. Five new tanker orders (2 Aframax for Rosneft and 3 MR Tankers for a domestic owner) were placed at state-owned Zvezda Far Eastern Shipyard.
- Italy moved up to second position in 2018 with an orderbook of 0.4m dwt, due mainly to Fincantieri. The group succeeded in delisting Norway's Vard from the Singapore Stock Exchange by purchasing additional shares to take its ownership up to 96%. The Italian group had previously been prohibited from increasing its capital beyond 74.45%.
- Spain dropped to third position during 2018. Four Suezmax tankers have now been delivered from Navantia to local shipowner Ibaizabal, with two remaining tankers under construction. Yards Armon and Barreras both secured contracts for 2 ferries in 2018.
- Germany's orderbook is now in fourth position thanks to its three prolific shipyards Meyer Weft, MV Werften, and Flensburger. Flensburger has repositioned itself with several high-value cruise ferry orders.
- Romania is now in fifth position by size of orderbook. Its largest yard Daewoo Mangalia (DMHI) became Damen Shipyards Mangalia in 2018 after DSME's 51% majority was sold to the Damen Shipyards Group. Under the deal, a 2% stake was transferred to 2MMS, a joint venture controlled by the Romanian government. This leaves the Romanian government with a controlling interest, while Damen retains operational control of the yard. Romania's other shipbuilders, Constanta, Vard Tulcea, Vard Braila and Damen Galatz, remain active.
- Despite political uncertainty, Turkey's shipbuilders maintained their sixth ranking, winning 12 orders in 2018 including 4 ferries: 2 x 120 m long ferries with LNG propulsion from Norway's Havila Kystruten to be built at Tersan, and 2 double-enders from Norway's Basto Fosen to be built at Sefine.
- Dutch shipbuilders moved up to seventh position thanks mainly to Royal Bodewes which secured 7 orders in 2018. Ferus Smit successfully secured 12 smaller orders, including 5 x 5,000 dwt and 6 x 8,600 dwt general cargo ships for Arklow Shipping.
- Croatia felt to eighth position in 2018, having occupied third position for several years. Pula-based **Uljanik** Group is at breaking point and on the brink of collapse. The yard's inability to pay its bank loans, workers, subcontractors and suppliers has led to the cancellation of several ships under construction, including 2 cruise ships, a livestock carrier and 2 ro-ros.

36 cruise ships were contracted in 2018

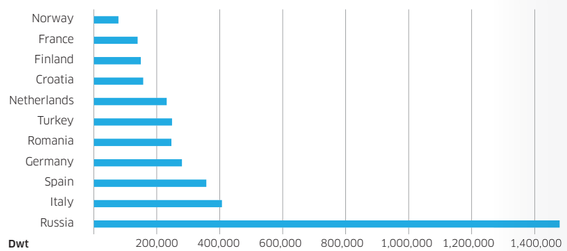
*Picture: **BIT HERO**, High Heat (250 C) Bitumen and Pitch Carrier, 9,921 dwt with ice class 1A, built by Turkey's RMK in 2018 for Tarbit Shipping of Sweden.*

There are also unfinished hulls for bulkers, car carriers and a dredger cancelled by Algoma, Siem and Jan De Nul respectively. Rival Brodosplit, in partnership with Fincantieri, has been chosen as new strategic partner and is in the process of drawing up a revival plan.

- STX France was renamed in 2018, retaking its previous title **Chantiers de l'Atlantique**. Today, the French state owns an 84.3% stake in the business, Naval Group (formerly DCNS) 11.7%, local suppliers 1.6% and the employees 2.4%. It is in in the process of being taken over by Fincantieri via a complex process, in which Fincantieri would assume 50%, the French government 34.34%, Naval Group 10%, employees 2% and suppliers 3.66%. Chantiers de l'Atlantique now has a full orderbook until 2027 and likely beyond through multiple optional contracts.
- Norwegian offshore vessel specialist **Kleven Verft** has been taken over by Hurtigruten-owned KVE Holding after the former sought fresh capital. The yard has been forced to delay delivery of two advanced hybrid 21,000 gt, 500 passenger expedition vessels, the **Roald Amundsen** and **Fridtjof Nansen**, which is indicative of the difficulties involved in transitioning to cruise ship construction.

  Vard successfully delivered its first two exploration cruise ships to French cruise company Ponant in 2018, the **Le Laperouse** and **Le Champlain**, the first in a series of six ships. Ponant also awarded the Norwegian yard a contract for the design and construction of a luxury electric hybrid icebreaker expedition cruise vessel. The vessel is specially designed to take passengers to polar destinations such as the true geographic North Pole (90 degrees North Latitude), the Weddell Sea, the Ross Sea and Peter I Island. The Polar Class 2 icebreaker is the very first electric hybrid cruise icebreaker with dual fuel propulsion, featuring high-capacity batteries and LNG storage on board. The hull will be built at Vard's Tulcea facility in Romania. Delivery of this vessel is scheduled from Vard Søviknes in Q2 2021.

Orderbook of European shipyards 2018 (by dwt)



The 8 largest shipbuilders in Europe (ranking in GT)

Orderbook of European Shipyards	Gross Tonnage	Ships on order
Fincantieri	4,370,396	55
Meyerwerft (Papenburg+Neptun+Turku)	3,005,932	19
Atlantique	1,571,718	10
Zvezda	526,819	11
Flensburger	302,880	7
MV Werften	240,000	3
Lloyd Werft	201,000	1

Ranking Europe's shipyards on the basis of gross tonnage instead of deadweight produces a quite different list, and here the top four European shipbuilding nations are Italy, Germany, France and Finland respectively. This highlights that Europe's orderbooks are based on high-value vessels with relatively small deadweights but larger gross tonnage.

*Picture: **VIIKKI**, LNG-fuelled forest product carrier, 25,600 dwt (B.Delta 25), built 2018 by China's Jinling for Finland's ESL Shipping.*

Shipbuilding in the Rest of the World

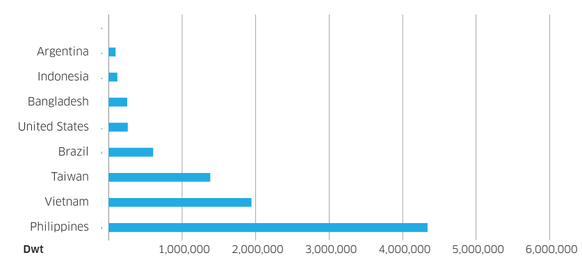
The orderbook for shipyards in the Rest of the World (RoW) collectively fell by more than 20% in 2018, from 11.3m dwt at the end of 2017 to 8.9m dwt. Its market share dropped from 5.2% to 3.8%, while newbuilding orders also fell by 50% from 4.8m dwt to 2.4m dwt.

Deliveries remained stable at 4.6 m dwt. Consequently, the ratio between the current orderbook and output shrank to 1.9 in 2018 against 2.3 last year.

Although 12 shipyards secured new orders in 2018, 97% of the new orders were placed in just 4 shipyards: CSBC (Taiwan) with 33%, Hanjin Subic (Philippines) with 29%, Hyundai Vinashin (Vietnam) with 20% and Tsuneishi Cebu (Philippines) with 14%.

ROW		2017		2018	
		m dwt	Ships	m dwt	Ships
Orderbook	Market share	5.2%	267	3.8%	229
	Bulk	4.1	58	3.5	46
	Tanker	4.4	89	3.9	74
	Container	1.7	30	0.8	27
	All ships	**11.3**	**267**	**8.9**	**229**
Orders	Bulk	2.5	29	0.6	9
	Tanker	1.8	48	1.2	18
	Container	0.2	6	0.4	12
	All ships	**4.8**	**122**	**2.4**	**52**
Deliveries	Bulk	1.2	21	1.3	21
	Tanker	1.9	31	1.7	33
	Container	1.7	20	1.3	15
	All ships	**4.9**	**87**	**4.6**	**92**

Orderbook Rest of the World 2018 (by dwt)



Just 4 yards picked up nearly all orders for the 'rest of the world'

Most newsworthy events of the year

- The Philippines remains by far the leader of the Rest of the World shipbuilding group, with 49% of the total orderbook. This compares to 56% in 2017 and 30% in 2016. Its orderbook is split 60% for Tsuneishi Cebu and 40% for Hanjin Subic.

  Hanjin Subic applied for rehabilitation at the end of 2018 after having defaulted on $400m in bank loans. This procedure is in line with the so-called 'rehabilitation proceeding' in Korea, where insolvent companies may ask for court and creditors' approval to restructure debts. The Philippines government is ready to assist in a bail-out of Hanjin Subic in tandem with another investor. So far, HHI and two large Chinese groups have shown interest in investing in Subic's facilities.
- Tsuneishi Shipbuilding has been offered the old site of the defunct National Steel Corporation in Iligan in the Philippines to develop an additional shipyard. The Japanese shipbuilder, which already has a yard in Cebu, wants to tap into the Philippines' lower labour costs and circumvent restrictions on hiring foreign workers in Japan. Tsuneishi is in discussions with the Philippines government and also with other Japanese shipyards to study this proposal.
- Vietnam retained its second position in 2018 thanks to Hyundai Vinashin which took 99% of new orders placed in Vietnam during the year. After the bankrupcy of Triyards, the country is left with VARD Vung Tau as the only other foreign-controlled shipyard.
- Taiwan maintained its third place after CSBC took 14 new contracts (10 x 2,800 teu containerships for compatriot owner Yang Ming, 2 x 208,000 dwt Newcastlemax for Chinese owners and 2 x 1,800 teu containerships for compatriot TS Lines).
- Brazil's orderbook continues to shrink. No orders have been taken since 2016, and only two shipyards still have orders (Eisa Ilha with 7 ships, and Atlantico Sul with 2 ships).
- Bangladesh remained in sixth place thanks to Western Marine which secured 3 x 9,000 dwt general cargo ships for German owner Grona Shipping. Bangladesh now has an orderbook of 60 units under construction at 8 different shipyards.
- Saudi Arabia's Ras Al Khair Shipyard which opened in 2017 expects to become fully operational in 2022. The yard is a joint venture between Saudi Aramco, National Shipping Company of Saudi Arabia (Bahri), Lamprell, and Hyundai Heavy Industries (HHI).
- Keppel Singmarine, still grappling with the offshore market, entered the market for LNG bunkering ships and secured contracts for 3 x 7,500 cbm units (2 for Stolt-Nielsen and 1 for Shell).

PERSPECTIVES FOR 2019

To scrub or not to scrub, that is the question.

To scrub or not to scrub, that is the question.

It is no exaggeration to say that in 2018 the shipping world was buzzing with talk of the 2020 IMO fuel deadline, and how to cope with either a lack of compliant heavy fuel oil or a likely increase in fuel costs to meet the new 0.5% sulphur regulation.

Shipowners have been at a loss to determine what they should do for their existing fleets or their future newbuildings:

- Install a scrubber
- Select dual fuel propulsion
- Wait and see

The industry is also struggling to keep a tally of the existing ships which are already or going to be fitted with scrubbers, and the ships under construction which might be equipped. Still, there is a consensus that about 1,500 vessels will be fitted by 2020, which is equivalent to about 5% of the fleet in service.

The vast majority of the shipowning community has therefore decided to wait and see.

After ten years of financial hardship, many shipowners do not have the resources to invest in expensive new machinery such as scrubbers or dual fuel propulsion, and very few charterers are willing to pay for these greener solutions.

But there is also a natural scepticism surrounding these new technologies.

Scrubbers are designed to either use seawater to strip sulphur dioxide (SOx) from emissions with the resulting sulphurous water then discharged into the ocean (open loop), or to use caustic soda to strip sulphur from emissions, with the resultant sludge being deposited in an onboard storage tank which has to be periodically emptied in port (closed loop).

Questions abound regarding the ability of scrubbers to function properly. Can a mechanical system run and perform consistently 24/7/365 in a highly heated and highly corrosive environment? Never mind reduce overall pollution when the scrubber consumes additional fuel (about 400 kw for a Kamsarmax bulker) and open loop versions discharge into the ocean? In view of the fines that have already been imposed on several scrubber-fitted ships in some harbours for breach of emission limits, can shipowners rely on the technology to comply with stringent regulations? For closed loop scrubbers that avoid discharge into the ocean, will there be sufficient storage capacity in ports to receive and recycle the waste?

Several major companies, however, have decided to invest in scrubbers, often with multiple motivations. Firstly, as a form of insurance to protect their business, secondly to gain experience and technical knowledge, and thirdly in some cases to preserve important cargo contracts with fuel oil clauses that could be otherwise imperilled.

Certain container operators have gone even further, fully adopting scrubbers for their large container carriers due to the very high fuel consumption (in the range of 100 to 200 tons per day) when trading at high service speeds of 20 knots or more. This is a much higher consumption than for bulkers and tankers. These large container carriers will also be sailing between major hubs (eg Shanghai, Singapore, Amsterdam), where the supply of different qualities of bunkers including 3.5% heavy fuel oil could be more easily arranged and guaranteed.

There is also growing uncertainty over future strategy for national governments and local port authorities. Several have already decided to ban open-loop scrubbers, and the next logical question is what will be decided for closed loop systems.

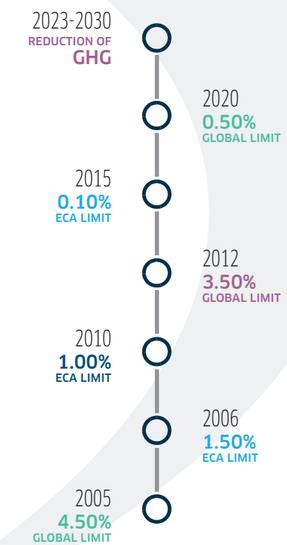
The IMO and associated organisations might well have preferred to ban heavy fuel oil, as this would have created a level playing field for everybody. After all, the main problem for shipowners is competition with their peers rather than with alternative means of transportation (trains, trucks, planes). Shipping transportation remains the cheapest and paradoxically the most ecological transportation solution per ton-mile. So a few cents per ton-mile would not in principle have had adverse consequences for shipowners.

The IMO decided nonetheless to address a serious environmental question, triggering an important global debate about heavy fuel oil and its use on board ships. Public opinion was already changing in 2018 and onshore diesel (marine gasoil for ships) usage by cars will probably be banned before long. In a similar vein, several local port authorities have decided to ban the use of heavy fuel oil on board ships in port.

Are the days of heavy fuel oil at sea numbered? The pressure will undoubtedly grow, and there is already drafted regulation which could potentially outlaw the use of heavy fuel oil beyond 2023.

There is uncertainty over port and government strategy

Evolution of fuel oil sulphur cap regulations



*Picture: **STENA IMPERO**, Fully IMO2 MR Tanker of 49,683 dwt, delivered by GSI in 2018 to Stena in Sweden, the last IMO2MAX in a series of 13 units delivered by GSI to Stena since 2015.*

*Picture: **TORM HILDE**, LR2 tanker, 114,751 dwt, delivered by GSI in 2018 to TORM in Denmark.*

Global authorities desire to reduce pollution will continue

Will there be enough elasticity in shipbuilding capacity?

Global authorities' desire under pressure from public opinion to reduce pollution will continue to grow and affect all possible pollutants including SOx, NOx, CO2 and Particulate Matters (PM2.5 and PM10).

If IMO regulations have focused over the years on SOx, NOx and CO2 in exhaust gas emissions, most global health indices are based on the presence of Particulate Matters as this is believed to be the main source of cancers. On that count, LNG with zero PM could prove unbeatable, another reason why LNG as a fuel may prevail in the near future despite additional investment costs and a current lack of logistics.

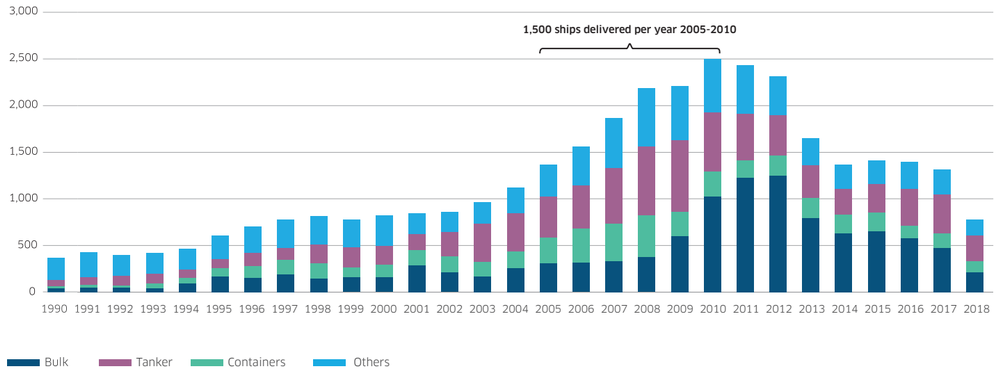
Comparison of pollutants in different fuels

	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

As a consequence of all these trends, it is expected that the shipping industry will give priority to eco or super-eco designs going forward, meaning vessel scrapping should rise and slow steaming increase. As a further consequence, more newbuildings should be ordered.

Active fleet by year of delivery

N° of ships



Reduction in shipbuilding capacity – rise of newbuilding prices

The shipbuilding industry is now in its tenth 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 today's world which has become used to shorter cycles.

Newbuilding prices should continue to rise in the coming years due to the imbalance between supply and demand. The shipbuilding industry has been substantially restructured since 2008, either through massive capacity reductions on a voluntary basis (consolidation), or on a forced basis (closure for lack of newbuilding orders or bankruptcies). As a result, the number of active yards has fallen from 651 in 2008 to 317 in 2018.

The need for fuel-efficient and compliant vessels threatens to render many existing vessels commercially and technically obsolete. Thus, while an average 1,100 ships were ordered per year in 2017 and 2018, this number could rise after 2020 when new vessels will be needed to replace the non-eco fleet delivered in 2005-2010 (going from 1,400 in 2005 to 2,200 in 2010). It is unlikely there will be a one-to-one replacement as too many ships were ordered in the boom years. However, any demand substantially above 1,200 ships per year will create tension and will inevitably push up newbuilding prices.

Will there be enough elasticity in shipbuilding capacity? There will be some, certainly, but it will be difficult for closed yards in Japan or Korea to restart, and it is hard to believe that many yards in China will reopen. Looking at the past, no European yard that closed in the 1980s and 1990s ever reopened.

Will other countries apart from China, Korea and Japan invest in new shipbuilding capacity? In the boom years, efforts by Vietnam and India did not meet expectations.

Newbuilding prices should continue to rise in the coming years

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

New orders

We believe that 2019 will mirror 2018, with shipowners again adopting a cautious attitude in the first half of the year while awaiting more clarity on the implementation of the 2020 deadline and the prevailing freight market. However, owners should become more active in the second half of 2019 once the fog clears. We would therefore estimate that between 85m to 95m dwt of tonnage could be ordered in 2019.

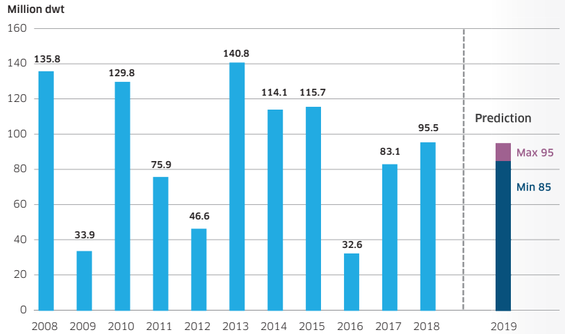
There is however a caveat to the above analysis. For the first time in many years protectionism has returned, which will have an inevitable impact on shipping. The IMF has already downgraded its growth forecast for 2019 from 3.7% predicted in October 2018, to 3.5% predicted in January 2019. This puts 2019 on course to show lower growth than the 3.7% seen in 2018. While the US and China are in talks over their trade disagreement, there is still a risk of escalation. Trade tariffs between the US, Europe and Japan have fallen from around 22% in 1947 to 3% today. In this same period, global export values expanded by 304 times, and it is widely accepted that low tariffs are good for trade, while trade is good for innovation, progress and further economic prosperity.

Owners await more clarity on IMO 2020

At the same time, we are also living in a new Renaissance arguably more powerful than that of the 15th century. The current revolution in technology (biotechnologies, nanotechnologies, renewable energies, Artificial Intelligence) will have a far reaching impact on the world, possibly of a greater magnitude than the invention of the printing press, electricity or steam power. It is often difficult to see the 'big picture' wrought by these changes. As the French economist Nicolas Bouzou wrote in a remarkable essay: "We hear the tree fall but not the forest grow".

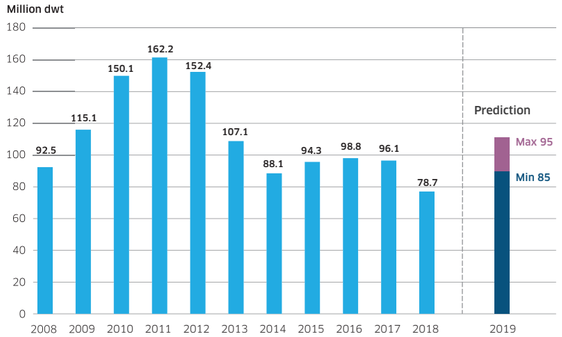
To a backdrop of these developments, there are unfortunately still millions of humans in poverty who naturally and logically wish to improve their living standards. This will certainly sustain trade and the exchange of goods in the years to come.

New orders

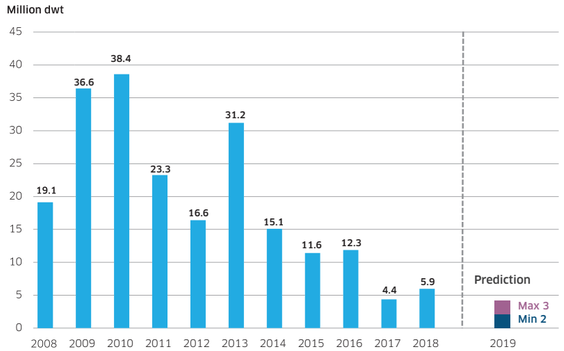


*Picture: **LE LAPEROUSE**, Expedition cruise ship, 9,976 gt, 92 cabins delivered by Vard Soviknes to Ponant in 2018.*

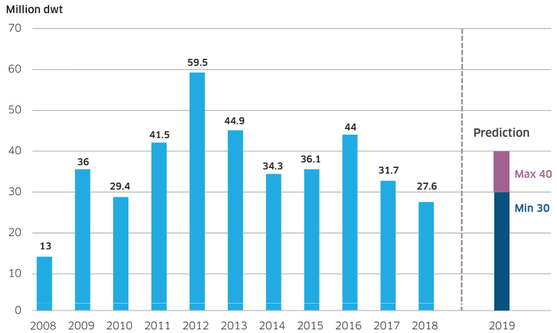
Deliveries



Cancellations



Demolitions



Deliveries

We believe that there will be relatively little slippage and cancellation, and that deliveries in 2019 could reach a figure between 85m and 95m dwt.

Cancellations

We expect cancellations to be marginal in 2019 and on a par or lower than recorded for 2017 and 2018.

Demolitions

Although scrapping was lower than estimated in 2018 at 27.6m dwt, several factors should favour a stronger demolition market in 2019. However, this may be curbed by a potential rise in freight rates in the second half of 2019 stemming from slower speeds and vessels temporarily leaving the market to be retrofitted with Ballast Water Management Systems and scrubbers. Therefore we estimate between 30m and 40m dwt of tonnage could be demolished in 2019.

Several factors favour stronger demolition in 2019

*Picture: **CHANTIERS DE L'ATLANTIQUE** shipyard, builder of MSC's **MSC MERAVIGLIA**, 171,589 gt cruise ship, delivered in 2017.*

Dry Bulk

A continued recovery

Expectations were running high for a strong year in the dry bulk markets in 2018, as fleet growth levelled and China's steel market boomed. In the end, markets continued the recovery started in 2017, but failed to hit the peaks many hoped for as technical problems and trade tensions dampened prospects.

EDWARD OLDENDORFF
Bulk carrier, 38,691 dwt, built 2015, B-Delta design, operated by Oldendorff Carriers.

CHARTERING

Capesize (>120,000 dwt)

The market recovery continued in 2018 as Capesize Time Charter rates averaged $16,529, the highest level since 2011. At these rates, most owners were able to comfortably cover operating and capital expenses. Volatility remained a constant feature as the Capesize 5 Time Charter Average (C5TC) fluctuated between a low of $7,052 and a high of $27,283. Overall, supply and demand were well balanced and sentiment was often pushed in either direction by unpredictable factors such as weather and shore infrastructure breakdowns. As such, the strongest points of the year came at unexpected times - in January and throughout the summer, while the typically strong Q4 was somewhat disappointing.

The year started on a positive note as tonnage tightness resulted in a spike in transatlantic rates which briefly reached the $30,000 mark. After a couple of slow months the market spiked again and Q3 averaged $22,207. This can be largely attributed to a busy typhoon season in the Far East, causing significant delays in vessel itineraries and an increase in iron ore exports out of Brazil.

At the end of the summer, however, we saw a market drop of unexpected magnitude. Sentiment deteriorated due to US-China trade war tensions and fears of an economic slowdown. Some additional factors which made matters worse were a derailment at BHP, railway damage at Saldanha Bay, and a loader collapse at Huasco. Rates corrected sharply, which can be best illustrated by the collapse of the forward curve as Calendar 19 prices traded down from $20,000 to sub $15,000 between end-October and mid-November. Shipping stock prices also fell with some listed owners losing up to a third of their value. The C5TC dropped to as low as $8,000 in November and we even saw some vessels idled around South Africa as Brazil activity remained limited for prolonged periods of time.

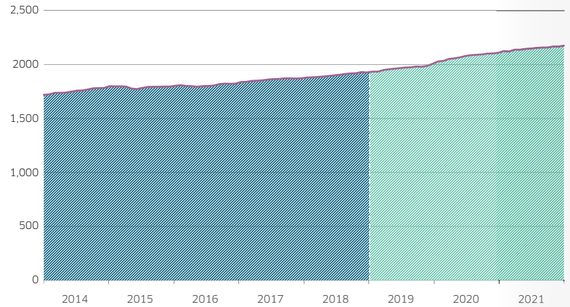
Supply

The fleet grew by 3.5% and at the end of the year comprised 1,601 ships of 321,231,677 dwt. The average size continued to increase as a big proportion of the newly delivered ships were VLOCs. Of the 49 deliveries (14,035,607 dwt), 19 were Valemaxes and 7 more were other VLOCs. With this, the Valemax fleet increased to 54 units, with 11 more of these ships on order.

The strongest points of the year came at unexpected times

Capesize fleet evolution with projection to 2021

N° of ships (180K dwt equivalent)



Meanwhile, due to the favourable market conditions, only 17 vessels (3,074,659 dwt) were scrapped. Their average age was 24 years.

New orders amounted to 24 million dwt as a few sizeable en-bloc newbuilding transactions were reported. These were often financed by Chinese banks/ leasing institutions in support of domestic yards. Interestingly, a lot of these orders were for standard Capesizes, showcasing owners' preference for versatility as opposed to economies of scale.

Throughout the year the most discussed topic was the IMO 2020 regulation, which requires vessels to either burn fuel with maximum 0.5% sulphur content (down from 3.5%) or fit an exhaust cleaning device, also known as scrubber.

At first, it was unclear whether the refining industry would be able to supply enough compliant fuel, however these fears later dissipated. Even though low sulphur fuel was not being marketed yet, speculation was that it would trade at a premium to Heavy Fuel Oil (HFO) of at least $100 per ton.

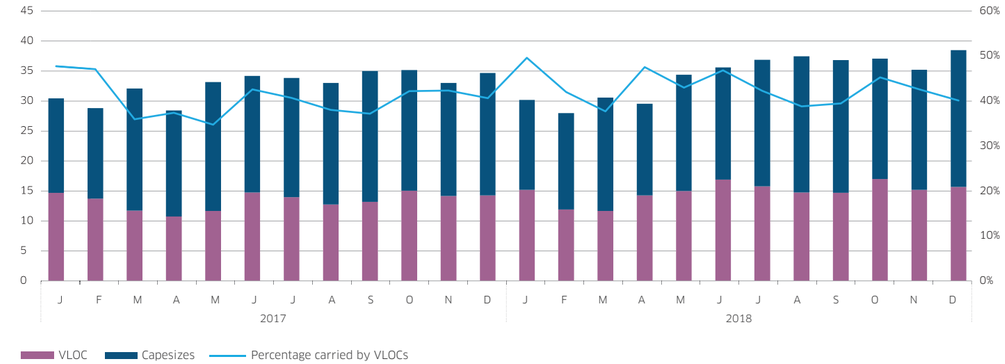
Having this in mind, some owners and operators saw an opportunity to install scrubbers. They would pay a fixed cost of $3-$4 million for installation and eventually earn the spread between the low and high sulphur fuel oil on each ton of fuel the ship burned. At first glance, this sounds like a clear winner, however one needs to also consider further details such as the cost of sludge collection, retrofit technical problems, or in the case of open loop scrubbers the fact that some countries such as Singapore banned their use in coastal waters. A great deal of uncertainty remained around these issues.

All in all, it was estimated that eventually around 20% of the Capesize fleet would be scrubber-fitted. As such, discussions arose whether a change in the Capesize index was necessary, however the consensus was that the index should stay the same. Other topics that remained to be discussed included new bunker/scrubber clauses and Bunker Adjustment Factor (BAF) recalculations on existing contracts of affreightment.

It is also worth noting that fitting a scrubber takes at least two weeks on top of a usual drydocking, therefore throughout 2019 and 2020 several ships will be out of the market for prolonged periods of time, thus decreasing tonnage supply.

Brazilian iron ore exports

Million deadweight tons



Demand

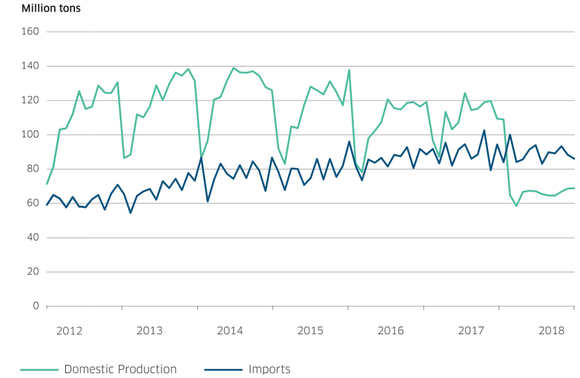
In 2018, the global steel industry marked another year of healthy growth. China accounted for much of it despite capacity cuts as crude steel production increased to 928 million tons (+57 million tons year-on-year).

The trend of using higher Fe content iron ore continued and this supported imports, while domestic production plummeted by 40%. The use of scrap in steel-making increased and this might be a potential threat to import growth in the future.

Brazil, which on average supplies the highest quality product, managed to expand its exports to 390 million tons (+6 million tons year-on-year). This happened despite a stoppage at the Minas Rio project due to pipeline failure in March. Volumes out of Australia also increased by 12 million tons to 842 million tons.

Chinese iron ore imports and domestic production

Million tons



In the second half of the year, steel market sentiment was affected by trade war tensions. There were some concerns related to slowing GDP growth and industrial production. This being said, it was expected that the Chinese government would take fiscal and monetary measures to counteract this.

On the coal side, we saw more restrictions due to environmental reasons. Despite the fact that Chinese importers reached their quotas long before year end and coal cargoes were in short supply, annual volumes climbed to 281 million tons (+10 million tons year-on-year). In the Atlantic we saw an increase in US exports while Colombian volumes decreased.

Bauxite exports out of Guinea expanded to 42 million tons (+11 million tons year-on-year).

Expectations for 2019 remain cautiously optimistic as both fleet supply and demand are projected to grow moderately. Toward the end of the year we may see increased levels of volatility and disruptions related to the IMO 2020 regulation.

*Picture: **HELEN N**, Bulk carrier, 297,204 dwt, built in 2011, operated by Neu Shipping.*

Babycape and Post-Panamax (85,000-120,000 dwt)

In last year's annual review, we wrote that the valuation of post-Panamax and Babycape tonnage was an art rather than a science. The volatility seen in both Capesize and Panamax markets in 2018 has further underlined this statement. Post-Panamax and Babycape owners are learning every day how best to leverage this unusual size of vessel, and owners have been shy of placing more newbuilding orders for a market that is not yet fully mature.

Furthermore, the number of market Babycape (100-120,000 dwt) vessels shrank in 2018 as some tonnage controlled by the major sector operators was moved onto dedicated in-house contracts of affreightment. This did not help the sector gain more awareness, although some Japanese owners are now taking their vessels back from period cover or shuttle contract work to operate the ships themselves.

What returns should post-Panamax owners target?

Post-Panamax (85-99,000 dwt) supply is unlikely to change significantly either, even though some new and interesting designs are emerging: the Sanoyas 89, Oshima 87 and Tsuneishi 99 are just a few to mention, showing that owners are testing the waters when it comes to the best deadweight draft ratios. Contrary to the niche Babycape market (75 to 80 ships), the post-Panamax segment remains more liquid (300 ships) and thus less risky.

On the demand side, more volume was shipped out of the US East Coast and US Gulf. Baltic volumes increased as well, but grain exports from East Coast South America declined. In the Pacific basin, volume out of East Coast Australia rose, while West Coast miners preferred to use dedicated vessels, taking them back from operators, which led to fewer cargoes for the spot market. Volumes from West Africa to China continued to rise, and this remains the main route from the Atlantic to east of Singapore as coal cargoes are going rather to India.

The end of 2018 raised a lot of question marks, especially after the final quarter's negative correction: are these vessels good candidates for scrubbers? It appears a good portion of the Babycape fleet will be fitted with the exhaust cleaning devices but the investment case for older post-Panamax vessels is not so clear, particularly after the strong market correction seen.

Are the vessels a good fit for the 'neo-Panama Canal'? Last year we expected the inauguration of the enlarged canal to bring more opportunities for the 85-120,000 dwt niche, and indeed volumes transiting the canal more than doubled in 2018: the total number of voyages reached 49 during the year, up from 19 in 2017.

And what returns should post-Panamax owners target versus the Baltic Exchange Capesize index? Does the Babycape market move in the shadow of the Capesize market, or does it operate as a standalone market?

The market dynamics are changing every day and we do not see this market becoming significantly more standardised in the near future. However, appetite for this segment rose again in 2018 and we do believe this will continue.

*Picture: **JIMMY T**, Bulk carrier, 81,700 dwt, delivered in 2017 by Japanese shipyard Imabari Marugame to Golden Union.*

Panamax (68,000-84,999 dwt)

2018 was a much better year for the dry bulk market than the previous three years. For the Panamax segment we were expecting a year of consolidation after a year of recovery in 2017. Finally, 2018 was stronger than the previous three years, although Q4 challenged our expectations.

Overall, the 4 Time Charter Average (4TC) of the Panamax routes averaged $11,651 for 2018, versus $9,766 for 2017, $5,561 for 2016 and $5,560 for 2015.

The year was marked by two events: first, the trade war between the US and China. This is still ongoing and is already impacting the export of soybeans from the US to the Chinese, which reached 22 million tons in 2017 and is now being substituted by exports from other countries.

The second event concerned coal into China, with Beijing limiting imports to support domestic prices and encourage local production. Thus in November China stopped importing coal, having reached its quota for the year. A new quota will be set for 2019.

In terms of rates, we did not see the steep increase that many had been expecting, but solid growth was recorded from Q4 2017 onwards. This growth was combined with some much-needed volatility for operators and traders.

Q1 2018 maintained the momentum built in the last quarter of 2017, and over the year the 4TC rate averaged well above $10,000 per day, giving shipowners great expectations for the rest of the year, especially given the traditionally strong Q4.

In mid-April, fronthaul trades to the Far East via East Coast South America with grain were trading at around $15,000 + $500,000 ballast bonus, while the North Atlantic market was trading between $13,500 and $15,000. At the same time, the Pacific market was at mid $9,000 for a Pacific round voyage and mid $4,000 for a backhaul trade.

Unlike the previous year, Q3 was stronger than usual, probably on the back of very positive sentiment for the final quarter. For example, the Baltic Exchange P1A transatlantic route averaged almost $13,000 per day in the quarter versus $10,214 in the same period a year before. With a good market in June/July, there were high expectations for a strong market leading into Q4.

Against all odds, Q4 proved to be by far the most challenging due to the aforementioned macroeconomic challenges. This created a huge drop in market confidence and the year ended with a decline in the freight forward paper values, followed by a fall in the spot rates in all segments of the bulk market.

The period market also saw notable volatility in 2018, with one-year contracts starting the year at $12,000 per day, increasing up to $14,000, and ending the year at $12,000. A similar trend was observed in bunker prices, with 380cst fuel starting the year at around $361 per ton, peaking at $500, and finishing at $319.

The IMO sulphur regulations, which will come into effect in January 2020, were a major topic of the year, with many questions raised including:

- Do owners need to install scrubbers on Panamax vessels (and if so, what type)?
- Who is responsible for the cost of installation?
- And the main question: what will be the spread of bunkers between compliant fuel and high-sulphur fuel oil.

Overall, the Panamax market remains a market of about 1 billion tons shipped per year, with coal and grain still the two most transported commodities.

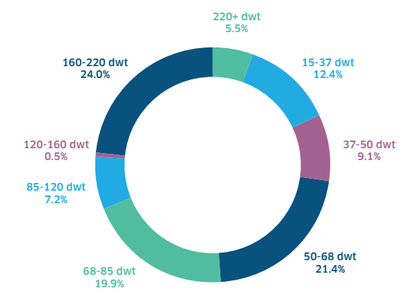
On the supply side, the total fleet has been stable until recently at around 2,000 vessels, divided equally between Panamax and Kamsarmax. However, with vessel sizes evolving, today the total number of ships remains around the same but the number of Kamsarmax newbuildings is considerably higher than that of Panamaxes.

At the same time, the Panamax fleet is ageing and demolition is increasing.

Regardless, the Panamax fleet continues to grow strongly. Despite the demolition of more than 11 million dwt since 2016 (7% of the fleet), the total tonnage in service at the end of 2019 will be 181 million dwt, a 15% rise compared to the end 2016.

2019 will also see another strong influx of tonnage, with 177 Kamsarmax newbuildings scheduled for delivery versus just 3 Panamaxes.

Breakdown of dry bulk cargo transported in 2018 by vessel segment (tons)



Source: AXSMarine Trade Flows.
AIS data includes copyright material of VesselTracker and exactEarth Ltd. All rights reserved.

The fourth quarter proved to be by far the most challenging

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

The Baltic Supramax Index (BSI) started the year at 901 points, increasing to an annual high of 1,207 points in the second week of October, before closing at 975 points on 24 December – an average annual increase of 22% versus 2017. The usual seasonal variations were evident but the index remained supported throughout the year. The Baltic Handysize Index (BHSI) tracked the BSI, starting at 612 points and climbing to a peak of 676 points in the third week of October, before ending the year at 596 points – a 14% gain on the previous year.

The bulk of the Supramax fleet in 2018 consisted of vessels under 10 years old, and with only 30% of the fleet over 10 years there was limited potential for scrapping. Some 147 Ultramax vessels were ordered in 2018, up 66 from 2017, with minimal changes in the ordering activities of the sub segments, while the number of Handysize vessels ordered fell to 8 in 2018, compared to 21 the previous year. 230 Supramaxes and 31 Handysize vessels are scheduled for delivery in 2019, equal to 5.5% and 1.3% of their existing fleets respectively.

The Pacific Basin was adversely impacted from mid-November by the import restriction on both metallurgical and thermal coal imposed in selective ports by China's National Development and Reform Commission (NDRC). This ushered in a surge of negative sentiment in all bulk segments transporting the commodity, including the Supramax market which is carrying a large portion of China's coal imports.

Combined with the US-China trade dispute, this development could have been expected to push rates for the year sharply down. However in the event, the tit-for-tat approach between the two super powers saw grain and soybean trade flows shift away from the US and towards Brazil and the Black Sea, supporting the global Supramax market and allowing it to maintain and even increase rates.

This was partly a result of vessels ballasting to the Pacific and Indian Oceans earlier in the year, in a bid to benefit from strong Chinese and Indian coal demand, a trend which tightened tonnage supply in the Atlantic.

According to figures from AXSMarine Trade Flows, more grain, soybean and soybean meal exports from Brazil to China were carried on Supramaxes in 2018 compared to 2017.

During 2018, the Supramax fleet was distributed on aggregate 60% in the Pacific Ocean, 24% in the Indian Ocean and 16% in the Atlantic Ocean. This apparent imbalance of tonnage between the basins was in tandem with the difference that could be seen in the fronthaul Baltic Exchange route S1C_58 rates and backhaul Baltic Exchange route S3_58 rates, which differed by $16,000/day on average during the year.

The Pacific basin benefited from increased trade in nickel ore, bauxite, copper concentrates and other forestry products. Meanwhile, nickel ore exports increased substantially from 2017 after Indonesia relaxed its mineral ore ban. AXSMarine Trade Flows showed nickel ore carried on Supramax vessels to China from Indonesia and the Philippines at 4 million and 32 million tons in 2017 respectively. Those figures rose to 13 million and fell slightly to 29 million tons in 2018, a net gain of approximately 6 million tons.

New demand for coal is also emerging from growing nations such as Vietnam and Myanmar. Indonesian domestic demand is picking up as well following the commissioning of new power plants to meet its rising demand for energy.

Meanwhile the Indian Ocean trade benefited from a growing demand for limestone, gypsum, petcoke, sulphur, urea, aggregates and iron ore pellets due to increased production by India's steel mills and other industries.

The Baltic Supramax index remained supported throughout the year

*Picture: **SPAR APUS**, Bulk carrier, 63,800 dwt, built 2015 by Hantong SHI, operated by Spar Shipping.*

Dry bulk rates by segment

THE FFA MARKET

FFA volumes were largely flat year-on-year, with 1,200,422 lots traded by year end. Trends were similar to the previous year, with the Panamax segment adding 11% year-on-year, whilst Supramax volumes were down -5% and Capesize volumes were -3% lower.

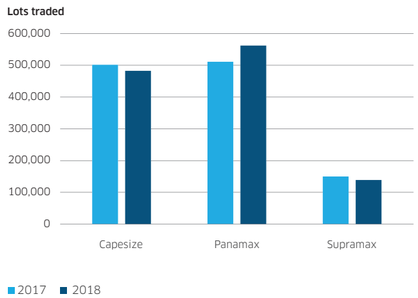
Capesize numbers would have been even lower yet had it not been for an eventful November, during which 74,234 lots (16% of the year's volumes) changed hands, a noteworthy month in the year, one we will reflect on in due course.

The Capesize spot market started the year in good shape with a Q1 high reached on January 9 at $20,890 (+38% from the opening trading day of the year), though it closed March at a low for the quarter of $8,338.75 (60% lower than its peak). Meanwhile, a total of 92,214 lots changed hands over Q1 or 19% of the year's total.

After a soggy start to April, the year's low was reached on April 5 at $7,051, before we rallied to $20,801 on May 14 (only $89 off the Q1 high), after which a choppy but largely supported June ensued, and volumes were up 16% on the previous quarter. Q3 was an exciting one for the bulls, as July witnessed a firm ascension and the year's high was reached on August 6 at $27,283. September was robust, closing just below the $20,000 mark, with Q3 volumes up again on the previous quarter (+10%) after a busy month in September as traders placed their length in anticipation of a bullish Q4.

October held relatively steady, closing the month at $19,501, before turmoil was unleashed, sending the Capesize spot market down to $7,987 on 14 November, only $936 above the year's low point. Some liquidation of positions on the paper and redemptions from funds, coupled with a soft broader commodity market, pushed the spot rate to fall 59% over 16 trading sessions from the quarter's high on 23 October. This move lower was supported in good volume, with lots traded up 32% from the previous quarter and November alone absorbed 16% of the 2018 total volume. The market found its feet and rebounded swiftly at the end of November

Dry bulk FFA volumes by segment



and into December, closing out the year up 14% from the opening mark, completing another turbulent but exciting Capesize paper market, and ending the year in a supported manner with players positive coming into 2019.

The Panamax market took a little longer to get going compared to the Capesizes, and it was not until 12 March that the Q1 high of $13,027 was reached, up 21% from the opening price of the year and up 24% from the quarter low of $9,856 reached on 13 February during Chinese New Year. As is often the case, bullish expectations were priced into Q2 on Panamax, yet this year the market failed to kick higher and instead the index lost 8% over the quarter: the index dipped into

four figures again late May and into early June, before recovering some lost ground and completing the busiest trading quarter of 2018.

Volumes dipped ever so slightly in Q3, though rates rose by 26% as the market rallied in September, feeding through to the year's high of $14,385 on October 17, before shedding 24% by 23 November to post a quarter-low of $10,996 after Panamax sentiment was affected by the repositioning on the Capesizes. On the whole, Panamax volumes were relatively consistent throughout the year and we closed spot up 11% over the opening price of the year.

Supramax volumes recorded a decrease quarter-on-quarter over the year of 2018, with Q1 absorbing 32% of the volume and Q4 only 20%. Rates saw a peak of $13,138 on 11 October, up 40% from the year low of $9,390 seen on 12 February, and the year closed 7% higher than the opening mark of the year.

THE SECOND HAND MARKET

Capesize

At the end of 2017 we wrote that "more optimistic market prospects for 2018 should allow prices to hold, with a likely bullish trend in the short and medium term."

Taking as a reference the value of a 180,000 dwt 5 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 even if the market was not as bullish as anticipated, prices still held and rose 11% between the lowest point in early January to the highest level at end August. By year's end they had softened again by 2.6%.

Price evolution for a 5 year old Capesize ($ million)

18/12/2017	$32.819
02/01/2018	$32.785
12/03/2018	$33.833
21/05/2018	$34.054
28/08/2018	$36.414
24/12/2018	$35.459

For the older vessels, a 10-year-old Capesize built in Japan was valued at around $20.5 million in early 2018, and rose to about $24 million by the end of the year, a 17% increase. We recorded a shade below 100 second hand transactions during 2018 for bulk carriers over 100,000 dwt.

Pictures: ***BESIKTAS AZERBAIJAN****, Bulk carrier, 169,263 dwt, built 2010 by Daehan Haenam, operated by Besiktas Shipping;* ***PEDHOULAS CEDRUS****, Bulk carrier, 81,800 dwt, delivered by Japan's Tsuneishi in 2018, operated by Safe Bulkers.*

There were some very active buyers, with a handful of them purchasing from four to a dozen units each across the sizes. These purchases were equivalent to almost half the units sold in 2018. We also noted a fair amount of financial deals.

In addition, we noted some 19 demolition sales, including 2 dry-trading OBOs, and three units above 200,000 dwt. The total figure is however well down on 2017, when 33 bulkers over 100,000 dwt were scrapped. Despite a better market sentiment, the approaching IMO 2020 fuel deadline as well as the Ballast Water Management System (BWTS) regulation should still encourage further demolitions throughout 2019 especially among the older uneconomical vessels.

A reasonably balanced fleet and measured optimism may lead to further improvements in values over 2019 provided demand remains at least stable. The latter remains subject to trade tensions between the US and China as well as potential stimulus packages from Beijing, and as always global economic conditions.

Panamax to Handysize

During 2018, average one-year Time Charter rates improved by about 25%, 30% and 17% for the Panamax/Kamsarmax, Supramax/Ultramax and Handysize classes respectively. With sentiment always playing an important role in the market, one would have expected to see equivalent if not higher gains in the second hand values of such bulk carriers.

It seems, however, that increased uncertainty due to new rules and regulations, in particular the IMO 2020 fuel cap, acted as a brake to any possible overheating of values.

Trade in older tonnage suffered a significant blow when China imposed new rules for importing second hand bulk carriers for Chinese cabotage, effective 1 September. The maximum allowable age a vessel could be at the time of delivery/import passed from 18 years to just 8-9 years old: in fact the 'new' rule states that for a vessel to be imported its main engine must be Tier II compliant, effectively banning all vessels built prior to 2010-2011.

Asset values at the end of 2018 compared to the end of 2017 showed only small, or in some cases, no increases, ranging from a meagre 1% up to a healthier 15%. The smaller sizes in each class are becoming less and less popular and as such as of next year these sizes will not be covered (28,000 dwt, 74-76,000 dwt, 52-53,000 dwt).

Panamax-Kamsarmax values end 2018 (74,000-82,000 dwt)

10 year old: Values at year end compared to the end of 2017 appreciated by about 3.5% to reach $14.5-15.0 million.

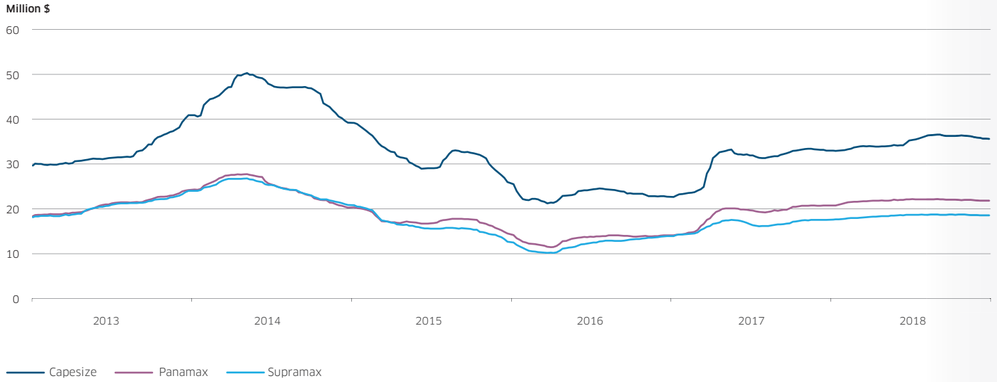
5 year old: At the end of the year, values stood at about $22.75-$23.0 million, an increase of 2% over the 12 month period.

Newbuilding re-sale: For prompt (3-6 month) delivery ex Korean or Japanese yards, Kamsarmax resales based on NSF contract and 20/80% payment terms were pricing at $30.5-$31.0 million at year end, as opposed to about $29.0-$29.5 million twelve months earlier, a respectable 6%-7% increase over the year.

Trade in older tonnage suffered a blow when China imposed new import rules

Picture: ***PATRA****, Bulk carrier, 80,596 dwt, delivered in 2012 by Universal Maizuru, operated by Chronos Shipping.*

Dry bulk carrier S&P prices 5 year old ships



Supramax-Ultramax values end 2018 (43/50,000-52/55-58,500/60-64,000 dwt)

10 year old: At the end of 2018, values remained stable, standing at the same levels as twelve months earlier, in the region of $13.5-$14.0 million.

5 year old: The price for this type/age of asset moved slightly upwards, ending the year at $17.5-$18.0 million and recording a 2.8%-3% gain over the 12 month period.

Newbuilding re-sale: Values continued the upward trend seen at the end of 2017, albeit at a slower pace: by the end of 2018, Chinese built units were valued at about $25.5 million whereas Japanese units reached $28 million, an increase of about 11% and 7.5%-8% respectively.

Handysize values end 2018 (28,000-43,000 dwt)

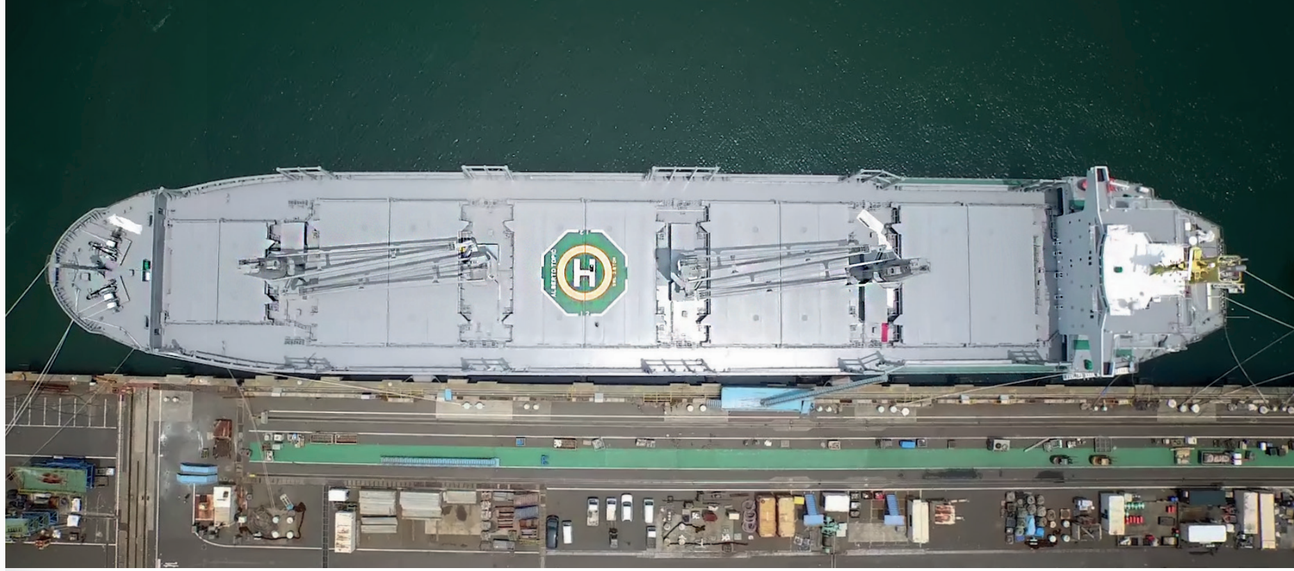
10 year old: At the end of 2018, a Japanese built Handysize (28,000 dwt) was worth about $8.25 million, up 10% compared to end 2017, while at the same time larger Handysizes (32,000 dwt) saw their values appreciate by almost 15% to reach $11.0 million by year end.

5 year old: Values for Handysizes (28,000 dwt) remained largely stable during the year, and closed at $11 million. Larger units of 32,000 dwt and 37,000 dwt were worth close to $14.0 million and $17.0 million respectively at the end of 2018, appreciating by 7.5% and 13% over the 12 months.

Newbuilding re-sale: No increase in value was recorded compared to the previous year. By the end of 2018, Chinese built vessels were worth about $21.0 million, whereas Japanese built tonnage was valued at about $23 million.

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.

*Picture: **SAMJOHN DREAM**, Bulk carrier, 206,610 dwt, delivered in 2012 by Daehan Shipbuilding Corporation, operated by Golden Flame Shipping.*



DEMOLITION / RECYCLING MARKET – END 2018

The healthier freight markets continued to put pressure on recycling markets. Total dry bulk (Capesize to Handysize) deadweight removed in 2018 'reached' just 4.6 million tons, or 52 vessels - a drop of some 67% compared to the 14 million deadweight scrapped in 2017.

The breakdown was as follows: Handysize to Kamsarmax: 33 vessels or about 1.3 million deadweight; Capesize: 19 vessels or about 3.3 million deadweight.

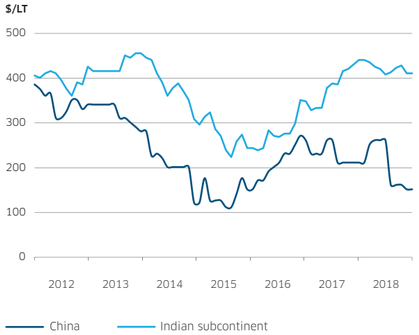
No significant changes were recorded in demolition prices, which at end 2018 were $425-$430/LT for India, Bangladesh and Pakistan (3%-4% from $420-$415/LT at end 2017).

Since the ban imposed by the Chinese authorities on all recycling activity regarding foreign-flagged vessels, the Chinese demolition market is no longer considered of any significance and thus no price is recorded.

We expect an 'interesting' next 12-18 months. The implementation of the IMO 2020 regulations next January, and divided opinion in the shipping community over the best course of action, will undoubtedly create opportunities, and those who dare to grab them will be the winners.

In an ideal world, a slow steaming solution could both reduce emissions and improve freight rates, in turn giving all the players – marine engine designers, fuel suppliers and owners – time to come up with a cleaner solution other than scrubbers and untested fuel blends.

Dry bulk carrier demolition prices



Capesize to Handysize demolition reached just 52 vessels

*Picture: **ALBERTO TOPIC**, Handysize Logger, 34,356 dwt, delivered in 2015 by Japan's Namura Imari to Marfin Management.*

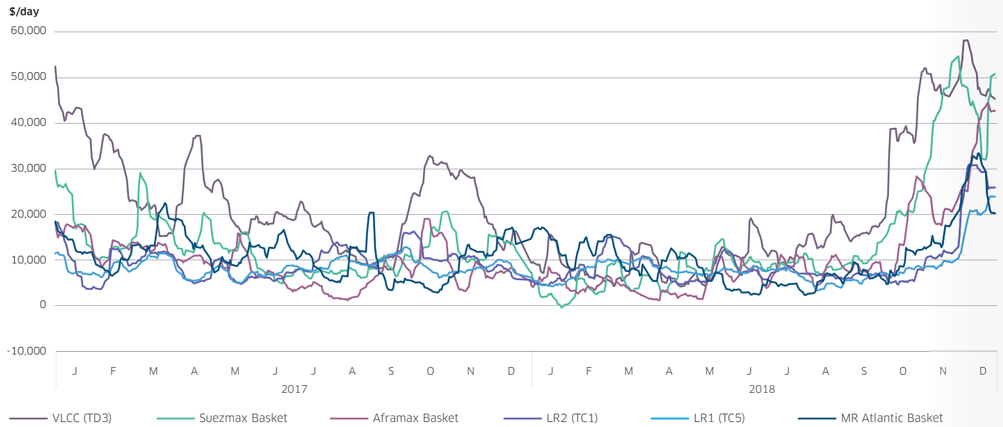
Tanker

The winds of change

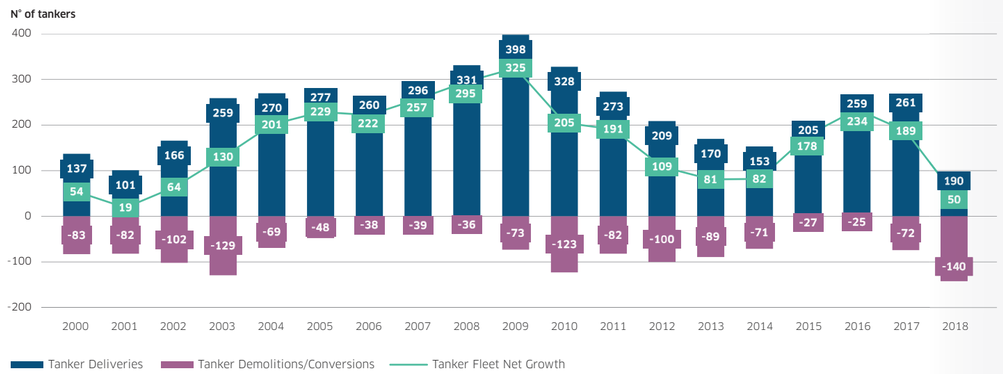
After two years of turbulence, Q4 2018 marked the end of a long and painful storm. As the winds eased and freight rates rose, tanker owners looked to the future with renewed optimism. The outlook for 2019 is positive, although we believe the market will calm before rising to new highs in the second half of the year and beyond.

GEORGIOS
VLCC Tanker, 299,999 dwt, 2009 built, under Dynacom management.

Tanker spot rates - TCE



Crude and petroleum products tanker deliveries and removals



The first nine months of 2018 were extremely difficult

The first nine months of 2018 were extremely difficult for tanker owners, with crude and clean tanker Time Charter Equivalent (TCE) earnings down 20%-25% compared to the same period in 2017 (which itself was 30%-50% lower than in 2016). Owners' difficulties started with the lack of a winter rally in 2017-2018, and rates remained persistently low until October. The worst performing tankers were Suezmaxes which in January-May saw TCE earnings drop to their lowest level for this period in over 20 years.

The low freight rate environment and high scrap prices encouraged demolition and conversion activity throughout the year. Accordingly, by end 2018, 140 tankers (above 34,000 dwt) had been scrapped or converted, compared with an average of 85 tankers per year over the past 20 years. Activity was concentrated in the crude tanker market (from Panamax to VLCC) which accounted for 50% of the number of units removed from the market. Moreover, this activity occurred while newbuilding deliveries were slowing, which led to weak or flat net fleet growth in many tanker segments. Tightening fleet fundamentals supported freight rates but were insufficient to lift levels until tanker demand firmed in the second half of 2018.

Furthermore, the persistently difficult operating environment led to consolidation among tanker operators. Euronav finalised its merger with Gener8 in mid-2018, thereby making Euronav the world's second largest VLCC owner. In the clean tanker market, BW and Hafnia announced they would merge in 2019. Capital and Diamond S also revealed they will soon merge.

Will tanker freight volatility persist in 2019? Several factors will exert downward pressure on tanker rates in the first half of the year. From the fleet side, net growth could accelerate as a significant number of new tankers are scheduled to be delivered over the year. Meanwhile, we could see scrapping activity descend from its lofty levels. Furthermore, OPEC's recent decision to rein in production will likely cast a shadow over crude tanker demand for at least the first half of the year.

Nonetheless, as we approach the implementation of the new bunker regulations in January 2020, bullish elements will grow stronger. Scrubber-retrofitting will likely take 3 to 5 weeks per vessel, reducing tonnage supply throughout the year, especially on VLCCs and Suezmaxes. Furthermore, demand for low sulphur crudes (yielding more low sulphur products) will likely increase by end 2019 which could see oil trade patterns shift, especially out of the US. Finally, marine gasoil flows are likely to rise significantly in 2019, boosting demand for petroleum product tankers. Indeed, this could even herald the return of floating storage. Hence, while the first part of 2019 has seen some stormy weather return, the winds should be favourable again for shipowners during the second half of 2019.

140 tankers were scrapped or converted versus 72 the previous year

*Picture: **STENAWECO IMPULSE**, MR2 Tanker, 49,762 dwt, 2016 built, owned by Stena.*

Crude Tankers

VLCC

It was a tale of two halves in 2018 for the VLCCs, or more accurately a tale of Q4 versus the rest of the year. 2018 started in a subdued fashion which continued right through to October with owners unable to gain any traction amid a general oversupply of tonnage in all segments. The average TCE for the Baltic Exchange TD3C route (Ras Tanura/Ningbo, 270,000mts) in 2018 was $18,800 per day, compared with $19,000 per day in 2017.

The saving grace for owners in 2018 was a strong Q4 which, in stark contrast to the rest of the year, saw vastly improved earnings on all routes. Without this, returns would have looked extremely bleak. The average TCE for TD3C rose to $44,800 per day for the quarter, compared with an average of $10,400 per day between Q1 and Q3 2018.

Looking at the fundamentals for 2018, 38 newbuilds were delivered versus 50 in 2017. However 32 VLCCs were scrapped, against 11 in 2017. While the VLCC fleet grew by 5.5% over 2017, increased scrapping activity reduced this to 0.7% in 2018, the lowest level since 2003. Despite minimal fleet growth in 2018, the overhang from 2017 meant competition for cargoes was rife.

On the demand side, there was a steady increase in output for most of 2018 even with the cut in Iranian exports, and the market saw more production from other countries, notably the US. The market turned towards the start of Q4 as large crude producers anticipated a steep fall in Iranian exports (which did not materialise by year end). This was prolonged as producers then maintained production ahead of an anticipated cut by OPEC. Higher stems from the Middle East, combined with increased US Gulf and Brazil/Uruguay exports, enabled owners to dig in their heels and sentiment finally flipped back in owners' favour.

The key word for 2019 is 'scrubbers'

Looking ahead to 2019, there are conflicting views on which way the market will go. On one side, with OPEC and the affiliated countries opting to cut output by 1.2 mb/d until June 2019, the market should see fewer cargoes trading. Moreover, 78 newbuilds are expected to be delivered in 2019 (equivalent to 11% of the existing fleet), of which 27 are due in Q1.

However, it is not all doom and gloom. The key word for 2019 is 'scrubbers' and we are now less than one year away from IMO 2020 regulation cutting sulphur emissions at sea. Again there is a huge variety of opinion on the potential impact of this, but looking at the fundamentals one can see there will be some significant changes in the market.

Owners trading vessels over 15 years old with less efficient engines will have to make big decisions, and it is likely that many will decide to scrap. In addition, those deciding to retrofit scrubbers on existing vessels will need to enter dry dock for around 3 to 5 weeks. This will lead to a significant reduction in supply. Whether the bulk of these retrofittings is spread evenly over the year or concentrated towards the end of 2019, the impact is likely to be significant.

Meanwhile, an increase in US crude output projected at 1.1 mb/d will boost ton-mile demand and keep vessels employed for longer periods.

Taking all of this into consideration, there may be reduced optimism for the first half of 2019. However, beyond this with the new regulations in sight, the market could improve quickly. As always, the VLCC market is very much sentiment driven and owners may see this collectively as an opportunity to push for more.

Suezmax

Q4 2018 was a period to remember for crude tanker owners, especially those operating Suezmaxes.

The first nine months were forgotten quickly, as returns sunk to their lowest level in years. Indeed 2018 started with ships trading below operating costs (OPEX) and in some cases at a pure loss, as was the case for Middle East Gulf (MEG)/West voyages. Relief did not come before October. Thus, for earnings, there was a clear 'before' with the western markets averaging $7,500 per day and the east $2,500 per day, and a clear 'after' in Q4 when fronthaul TCEs reached around $45,000 per day.

*Picture: **TORM HELLERUP**, LR2 Tanker, 114,951 dwt, 2018 built, under Torm management.*

In terms of supply, the Suezmax fleet reached 571 ships by end December. There was little change in the average age (9.1 years) during 2018, while net fleet growth was just 7 units after 32 deliveries during the year. Demolition returned with a vengeance, as 23 Suezmaxes were demolished while one vessel sank. Renewed scrapping activity was inevitable, with 22% of the fleet at the start of the year over 15 years old and earnings often below OPEX in the first half of the year. 2019 will only see marginal growth, as 30 additions are to be expected.

The main challenge facing the Suezmax market arose from US foreign policy, which had both positive and negative consequences for demand. Firstly, US sanctions against Iran pummelled the Middle East Gulf (MEG) market from May onwards and later the US trade dispute with China saw crude flows re-routed. Indeed, the US-China trade dispute disturbed not only US and European crude trading patterns but also Suezmax movements. US crude which was previously shipped to China on VLCCs had to switch to European buyers and Suezmaxes. In return, Black Sea crudes, notably Urals and CPC blend, became more attractive to Far Eastern buyers. In the late summer, more ships started to move oil from the Black Sea to the Far East, increasing not only ton-miles but also the disorder in ship positions and availability. The bulk of the supply shifted to the East of Suez where there was little or no demand, resulting in a lack of available tonnage, especially in West Africa where demand remains concentrated. At the same time, ships opening in Europe were mainly considering Black Sea or Mediterranean cargoes and thus no longer ballasting down to West Africa.

Overall, the forecast for 2019 is for freight earnings similar to those registered at the end of 2018 and little variation in volumes on the main trading routes (US to Europe and Black Sea or West Africa to Far East). The Suezmax fleet is also expected to remain stable with little change in the size or age profile.

That being said, there is an unknown factor on the supply side this year. What will be the impact of the retrofitting of scrubbers? Up to 8%-9% of the current fleet will be retrofitted with scrubbers by the end of 2019, assuming all scheduled retrofits are completed on time. Yards need 3 to 5 weeks to complete each job, and this could see Suezmax tonnage tighten periodically over the year.

Aframax

The figures don't lie: 2018 was a choppy year for the Aframaxes, especially in Northern Europe. TCEs in Q1 for TD7 (Hound Point/Wilhelmshaven, 80,000mts) and TD17 (Primorsk/Wilhelmshaven, 100,000mts) fell to -$1,606 and $6,772 per day respectively, well below OPEX and arguably much worse than anyone anticipated. The combination of another mild winter lacking ice, lower export volumes of Urals (20.7 million tons exported from Primorsk and Ust-Luga in Q1 2017 vs 16.1 million tons in Q1 2018), plus strong newbuilding deliveries contributed to the awful winter results. Unfortunately this persisted throughout the first half of the year.

2018 saw mixed results for the Mediterranean and Black Sea markets. As expected, Q1 and Q2 were particularly bad and the oversupply of tonnage and a continued trend of LR2s dirtying up pushed owners to fix below OPEX more often than needed. TD19 (Cross Med 80,000mts) dropped to as low as WS76.39 in April (TCE $1,458 per day).

But by Q3, with busier Black Sea exports and an increasing number of ships turning 15 years old, we saw a sharp rise in volatility. In addition, towards the end of Q4 we experienced a huge increase in delays for transiting the Turkish Straits which injected further panic into the market. In contrast to April, as of mid-December TD19 was trading at WS211.39 (TCE $50,149 per day).

The second half of 2018 proved to be better with more volatility and a much stronger correlation between the three main zones, USG-Caribs/North Sea-Baltic/Med-Black Sea. This mostly occurred in November/December 2018, when the swings in freight rates were so strong that when any of the aforementioned areas firmed, it would drag tonnage out of their respective local markets. This rapidly reduced the amount of available tonnage and consequently pushing that same local market quickly up. These occurrences will most likely intensify over the course of 2019, with even stronger freight swings, and owners previously trading locally will have to chase earnings in a more globalised market.

Ton-mile demand has certainly increased for Aframaxes. US crude oil exports from the US Gulf to Northwest Europe or to the Mediterranean are higher than ever, increasing to 550,000 b/d in 2018, an astounding 82% year-on-year increase. This oil was transported on Suezmaxes and especially on Aframaxes. 2018 saw almost 200 Aframax voyages between the US Gulf and Europe, up from around 100 in 2017 and only 50 in 2016.

The outlook for 2019 is positive and December 2018 gave us a glimpse of what to expect. Increased flat rates, fewer newbuilding deliveries, and the looming IMO 2020 regulations are all fuelling confidence among owners, in what we hope will be a much better year.

*Picture: **MAERSK TANGIER**, MR2 Tanker, 49,835 dwt, 2016 built, owned by Maersk.*

Product Tankers

Fuel Oil

2018 was another depressed year in terms of freight earnings, following a similar path as 2017. However, a rapid rise in rates at the end of 2018 boosted owners' confidence moving into 2019.

In the Mediterranean fuel oil market, we noticed a number of MR1 dirty vessels redelivered back to owners in the summer after long time charters, and subsequently sent to drydock in order to clean up and trade clean. This reduced the number of dirty vessels in the Med, fuelling sudden rate spikes when volumes rose and/or voyages were delayed. The Black Sea, as usual, was the largest exporter of 30,000mts stems, with Trafigura the largest player due to its long-term contract with Rosneft. Interestingly, we note the MR1 and MR2 tonnage trading in the Mediterranean is now relatively old, with very little availability of high specification, modern tonnage.

The fuel oil market in northern Europe remains much smaller than in the Mediterranean. Accordingly, fewer vessels are trading regularly in the area, but there remains a slightly higher availability of modern tonnage. We have noticed a constant flow of cargoes from the Baltic, and we believe that Total is the biggest player in that area.

Panamaxes suffered until August 2018, with flat earnings and minimal changes in supply and demand. It was only bad weather in the Caribbean market that truly caused a spark as tonnage suddenly tightened. During the year, the arbitrage for VGO cargoes moving from the ARA or Med to the US was consistently marginal. During Q4, with the bad weather and surging freight levels in the Caribbean, most vessels were discouraged from ballasting. This led to a significant shortage of tonnage willing to head to Europe, and European rates finally saw some excitement.

The fuel oil tanker market rose steadily during Q4 2018, as stronger crude tanker rates fed downwards. Accordingly, rates for MR1s and MR2s stabilized at high levels throughout Q4 (WS250-260) resulting in a TC equivalent for MR1 vessels of around $16-$18,000 per day and close to $20,000 per day in December on good "triangulation" voyages. The last few months of 2018 gave optimism for a solid fuel oil market in 2019, both in terms of good volatility and rates.

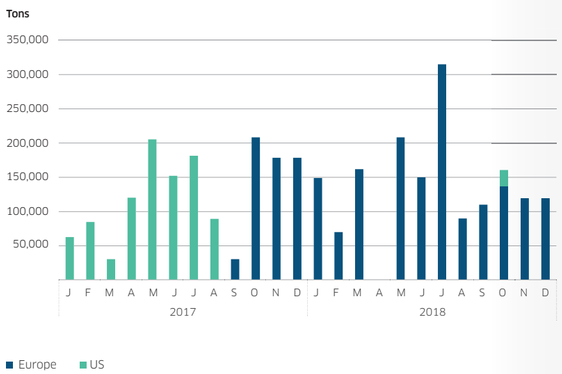
We expect to see fuel oil trading routes shift with the 0.5% sulphur cap

However, high sulphur fuel oil demand and supply fundamentals raise a question mark going forward. With the new environmental regulations coming into force in 2020, how many owners will finally install scrubbers on their fleets? Will high sulphur fuel oil become a niche market? Or will the possible decline in the price lead to new demand (e.g. for power generation), with higher volatility helping sustain the market? Our opinion is the latter, and we expect to see fuel oil trading patterns and routes shift accordingly.

Vegetable Oils Soya & Sunflower Oils + Biodiesel

Soya oil exports from South America dropped 7% year-on-year in 2018 to approximately 6 million tons. Out of the 168 MR1s and MR2s that were fixed with vegoils during the year, 119 went to India which was again extremely active. Biodiesel exports from Argentina increased significantly with Europe buying large volumes of SME (Soya Methyl Esther). Approximately 1.4 million tons of biodiesel, employing 46 MR2s, were fixed in 2018 giving owners interesting repositioning cargoes in North West Europe. A total of 214 MR1s and MR2s were chartered from South America with vegoils and/or biodiesel. Freight rates remained persistently low almost all year, although rising rates for clean tankers fed through to boost rates in November and December. Rates ranged between a low of $33 per ton for 40,000mts to India, and touched $45 per ton at their highest. This produced daily returns of $10,000 and $16,000 per day respectively.

Destinations of Argentinian SME



The volume of sunflower oils exported from the Black Sea continued to rise, reaching about 6.2 million tons in 2018, an 11% increase compared to 2017. The market employed a lot of small tankers to various destinations across the Mediterranean and Continent. As always, India remained the main importer at approximately 2.5 million tons.

Palm Oils

Almost 300 MR1s and MR2s were fixed to carry palm oil from Indonesia and Malaysia to Europe and the US in 2018, a similar number to the previous year. Out of the 52 MR2 newbuildings that were delivered in 2018, 39 units were fixed with palm oils on their maiden voyage. Daily returns were relatively stable during the year at around $14,500 per day for an eco ship, with a spike in December above $16,000 per day. We expect approximately 80 MR2s to be delivered in 2019, which will provide enough FOSFA tonnage for charterers. However, if the clean petroleum market continues to improve in Asia, shipowners may have enough alternatives.

Clean Petroleum Products – East

MR2

The MR2 segment in the East suffered throughout the year from an oversupply of tonnage, while demand was weak in the summer season which typically boosts earnings for owners. It proved, unusually, to be the weakest segment across the three product tanker sizes (MR2, LR1 and LR2), with low rate volatility and little period demand.

Q1 2018 saw earnings more or less maintained at $11-$12,000 per day in a continuation of Q4 2017. After that, conditions were pretty grim. An oversupply of tonnage due to weak West and Far East markets meant that the segment was always under pressure and TCE equivalents averaged around $9-$10,000 per day across Q2 and Q3, which was disappointing as increased Middle Eastern domestic demand usually fuels a freight rally.

Another factor was the constant competition from a distressed LR1 segment, which was always looking to take shorthaul cargoes away from the MR segment. However Q4 turned out to be stronger, fuelled by a combination of stronger West and Far East markets and a more constant supply of longer haul cargoes which took tonnage away from the area. This translated into average rates of $10,000 per day in the quarter, although December saw fixtures above $20,000 per day.

MR owners are more optimistic for 2019. An increase in time charter demand from traders looking to take positions for 2019 has solidified the idea that 2018 may have been the market bottom for this segment.

LR1

The LR1 segment was, for once, not the poor relation of the East of Suez product carrier market. Earnings averaged around $12,000 per day in Q1 and Q2 in what was a very uneventful start to the year. A notable trend during the year saw some of the bigger naphtha traders elect to move their products on LR1s instead of LR2s, therefore keeping a portion of tonnage occupied for long hauls. However, mid-way through the year the typical middle distillate arbitrage closed and ULSD cargoes moved from MEG to South East Asia, instead of West, which kept tonnage in the region and pressured rates downwards. This translated into Q3 earnings in the region of $8-9,000 per day which, as discussed earlier, is counter seasonal.

Q4 saw more sustained activity and accordingly western markets recovered with a wider naphtha arbitrage window. This drained some of the tonnage supply from the region and saw owners' earnings average about $14,000 per day. However, December earnings saw higher averages of mid $20,000s per day.

Overall, owners have managed to triangulate well, combining shorthaul cargoes with typical longhaul runs such as TC5, which earned between $7,000 and $10,000 per day during the year, thus reducing their ballast legs.

LR2

The LR2 segment probably fared the best of all the clean sizes but the market remained very flat. TC1 paid the most, with earnings on a round trip basis fluctuating between $8,000 and $13,000 per day. Red Sea demand for LR2s remained strong with the Yanbu refinery taking an LR2 every 2 days, and this is expected to increase next year as the Jizan refinery should come online in early 2019 lifting similar stem sizes.

The strong newbuilding delivery programme especially for Suezmaxes and Aframaxes tempered activity, with many Far East and Middle East origin cargoes taken by these ships on maiden voyages rather than LR2 tonnage. Nevertheless, the west naphtha arbitrage seemed to be a bit livelier this year which contributed to fewer ships ballasting back to the MEG, especially in the second half of the year. Consequently, this helped keep the tonnage list slightly shorter than it could have been.

New refining capacity coming online in South East Asia which is capable of producing 250,000 barrels per day will likely boost LR2 employment, as this should be the preferred size in order to keep refinery scheduling smooth.

There is reason to be optimistic about the LR2 segment in 2019, as new refineries seem more suited to this segment and there are now fewer port restrictions globally with infrastructure upgraded.

*Picture: **GAGARIN PROSPECT**, LNG powered Aframax Tanker, 113,170 dwt, 2018 built, owned by the SCF Group.*

Clean petroleum products - West

MR1

The MR1 market in the West began with a disappointing winter. With more deliveries into Poland, ton-miles were reduced out of the Baltic. Periodic storage capacity constraints caused delays in the ARA but overall there were still too many ships, resulting in an average TCE of $6,500 per day for the year. It is worth noting that the Handy fleet is aging rapidly and so are the ice class vessels. This market might create some surprises in the years to come as the lack of newbuildings for 2018 and 2019 should keep the fleet broadly unchanged. As a consequence, the share of MR1s above 15 years old is likely to increase from 30% to 45% of the total fleet. The fleet currently consists of 510 units with an average age of 11 years.

MR2

Any rate spike in the West was quickly tamed by the oversupply of tonnage on the opposite side of the Atlantic. With average rate levels of $6,500 per day over the first three quarters, 2018 was extremely painful for MR2 owners. The usual upside from the hurricane season did not materialize, and the poor market continued all the way until October. Fundamentals then improved as TC14 (USG/Cont, 38,000mts) activity produced more ton-miles, gasoline demand from West Africa firmed, the summer spec product changed to winter spec, and more blending naphtha was traded in the Continent and Baltic.

Thus, markets firmed for the first time around end November but rates dropped again by Christmas. Overall in the west, average TCEs for the full year were just above $10,000 per day.

LR1

Returns on this market were also disappointing, with rates averaging $10,000 per day for the first three quarters of 2018. On a more positive note, Q4 averaged $11,000 per day, as the last few weeks of the year firmed significantly before starting to soften in early 2019.

Continent to West Africa voyages saw less demurrage, while East of Suez-bound cargoes headed more to the Middle East rather than Far East, thus reducing overall ton-mile demand. However, condensate imports in the Middle East Gulf increased, supplied by producers in the UK Continent, the Mediterranean and West Africa. At the end of the year, Brazilian imports increased drastically due to a refinery fire which pulled tonnage away from the Middle East Gulf and saw vessels remain in the western Atlantic.

In terms of supply, there is a relatively small orderbook for LR1s. The fleet is expected to grow 2.6% in 2019, while the average age is a fairly balanced 9.4 years. However the BW/Hafnia merger could bring change as this will consolidate the LR1 fleet further, with the new company controlling some 30% of total LR1 tonnage.

Overall, we expect 2019 to be better than 2018 which was a disappointing year, though the LR1 segment will remain sensitive to the fortunes of the MRs.

LR2

It was another difficult year for the LR2s, with owners achieving $15,500 per day on average in a similar pattern to the LR1s. Except for the end of Q4, where both segments moved together, the quiet LR2 market prevented any lasting LR1 spike, and vice versa with each segment taming the other.

One of the more remarkable events in the LR2 segment during the year was the disappearance during Q2 of reformate volumes going into Singapore, a result of new Chinese taxes. This gave owners another reason to work the West market as a backhaul only. Naphtha trades remained small and only tender volumes could be exported.

*Picture: **CASTILLO DE TEBRA**, Small tanker, 13,021 dwt, 2017 built, owned by Elcano.*

One positive development was the number of LR2s that dirtied up, about 15 in 2018, which will be a trend to follow in the coming years. Figures for this segment show 349 units at the end of 2018 with an average age of 7.4 years old. The orderbook at year end represented some 12% of the existing fleet, while 9% of the fleet was over 15 years old.

West African Market - MR2

Owners witnessed less demurrage upside fixing to Lagos in 2018, with the average wait for an MR with gasoline at between 7-10 days during the first half of the year. This extended to approximately 12-15 days (and sometimes even longer) as the year progressed, but with a strong finish to the year in Europe, owners were less keen to have their ships tied up on demurrage. All eyes are now on Q1 2019, with many confident that the market is gradually getting back on the right track. Cross West Africa rates could remain firm at decent levels during the early part of 2019.

FFA MARKET

2018 was an interesting year for tanker FFA trading, with several features that should create growth for the market.

Firstly, we saw a concentration of interest around the introduction of the sulphur cap in 2020, which in turn created a lot of back end trading activity due to the uncertainty around bunker supply, scrubber-ready tonnage, and possible tanker breakdowns due to fuel filter contamination issues. This will lay a good base for trading over the next two years as positional plays are managed going forward.

During the year we saw crude oil prices spike and bunkers costs with them, challenging owners to finally reject the low offers that had become standard over the past couple of years. In the final quarter of 2018, owners played a good hand and overall FFA rates remained at a good level. The forward curve looks a lot healthier than at the close of 2017.

The introduction of a new VLCC route (USGC/China) and an Aframax route (USGC/UKC) will, we hope, gain some traction in 2019 as these should reflect the changing oil flows from the US. We have seen particular interest in the USGC/UKC route. This interest, combined with an expanding client base due to the re-emergence of owners and hedge funds, plus new entries into the FFA market, suggests 2019 could see a healthy marketplace ahead.

The year began with an average of 5 million tons a week being traded. By Q4, this had risen to 10-12 million tons a week and sometimes more, which is indeed a positive note for the year ahead.

During the year we saw oil prices and bunker costs spike

TIME CHARTER

Time charter activity was erratic in 2018 as owners and charterers struggled to bridge offers and bids. This was partly mitigated through base-rate plus profit share structures (either open book or Baltic index linked), while some owners decided to stomach lower time charter fixed rates over short-term periods. The VLCC market started to pick up in October 2018, with the smaller segments including product markets following shortly after. Q4 2018 was characterized by a high volatility and firmer time charter rates, which brought much needed optimism to the market and restored confidence following some disappointing quarterly results.

The forthcoming IMO 2020 regulations led some owners to respond with scrubber fitting/retrofitting, either at the charterer's request against a higher rate and extended TC commitments, or under their own initiative hoping to profit from the spread between the new compliant fuel and HSFO. Amending time charter parties to address this change in a fair and balanced manner proved challenging and required cross-departmental efforts (i.e commercial, operational/technical, legal etc.). Arguably, as of early 2019, there is limited consensus between owners and charterers on a standardized wording which covers owners' and charterers' benefits versus risks – mainly due to the many open questions concerning these new regulations.

Going forward, we anticipate an active Q1 2019 with a progressive improvement in rates and renewed appetite from charterers. We could see a gradual shift away from shorter term to medium term period (ie 24 months) in certain segments but charterers will continue to demand optional periods. As we switch over to 2020 compliant fuels from the second half of 2019, further volatility is expected which should positively impact rates.

Time Charter Rates 2018 vs 2017

Category	Period	2018 TC Rate (average) $/day	2018 vs. 2017
VLCC	12 months	21,760	-18.0%
	36 months	25,750	-10.0%
SUEZMAX	12 months	16,050	-12.0%
	36 months	20,100	-11.0%
AFRAMAX	12 months	14,220	-4.0%
	36 months	16,990	1.0%
LR2	12 months	14,040	-5.0%
	36 months	15,860	-6.0%
LR1	12 months	13,240	-4.0%
	36 months	14,450	-3.0%
MR2	12 months	13,261	1.0%
	36 months	13,800	-1.0%
MR1	12 months	11,607	0.8%
	36 months	12,270	-4.0%

SECOND HAND MARKET

Crude Tankers

"In matters of conscience, the law of the majority has no place" - Mahatma Gandhi (1869-1948). Since the author needs no introduction, we should simply add that this quote sheds some light on the dichotomy between morals and law.

During 2018, crude tanker owners were forced to make a choice: "To fit, or not to fit" scrubbers prior to the IMO fuel regulation deadline of 1 January 2020. In an ideal world, such a decision would have been taken at a later stage. However, existing or forthcoming bottlenecks related to the availability of equipment, available space in repair yards, and even educated manpower, rendered the question compulsory this year.

In simple terms, the law demands that owners trade their ships either with Low Sulphur Fuel Oil (LSFO), or with a scrubber burning High Sulphur Fuel Oil (HSFO), or with a substitute fuel such as LNG, LPG or Methanol. Then, depending whether one places the moral emphasis at a "balance sheet company" level or at a "save the planet" level, there are good and bad reasons to defend any decision made, in what is likely to be a debate that will remain open for several years.

This decision was taken by owners against a backdrop of very discouraging earnings, which in the first three quarters of 2018 barely covered operating costs. These conditions followed the terrible rates endured in 2017, and as such the market registered a fantastic upsurge in tanker scrapping in 2018, seen only before in the mid-1980s.

Units sold for scrap per year

N° of Ships	2013	2014	2015	2016	2017	2018
VLCC	24	11	1	2	16	32
Suezmax	8	10	1	1	14	23
Aframax & LR2	25	27	3	9	31	45
Panamax & LR1	9	14	8	3	8	10

Newbuilding prices had already started to strengthen in 2017, and the trend continued in 2018. This kept modern second hand vessel prices stable while charter rates were low, and even enhanced prices in Q4. Conscious that the tanker industry is still arguably overtonnaged, new orders were lower in 2018 than the previous year. This will pave the way for a better market and increased values in the coming years, assuming 2019 does not overturn this promising behaviour.

New orders 2013 to 2018

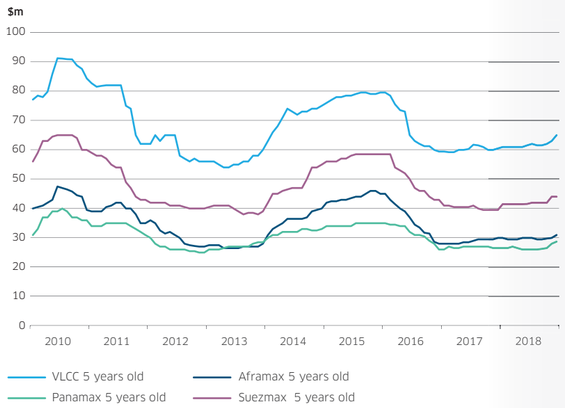
N° of Ships	2013	2014	2015	2016	2017	2018
VLCC	40	42	64	15	58	44
Suezmax	5	43	62	20	28	22
Aframax & LR2	67	44	109	19	37	28
Panamax & LR1	0	28	33	3	8	8

The second hand crude tanker price evolution in 2018 (see table below) reversed the trend of the past and all categories but one showed significant price hikes. On the one hand, re-sales prices were pushed by stronger newbuilding quotes, and on the other, 15-year old units benefitted from a sensible correction upwards since their values were far too close to demolition prices at the start of the year. Only the category of 15 year old Panamax and LR1 vessels failed to benefit from this improvement, underlining the small interest players have given to this segment.

Vessel value changes from January 2018 to December 2018

	Re-sale	5 years	10 years	15 years
VLCC	9.75%	6.5%	5%	10.5%
Suezmax	7%	6%	7.5%	10.3%
Aframax & LR2	10.3%	3.5%	7.3%	8.5%
Panamax & LR1	7.7%	8.5%	0%	(-10%)

Tanker second hand prices



In 2018, the volume of second hand transactions picked up significantly returning to the high levels seen in 2014 when earnings were far better. This is a sign that many shipowners have decided to position themselves with new acquisitions for a market recovery. Both the VLCC and Aframax segments received serious attention from market participants, while it proved difficult to chase and commit Suezmax vessels. This large volume of transactions should however be put into perspective as a large porportion were in fact closer to refinancings (mainly to Chinese and Japanese leasing companies) rather than straight sales to third parties. These refinancings were due to the poor cash situation of many owners after several years of low spot and time charter rates.

S&P activity (vessels for further trading)

N° of Ships	2013	2014	2015	2016	2017	2018
VLCC	60	51	55	28	48	48
Suezmax	20	34	38	19	29	28
Aframax & LR2	41	67	52	39	42	66
Panamax & LR1	25	22	18	8	12	20

VLCC

VLCC sales activity in 2018 was similar to the previous year with a total of 48 ships changing hands. The segment which stood out the most was ships built 2001-2004, where 19 units were sold. This was a natural consequence of the excess price decline seen last year for 15 years old units, a loophole that astute buyers quickly exploited. A typical example was the sale of the **Takamine** (built 2004 in Japan) which was reported sold for $23 million. Ships younger than five years also benefitted from some traction, with a total of 16 sales. Here it is worth mentioning the en bloc sale of the re-sales Hull Samsung 2229 and Samsung 2230, which were sold for around $89 million each without scrubbers.

There were few ten year old candidates for sale during the year, explaining why activity has been limited for this specific vintage.

We saw 38 VLCCs entering the fleet this year (compared to our expectation of 54 vessels). The orderbook included 112 units by the end of 2018, and theoretically no less than 80 ships should hit the water in 2019. This is a somewhat alarming number, representing one new ship every five days.

Suezmax

We notice a similar trend in the Suezmax market. Out of 28 S&P transactions in 2018, no less than 13 were for vessels built between 2001 and 2005. Values were attractive for these vintages, for example pushing clients of Avin to acquire the 15 year old **African Spirit** (151,000 dwt, built HHI in 2003) for a modest price of $13 million. This category of ship has also been under the spotlight during the year with the forced sale of several modern or re-sale units from the Trade & Transport fleet to various owners. We can mention the sale of the **United Dynamic** (161,000 dwt, built 2010 in China) for a price of around $27 million. It is worth noting that out of the 28 transactions in 2018, ten were re-sales. Such a high ratio can be explained by the attractive prices obtained by some buyers as a result of forced sales.

The Suezmax fleet saw 33 units delivered in 2018 versus a forecast at the end of 2017 for 50 vessels. As of December 2018, the total Suezmax orderbook was 58 units, with 31 due to start trading in 2019.

Second hand transactions picked up significantly in 2018

*Picture: **FRONT DUKE**, VLCC Tanker, 299,334 dwt, 2016 built, under Frontline management.*

Aframax and Panamax

The age profile of Aframax vessels sold during the course of 2018 was more evenly spread. A total of 66 units (including LR2) changed hands, and 13 vessels were five years old or younger. The forced sale by Trade & Transport plus several refinancing deals boosted the volumes of modern ships sold. The 5-10 year old category was quite active with 16 vessels sold. Greek buyers took the lead in this segment as illustrated by the Avin purchase of the **United Journey** (112,000 dwt, built SPP in 2010) for a reported $26.1 million. The lion's share nevertheless fell again in the 10-15 year old category. Once again, this was due to the magnitude of the fall in their values over the last 18 months; a correction had to happen given prices were too good to resist. Some 32 units of this age changed hands. As an example, we note the sale of the **CSK Shelton** (106,000 dwt, built Daewoo in 2005) for a reported price of $13 million.

Of the 75 Aframaxes (LR2 included) we were expecting at the end of 2017 to be delivered during 2018, we finally saw 68 hit the water. In 2019, we should see another 61 vessels delivered while the total orderbook stood at 100 units as of late December 2018.

Sales activity for Panamax tankers saw a strong revival, and most sales were conducted at year-end when LR1 spot rates improved significantly due to the larger volumes produced in the Middle East refineries. While only 12 units were sold in 2017, no less than 20 changed hands in 2018. All vessels sold were built between 2000 and 2011, with no agreement possible for the most modern units. We could however expect this trend to change during 2019 with modern ships changing hands as rates improve. In a refinancing exercise, Hafnia sold two of its 75,000 dwt vessels (built at STX Korea in 2010) for a reported price of $19.3 million with a seven year bareboat charter back. The older **Formosa Falcon** (70,500 dwt, built Japan in 2005) was reported sold for a price in the region of $8.5 million.

For the Panamax (LR1 included) fleet, we saw 17 vessels enter the fleet in 2018 against an anticipated number of 21 units at 31 December 2017. The total orderbook at end 2018 consisted of 28 units, of which 17 are due in 2019.

OBO

There are still very few OBO newbuildings of around 83,500 dwt in the pipeline for delivery. Such vessels would be very welcome in order to rejuvenate this niche market. For a change, we can report the sale of the VLOO **F Whale** (319,869 dwt, built HHI 2011) in 2018 for a price reported to be around $37 million after the vessel's previous owners defaulted at the time of yard delivery. Otherwise four units ranging from 54,500 to 110,000 dwt built in the 1980s and 1990s found their way to demolition.

Crude S&P outlook for 2019

While one should remain prudent, there are a number of reasons for us to be reasonably optimistic for the volume of transactions and vessel prices in the short to medium term. Tanker owners found themselves an ally of circumstances with the current president of the US: not only is President Trump keen to maintain a low oil price for his re-election chances but current government policies are disrupting business activities. While this may partly benefit oil transportation in the short term, there would certainly be more benefit in the longer term with an end to the trade wars.

There are additional factors which should reassure tanker owners. In first place comes the progressive reduction of the orderbook. In parallel, shipyards are not in a position to lower their asking prices as capacity has already been reduced and refund guarantees are now obtainable if, and only if, the project appears sound to the yard financers. A lack of traditional ship finance, the crew matrix, plus ever changing rules and regulations create some sort of an invisible barrier to new entrants, de facto protecting the value of the assets and the position of existing tanker owners. But the market has been there before, and while we have good reason to believe that the worst is behind us, it could only take a few large orders in each segment to spoil the party.

In less than a year we will in theory consider the 2020 fuel dilemma a past debate, and our eyes should turn to the next industry challenge: that is the IMO's commitment to halve greenhouse gas emissions between 2008 and the end of 2050. Then it is likely we will again face the "Gandhi" dilemma, as we already know promoting LNG as the shipping fuel of the future is an obvious choice when it comes to SOx, NOx and CO2. Regretfully, its ability to combat greenhouse gases appears already highly controversial due to the inevitable release of methane into the atmosphere.

*Picture: **MONTE URBASA**, Suezmax Tanker, 156,400 dwt, 2018 built, owned by the Ibaizabal group and managed by Cepsa.*

Clean tankers

MR1/MR2

The year started on a positive note with the Baltic Exchange S&P Index (BSPA) for 5 year old second hand MR2s having already improved by about 10% during 2017. This trend continued in 2018, with the price rising a further 10% over the course the year from a starting point of $23.7 million in January to $26.1 million by December.

The increases could be attributed to a general optimism for the future of the products market, combined with the impact of the upcoming 2020 fuel regulations, and a strong presence in the market by Chinese leasing houses.

One can note that the time charter rates travelled a different journey during the year. Earnings for MR2s were at the vicinity of $14,500 per day in Q1 2018, followed by a downward trend that saw rates reach an average of $13,800 for Q2, falling to around $13,000 for Q3, and finally $13,100 during Q4.

The MR1s followed a different trend, with time charter rates during Q1 coming in around $12,000 a day, rising to $13,000 by Q4.

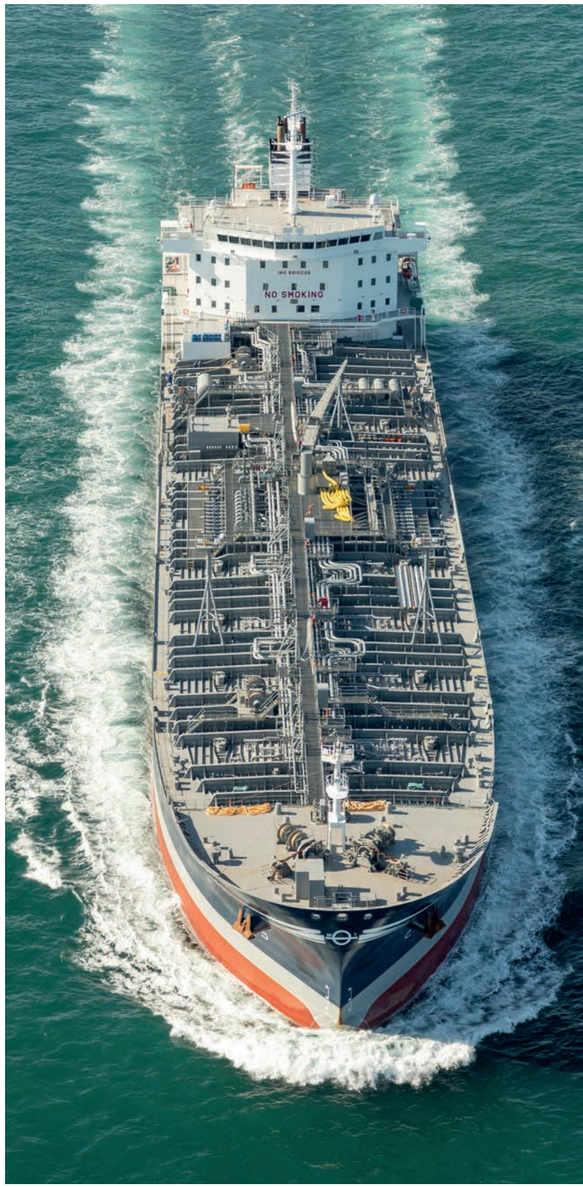
We expect this trend to continue in 2019 as a result of the projected increase in trade of clean petroleum products. The IMO sulphur rules taking effect 1st January 2020 raise many questions, and it remains to be seen whether the US administration will seek to postpone the implementation of the regulations.

In the sale and purchase market, 48 MR1s and 134 MR2s were sold in 2018. These figures include at least 38 vessels sold under sale and leaseback structures. A large share of these belonged to Scorpio Tankers.

In the newbuilding market, 70 MR2s were ordered during 2018, equal to about 3.5 million deadweight. This is very similar to 2017, when the market saw some 3.7 million deadweight ordered.

There were no MR1s ordered during 2018.

There are a number of reasons to be optimistic for vessel prices



*Picture: **WISBY PACIFIC**, MR2 Tanker, 49,686 dwt, 2017 built, owned by Wisby Tankers.*

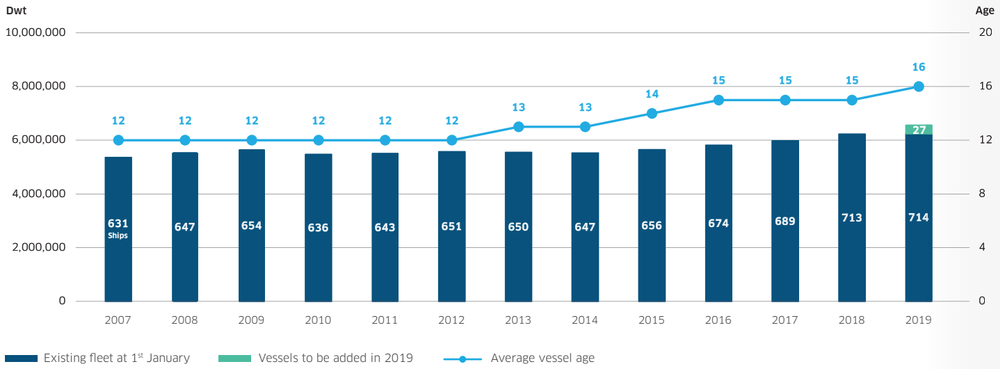
Chemicals & Small Tankers

Rough waters

The chemical tanker market continued to struggle with overcapacity during 2018. The huge number of newbuilding orders placed since 2016, in particular in the larger size segments, put enormous pressure on shipowners, creating another challenging year.

MTM NEWPORT
Chemical/Oil tanker, 35,976 dwt, delivered in 2018 by Japanese shipyard Shin Kurushima to M.T. Maritime Management.

Stainless steel chemical tanker fleet evolution (<19,000 dwt)



CHARTERING

Overcapacity and limited demand

2018 began with the threat of further strong deliveries. The stainless steel chemical tanker segment between 19,000 dwt and 45,000 dwt registered 44 deliveries in 2017 and another 39 in 2018. A further 34 are expected in 2019, and 18 in 2020 (see table on page 62).

These figures represent a 20% increase in deadweight terms for this segment over a period of just two years, with another 10% increase forecast for 2019 and 2020. As such, shipowners faced significant challenges in finding employment for their fleets, and many finished the year with unsatisfactory results.

During 2018, the chemical tanker fleet (3,000-45,000 dwt) grew by 4.3% in number of ships and by 6.4% in deadweight, while the corresponding demand rose by less than 1% despite an improving global economy.

Investment in new chemical production capacity is now concentrated in countries such as the US and China, where growth is currently the greatest. The US is increasing competitivity by using its shale gas reserves as feedstock. Meanwhile, to meet rising local demand and improve self-sufficiency, China plans to add more than ten petrochemical complexes along the country's east coast in the coming years.

These investments, while mainly performed by local companies, have also caught the attention of foreign multinationals such as Exxon Mobil, BASF and Sabic. These new plants, combined with the potential for a prolonged trade conflict between the US and China, will likely lead to changing trade flows and patterns.

Shipowner consolidation

In recent years, we have seen significant consolidation among shipowners as companies have pursued greater efficiencies of scale. In particular, smaller shipowners with fewer vessels found themselves lacking the flexibility and reactivity of the larger groups when responding to Contract of Affreightment (COA) tenders.

As part of this consolidation, Nordic Tankers sold two of its divisions in late 2017: Crystal Nordic (14 vessels between 4,000-12,000 dwt) to John T. Essberger, and Herning Shipping to a consortium headed by Axel Eitzen. The latter was renamed Christiania Shipping. In February, Team Tankers announced the acquisition of Laurin Maritime and Anglo-Atlantis Tankers for $206 million, a deal which added 34 coated IMO II/III MR tankers to its existing fleet of 33 vessels.

Finally, at the end of 2018 Eastern Pacific reportedly bought thirteen 19,000 dwt stainless steel vessels from the BW Group. These vessels will be operated by Ace Quantum, which will manage the largest fleet of stainless steel ships in this size segment in future with a total of 33 vessels on the water.

Meanwhile, 2019 has already seen its first consolidation deal, with Triton selling its 100% owned Nordic Tankers to MOL Chemical Tankers. The new combined operation will be renamed MOL Nordic Tankers A/S, and have a fleet of 75 vessels. More mergers, joint ventures and buyouts are expected.

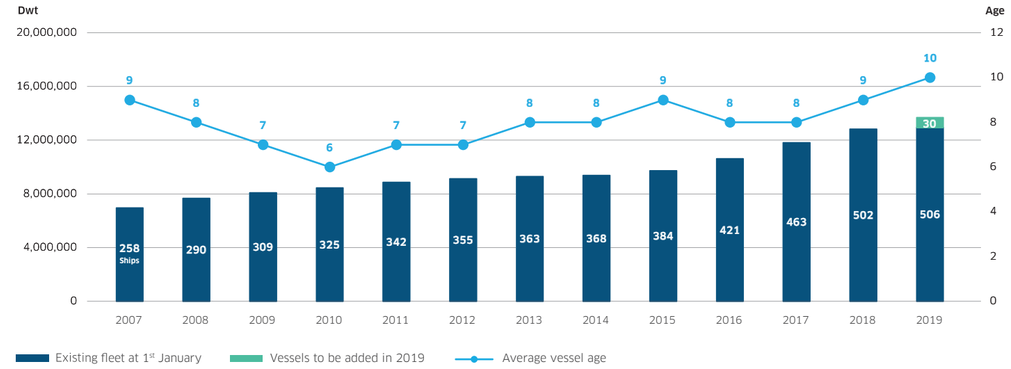
Environmental constraints

The forthcoming IMO 2020 sulphur fuel cap raises many questions: will shipowners opt to use compliant fuel or install scrubbers? Will there be enough supply of compliant fuel, and at what price? Will there be compatibility issues? Will scrubber manufacturers be able to cope with demand? And will scrubbers remain in compliance with the evolving regulations?

Chemical tanker owners seem to have made their choice, with the vast majority (such as Odfjell) opting to use compliant fuels.

Other shipowners have yet to commit to an approach. For example, Stolt took delivery of several newbuildings, two of which will be fitted with scrubbers. Depending on the company's experience with these ships, the remainder could potentially be retrofitted later. Elsewhere, the IMO Ballast Water Management regulations, which come into effect this year, could also push shipowners to demolish some of their older vessels.

Stainless steel chemical tanker fleet evolution (19,000 - 45,000 dwt)



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

After a slow start, the North West Europe market in 2018 saw a relatively stable period in the middle of the year, followed by a depressed summer and autumn. Rates moved from 'poor' to 'normal', and then back to 'poor' again, making it a frustrating year for all involved.

Both the DPP and CPP markets have been under pressure for quite some time now, principally due to the number of newbuildings coming into the market. This pressure was exacerbated by the arrival of several newcomers in the market, creating significant internal competition between shipowners.

In the DPP market we saw further consolidation in the fleet at the start of the year, with some owners opting to trade clean instead, while the more experienced players opted to focus on the DPP segment.

It was a dynamic year on the shipowning side: some famous names changed employer, and several vessels changed hands. We even saw the emergence of some new players in the market, though this was mainly due to some owners pulling their ships from pools, a result of weak earnings.

In the intermediate segment (18-19,000 cbm), Time Charter Equivalents were similar in 2018 to the previous year at $10,000-$11,000 per day for the CPP trade.

In the FAME/Biodiesel market, we note significant growth in this segment attracting more and more traders and majors. This benefited specialized shipowners, and we expect more companies to get involved in this sub-segment during the course of 2019.

Finally, in relation to the most discussed and debated topic of the last five years, the IMO 2020 regulations, shipowners remain largely optimistic that the new rules can and will have a positive impact on the market.

We share this optimism to a degree, though it remains to be seen if the overcapacity in the market will be absorbed by what could be stronger trading in small and intermediate cargoes.

The translatlantic market

In the transatlantic market, owners enjoyed a few months of sunshine in Q1 with fresh spot enquiries, steady COA volumes, and a firming market. Unfortunately, a wave of newbuilding deliveries subsequently returned the market to the poor conditions seen in 2017.

The eastbound trade was again the leading leg for this market, though rates softened overall compared to the previous year. The market remained in the hands of regular players, who relied on their COA cover to keep their ships moving. Sporadically, spot market opportunities would enable them to fill up their backhaul space but on many occasions owners sailed 'light'.

Market conditions on the westbound trade were very similar. After the first quarter's gains, owners saw freights soften throughout the year, a result of overcapacity and a weak spot market from Q2 onwards.

This was nothing compared to the drop seen a year previously, but it was still a difficult year for owners needing to position their ships in the US. Owners were fighting for every spot cargo in a bit to avoid sailing with too much empty space.

The North East Asia market

The North East Asia market was disappointing for most shipowners in 2018, save for some Chinese domestic operators. The market started the year on a firm basis and remained stable until the summer. However the second half of the year saw the market soften rapidly, with high bunker costs and extremely low freight rates.

The fleet grew 6.4% in 2018 by deadweight

From October and November onwards, cargo volumes dropped sharply as the trade war between the US and China escalated, and the overall fall in demand saw many shipowners losing money in 2018.

On 1 December, news that the US and China had agreed a 90-day ceasefire in their trade negotiations stirred the market and cargo movements leapt in second-half December, allowing shipowners to successfully raise freights.

Meanwhile, on 1 January 2019, China implemented new regulations creating four new Emission Control Areas (ECAs) limiting sulphur emissions at 0.5%. These include a new Coastal ECA covering all sea areas and ports within China's territorial sea, as well as a specially designated ECA in China's southernmost province Hainan, plus two Inland ECAs covering parts of the Yangtze River and the Xi Jiang River.

Shipowners will now have to burn low sulphur fuels in these areas which, with the spread on bunker prices, represented a cost difference of $200 per ton of fuel in mid-January. The move will of course increase shipowners' operating expenses, which will in turn impact freights.

The Chinese domestic market

The Chinese domestic market was very active in 2018, with tight tonnage availability, stable COA volumes, and high spot activity all pushing freights upwards.

This, combined with increased bunker costs and the new ECA zones, meant most COAs were renewed with a 5%-10% increase on freights.

Shipowners on the Chinese domestic trade remain optimistic for 2019, and expect a sharp increase in demand for domestic tonnage due to the planned opening of several new Purified Terephthalic Acid (PTA) and Methanol-to-Olefins (MTO) plants during 2019 and 2020.

Conclusion

Looking forward, it is expected that the interest of equity funds in the chemical tanker segment will diminish. This could lead to a decline in newbuilding investments, and therefore a reduced orderbook in the near future. 2019 will, however, still see many additions to the global fleet, increasing the current imbalance in the market. Hopes for a significant recovery are now postponed to at least 2020, when the new fuel regulations will finally be in place bringing potential change to the market. However, it appears shipowners will still have to sail through some rough waters for a little while.

Fleet overview of stainless steel vessels 19-45,000 dwt at 1st January 2019

Delivery Year	Number of deliveries	Dwt delivered	Total Fleet <20 years	Percentage of Fleet <20 years	Scrap candidates >20 years
2017	44	1,253,640	11,061,618	93.6%	748,997
2018	39	1,007,592	11,745,980	91.6%	1,072,227
2019	34	868,433	11,610,500	89.7%	1,322,980
2020	18	497,640	12,108,140	90.1%	1,723,089
2021	0	0	12,108,140	90.1%	1,929,392

*Picture: **CHEMICAL HUNTER**, Chemical/Oil tanker, 16,081 dwt, built in 2015 by Asakawa in Japan, operated by Chemship.*

SECOND HAND MARKET

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

Some 83 sales (including 20 stainless steel vessels) were concluded in this segment in 2018 excluding merger and acquisitions or sale-and-leaseback deals. This represented a sharp decrease in activity compared to the previous year, with numbers down by around 25%. Needless to say, prices also fell.

The average age of vessel sold increased again, reaching 13 years in 2018 compared to 12 in 2017 and 11 in 2016. Buyers have been cautious and their lenders even more so. However, the average size of vessel declined, an unexpected trend given the greater operational competitiveness of the larger vessels.

These two apparently contradictory developments appear to reflect tightening financing conditions for shipowners: with typically half of the purchase price needed in equity, it was no surprise to see buyers purchasing smaller, older tonnage. Shipowners' profitability, and therefore available cash, does not seem to be there yet.

Bunker prices were firm for the first ten months of the year, averaging $405/ton for heavy fuel oil (HFO) with Rotterdam delivery. To illustrate, a standard coated 13,000 dwt vessel built in South Korea needed to buy $7,000 of HFO per day when steaming laden at service speed. Only the end of the year brought some solace to shipowners, when bunker prices decreased by one third.

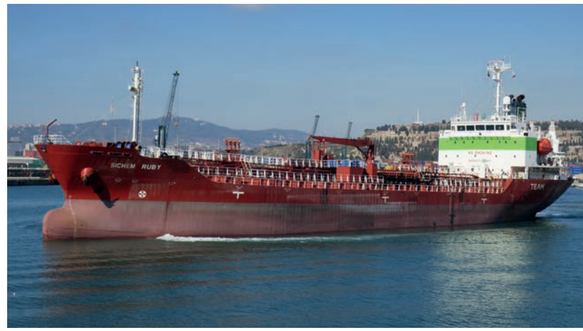
As we forecasted, demolition soared in 2018, jumping from 155,000 dwt demolished in 2017 to almost 400,000 dwt, an increase of 250%. The average age of scrap remained unchanged at 32 years.

This illustrates the impact of higher bunker prices, with lower (if not negative) margins pushing some owners to demolish. That said, demolition is always a last resort for the smaller vessels, where lower lightship weights and remote scrapyards offer fewer opportunities for profit than for the larger vessels.

Special attention must be given to the bitumen tanker market which is suffering from overcapacity. A large number of eligible ships i.e. ships which meet oil major standards, have been delivered over the past ten years, but this has not pushed the older ships in this segment to scrap.

This exemplifies one of the key elements underpinning the poor market for all tankers: a structurally low demolition-to-delivery ratio, resulting in continued fleet growth despite low returns. Indeed in the entire 3,000-25,000 dwt segment in 2018, the orderbook represented 4 times the amount of tonnage scrapped, even though it was the strongest year for demolition in a decade. (In 2017 the orderbook represented 13 times the volume demolished!)

2018 saw a sharp decrease in S&P activity



Conclusion

We expect 2019 to be the last in a long series of bad years for shipowners since 2008.

The segment may benefit from the IMO 2020 sulphur cap regulations in the long run.

While fitting scrubbers is economically justifiable for the larger vessels over 25,000 dwt, it clearly does not make sense for the smaller vessels in the 3,000-25,000 dwt range. As a consequence, we do not expect to see many small vessels being taken out of the market for scrubber retrofit.

However, there should be an impact from Q3 2019 onwards. We expect demolition to rise as shipowners hit two walls: the aforementioned sulphur cap on 1 January 2020, plus the mandatory Ballast Water Management System regulation, which comes into effect on the vessel's first periodical class survey after September 2019.

In both cases, owners will face higher costs: either the necessary investment in ballast water systems and/or scrubbers, or an increase in bunker costs. For instance, the spread between diesel oil and heavy fuel oil is currently in the region of 55% and set to rise further. This will inevitably prompt a growing number of owners to choose an escape via the demolition yards.

Since burning gasoil is essentially the only choice for small tanker owners, we expect demolition to surge in the second half of 2019, and the average age of scrap to fall from 32 years to nearer 25 years. At the same time, let us not forget that vessels built between 2005 and 2008 will soon reach that delicate age of 15 years. This portion of the fleet will represent 22% of the active fleet in 2019.

Thus unless bunker prices remain durably low, another painful year is to be expected, but hold on tight, we are almost there.

*Picture: **SICHEM RUBY**, Chemical/Oil tanker, 8,824 dwt, built 2006 by Murakami Hide, operated by Team Tankers.*

LPG

A brighter outlook

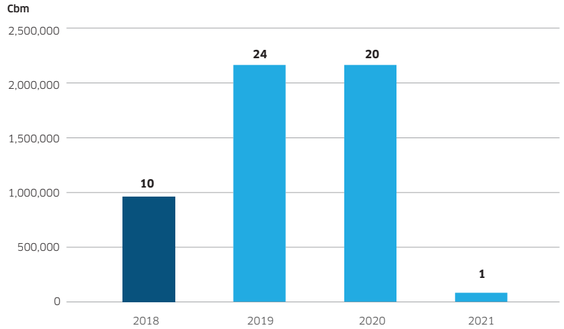
After an extremely difficult year in 2017, owners and operators of LPG tonnage sailed into somewhat calmer waters in 2018, helped by firmer demand and decelerating fleet growth. While the first half of the year remained challenging, there was a significant improvement in earnings in the second half.

A marked improvement was recorded in the LPG market as from the second half of 2018. Indeed, the Baltic Exchange Liquid Petroleum Gas Index (BLPG) averaged $27.80 in the first half of the year, but reached an average of $41.30 for the second half.

Overall, rates were 25% higher over the full year compared with 2017, as both supply and demand trends turned in owners' favour.

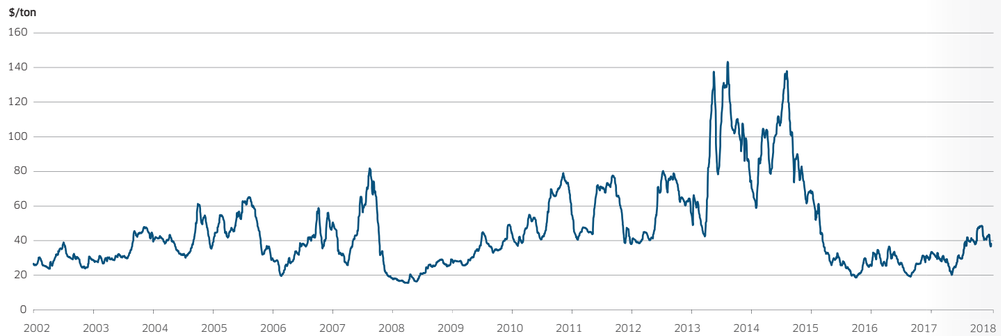
BW ARIES
LPG Tanker, 80,793 cbm, delivered in 2014 by Korea's Hyundai Ulsan, operated by BW LPG.

VLGC deliveries & orderbook

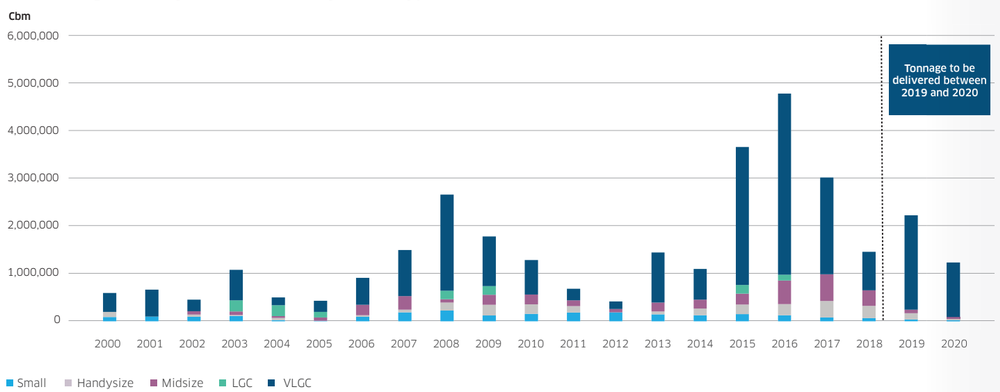


2018 saw a marked slowdown in fleet growth

Baltic Exchange Liquid Petroleum Gas Index



LPG tonnage delivery and orderbook by vessel type since 2000



THE FLEET

Since 2015, the LPG shipping fleet has seen exceptionally high fleet growth. Capacity rose 16% in 2015, 18% in 2016, and 9% in 2017. Such tonnage concentration helps to explain the collapse in the BLPG from a high of nearly $140 per ton in 2015 to levels of around $30 at the start of 2018.

2018 saw a marked slowdown in fleet growth, however. Between 1 January and 31 December the LPG fleet saw a net gain of just 535,000 cbm, representing an overall fleet growth of just 2%. This undoubtedly contributed to the firming in rates during the year, and reflected both an increase in demolition and a decline in the number of vessels delivered.

Nearly all size segments saw a drop in the number of vessels delivered in 2018: just 10 VLGCs were handed over in 2018, and only 9 midsize units. These figures represent respectively a 50% and 40% decline in capacity added year-on-year.

Meanwhile, in the demolition market, 35 units equivalent to 850,000 cbm were scrapped in 2018, versus 22 units of 385,000 cbm in 2017.

Challenges lie ahead however. Some 24 VLGCs are due for delivery in 2019, a huge amount for a segment that has already absorbed nearly 120 ships over the past four years.

At the end of 2018, the orderbook represented 11% of the LPG active fleet.

CHARTERING

VLGC – 75,000 cbm +

The VLGC segment saw arguably the most dramatic improvement in 2018, but owners had to wait several months for signs of life. January saw the start of four consecutive months of falling freight rates due to thin arbitrage opportunities for traders. In Q2, the BLPG dropped below $20 to hit $19.93 on 17 April, the lowest level in eight months.

A lack of buying interest from Asia, and competition from trader relets, served only to increase the open vessel position list. Meanwhile, in March and April, high inventories in the US kept the Mont Belvieu price low, pushing the average propane arbitrage from the US to the Far East to $50 per ton.

However, the advent of the tariff war between the US and China disrupted the flow of cargo moving to China. The Middle East Gulf, including Iran, subsequently took over as China's largest supplier, but with it came reduced ton-miles.

It remains to be seen how the trade war and sanctions against Iran will impact the market in the medium-term. Chinese demand growth also moderated compared to the high growth rates seen in 2015.

Overall, Time Charter Equivalents on the Middle East-Japan route touched a low of just over $2,000 per day in April and a high of $30,000 at end September. The latter was the highest level seen since 2016.

During the year, Exmar made the headlines when it announced an order for two LPG-fuelled VLGCs to be built at Hanjin Heavy Industries (HHI) in the Philippines for delivery in Q3 2020. The vessels, which will be chartered to Equinor, will utilise their onboard LPG cargo as fuel.

Meanwhile, BW LPG announced the first ever LPG fuel retrofits. It will equip four of its VLGCs with LPG-propelled dual-fuel engines as it prepares for the IMO 2020 fuel cap.

*Picture: **B GAS SUPREME**, LPG Tanker, 3,500 cbm, delivered in 2014 by Japan's Kitanihon, operated by B Gas A/S.*

Midsize – 30,000 to 50,000 cbm

After a very difficult year in 2017 due to widespread overcapacity, the modern midsize segment saw Time Charter rates climb from the mid $400,000/month level at the start of 2018 to the high $500,000s by year end. This was mainly due to more long haul petchem voyages from the US Gulf, Brazil and Europe to Asia.

However, the segment did not perform as well as the VLGCs or Handysizes, and traded at a discount to Handysizes for much of the year.

About one-third of this fleet is now employed in the ammonia (NH3) trades, mainly on long-term charter.

9 ships were delivered during 2018, 40% lower than in 2017, while the orderbook remains limited, with just 2 ships scheduled for delivery in 2019 and 1 in 2020. Six units were demolished during 2018.

Handysize - 12,000 to 30,000 cbm

Time charter rates reached an average of $500,000 per month for semi-refrigerated vessels in the Handysize segment in 2018, underlining the strong year for this segment.

The market saw more long haul petchem cargoes from west to east, which benefited the fleet, including ethylene capable units. This trend is expected to accelerate in 2019 thanks to several new pipeline and terminal projects currently underway and due to cheap ethane feedstocks in the US which will increase olefins for export.

In 2018, US energy provider Enterprise Products Partners announced a 50/50 joint venture with Navigator Holdings, operator of the world's largest fleet of Handysize LPG carriers, to build a new ethylene export facility on the US Gulf Coast with the capacity to export 1 million tons of ethylene per year. The facility is expected to go into service in Q1 2020.

Mariner East 2, the second phase in the Mariner East Project, will also further boost US exports of propane and ethane. The pipeline, processing and export project is being developed to convey NGLs from west Virginia and eastern Ohio to Marcus Hook on the US east coast. Owner Sunoco confirmed that a hybrid version of the second pipeline started operations in December 2018.

Handysize operators saw some market cannibalization in 2018 after two propylene shipments were taken as part-cargoes by VLGCs for the first time ever during the summer.

Overall, 11 new ships were delivered in 2018, down from 16 in 2017. The market is scheduled to receive 9 more in 2019. Meanwhile, 5 units were demolished in 2018. However, this number may be expected to rise in the coming years with 18% of the fleet over 25 years old and the advent of new regulations.

Small LPG – 13,000 cbm and below

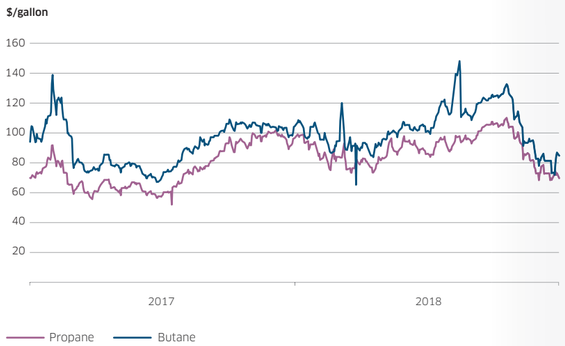
2018 was again a difficult year for the larger pressurized vessels in the 7,500-12,000 cbm size range.

However, in the smaller segment the fleet continues to age and there is little fleet renewal. This trend should continue to drive a firming in rates.

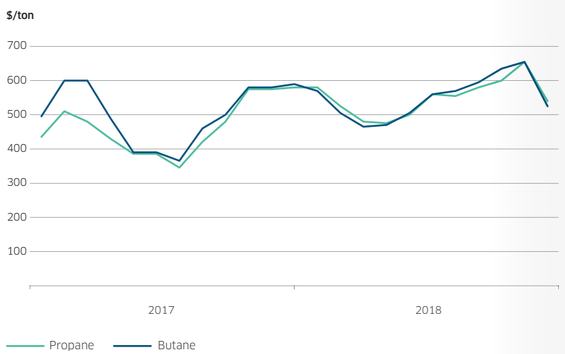
For vessels engaged in Ship-to-Ship (STS) operations, the market was supported by the increase in transshipment hubs and the trend towards more breakbulk logistics.

Small semi-refrigerated tonnage benefited from higher petrochemical activity, mainly from the US Gulf, Brazil and Europe to Asian destinations.

Mont Belvieu Propane & Butane prices



Saudi Arabia Propane & Butane prices



BW announced the first ever LPG fuel propulsion retrofit

SECOND HAND MARKET

2018 saw a sustained level of LPG sale and purchase (S&P) transactions but the year demonstrated once again that high volumes do not necessarily translate into significant price increases. Nonetheless, more than 100 units (demolition deals included) changed hands in 2018.

In terms of prices, the market saw slight changes both up and down in the various segments. Older units saw the most consistent increase. A general trend of firmer prices was supported by the increase in steel prices during the year, which saw demolition yards and cash buyers prepared to pay more for scrap candidates.

VLGC – 75,000 cbm +

It was a particularly active year for the VLGC segment, with more than 30 units reported sold either for further trading or demolition. Among these, several were sold with time charter or bareboat back deals attached. Western banks and Japanese leasing houses were particularly active in the segment.

Prices for modern tonnage rose quite significantly in 2018 compared to the previous year. For example, in 2017 a vessel built in Korea in 2014 was sold with a 12 year bareboat charter back for $65 million. However in 2018 the **Corvette** and **Concorde**, built 2015 in Korea, were sold with a 13-year leaseback for $70 million.

To complete the picture for modern tonnage, 3 units built at Hyundai Samho Heavy Industries in 2017 were sold with long-term charters attached at values above the market of $70-$75 million each.

The remaining transactions mostly involved vintage units of more than 20 years old, which were purchased by Indian and Chinese buyers. Scrap prices were firm at slightly more than $440/ldt, which resulted in considerable activity in the demolition market.

Midsize – 24,000 to 42,999 cbm

The mid-size segment between 24,000-42,999 cbm showed a fair degree of activity, with transactions mainly concentrated on more modern units for further trading or older vessels for demolition. Noteworthy was the purchase by Zodiac of the **Sanko Innovator** and **Sanko Independence**. These two vessels built by Korea's Hyundai Heavy Industry in 2008 were rumoured to have been sold for between $14 million and $16 million each. The only other sale for further was the disposal of the **Solaro**, built 1996 at Cantieri Navali di Sestri, which Carboflotta sold to Great Eastern for $8.7-$8.9 million. Finally, 6 vessels were sold for demolition to Indian buyers.

Handysize – 13,001 to 23,999 cbm

There was very limited activity in this segment, with only four units reported sold for demolition.

Small LPG – 13,000 cbm and below

High levels of activity were also apparent in the smaller segment, with more than 50 deals reported for ships of 13,000 cbm and below. During the year, Exmar clinched a deal to sell and leaseback 10 vessels to Japanese counterparties. Otherwise, activity was widely spread between the different ages of vessel, although vintage units proved particularly popular with southeast Asian buyers, which will use the ships for local and domestic trades.

More than 100 units changed hands in 2018

*Picture: **ECO INVICTUS**, LPG Tanker, 5,000 cbm, delivered in 2014 by Japan's Sasaki, operated by Stealthgas.*

LNG

The renaissance

At the close of 2018, some 495 LNG carriers above 100,000 cbm (excluding FSRU, FSU and FLNG) were in service, with 55 units having been delivered during the year. This increase in tonnage was largely driven by continuous growth in LNG production around the world.

FLEX RANGER
174,000 cbm membrane LNG Carrier, built by Samsung Heavy Industries, delivered to Flex LNG in 2018.

LNG supply reached 320 million tons in 2018, an increase of approximately 28 million tons compared to 2017. Growth was mainly driven by Australia, where production increased by 12 million tons during the year, and by the US where the ramp-up of new liquefaction trains accounted for an extra 8 million tons of supply.

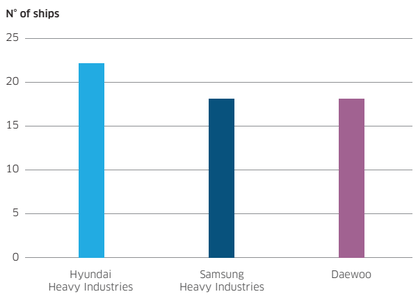
While Qatar remains the largest LNG producer in the world with a capacity of 77 million tons per year, Australia is not far behind at nearly 69 million tons per year. At the same time, US exports are expected to more than double in 2019 to reach 45 million tons. This would be up from an already exceptional 21 million tons in 2018. In parallel, Russia is playing an increasingly important role, with the Yamal LNG project representing 7.8 million tons of capacity in 2018.

In terms of demand growth, China continues to lead the pack. It imported an extra 16 million tons in 2018 - more than 50% of the year's increase - taking its total imports for the year to 54.8 million tons. China is expected to become the world's largest importer by 2030, when it will have a forecast demand of more than 80 million tons of LNG per year.

Several major project rulings are due in 2019: Final Investment Decisions (FID) are expected for Arctic LNG 2 (+20 million tons/year); for four new trains in Qatar (+32 million tons/year); the Mozambique gas development project; and also for the US LNG projects (an estimated +40 million tons/year).

Altogether, this group of projects will represent extra demand for shipping tonnage, and should ensure steady growth in the LNG market going forward. Indeed, LNG demand is expected to grow by an average 4% per year until 2025, which will have a clear impact on newbuilding activity.

LNG orders per shipyard in 2018



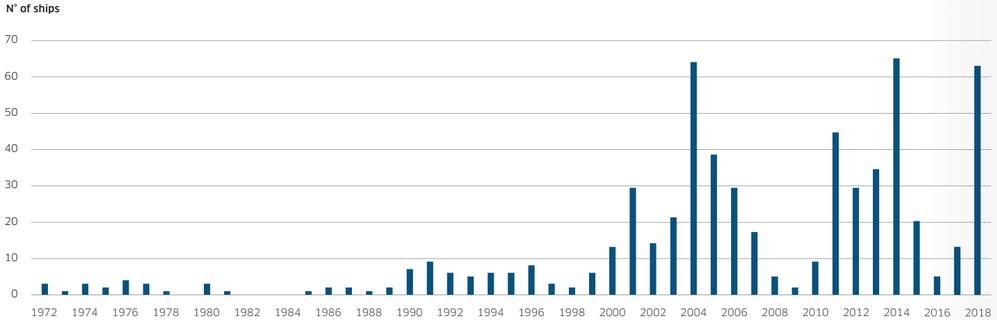
THE FLEET

Orderbook

2018 was an exceptionally dynamic year for the LNG newbuilding market. Some 61 conventional LNG carriers above 100,000 cbm were ordered during the year, falling just shy of the record 64 contracts placed in 2014.

The three major South Korean shipyards, Hyundai Heavy Industries (HHI), Samsung Heavy Industries (SHI) and Daewoo Shipbuilding & Marine Engineering (DSME), captured all 61 orders and remain the only shipyards competing in this segment.

Historical LNG newbuilding orderbook (>100,000 cbm)



*Picture: **GOLAR NANOOK**, 170,000 cbm membrane FSRU, built by Samsung Heavy Industries, delivered to Golar LNG in 2018.*

HHI secured the most orders during year with 23 units, followed by 20 units for SHI and 18 for DSME.

The 61 orders were placed by 19 different shipowners. TMS Cardiff Gas led the field with 8 orders placed (4 at HHI and 4 at SHI), followed by NYK, Flex LNG and Gaslog with 7 orders each.

Last year was notable for the wave of new entrants coming into the LNG shipping market, plus the fleet expansion of several smaller LNG shipowners.

Two Greek shipowners, Capital Gas (Marinakis Group) and Minerva Maritime, made a strong entrance into the LNG shipping market with four orders each: Capital Gas at HHI and Minerva at SHI and DSME. This formed part of a major push into LNG shipping by the country's owners: a total of 28 Greek orders were placed by both major established operators (Gaslog, 7 orders) and fledgling owners (TMS Cardiff, 8 orders; Alpha Gas, 3 orders; Thenamaris, 2 orders).

Meanwhile, two Danish shipowners/investors contracted their first LNG newbuildings in 2018. Celsius Tankers ordered two 180,000 cbm (XDF/MARK III Flex) vessels at SHI and is reported to have taken additional options at the yard. Navigare Capital has been identified as the contractor of a late 2018 order at SHI for a 174,000 cbm (XDF/MARK III Flex) unit.

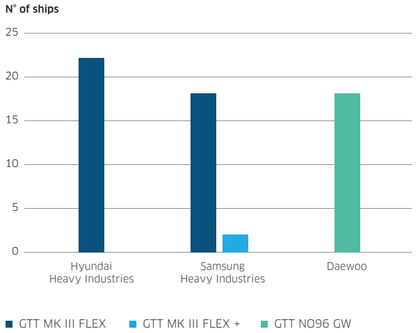
In terms of technology, the shipyards continued with their customary choices of cargo containment system and propulsion technology in 2018: DSME is focused on vessels fitted with NO 96 cargo containment technology and MEGI engines, while HHI and SHI are mainly dedicated to MARK III technology and XDF engines but can also propose designs with MEGI engines.

In addition to the 61 orders placed in 2018, three small scale units were contracted in 2018. JOVO ordered two 80,000 cbm vessels at Jiangnan Shipyard for delivery in 2021, while Knutsen ordered one 30,000 cbm vessel at Hyundai Mipo which will be delivered in 2021 and chartered by Edison.

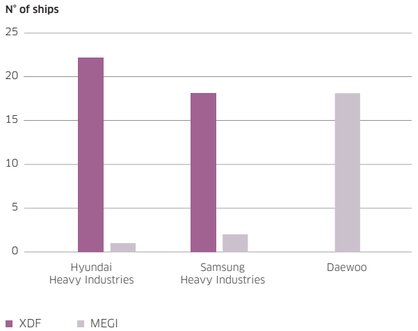
There was just one order for a Floating Storage Regasification Unit (FSRU) in 2018, with Botas contracting for a 170,000 cbm unit at HHI. As of 31 December 2018, there were 7 FSRUs on order, all above 170,000 cbm.

Overall, 2018 has been a year of recovery for the yards operating in the LNG segment. Forecasts from a range of market analysts suggest a similar level of orders in 2019 to 2018 due to the large number of FIDs expected this year. This will mark a shift in the shipyards' bargaining power, and likely confirm the trend of firming prices observed at the end of 2018.

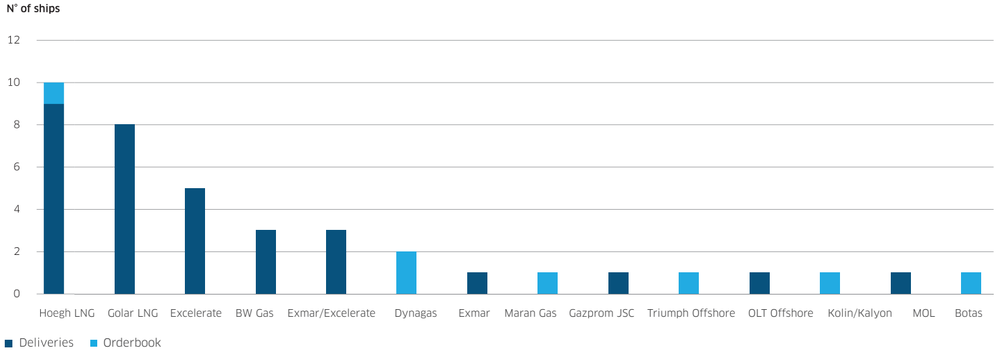
Cargo containment systems ordered in 2018



Propulsion technology ordered in 2018



Owners of FSRUs at end 2018



China continues to lead the pack in demand growth

THE CHARTER MARKET

In the charter market, high Asian product prices at the start of 2018 saw numerous multi-month charters concluded, and spot rates soared above the $80,000/day mark, a situation which lasted through January and most of February.

But as March arrived and the arbitrage opportunities between the basins started to reduce, a slew of vessels were redelivered into the market, increasing tonnage supply and putting pressure on rates. Ultimately, Q2 2018 did not offer many trading opportunities as the arbitrage between the two major basins was almost non-existent. This situation, coupled with a significant number of ships open on the spot market, proved to be very challenging for shipowners as rates for a 160,000 cbm TFDE vessel plummeted below $30,000.

However, Asian LNG prices rebounded in May on the back of stronger-than-expected demand in certain Middle East and Asian countries, especially China, leading to a bullish trend that carried on until the end of June.

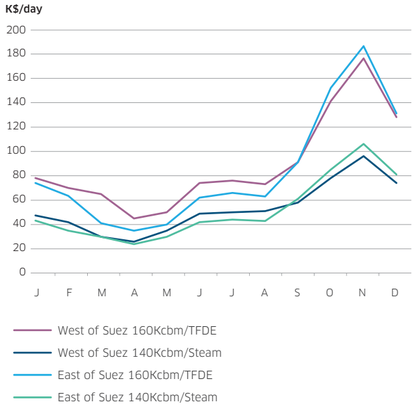
In the Atlantic, the increasing spread between Northern Europe prices and Asian prices triggered several reload cargoes and thus greater tonnage demand. As a result, at the end of May spot Time Charter (TC) rates in the Atlantic reached $50,000/day for a 160,000 cbm TFDE vessel. Charterers were again paying full ballast bonuses, as well as re-positioning fees from certain hubs. East of Suez, spot rates firmed too. A 160,000 cbm TFDE vessel traded at $40,000/day also with full ballast bonus.

By mid-June, the spread between Atlantic and Asian LNG prices broke the $3/MMBtu mark, which continued to trigger shipping demand especially for Atlantic reload cargoes. This situation, coupled with expectations for several purchase tenders for July/August cargoes, generated strong demand for tonnage. As a result, spot TC rates continued their bullish trend both East and West of Suez and by mid-month the TC rate in the Atlantic for a 160,000 cbm vessel had increased to $85,000/day. Meanwhile strong activity in the Pacific reduced the availability of vessels, leading to rates of $70,000/day for the same vessel.

These higher rates, and memories of last winter's tonnage shortage, caused charterers to fix a number of multi-months period charters in order to cover their needs for the winter period. As a result, rates for short-term charter (up to 12 months) increased to around $80,000/day for a 160,000 cbm TFDE unit, levels not seen since 2013-2014.

In late June, Asian LNG prices started to decrease, bringing the Atlantic-Pacific spread below $3/MMBtu, and rates fell to $70,000/day in the Atlantic and around $60,000/day in the Pacific.

LNG spot rates by basin in 2018



*Picture: **SEAN SPIRIT**, 174,000 cbm membrane LNG Carrier, delivered in 2018 to Teekay by Hyundai Samho Heavy Industries.*

After a calm July, August saw Asian LNG prices in a clear contango going into the winter season. Buyers were looking to secure winter cargoes early, and some front-month offers were made as early as end August. The situation re-energized the chartering market and August ended with Atlantic spot rates at $77,000/day and the Pacific at $65,000/day (both basis 160,000 cbm TFDE).

Spot charter rates continued to increase in September, notably due to high reload activities in North West Europe. Then in October, rates went up rapidly as several vessels started their multi-months winter charters. The exit from the spot market of these vessels drastically reduced tonnage supply, and rates reached $100,000/day in early October in the Pacific.

As a consequence, smaller steam vessels around 140,000 cbm became more attractive to charterers in need of tonnage. Some vessels were put on subjects around the $65,000/day mark, while a few units were even brought out of lay-up.

Meanwhile, vessels fixed on multi-months charter were mainly being used by charterers to supply LNG to northeast Asian countries in anticipation of winter demand. However, mild temperatures and better forward planning by many countries meant the anticipated demand failed to materialize. This created an unprecedented situation, with more than 20 vessels stuck in the region waiting to discharge their cargos or find a buyer. This kept tonnage out of the spot market for longer than expected.

The scarcity of ships sent spot charter rates through the roof, with rates reaching $185,000/day by the end of October. This situation continued through November as many vessels remained blocked.

The first sign of rate relief finally came in early December, as several charterers opted to offer their vessels for sublet. Meanwhile, with Asian prices flat in December and European prices rising, the arbitrage opportunities for which many portfolio players had taken tonnage on multi-month charter failed to materialize and these charterers were now long in shipping.

As a result, spot charter rates started to decline in December, and finished the year at around $110,000/day.

Conclusion

2018 was a very good year for the LNG shipping market, with three notable developments. First, LNG newbuilding prices started to rise and should continue to increase due to the expected demand for LNG tonnage in the coming years. This will enable shipyards to strengthen their position in the market and reinforce margins. Secondly, several new players emerged in 2018 with speculative newbuilding orders and they are expected to play a growing role when this capacity is delivered.

Finally, we have seen a growing acceptance by both shipowners and banks of shorter charters on newbuilding tonnage (around 7 years, with options). This marks a turning point in the organization of seaborne LNG transport, and will have a durable effect on the market.

2018 was an exceptionally dynamic year for the newbuilding market

*Picture: **GASLOG GENOA**, 174,000 cbm membrane LNG Carrier, delivered in 2018 to Gaslog by Samsung Heavy Industries.*

Offshore

A transition year

Offshore markets continued to improve in 2018 after the lows of the previous year. However, rate levels remained flat and there was no clear visibility for the near term. Consolidation and restructurings remained key factors in the market.

XIANG HE KOU
Semi submersible heavy lift ship, operated by Cosco and transporting Perenco jackup rigs to West Africa.

OVERVIEW

Despite a confident start to the year, 2018 did not bring the clarity hoped for by many players in the offshore market. Few companies were able to commit to clear strategies for the short-to-medium term, and many were in 'wait and see' mode, ready to move quickly if necessary.

Utilization numbers were generally better in 2018, but after reaching a bottom in 2017, rates continued to drag along the seabed. These difficult conditions meant that the industry continued to consolidate and restructure.

However, with the improvements seen in 2018, the offshore market is slowly moving towards a more functional supply and demand balance.

Utilization numbers were generally better in 2018

Companies awarded many more offshore projects in 2018

EXPLORATION AND PRODUCTION

Activity in this segment centered on production, while exploration activities remained subdued. Having now completed their earlier restructurings, the oil majors and national oil companies were able to focus on streamlining projects to counter the decline in production.

In order to build resilience into their portfolios, companies awarded many more offshore projects in 2018 compared to 2017.

Geographically, West Africa, Brazil and the Middle East saw the most activity. Several large projects such as Kaombo and Egina in West Africa came onstream during the year. These represent the final phases of projects which started over a decade ago and where drilling began before the crisis. Other large projects in the region are also ramping up, such as BP Tortue.

In the North Sea, BP launched the Claire Ridge project, a development phase of the Claire field. Meanwhile, Equinor continued to develop the Martin Linge, Johan Castberg, and Johan Sverdrup fields.

Elsewhere, Petrobras activated six FPSOs in South America, while Modec was awarded contracts for two FPSOs and brought another online in Brazil. In Guyana, the Liza field is under development with the drillship **Noble Bob Douglas** handling the development wells for phase 1. In June, SBM Offshore was awarded the contract to construct, install and operate the FPSO **Liza Destiny**.

Tier 1 prime contractors like Technip FMC, Subsea 7, and McDermott were the principal winners in 2018, taking on turnkey projects that will bolster their backlogs for several years. Meanwhile, the contract awarded by Energean to Technip FMC in January for an FPSO to serve the Karish and Tanin development represents a milestone in the industry, demonstrating how vertically integrated offers have become (subsea, risers, floating production and export systems).

Tender activity should increase again in 2019, on the back of new major undeveloped fields plus satellite developments at existing fields.

Several regions saw revived activity: BP is set to invest a further $1.3 billion in the Gulf of Mexico for the Atlantis expansion project, while in the Indian subcontinent Reliance is expected to award the FPSO tender for its MJ field.

DRILLING

2018 was billed as a year of consolidation for the drilling market and it did not disappoint. Although the supply-demand imbalance remained a constant theme, utilization improved across all segments.

Indeed, utilization rose by 6% in 2018 to reach levels of around 66% for jackups, and by 3% to reach 59% for floaters. However, it was not enough to impact day rates.

The recovery proved to be two-speed. On the one hand, premium jackup owners found employment for nearly all their assets. On the other hand, floaters struggled and it was difficult for owners to determine the right balance between keeping units warm stacked or in cold layup.

Owners of older tonnage faced a dilemma: accept rock bottom rates or remain idle. Geographical disparities were evident, and generally the North Sea and the Middle East fared better. Owners of harsh environment units in the North Sea received a good number of contracts, albeit at average rates. Stena, for example, started 2018 with just 30% of its fleet employed but is likely to see full employment in 2019.

Increased tender activity and indications that oil companies would invest more in offshore drilling projects led to a more positive market sentiment during the year. While many of the new contracts were short term and day rates barely moved, the market developments were perceived as a step in the right direction. However, by year end the continual drop in the oil price saw sentiment turn more bearish again.

Meanwhile, although utilization numbers rose slightly, many drillers' backlogs were lower compared to the previous year, as several long-term contracts signed before the downturn came to an end.

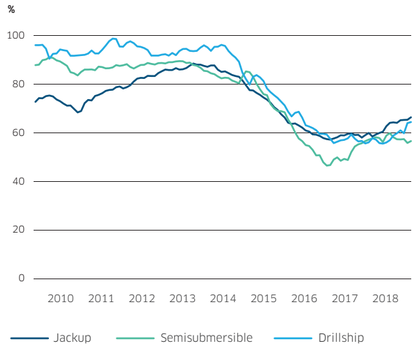
2018 saw the creation of two new 'super groups'. Ensco purchased Atwood (operators of 6 ultra-deepwater floaters and five jackups), creating a combined fleet of 63 rigs. Meanwhile Transocean purchased Songa, adding 7 semi-submersibles to its fleet of 39 floaters.

Later in the year, Transocean also purchased Ocean Rig, which had newly emerged from bankruptcy protection. This added to Transocean's stable another 9 ultra-deepwater drillships, 2 semisubmersibles and 2 drillships under construction.

Finally, Ensco announced a potential merger with major driller Rowan, which would create the biggest fleet in the industry with a total 83 units. The deal had not closed by early 2019.

Altogether, these deals represented around $10 billion in transactions, and we expect 2019 to produce further changes in the corporate landscape.

Utilization rates since 2010



*Picture: **NOBLE DON TAYLOR**, Drillship, operated by Noble Drilling.*

OFFSHORE SUPPORT VESSELS

Global offshore support vessel demand remained weak in 2018 despite a utilization rate close to 70%, and there was little to no increase in day rates.

During the year the market entered a 'stabilizing' phase, as companies adapted to the new reality. Some regions fared better than others, but the general mood was still sombre.

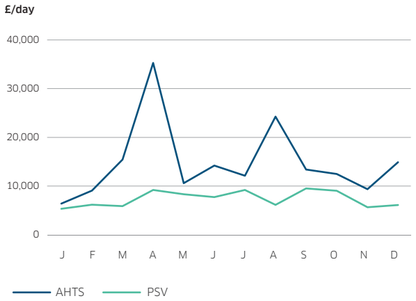
The key issue was still the tonnage oversupply, a consequence of the wild ordering when oil prices were high. Shipyards struggled to sell vessels in 2018 as buyers' and sellers' price expectations remained far apart. Meanwhile, Asian shipyards were packed with hundreds of undelivered units.

The demolition of older units was slow, and their low lightweight makes them less attractive to recyclers. As a result, very old units remain stranded in hubs globally.

Medium size AHTS and AHT vessels, which are mostly used to support production activities, found more work thanks to an increase in NOC activity. The larger units which are geared towards rig moves struggled, however, due to lower exploration activity. Demand for PSVs was low.

In order to curtail oversupply, the market needs more demolition activity. Consolidation will also be key for recovery, but finding sustainable collaborations is tough. More acquisitions of modern vessels are expected next year in order to take advantage of attractive pricing. Meanwhile, some companies and key players will continue to weather the rough financial conditions in 2019 but others will need to restructure. Vroon, for its part, successfully completed its financial restructure during 2018.

AHTS and PSV spot rates in the North Sea



North Sea

The North Sea market did not perform as well as expected in 2018. It had been hoped that the strong summer rates seen in 2017 would be repeated, enabling companies to build a cash reserve for the winter.

In the end there were two peaks in April and September, but these were no more than lacklustre. Rig workers in Norway went on strike over the summer, which halted a great deal of activity. The impact was especially felt on anchor handling activities.

Surprisingly, the PSV segment benefitted from more activity and higher utilization rates than the AHTS market. Most of the term work was awarded in Norway and Russia. Anchor handling activity was low overall, and many vessels came off term work unable to find follow-on contracts.

Anticipating a rebound in 2018, some owners optimistically reactivated their ships only to lay them up again. Meanwhile, in a bid to find employment owners deployed some creative thinking: some fitted telescopic heave compensated gangways on their units in order to cater for a wider range of tenders; some PSVs were purchased by renewable specialists to support offshore windmill projects; meanwhile Remoy Shipping converted the PSV **Lewek Aquarius** into a seismic vessel to secure a longer contract.

In terms of transactions, asset prices remained low in 2018 excluding the three ice-breaking anchor handlers that were sold by Viking Supply Ships to the Canadian Coastguard at a large premium.

Asia Pacific

It was another tough year in the Asia Pacific region. There was a marked increase in purchase enquiries, especially in the modern 120t AHTS and 4,000 dwt PSV segments. However, gaps in buyers' and sellers' price expectations meant few deals were transacted.

In the charter market, counterparty risk was a major issue. Oil companies avoided contracting with financially-weak OSV operators, fearing operational disruption.

Singaporean owners continued to face challenges as cabotage regulations came into force in Indonesia and Malaysia. Meanwhile, the opening up of Myanmar's offshore market provided opportunities in all of the offshore segments, albeit at a slower pace than expected.

Middle East

The Middle East was the sole market where OSVs enjoyed higher utilization rates. In particular, there was considerable appetite for mid-size AHTS and PSV by operators and contractors, especially in Saudi Arabia and the UAE.

Long-term players returned to the market, buying controlling stakes in companies, signaling their faith in a recovery.

We believe that the Middle East offshore market will remain stable in 2019. However, it remains to be seen if the feud between Qatar and Saudi Arabia will persist. The dispute makes it challenging for owners to move their vessels freely in the region.

West Africa

2018 was another tricky year in West Africa. Day rates and activity rose slightly in most of the offshore supply segments, but construction vessels remained laid up if they were not already on long-term contracts. The AHTS fleet saw good spot activity from FPSO installations and rig moves, but it was not enough to reactivate vessels in layup. The PSV segment was depressed due to the lacklustre drilling market.

Independent and mid cap oil companies provided some much needed activity. Companies such as Perenco, Trident and Assala were active throughout the year, generating work for OSV owners. Perenco carried out its own drilling, with its own rig and personnel, and in Congo it also oversaw the replacement of the FPSO **Conkouati** by the FPSO **Noumbi** at the Yombo field. We saw field development in Senegal during 2018, four years after the first well was drilled (Cairn 2014). This will continue in 2019 with the added involvement of BP and Total, alongside Kosmos and Woodside.

Brazil

The market remained subdued in Brazil. With the general election now concluded, we expect the market to be more active in 2019.

Gulf of Mexico

Utilization rates were below 50% for both AHTS and PSV units in the Gulf of Mexico, and there were still numerous OSVs cold stacked in the region. Some are waiting for better days, while others are now in poor shape and will probably be permanently retired.

2018 was notable for the most significant consolidation in many years. During the summer, Tidewater purchased Gulfmark Offshore for approximately $340m creating the largest fleet in the industry with 245 units.

The North Sea market did not perform as expected in 2018

*Picture: **LA NOUMBI**, FPSO, 106,034 dwt, operated by Perenco in the Congo.*

SUBSEA AND OFFSHORE CONSTRUCTION

For the first time since 2014, capex rose significantly

Utilization increased slightly in the subsea segment in 2018, but rates remained on the low side. Tier 1 prime contractors were awarded most of the main installation and subsea redeployment contracts tendered during the year.

However, for the first time since the 2014 downturn, the number of new projects and overall subsea investment increased significantly. Capex in the segment rose nearly 20% on the back of higher oil prices and significantly lower execution costs.

At best, backlogs remained stable due to the completion of previously awarded projects, and forecast project execution in 2019 is unlikely to quicken the rise of utilization rates.

On the asset side, there were several significant transactions. Saipem acquired the deepwater rigid and flexible pipelay and heavy lift vessel, **Lewek Constellation**, formerly the flagship unit of bankrupt EMAS Offshore. TechnipFMC took over the ex-**Haldane**, a high end diving support and construction unit left stranded by its former owner at Vard shipyard.

Bibby Offshore, one of the few players in the North Sea diving market, was spun off to a new consortium of lenders led by US hedge fund York Capital, which merged it with Cecon Contracting to create Rever Offshore.

Overall, demand in this segment is steadily increasing. However, further consolidation will be needed on the supply side to offset the lower margins, lack of investment, and future shortage of qualified professionals, both onshore and offshore.

*Picture: **NDURANCE**, DP-2 multipurpose vessel, 7,500 dwt, operated by Boskalis.*

PROSPECTS FOR 2019

As the market navigated the fourth year of the downturn, there was greater clarity on what shape the recovery might take, and which companies might emerge in a stronger position.

A notable trend in 2018 was the influence of the daily oil price on company policy. Whereas strategy had previously been governed by macro trends, the erratic price of the barrel during the year appeared to weigh more on company tactics from one quarter to the next.

Demand for offshore oil and gas services should steadily improve in 2019 as capex is set to increase by another 6%. However, conditions will be influenced by the oil companies' wish to diversify their energy portfolios: onshore versus offshore, renewables, short versus long cycle projects. The main factor remains the oil price. However, fleet depletion will also play a part.

Building resilience will be the key for companies that want to succeed. However this will depend not only on having a strong balance sheet, but also skilled and seasoned personnel.

Overall, 2019 will likely be a transition year, with further consolidation leading to a more stable and operational market.

DREDGING AND RENEWABLES

The main factor remains the oil price

The global dredging and reclaim market grew in 2018 thanks to sustained expansion in the world economy and demand arising from the offshore renewable markets. The segment has largely weathered the downturn in the oil and gas markets.

The application of the 'Building with Nature' concept, which takes natural components into consideration to manage long-term solutions, contributed to higher demand.

The major players continued to renew and streamline their reclaim and dredging fleets, while also reinforcing the assets dedicated to offshore renewable. On the heavy installation side, notably Wind Turbine Installation Vessels (WTIV), the fleet continued to consolidate with owners progressively exiting the market.

Van Oord and Jan de Nul seized the opportunity to purchase three of the four WTIVs previously controlled by Vroon/MPI. Jan de Nul took the **MPI Discovery**, while Van Oord picked up the **MPI Resolution** and **MPI Adventure**.

Despite a temporary slowdown in 2018, the North European and North Sea markets remained highly dynamic. The UK stayed ahead of the pack, with an offshore wind portfolio of more than 35GW by year end.

Further east, the industry is engaged in fierce competition to secure a share of the promising largescale Taiwanese offshore wind projects.

*Pictures: **BOKALIFT 1**, Self-propelled crane vessel, operated by Boskalis;*
***GIOVANNI VENTURI**, Ex PSV, under conversion into a Water Injection Dredger, for future operation by Jan de Nul.*

Cruise

Another excellent year

2018 was another excellent year for the cruise industry, with a record number of vessels on order, a continued rise in passenger numbers, and further growth in both the inbound and outbound Chinese tourist market.

Holidaymakers seeking more and different experiences are being catered to by megaships which offer an increasing array of onboard possibilities. Meanwhile, smaller and more intimate cruise ships in the expedition segment are taking clients to remote and exotic regions which the larger ships cannot reach. 2018 also saw a revival in the luxury segment. Continued optimism should, however, be slightly tempered by a record orderbook, the new fuel regulations coming into effect in 2020, and increased public awareness of the cruise industry's impact on the environment.

MSC SEAVIEW
153,516 gt, 2,070 cabins, delivered by Fincantieri to MSC Cruises in 2018.

DELIVERIES

2018 saw the delivery of 10 ships over 40,000 gt, the same number as in 2017.

France's Chantiers de l'Atlantique delivered the latest of Royal Caribbean's Oasis class series, the **Symphony of the Seas** (228,081 gt/2,704 cabins). The vessel becomes the largest cruise ship in the world, overtaking the **Harmony of the Seas** built in 2015.

The French yard also delivered the **Celebrity Edge** (130,818 gt/1,450 cabins) to fellow RCCL group company, Celebrity Cruises.

At Fincantieri, MSC Cruises took delivery of the **MSC Seaview** (153,516 gt/2,070 cabins), while Carnival Cruise Lines took the **Carnival Horizon** (133,596 gt/1,977 cabins).

The Italian group also handed over the **Nieuw Statendam** (99,902 gt/1,330 cabins) to Holland America Line, and the **Seabourn Ovation** (41,865 gt/302 cabins) to Seabourn Cruise Line. Viking Ocean Cruises took delivery of the **Viking Orion** (47,876 gt/472 cabins).

Meyer Papenburg completed the **Norwegian Bliss** (168,028 gt/2,124 cabins) for Norwegian Cruise Line Holdings (NCL) and the **AIDAnova** (183,858 gt/2,605 cabins) for AIDA Cruises. Sister yard Meyer Turku built the **Mein Schiff 1** (111,554 gt/1,447 cabins) for TUI Cruises.

Finally, Ponant took delivery of its first two Explorer units, **Le Lapérouse** and **Le Champlain** (9,976 gt/92 cabins), from Fincantieri-owned Vard Soviknes.

NEW ORDERS

The orderbook now comprises a record 71 units over 40,000 gt, with deliveries stretching until 2027 if all current options are declared. An estimated 25% of the orderbook is fitted with LNG propulsion. New orders in 2018 included:

Fincantieri and Vard

Princess Cruises ordered two next-generation 175,000 gt units from Fincantieri for delivery in 2023 and 2025. The cruise ships will be the largest ever built in Italy.

Virgin Cruises ordered a 110,000 gt vessel with 1,430 cabins for delivery in 2023.

The orderbook comprises a record 71 units over 40,000 gt

Meanwhile, NCL confirmed orders for a fifth and sixth vessel in its New Generation series (140,000 gt/1,650 cabins), for delivery in 2026 and 2027.

Viking Ocean Cruises confirmed a batch of six vessels (47,800 gt/472 cabins), two each for delivery in 2024 and 2025, and the last two in 2026 and 2027. The company also signed a letter of intent with Vard for 2 smaller units (plus 2 options), with a reported 200 cabins, for delivery in 2021 and 2022.

Fincantieri will also build two 161,000 gt ships for TUI Cruises with handover in 2024 and 2026.

Finally, MSC Cruises ordered four 64,000 gt cruise ships of 500 cabins each with yearly deliveries from 2023 onwards, while Silversea Cruises placed an order for a 298-cabin 40,700 gt ship for 2021 delivery.

At Fincantieri-owned Vard, Ponant confirmed orders for two 10,000 gt vessels with 92 cabins, both for delivery in 2020.

Hapag-Lloyd Cruises contracted a third Vessel at Vard (16,100 gt/115 cabins), while Silversea Cruises ordered another sistership to the **Silver Muse**, for delivery in 2021 (40,700 gt/300 cabins).

Chantiers de l'Atlantique

Continuing its involvement with Chantiers de l'Atlantique, MSC Cruises ordered a 172,000 gt/2,244 cabin ship for delivery in 2023. The French shipbuilding group has now re-taken its old name, Chantiers de l'Atlantique, which was retired in 2006 after the purchase by Aker Yards.

Meyer Werft and Meyer Turku

Meyer Turku secured a contract from TUI Cruises for one ship, to be named **Mein Schiff 7** (111,500 gt/1,437 cabins), for delivery in 2023. AIDA Cruises placed an order for one unit (180,000 gt/2,700 cabins) at Meyer Papenburg for 2023 delivery.

Silversea announced an order for two Evolution Class ships, with details still to be advised. The first unit is scheduled for delivery in 2022.

Finally, P&O Cruises ordered a 180,000 gt unit with 2,600 cabins for delivery in 2022.

Shanghai Waigaoqiao

Carnival Corp added two orders, plus two options, at Shanghai Waigaoqiao under its groundbreaking joint venture with Fincantieri, China State Shipbuilding Corp, and China Investment Corp. The first two vessels will be delivered in 2023 and 2024 and will have 2,215 cabins.

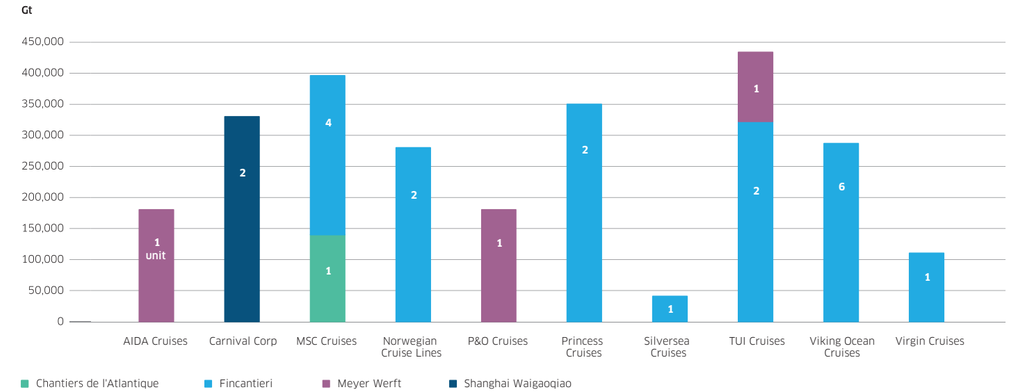
Elsewhere, Seabourn Cruise Line signed a letter of intent for two 23,000 gt/132 cabin ships from Mariotti Damen for delivery in 2021 and 2022.

Silversea Cruises contracted a 5,700 gt/100 passenger vessel at De Hoop for service in the Galapagos. The vessel is scheduled for delivery in March 2020 and will be named **Silver Origin**.

Hurtigruten signed a memorandum of understanding with Norway's Kleven Werft for its third 530-guest hybrid powered expedition cruise ship. The ship will be delivered in 2021 following handover of the first two ships in 2019 and 2020 respectively.

Mystic Cruises ordered two 9,300 gt/100 cabin expedition ships from West Sea for delivery in 2021 and 2022. And finally, Croatian yard Brodosplit won an order from Quark for a 13,000 gt/100 cabin ship for delivery in 2020.

Cruise orders in 2018 (ships >40,000 gt)



SECOND HAND SALES

The following transactions were reported for further trading:

The sisterships **Victory I** and **Victory II** (4,954 gt/114 cabins, built US 2001 and 2004) were sold to US-based American Queen Steamboat, while the **Bremen** (6,752 gt/82 cabins, built Japan 1990) was purchased by clients of Scylla in Switzerland.

Clients of Phoenix Reisen in Germany snapped up the **Prinsendam** (39,051 gt/404 cabins, built Wartsila Turku in Finland in 1988).

Meanwhile, clients of Mano Maritime bought the **Celestyal Majesty** (41,662 gt/732 cabins, built Kvaerner Masa 1992), while the **Pacific Eden** (55,877 gt/633 cabins, built Fincantieri 1993) has been sold by Carnival Corp to clients of Cruise & Maritime Voyages.

Elsewhere, a joint venture between China Travel Service (CTS) and Cosco bought the **Oriana** (69,840 gt/911 cabins, built Meyer Papenburg in 1995).

The **Pacific Jewel** (70,310 gt/854 cabins, built by Fincantieri 1990) was committed to Zen Cruises, part of India's Essel Group.

Clients of Marella Cruises picked up the **Skysea Golden Era** (ex **Celebrity Century**) (73,000 gt/889 cabins, built at Meyer Werft in 1995).

Finally, the **Costa Atlantica** (85,861 gt/1,057 cabins, built Kvaerner Masa in 2000) and sistership **Costa Mediterranea** were sold to CSSC Carnival Cruise Shipping Ltd, a joint venture between Carnival Corp, Fincantieri and China State Shipbuilding Corp.

There were five demolition sales in 2018, two more than in 2017:

- **Ocean Gala-I** (40,171 gt / 757 cabins, built Dubigeon 1982)
- **La Spirit** (33,930 gt / 605 cabins, built Chantiers d'Atlantique 1983)
- **Aegean** (15,781 gt / 378 cabins, built 1968 at Weser Seebeck)
- **Jia** (7,717 gt / 150 cabins, built 1986 Xingang)
- **Porto** (5,888 gt / 169 cabins, built Uljanik 1986)

*Picture: **CELEBRITY EDGE**, 130,818 gt, 1,450 cabins, delivered by Chantiers de l'Atlantique to Celebrity Cruises in 2018. Photo: Nazar Skladanyi .*

MARKET DEVELOPMENTS AND PERSPECTIVES

The total number of passengers taking a cruise vacation increased by more than 5.5% in 2018. According to the Cruise Lines International Association (CLIA), the number of passengers reached 28.2 million in 2018, versus 26.7 million in 2017. The figure is forecast to rise again in 2019 to approximately 30 million, a 6.3% increase year-on-year.

This is a far cry from 2009's total of just 17.8 million. Furthermore, the figures remain relatively small in relation to land-based tourism and the travel industry as a whole, which suggests a potentially rosy future for cruise development.

The vast majority of cruise passengers still originate from the US (11.9 million in 2018 according to CLIA), but China follows with 2.4 million passengers, while market penetration in the country remains low.

According to various sources, including the United Nations World Tourism Organization (UNWTO), China is the world's fastest growing source of new tourists and the country continues to lead the world in terms of 'outbound' travel.

Chinese vacationers reportedly spent some $258 billion on international tourism in 2017, nearly one fifth of the global total. Available data appears to indicate a 6% increase in spending in 2018, and outbound tourism figures are impressive, with an estimated 162 million holidaymakers vacationing outside China during the year.

Inbound figures are also impressive, with about 142 million tourists expected to visit China in 2018.

More and more of these visitors are reaching China on cruise ships, and Beijing is heavily promoting its new 144-hour visa-free transit policy in a bid to increase traffic and capture more passenger spending.

The government is also clearly encouraging the development of the industry by building and expanding cruise terminals, by forming partnerships with foreign cruise companies, and by providing incentives to shipyards to build passenger vessels.

The latter two are clearly demonstrated by the joint ventures, CSS Carnival Cruise Ship Ltd and CTS Cosco.

Despite this, there are several factors which could hinder global growth going forward. Firstly, renewed attention is being given to the environmental impact of the cruise industry. This has been underscored by the forthcoming fuel regulations, and by concerns over air pollution in some ports.

More and more new ships are being equipped with dual propulsion, and LNG will undoubtedly become the fuel of choice in future.

It is also interesting to note that an increasing number of ports and regions, particularly in China, have recently barred ships from discharging 'wash water', thereby effectively banning open loop scrubber technology.

"Overtourism", when sites and places become overwhelmed by visitors, has also become a topical subject. Increasingly, cruise companies will have to work with local communities to manage the flow of passengers to popular destinations.

Royal Caribbean announced in June that it will acquire a 66.7% stake in Silversea Cruises, underlining the interest being shown by the major cruise lines in the luxury and expedition markets.

Meanwhile, RCCL and CTRIP China announced they would end their SkySea Cruise Line joint venture.

Genting and Apollo sold their remaining shares in NCL.

Finally, in the shipbuilding sector, Fincantieri's acquisition of Chantiers de l'Atlantique is proceeding, though it remains subject to approval by European Union antitrust authorities. It will also be interesting to see how Croatia's Uljanik shipyard manages its current difficulties.

China is the world's fastest growing source of new tourists

Conclusion

After another strong year, the cruise industry continues its expansion, with activities still representing just a fraction of the global tourist market.

The industry has proven to be resilient and flexible, and its ability to reposition floating assets according to market demand remains a great advantage over land-based tourism.

China is the next logical growth reservoir. With an estimated 300 million Chinese citizens theoretically able to afford a cruise holiday, this is undoubtedly the growth target for the industry.

Pictures: ***LE CHAMPLAIN****, 9,976 gt, 92 cabins delivered by Vard Soviknes to Ponant in 2018;*
SYMPHONY OF THE SEAS*, 228,081 gt, 2,704 cabins, built by Chantiers de l' Atlantique for RCCL. Photo: Frantic00.*

Pictures: ***CARNIVAL HORIZON****, 133,596 gt, 1,977 cabins, built in 2018 by Fincantieri Breda for Carnival Corp. Photo: Mariusz Lapusiewicz;*
NORWEGIAN BLISS*, 168,028 gt, 2,124 cabins, delivered by Meyer Parenburg to NCL in 2018. Photo: Martin Lueke.*

Yachting

A positive outlook for charter and new build

2018 saw more charter enquiries, particularly for yachts in the medium size range, and an increasing interest in experiential travel. The yacht management market over 2018 saw continuous growth in the size and operational complexity of yachts being built, which is expected to continue over 2019. The mood at brokerage boat shows was at its most buoyant in years, although yacht buyer confidence is expected to start to wane.

Owners and charterers are embracing more adventurous destinations and experiences.

Photo: Jesse Orrico.

CHARTER

Both in Retail and Central Agency, 2018 saw a steady flow of charter enquiries right from the beginning of the year. Consequently, we experienced a successful 2018 summer season, particularly for yachts in the medium size range. This trend is continuing in 2019, with early enquiries already coming in, mainly for yachts of 40-50m or under. The vast majority of enquiries are for the Western Mediterranean: Southern Italy, followed by the South of France and then the Balearics.

There is a steadily increasing interest for chartering in Greece, while Croatia is seeing a slightly lower level of interest for 2019. The choice and quality of yachts available in Greece is improving and this is drawing more clients to the area. However, due to new legislation brought in by Greece on 5 December 2017 stating that non-Greek flagged commercial yachts are no longer permitted to embark or disembark charters in Greece, we are now generally limited to Greek-flagged yachts or yachts with a Greek charter license when sourcing vessels for our clients here.

The outlook for 2019 is positive as we follow the ongoing trends of 2018

After two years without enquiries for Turkey, we are now receiving enquiries for charters for 2019 for both large and medium yachts.

The Caribbean market remains very unpredictable since Hurricane Irma. In 2018, as in 2017, demand was much lower than normal. However, clients seem eager to return to the Caribbean as soon as possible and we have started booking charters for smaller yachts for 2019.

We are witnessing a slow but increasing interest for charter in more remote and far-flung destinations such as South East Asia, Indonesia, Australasia and the South Pacific. However, many European clients, particularly families with children, find it too far.

Further, over the course of 2018 we have noticed increasing interest in experiential travel and adventurous destinations such as Antarctica, Svalbard and Greenland. This is being fuelled by both the increasing number of yachts and facilities available to cater to these trips, and a huge media push promoting adventure yacht travel, driven by specialist travel companies.

Such is the demand that at YPI we now have a full-time Adventure Charter Specialist, specialising in adventure as well as cabin charter (FIT). The challenge for booking these adventure charters is that the yacht owners also book FIT (cabin) charters and a much bigger lead time is required to be able to charter the whole yacht. This is very different to how the charter market usually works as generally it is possible to book a yacht very last minute.

The Chinese market is definitely increasing. Although of a population of 1.4 billion only 17% have passports, this is still a huge market. For the moment Chinese clients still prefer to travel in groups rather than as individuals, but they are looking for new destinations and experiences, a personalised service which the yachting industry can cater to.

The outlook for 2019 is positive as we follow the ongoing trends of 2018.

*Picture: Fun on the ocean onboard **AXIOMA**, for charter with YPI. Photo: Quin Bisset.*

MANAGEMENT

In the yacht management market, we saw continuous growth over 2018 in size and operational complexity. We expect that this will continue to develop over 2019. In general, yachts being built today have increased in gross tonnage, and in fact the production market for yachts of 100m+ has strengthened and stabilised. There are currently over 20 projects under construction in this category.

Naturally, this development presents challenges for yacht management teams. As length increases, so too does the complexity of the requirements for effective yacht management. Today's yacht management companies now require the same organisational structure as shipping companies, with dedicated departments covering all aspects of operations.

The largest shipyards have enhanced the service they offer clients, incrementing the maintenance chain throughout a yacht's life cycle. Feadship launched Feadship Refit and Services, combining refit, repair, after-sales etc in response to demands among clients to protect their yacht's unique DNA. Lürssen is also offering its Lürssen Services for owners.

2018 saw significant changes in crew management, with an intensification in complexity and increased requirements for crew. New European Social Security rules have applied high standards to yachts cruising in the EU. This involves more stringent controls, as well as possible liabilities for owners as employers of crew. The French Government announced its plans to enforce social security coverage on certain seafarers, including some superyacht crew working on foreign-flagged vessels that spend significant time in French waters. The general consensus within the yachting industry is that in the future these requirements are unlikely to remain isolated to France and will be enforced across the EU.

We are also seeing a change in the destinations owners are cruising. The industry is experiencing the end of the Mediterranean-based yacht hegemony, with a growing fleet now based in the US, Asia and the Middle East. This too presents an interesting challenge for yacht management companies, which must now settle strong antennae in those emerging markets. As in 2017, in 2018 we saw a continuous growth in vessels with polar capabilities. This entails the implementation of the Polar Code, which requires important and specific knowledge from those dealing with the management of these vessels.

The sustainability trend developed further with the implementation of new international regulations. The final months of 2017 saw the International Maritime Organisation's new rules on ballast water management come into force, and the United States Coast Guard toughen up on the enforcement of its own regulations on ballast water discharge. In Europe, the European Ship Recycling Regulation was implemented, impacting new build as well as existing yachts.

Today's yacht management companies evolve towards same structure as shipping companies

*Pictures: High-performance sloop **CONCORDIA** combines exceptional sailing with onboard comfort. Photo: Quin Bisset.*

BROKERAGE

The mood at the major boat shows during 2018 was at its most buoyant in years, and this is partially reflected in the number of new build yachts ordered, with 57 more projects reported over the past 12 months. There are currently 830 Yachts of 24m+ either on order or currently under construction.

Again, Italian shipyards took the top three spots in terms of total number of yachts built: Azimut-Benetti (97 hulls in build or on order, up from 77 in 2017), Ferretti Group (91 up from 87) and Sanlorenzo (77 up from 71, making it the busiest single-brand yard in the world). The Netherlands also retains its high position: combined with Italy, these countries have collectively seen a 9.5% increase in orders. In terms of collective gross tonnage, Italy leads again, and the Netherlands has overtaken Germany thanks to more orders of large volume projects.

It is important to look beyond rankings, however: Italy's total gross tonnage of yachts in build or on order of 135,434 is spread over 379 projects (average approximately 357 gt), while Germany records only 16 yachts in build or on order, but at an average gross tonnage of 5,400 gt. The average gross tonnage for yachts in build in the Netherlands is 1,302 gt. Norway's three projects in build have a huge average gross tonnage of 8,313 gt.

At the pedigree shipyards, Feadship has more projects under construction (18 up from 15), with a total length of 1,380m. This year will see the yard opening a new facility in Amsterdam for building yachts up to 160m. Lürssen's position remains strong, even after the major fire in September 2018 that destroyed the 145m Project Sassi. Oceanco is creeping up the table in terms of projects on order or under construction and their total length and gross tonnage, with five projects on order (four over 100m).

The UK has risen to third place for total length of superyachts under construction - at Princess Yachts, some new models are already sold as far out as 2020. On the flip side, in China deliveries have outpaced new orders, and in the US, the number of superyachts on order or started on speculation has continued on a downward trajectory since 2010 (down 67%).

Looking towards the future, after the past 5 years of slight year-on-year improvement in the number of brokerage yachts sold, we expect a dip as we move in to 2019. Thanks to the variety of economic factors at play including trade wars, Brexit, rising US interest rates etc, we feel that the previous market improvement will not remain and yacht buyer confidence will start to wane.

In addition to the correction in the US stock market at the end of 2018, we anticipate a further slowdown whilst clients are waiting for a new correction to hit. Yachts sales often follow the luxury housing market which has already started to slump slightly in the US, so we can expect some turbulence ahead.

*Pictures: Crew at the helm of J-Class **RAINBOW**.*
*For sale and charter with YPI, **RAINBOW** is a unique J-Class yacht developed from the plans of the 1934 America's Cup winner.*

The mood at boat shows was at its most buoyant in years

*Pictures: 72-metre **AXIOMA** is for sale and charter with YPI;*
*42-metre **AQUARELLA**, presented in excellent condition after a refit in 2018, for charter with YPI. Photos: Quin Bisset.*

Containerships

Cascading and IMO 2020 impact as drivers

2018 was a year of contrasts for the containership market. Despite some initial optimism, overcapacity continued to plague the boxship sector, and the lingering overhang of tonnage has yet to be cleared.

EBBA MAERSK
17,816 teu, delivered in 2007 by Odense Lindo, operated by Maersk Line.

Photo: Phil Harland

GLOBAL CONTEXT

While charter rates rallied in the first half of 2018, this strength proved to be short-lived. Average rates fell in the second half and the year eventually ended with levels lower than 12 months before.

Freight rates were generally weak in 2018, with average China Containerised Freight Index (CCFI) levels for the full year remaining below those of the preceeding year. However, the year-end rally, triggered by the rush to beat higher tariffs on Chinese imports to the US, coupled with more effective capacity management on the part of the carriers, helped to push rates up towards the end of the year.

Higher bunker prices contributed to the carrier's weak operating margins, with average fuel oil prices up 31.5% in 2018 compared to 2017. However, the recent oil price drop will provide much needed relief for carriers.

It remains to be seen if the stronger freight rates will hold in 2019, with significant uncertainty over the impact of the Sino-US trade war and the slower growth in global trade volumes. The ongoing struggle to balance supply with demand also continues to be a main driver.

While some 1.1 million teu of newbuilding capacity is due for delivery in 2019, this figure should be tempered by expected slippages in deliveries and by scrapping. Global fleet growth is expected to drop under 3.5% in 2019, which would provide some relief for the over-tonnaged market. The expected rush to retrofit part of the current fleet with scrubbers before the implementation of the new IMO sulphur cap rule in January 2020 is also expected to result in a reduction of available tonnage during 2019.

Bunker prices were up 31% in 2018

CHARTER MARKET

The charter market is one aspect of the overall containership landscape and remains more than ever affected by the carriers' strategies and initiatives. This is a well established situation for the large ships, which the carriers lock for themselves, whereas they usually rely largely on the open charter market for their medium-size and small ship needs. This situation is likely to change though, as several carriers are moving to secure smaller ships either in their own name or through long term charter commitments.

The raft of 1,000-3,500 teu ships contracted by carriers in 2017 and 2018 illustrates this trend whereas traditional tonnage providers for the liquid charter market remained in retreat. This phenomenon originates from a need to customize ships on short sea runs and from the uncertainties and costs associated with the IMO 2020 sulphur cap rule.

That said, forced cascadings remained the main driver of fleet moves. They continued to trigger service restructurings to make good use of the smaller tonnage pushed by the incessant flow of Megamax (MMX) and ULCS newbuildings.

MMX and ULCS of 13,800 to 21,400 teu have hit the water at an average rate of one per week in 2018, with a total of 52 units delivered totalling 901,000 teu. This represents almost 70% of the whole delivered capacity. Of these 52 units, 35 were assigned to the Far East-Europe route (including all the 18,000-23,000 teu Megamaxes).

As a rule of thumb, each MMX and ULCS delivered displaces on average two VLCS of 8,500 teu-class, and, by ripple effect, four classic Panamaxes or their capacity equivalent in other ships in the 3,000-7,000 teu range.

Large ships of over 10,000 teu will remain in demand, especially for the carriers with a low orderbook (such as Maersk Line) or those with an empty orderbook (such as Hapag-Lloyd and Zim). Carriers will be generally on the lookout for units of 10,000-15,000 teu, for which they will seek long-term employment in anticipation of a rush to reduce overall fuel costs per slot when the IMO 2020 sulphur cap takes effect.

With only 10 ships of 3,000-6,000 teu scrapped during the year, the fleet occupancy at the end of the year was rather good despite the MMX/ULCS deluge. By the end of 2018, 13 ULCS were idled (including four taken out of the market for jumboization) as well as some 50 units of 3,000-6,000 teu.

The idle figures could have been substantially higher without the extra demand created by the numerous extra sailers employed on the China-US trade in anticipation of tariffs planned by the US administration, and without the stretching of some 30 long haul services during the year (absorbing some 30 ships), either to improve reliablity or to save fuel, or both.

Outlook for 2019

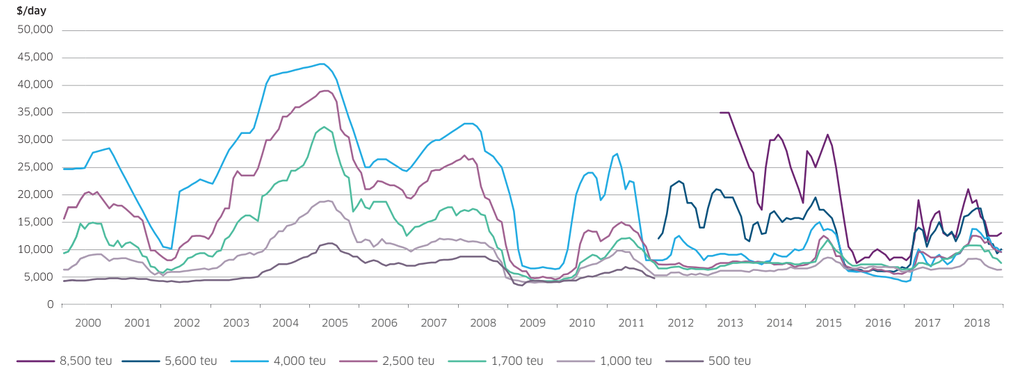
With 46 MMX and ULCS planned for delivery in 2019, forced cascadings are bound to continue. Medium size vessels (3,000-7,000 teu) will remain under much pressure from these cascadings while the costs associated with the IMO sulphur cap will accelerate fleet disposals in the second half of 2019.

The IMO 2020 rule will be a game changer, as it will bring fuel costs to the forefront. It should lead to a densification of vessel capacity on all trades that will clearly benefit the larger ships at the expense of the smaller ones.

Although uncertainties abound about the new rule, one fact is certain, there are currently just over 40 containerships fitted with SOx scrubbers and this figure will rise at only a slow pace. It could reach 100 units by end 2019. As for LNG-fitted containerships, only six units are currently running and a similar number could join in 2019.

*Picture: **MSC ELENI**, 5,059 teu, delivered in 2004 by Hanjin, operated by MSC.*

Charter rates from 2000 to 2018



Retrofitting SOx scrubbers on existing ships is a costly affair that concerns only ships young enough (say under 10 years) to amortize the cost of the equipment, of the retrofit and of the subsequent maintenance. The charterer will also have to support the cost of sludge disposal and the extra fuel consumption associated with running the scrubber.

Typical retrofits on ships of 5,000-20,000 teu imply costs reaching $5-$10 million, that have to be recouped by higher freight rates and substantial charter premiums or a cost saving-sharing formula. Scrubber-fitted tonnage can burn conventional HFO post-2020, with a much lower fuel bill compared to MDO or LSFO.

7,500-10,000 teu

2018 review

Daily charter rates for conventional 8,000-9,000 teu-class tonnage remained stuck between the $12,000 winter low and the high of $21,000 reached during the spring and summer peak. The spot ship pool has almost vanished, but rates remained at moderate levels as every attempt at hiking rates drove down carriers' enthusiasm for such ships.

Although rewarding for the owners who built their VLCS fleets with tonnage purchased at distressed prices, these rates are well below the $31,000-$35,000 that were needed to amortize such ships during their first 10 years of life, especially for those that were ordered at high prices some 10-12 years ago.

Modern tonnage of 9,000-10,000 teu fared better, with rates of $25,000-$28,000 observed for one-year charters. Such modern tonnage however tends to be secured for longer periods at higher rates, with $30,000 observed for three-year periods.

2019 outlook

The prospects for 2019 are mixed for the conventional 8,000-9,500 teu-class VLCS. On one side, they will continue to suffer from the cascading pressure exerted by the ongoing MMX/ULCS deliveries. On the other side, carriers might consider service restructurings that involve the replacement of 4,000-6,000 teu tonnage by larger ships in order to mitigate the impact of the MDO/LSFO costs after implementation of the IMO 2020 rule. This would impact positively on the VLCS market.

Recent ships of 9,000-10,000 teu will remain sought after as carriers will prepare for the post IMO 2020 era by maximizing the size of their ships on secondary trades in order to reduce the impact of the fuel costs.

5,300-7,500 teu

2018 review

The LCS segment (5,300-7,500 teu) has followed a parallel trend to the VLCS, registering spring and summer peaks at $16,000-$17,500, against winter lows of $9,000-$11,000. As with their larger counterparts, the oversupply in this segment has vanished, but the cheap rates have helped to attract employment and reduce oversupply. The rates remain well below the $20,000 level needed to recoup operating expenses (OPEX) and capital costs for those owners that paid for the ships at their newbuilding contractual price.

2019 outlook

Despite the favorable trend in the supply-demand balance, the outlook for 2019 is uncertain. There is a positive note, however, as, like for the larger 8,000-10,000 teu units, they will also benefit from a densification in capacity. Although many vessels should be displaced from their current assignments, they are likely to displace smaller ships in turn. Besides, a scrapping wave could occur in view of the high fuel consumption of the older units.

Classic Panamax 4,000-5,100 teu

2018 review

Rates for 4,000-5,100 teu classic Panamaxes oscillated between the $9,000 winter lows and the $13,750 levels observed during the spring peak. This segment was again impacted by the cascading triggered by MMX and ULCS deliveries.

The spot ship pool remained relatively low during the first part of the year, before increasing during the fourth quarter to reach up to 26 ships. Only three units were sold for scrap in 2019, of which one was in a damaged condition.

2019 outlook

The situation for classic Panamaxes remains fragile. In fact, the ships most at risk of unemployment are the maxi-Panamaxes of 4,800-5,300 teu, which, by virtue of their high length-to-beam ratios are at a clear disadvantage from a stability viewpoint compared to the shorter Handy-Panamaxes of 4,000-4,500 teu.

Overall, Panamax employment is closely linked to the loop economics on which many of them are currently operated. A hike in charter rates could lead carriers to reconsider their options in order to retain a competitive edge on particular loops.

On the bright side, the 2020 IMO sulphur cap could trigger consolidation on regional loops or, again, a move towards an enlargement of vessel sizes on feeder services as the deadline approaches. This would benefit Panamaxes at the expense of smaller tonnage.

3,000-3,900 teu

2018 review

The supply-demand balance for the 3,000-3,900 teu segment was generally tight until the last two months of the year, when a permanent surplus of 6-7 ships built up. These ships remain in the shadow of the overcrowded classic Panamax segment, which exerts an indirect pressure on their rates.

2019 outlook

Despite the pressure from the classic Panamaxes, the ships of the 3,300-3,500 teu-class in particular are in a segment of their own. This specific size remains attractive for loops that witness either physical constraints or volume issues versus service quality. Their situation should, hopefully, continue to improve in 2019.

2,000-3,000 teu

2018 review

Charter rates improved by around 30% during 2018 for standard modern containerships of 2,500 teu, after a 50% increase during 2017. The 2,000-3,000 teu size range remained in demand for feeder services and for regional needs, especially in Asia. However, the charter market units are being increasingly replaced by carrier-controlled newbuildings on some intra Asia trades.

2019 outlook

The oversupply remains moderate and some vessels meeting specific demands are in relatively short supply. Sub segments such as the 2,700 teu 'Chittagong-max' are becoming the preferred tonnage on Chittagong-related services while 2,500-2,800 teu units with a high reefer capacity (600-900 reefer plugs) have a clear advantage with the current trend to convert fruit-oriented reefer services run with large conventional reefer cargo vessels into full container operations, especially out of Central America and Colombia.

1,500-2,000 teu

2018 review

The number of spot ships in this size bracket has risen throughout 2018. This size belongs to a rather fluid segment of the charter market, which has been affected by chronic cascading, especially in the West Asia and Bay of Bengal sectors.

2019 outlook

The supply-demand situation in the 1,500-2,000 teu segment makes it a buyers' market. In this size range, 15 ships have been sold for scrap in 2018, leaving still 591 ships trading. Scrappings should go on considering the age of certain ships in this segment. However, the overall prospects will continue to be affected by the deliveries of 2,700 teu 'Chittagong-max' units that will displace in particular 1,500-1,800 teu vessels from the Bengal Bay feeder routes.

1,000-1,500 teu

2018 review

The 1,000-1,500 teu segment remains overcrowded. After witnessing rates of $8,000-$8,300 in the first half of the year for standard 1,100 teu tonnage, levels dropped to some $6,500 in the fourth quarter. With regional short sea carriers increasingly phasing in 1,000 teu tonnage specifically tailored for their own needs, the run-of-the mill container tonnage that they displaced struggled to carve out new niches elsewhere. This small tonnage was also partly displaced by larger tonnage on the Baltic trades, with 2,500-3,600 teu newbuildings featuring a 1A Ice Class notation dislodging several of them.

2019 outlook

Despite a low orderbook representing less than 7% of the existing fleet, the 1,000-1,500 teu segment is increasingly challenged. As the months pass, they will face even harder times with the approaching IMO 2020 sulphur cap deadline. Carriers will try to mitigate the impact of their MDO/LSFO fuel bills by opting towards year end for larger ships to cover their 2020 regional and feeder needs.

500-1,000 teu

2018 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.

2019 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 SE Asia.

The situation for classic Panamaxes remains fragile

THE FLEET

Cellular fleet growth is expected to be under 3.5% during 2019 based on Alphaliner's estimates*, a substantial slowing down compared to the 5.7% recorded in 2018.

However, this expected growth is imbalanced, with a high 11% expected figure for the large ships of 10,000-23,000 teu and an anaemic 2.5% growth for the 1,000-4,000 teu range. As for the 4,000-10,000 teu range, capacity should shrink by some 2.5% in the absence of any deliveries planned in this size segment.

** Estimates based on an expected 300,000 teu of scrappings and 120,000 teu of delivery deferrals/delays.*

Alphaliner - 2017-2018 - Cellular ships - Essential figures

	Ships	TEU	% Change YoY
Fleet as at 31 Dec 2018	**5,284**	**22,321,075**	**5.7%**
Orderbook as at 31 Dec 2018	**418**	**2,750,179**	**3.1%**
Orderbook as % of fleet		12,3%	

	Ships	TEU
Fleet as at 31 Dec 2017	**5,178**	**21,109,734**
Orderbook as at 31 Dec 2017	**345**	**2,667,389**
Orderbook as % of fleet		12,6%

2018 - Containerships activity			
Ordered 2018	**213**	**1,296,681**	**65.5%**
Value of new orders (Est.)		*US$11.60 Bn*	*73.9%*
Delivered 2018	**165**	**1,300,600**	**8.8%**
Deleted 2018	**66**	**111,233**	**-74.0%**
Breakdown			
Scrapped	*56*	*102,308*	*-75.3%*
De-celled	*8*	*6,165*	*21.1%*
Lost	*2*	*2,760*	*-65.3%*
Average idle fleet 2018		**405,964**	**-42.3%**
Idle fleet at end Dec		*627,937*	*50.7%*
Average CCFI 2018		**819**	**-0.1%**
CCFI end Dec		*835*	*8.3%*
Av. Alphaliner charter index 2018		**68**	**24.6%**
Index at end Dec		*56*	*-3.6%*
Average FO $/ton 2018 (Rtm/Sin)		**419**	**31.5%**
FO $/ton end Dec		*333*	*-11.8%*

2017 - Containerships activity		
Ordered 2017	**130**	**783,374**
Value of new orders (Est.)		*US$ 6.67 Bn*
Delivered 2017	**160**	**1,195,650**
Deleted 2017	**161**	**427,030**
Breakdown		
Scrapped	*147*	*413,982*
De-celled	*9*	*5,090*
Lost	*5*	*7,958*
Average idle fleet 2017		**703,595**
Idle fleet at end Dec		*416,643*
Average CCFI 2017		**820**
CCFI end Dec		*771*
Av. Alphaliner charter index 2017		**55**
Index at end Dec		*58*
Average FO $/ton 2017 (Rtm/Sin)		**319**
FO $/ton end Dec		*378*

Picture: ONE CONTINUITY, 8,102 teu, delivered in 2008 by Imabari, operated by Ocean Network Express.

Alphaliner - Cellular fleet as of 31st December 2018

- **The cellular fleet counts 5,284 ships of 22.32 million teu - of which 53.9% is chartered from non-operating owners**
- **The cellular fleet represents 98.2% of the total capacity deployed on liner trades in teu terms**
  > Total capacity active on the liner trades is 6,147 ships of 22.73 million teu and 276.7 million dwt
- **The orderbook counts 420 ships of 2.77 million teu representing 12.4% of the existing fleet (firm orders only)**
- **The orderbook includes 201 ships for 1.38 million teu with charter status representing 49.9% of the total orderbook**

31st December 2018 - Existing						31st December 2018 - Orderbook					
Size ranges	All		Of which chartered from NOO			All		Of which chartered from NOO			
teu	ships	teu	ships	teu	% Cht	ships	teu	ships	teu	% Cht	O / E
18,000-23,000	92	1,808,559	32	624,678	34.5%	46	1,018,278	13	280,716	27.6%	**56.3%**
13,300-17,999	34	571,375	9	153,489	26.9%	3	45,846	0	0	N/A	**8.0%**
12,500-13,299	237	3,253,587	133	1,824,920	56.1%	52	751,004	39	562,004	74.8%	**23.1%**
10,000-12,499	160	1,707,703	102	1,076,946	63.1%	34	401,098	26	305,098	76,1%	**23.5%**
7,500-9,999	480	4,228,654	269	2,387,903	56.5%	0	0	0	0	N/A	**0%**
5,100-7,499	456	2,832,080	233	1,437,344	50.8%	0	0	0	0	N/A	**0%**
4,000-5,099	641	2,905,500	363	1,639,075	56.4%	0	0	0	0	N/A	**0%**
3,000-3,999	245	851,765	142	497,788	58.4%	17	54,500	0	0	N/A	**6.4%**
2,000-2,999	664	1,689,771	410	1,044,447	61.8%	107	271,172	31	82,582	30.5%	**16.0%**
1,500-1,999	591	1,014,554	300	519,100	51.2%	87	157,480	70	126,646	80.4%	**15.5%**
1,000-1,499	711	818,382	410	478,579	58.5%	48	57,016	22	27,372	48.0%	**7.0%**
500-999	777	576,280	432	332,143	57.6%	25	17,644	0	0	N/A	**3.1%**
100-499	196	62,865	52	16,401	26.1%	1	120	0	0	N/A	**0.2%**
Total	**5,284**	**22,321,075**	**2,887**	**12,032,813**	**53.9%**	**420**	**2,774,158**	**201**	**1,384,418**	**49.9%**	**12.4%**

Note: *The existing chartered fleet takes into account ships chartered out by non-operating owners to operators, thus it does not take into account 98 ships for 253,981 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.*

Alphaliner Top 25 Operators as of 31st December 2018

		Total existing		Orderbook	
#	Operator	teu	ships	teu	ships
1	**APM-Maersk**	4,065,468	714	73,606	6
2	**Mediterranean Shg Co**	3,312,944	523	403,552	23
3	**COSCO Group**	2,771,792	463	186,224	15
4	**CMA CGM Group**	2,664,669	508	233,300	20
5	**Hapag-Lloyd**	1,651,855	230	0	0
6	**ONE (Ocean Network Express)**	1, 514,913	216	42,156	3
7	**Evergreen Line**	1,191,872	200	457,968	72
8	**Yang Ming Marine Transport Corp.**	631,978	97	208,330	24
9	**PIL (Pacific Int. Line)**	418,298	131	24,446	3
10	**Hyundai M.M.**	412,971	70	396,000	20
11	**Zim**	337,338	69	0	0
12	**Wan Hai Lines**	250,249	93	48,744	20
13	**IRISL Group**	154 415	50	0	0

		Total existing		Orderbook	
#	Operator	teu	ships	teu	ships
14	**Antong Holdings (QASC)**	145,820	122	27,232	20
15	**KMTC**	143,064	64	14,400	8
16	**Zhonggu Logistics Corp.**	138,480	100	11,448	6
17	**X-Press Feeders Group**	120,272	79	5,564	2
18	**SITC**	107,499	79	25,533	12
19	**TS Lines**	75,617	34	8,000	6
20	**SM Line Corp.**	74,810	18	0	0
21	**Arkas Line / EMES**	73,390	45	6,200	2
22	**Sinotrans**	65,153	40	1,140	1
23	**RCL (Regional Container Lines)**	62,930	32	3,336	2
24	**Sinokor**	60,408	48	0	0
25	**Salam Pacific Indonesia Lines**	53,208	53	0	0

SECOND HAND MARKET

A year of contrasts

After a promising 2017, it was widely hoped that the containership market had entered a new upward cycle, bringing to an end almost a decade of crisis.

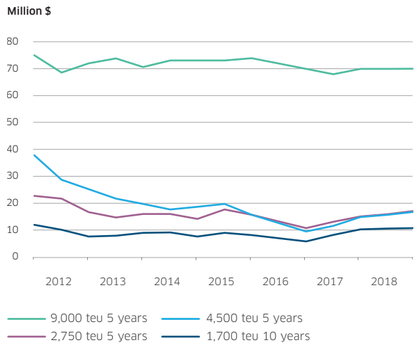
However, while the first half of the year saw a surge in both rates and asset prices, there was a sharp reversal in the second half and both ended the year at lower levels than at the start of it.

Overall, there were 286 vessel sales concluded for further trading, including fifteen feeder ships in the 1,000-4,000 teu range. These sales represented 805,490 teu, or 3.8% of the total containership fleet at end 2018.

Only 56 vessels (102,308 teu) were sold for demolition in 2018, versus 147 units in 2017 and 192 in 2016. The average age of demolition was 24 years.

A mere five companies accounted for 34% of purchases during the year: MPC Capital was the buyer of 31 units (including internal transactions); Ship Finance International (SFI) bought 22 units (including 15 feederships from MSC with bareboat charterback); meanwhile Sinokor purchased 22 units, Navios Maritime Containers 12 units, and Borealis 10 units.

Containership second hand prices



A mere 5 companies accounted for one third of purchases

Picture: YM WELLHEAD*, 14,080 teu, delivered in 2015 by Hyundai Heavy Industries, operated by Yang Ming Marine.*

Analysis of 2018 S&P transactions by size

	2011	2012	2013	2014
< 900 teu	33	55	40	39
901 - 2,000 teu	33	76	84	84
2,001 - 3,000 teu	9	15	41	39
> 3,001 teu	29	13	44	86
Total	**104**	**159**	**209**	**248**

	2015	2016	2017	2018
< 900 teu	67	47	35	43
901 - 2,000 teu	77	75	97	110
2,001 - 3,000 teu	83	40	106	49
3,001 - 5,100 teu	44	22	81	47
5,101 - 10,000 teu	32	24	58	22
> 10,000 teu	2	27	16	15
Total	**305**	**235**	**393**	**286**

The cellular containership fleet grew by 5.7%

Analysis of 2018 transactions by size

The cellular containership fleet grew by 5.7% in teu capacity during 2018, and reached 5,284 vessels at year end against 5,178 at the end of 2017.

Sales prices increased on average 2% during the year, with a clear rise until July 2018, followed by a steep decline.

Ships over 10,000 teu: 15 sales (16 in 2017)

The number of S&P deals remained relatively low in this segment as most units were tied up on long-term charters on delivery ex yards. Only cash-rich investors or aggressive leasing companies are able to afford these massive deals.

Whilst the Chinese leasing houses still dominate this segment, increasing their shipping asset portfolios by 9% during the year to $51.3 billion, we also noticed the emergence of Japanese leasing companies and banks in 2018. The latter proposed several aggressive schemes, and secured a series of substantial transactions.

John Fredriksen's SFI accounted for half of the transactions recorded for the year in this size range. The company bought 7 units from NS Lemos and AP Moller, all backed by long-term charters.

We note 70 ships were delivered in 2018 in this segment, with 55 scheduled in 2019.

5,100-10,000 teu: 22 sales (58 in 2017)

There were 936 vessels of 7,060,734 teu in this segment on 31 December, or 31.6% of total container capacity.

Navios Maritime Containers was the most active player in this size segment, buying 8 vessels in total, including the 9,954 teu **Adamastos** (built 2010 at Hanjin) from Capital Maritime & Trading for $50.25 million. This is about $20 million above the price paid by Capital a year previously to BNP Paribas. Navios also purchased four sisterships built 2011 from Capital for $52.5 million each.

Two units in this segment were scrapped in 2018, and there are no ships scheduled for delivery in 2019.

3,000-5,100 teu: 47 sales (81 in 2017)

At the end of 2018, there were 886 vessels in this segment, equivalent to 17% of total containership capacity. We have redefined the size limits for the Panamax segment in 2018 to reflect the evolving fleet structure.

Whilst the 3,000-5,100 teu segment was the second most active in 2017 with 81 transactions, last year was a different picture, and transactions declined by 50% in 2018 (although the segment was still the third busiest of the six). This consolidates the intense activity of the previous year, when many vessels were picked up at reasonable prices against expectations of rising rates. However, the instability of the charter market created a 'wait and see' attitude among buyers in 2018.

Among the notable deals, Maersk purchased 6 units en bloc from Commerzbank for $285 million including 4 Panamaxes built 2012 and 2013, plus two larger 13,000 teu units built 2012. Oslo-listed investor Ocean Yield bought four 3,800 teu units (built Hanjin in 2014) from CMB/Delphis for $30 million each with a leaseback to their former owners.

*Picture: **OTTAWA EXPRESS**, 2,808 teu, delivered in 1998 by Daewoo, operated by Hapag-Lloyd.*

NSC sold four 4,300 teu sisterships built 2009 and 2010 to two different buyers at two different moments of the year: 2 went to MPF Investco for $13.7 million each in the summer, and two went to Navios Maritime Containers for $11.8 million each in November, illustrating the market evolution. However, SFI was the most active buyer during the year, snapping up 7 units.

Some 8 units were scrapped during the year.

2,000-3,800 teu: 49 sales (106 in 2017)

There were 664 vessels in this segment at year end, representing 12.1% of the total number of ships and 7.5% of total container capacity.

This Handysize segment logged the second largest number of transactions in 2018, even though sales fell by 50% year-on-year. This represented about 17% of the total containership transactions, exceeding its overall share of the fleet. Prices in this segment were arguably the most stable.

With one of the best purchase price/charter rate ratios in the market, this size remains attractive for non-operating owners who appreciate the market's liquidity. We note again a high demand for vessels offering good reefer capacity of 500 teu or more.

German owners remain the largest owners in this segment and, despite the presence of other nationalities, German-linked companies led the field again in 2018, with MPC buying 11 vessels and Borealis 7 vessels. SFI was again present, purchasing 5 units.

900-2,000 teu: 110 sales (97 in 2017)

This part of the fleet consisted of 1,302 vessels at end December, or 8.2% of total capacity.

The two containership segments below 2,000 teu were the only ones to register a higher number of sales in 2018 compared to the previous year. Indeed, this segment represented nearly 40% of all containership sale and purchase transactions in 2018 (24% in 2017).

We noted relatively stable prices for vessels between 1,500-2,000 teu, while the market was offering a premium for 1,200-1,400 teu vessels with ice-class, high reefer plug capacity and shallow draft.

The approaching IMO 2020 deadline has encouraged shipyards and naval architects to propose new designs for this segment. As a result, we expect to see increased orders in the coming months.

Among the most active buyers were MPC, which bought 17 units in a mix of internal transactions and purchases from Simatech, and SFI which bought 15 units from MSC with time charters back. Sinokor also bought 10 ships from the BalticMax fleet.

900 teu and less: 43 sales (35 in 2017)

This segment comprised 975 vessels at the end of the year, or 2.8% of total container capacity. These ships service mainly domestic trades, and the majority of the big players are based in Asia. The number of transactions and prices have remained largely stable since 2016.

Conclusion

As we said in the introduction, 2018 has been a year of contrasts with rising prices in the first half of the year and a highly unstable market from September onwards.

The latter punished asset prices for all segments up to 11,000 teu. Like other shipping markets, the container industry started to suffer in 2018 from the US-China trade war. This pushed many larger operators to restructure their services. Going forward, asset values will certainly be affected by the IMO 2020 fuel regulations, and we already note buyers' reticence to invest in non-scrubber fitted second hand tonnage of Panamax size and above.

Sales prices increased on average 2% during the year

*Picture: **CMA CGM ANTOINE DE SAINT EXUPERY**, 20,776 teu, delivered in 2018 by Hanjin Philippines, operated by CMA CGM.*

Ro-Ro

Is the best behind us?

Looking back on 2018, we wonder if Q4 2018 and Q1 2019 might turn out to be the peak of the positive market cycle that started in 2014. There is no doubt that 2018 will be remembered as a positive year for the ro-ro industry. Cargo volumes remained strong and charter rates continued firming, giving everyone plenty of reasons to be satisfied. However, serious challenges lie ahead.

GOTHIA SEAWAYS
6,700 lm on 7 decks plus 1 car deck. Delivered in January 2019 by Jinling Shipyard to DFDS and operated by DFDS.

ECONOMIC ENVIRONMENT

World economies started to slow progressively in the second half of 2018. Global economic growth for 2018 was measured at 3.7% and is projected to reduce even further to 3.5% in 2019. As economic indicators weaken, chief executives fear a further loss of momentum in 2019, as central banks tighten monetary policy, China grapples with domestic woes, economies such as Germany, UK, France and Italy weaken, and America's decade-long recovery runs out of steam. When looking at the European Union, the fulcrum of the global ro-ro industry, GDP growth rates fell from 2.4% in 2017 to 1.8% in 2018 and a further contraction may be expected. Consequently, we anticipate demand to slow in most trade areas. In light of Brexit and the country's enormous weight in the ro-ro sector, market players paid particular attention to the performance of the UK where growth slipped by 0.4% in 2018.

2018 was an eventful year in the Mediterranean

Despite the strong dip in prices in Q4 2018, the average annual oil price increased by almost 30% in 2018. It is hoped that this will translate into increased purchasing power in the emerging markets and developing economies (EMDEs) on Europe's periphery, as well as West Africa - both important generators of demand.

Non-economic factors continued to affect market conditions and transport activity – the Libyan and Syrian markets have not yet recovered, while the civil war in Yemen and the sanctions on Qatar threaten to destabilise the region for years to come.

REGIONAL MARKETS

2018 was certainly a very eventful year in the Mediterranean region. Operators continued to register very solid cargo volumes in the French, Spanish, Italian and Greek domestic markets, as well as in Turkey's export/import market.

In a year of dramatic changes, the Turkish market was strongly affected by the heavy depreciation of the Turkish lira coupled with an average yearly inflation rate above 16%, both of which took a toll, particularly on import cargo volumes. In April, DFDS finalised the €950 million acquisition of Turkey's leading ro-ro operator UN Ro-Ro thereby greatly expanding its presence in the Mediterranean market. At the same time, MSC (Mediterranean Shipping Company) put in motion a new con-ro service from Turkey (Izmir) to Italy (Trieste) in partnership with Ekol Logistics, which however was eventually closed down late August.

Meanwhile, in another pivotal event, Ekol Logistics, which owns Turkey's second largest ro-ro operator Alternative Transport, also decided to close its services to Italy and load all its cargoes with DFDS instead.

*Picture: **TASMANIAN ACHIEVER II**, 3,500 lm on 3 decks plus 1 car deck. Delivered in October 2018 by Jinling Shipyard to Toll Group and operated by Toll Group.*

Spain's markets and competition commission (CNMC) finally approved Naviera Armas' acquisition of competitor Trasmediterranea. The deal presents a major change in the Spanish ro-ro industry. In order to obtain the commission's approval and remove any fears of monopoly on certain routes to North Africa and the Canary Islands, Naviera Armas was forced to sell three major routes to FRS (Förde Reederei Seetouristik). Spain's other ro-ro and ferry powerhouse Balearia continued expanding in 2018. In June, it entered into a joint venture with Maritima Peregar to operate services from Malaga to Melilla and Tangier Med under the Maritima Alboran banner. Towards the end of the year, Balearia also joined forces with Fred Olsen Express by establishing the Canary Bridge Seaways, a new freight and passenger service linking the Spanish mainland with the Canary Islands.

The fierce rivalry in the Italian domestic market between Europe's largest ro-ro operator Grimaldi Group and the alliance of Moby/Tirrenia and Grandi Navi Veloci (GNV) continued. The strong antagonism was not only reflected in the competition for cargo volumes but also on numerous other fronts: the influence exercised through the activities of rival shipowners' associations (AssArmatori and Confitarma); arguments about domestic tonnage tax; employment of foreign seafarers in domestic cabotage services; discussions about subsidized services; as well as antitrust authority sanctions due to alleged abuse of dominant market positions on certain trade lanes. Amid all these heavily publicised discussions, both sides continued to re-shape and adjust various services to Sardinia, Sicily and Malta on the back of growing cargo volumes.

MSC took an even more active role as the new partner of the debt-ridden con-ro operator Gruppo Messina. Under the agreement, MSC will purchase a 49% stake in Gruppo Messina as well as take a 52% stake in a new company controlling 4 of the Messina's 8 large modern con-ro ships. MSC also started a new service between major container hub Gioia Tauro and Rades in Tunisia using a ro-ro vessel to transport only containers in order to avoid congestion problems affecting container operators in Rades.

This was not the only new service to Tunisia. In May, newcomers ProCargo Line started a dedicated ro-ro service between Italy, Malta and Tunisian ports. Otherwise, there were no major changes in services to North African countries due to the relatively low economic activity as well as continued political instability in Libya. The activity on shuttle services across the Gibraltar Straits was a welcome exception, although the seasonality of cargo flows as well as the cumbersome bureaucratic obstacles (operational licenses) remain an issue for the operators involved. At the beginning of the year, CMA CGM suspended its short-lived high speed service between Casablanca, Tangiers Med and Marseilles as well as its second loop connecting Tangiers Med, Marseilles and Genoa.

In February, MSC launched a new service from the Continent to West Africa using two large con-ro units. As always, volumes from the Continent to West Africa remain fiercely contested by deep sea car carrier operators.

Activity in the North Europe/Baltic region remained strong in 2018. Cargo volumes were flat on average for the year, despite the uncertainty surrounding Brexit and slightly weaker economic activity in the second half of the year. Towards the end of the year, demand started rising again on services to the UK as cargo inventories were replenished in anticipation of a possible 'no-deal' Brexit and major logistic chain breakdowns. In anticipation, the UK government announced it will spend £107.7 million to charter extra freight capacity to ease 'severe congestion' in the case of a 'no-deal' Brexit at the end of March 2019. The agreement has been reached with DFDS and Brittany Ferries, as well as newcomers Seaborne Freight whose contract was eventually cancelled.

As with 2017, most North European operators continued to post impressive financial results in 2018. Finnlines reported 10.7% year on year (y-o-y) revenue growth for Q1-Q3 2018. These positive trends urged them to continue lengthening existing tonnage in anticipation of the arrival of three 5,800 lane meter (lm) newbuildings expected in 2020-2021, the largest ice-classed units ever ordered.

Danish operator DFDS continued breaking the records set in 2016 and 2017, increasing revenue by a further 9.7% on y-o-y basis. The arrival of the company's largest ever ro-ro newbuildings, 6 in total, will support further growth as well as synergies that will be created with their expanding Mediterranean services which will be boosted by the acquisition of UN Ro-Ro. DFDS also continued to invest in terminal expansions in Vlaardingen and Felixstowe in anticipation of its newbuilding vessels and possible cargo shifts caused by a 'no-deal' Brexit.

Cobelfret/CLdN took delivery of its second newbuilding from Hyundai Mipo Dockyard (HMD) in South Korea, the **Delphine**. The ship and its sistership will be the largest ro-ro vessels ever built with 7,970 lm capacity. The company is expected to take delivery of four 5,450 lm newbuildings in 2019 thereby further increasing its capacity on its main routes to the UK and Ireland. Cobelfret/CLdN also expanded its services to the Iberian peninsula with a new service from Zeebrugge to Santander.

Stena Line, P&O and Seatruck all expanded capacity on their Irish Sea services through chartering or tonnage redeployment. Whatever happens with volumes to the UK, it will be interesting to observe how services focused on unaccompanied traffic will fare against the competition coming from mixed passenger and freight services. In the latter market, Irish Ferries and Stena Lines will be adding new vessels with significantly higher capacity.

*Picture: **ROSA DEI VENTI**, 2,500 lm on 3 decks. Delivered in April 2018 by AVIC Weihai Shipyard to Visentini Giovanni Trasporti Fluviomarittimi and operated by Gruppo Grendi.*

CHARTERING ACTIVITY

As in 2017, the overall number of chartering transactions in 2018 remained low. With the DFDS/UN Ro-Ro and Naviera Armas/Trasmediterranea acquisitions, the ro-ro sector became more consolidated than ever, limiting the potential for chartering transactions. The majority of operators own the tonnage they deploy so any actual increase in demand and need for capacity due to drydocking, scrubber installations and/or vessel lengthening was mostly taken care of through internal fleet reorganisations.

Demand for tonnage was steadfast throughout the year in all geographical areas and for all vessel sizes. Charter rates continued to surge, especially for the 3,000+ lm capacity category. Chartering activity peaked at the turn of the year due to a combination of pre-Brexit linked demand from the UK and the aforementioned rejigging of services to and from Turkey. For smaller tonnage under 2,000 lm capacity, hire rate improvements were smaller with the bulk of demand coming from the Spanish and Italian markets. The spot/tramp market remained virtually non-existent and did not contribute significantly to the overall demand for tonnage except for the increased activity in Q4 2018 related to NATO's extensive military exercise 'Trident Juncture' in Norway.

THE FLEET

Demolition activity

Demolition activity declined in 2018 with a total of 12 units recycled compared to 16 in 2017. The average age of the vessels recycled was 38.1 years, while the average size fell to approximately 749 lm compared to 1,431 lm the year before. Only one vessel of less than 30 years of age was recycled. The primary victims were of course smaller units with only one vessel with more than 1,000 lm and none of more than 2,000 lm. The total lane meter capacity removed accounted for approximately 8,992 lm, a 60.7% decrease y-o-y. We expect demolition activity in 2019 to increase somewhat, primarily because obsolete vessels might be encouraged to throw in the towel in light of the sulphur cap regulations coming into force in January 2020.

Demand for tonnage was steadfast throughout the year

Sale and purchase activity

Sale and purchase activity slumped in 2018 with a total of 14 transactions registered against 27 in 2017. This amounted to a total of approximately 14,079 lm capacity sold with an average size of about 1,005 lm per vessel. This compares to last year's 22,060 lm with an average size of 816 lm per vessel. The average age of the vessels sold was 20 years. The focus was on smaller tonnage with only 5 vessels over 1,000 lm capacity. Most of the vessels sold had straight stern ramps with only one equipped with a quarter stern ramp. Only 3 vessels were purchased by EU buyers. The bulk of activity was coming from Europe where Greek, Russian and Turkish interests bought 2 vessels each, while Romanian, Norwegian and German buyers purchased one vessel each. The remaining buyers were from Mexico, Paraguay and South Korea, as well as 2 unidentified buyers. Only 1 ro-ro vessel was converted in 2018, after a US buyer converted it into a rocket launching vessel.

New deliveries in 2017

12 new vessels were delivered during the course of the year for a total of approximately 29,010 lm capacity. In comparison, the same number of vessels was delivered in 2017 but with a total capacity of approximately 45,200 lm, representing a decrease of about 35% y-o-y in 2018. The average size of vessel delivered was about 2,900 lm. Crowley Maritime took delivery of 2 large LNG powered con-ro vessels built at Halter Pascaguola shipyard; Toll Group took delivery of a pair of 3,000 lm ro-ros from Jinling shipyard; Visentini Giovanni Trasporti Fluviomarittimi took delivery of a 2,500 lm ro-ro from AVIC Weihai shipyard, taken on long term charter to Italian operator Gruppo Grendi; Hyundai Mipo delivered its second 7,970 lm unit to Cobelfret/CLdN (Delphine); FSG (Flensburg) shipyard delivered 1 x 4,100 lm vessel on long term bareboat charter to Moby/Tirrenia while 5 more vessels were built for the Japanese domestic market in Japanese shipyards (3 x Mitsubishi Shimonoseki, 2 x Shin Kurushima). With the exception of the units delivered to the Toll Group, Coblefret/CLdN, Visentini Giovanni Trasporti Fluviomarittimi and FSG/Siem, the remaining 7 vessels were equipped with a quarter stern ramp. As in 2017, none of the ships delivered in 2018 were subsequently operated on the tramp market and only two will not be operated by their actual owners.

At the turn of the year, the total orderbook stood at an impressive 37 vessels, earmarked for delivery in 2019, 2020 and 2021. The total capacity on order accounted for more than 168,000 lm (exact capacity still unknown for 7 units built for the Japanese domestic market). 17 vessels are expected to be delivered in 2019, subject to possible construction delays,. European operators are expected to receive 11 vessels in 2019 with a total capacity of about 61,100 lm and average vessel size of 5,556 lm, compared to 3 vessels with 14,642 lm total capacity delivered to the European market in 2018. This represents a y-o-y increase of 76% which suggests a strong risk of overcapacity. 4 vessels are earmarked for delivery in 2019 to Japanese companies; 1 large con-ro will be delivered to Hawaii specialist Matson and 1 smaller con-ro to Bermuda Container Line. When it comes to European operators, DFDS is expected to take delivery of 4 of its new 6,700 lm Jinling class units; Cobelfret/CLdN will take delivery of 4 units of 5,450 lm from Hyundai Mipo and 3 vessels will be delivered by FSG shipyard, all 3 owned by the Siem Group. The latter are the only vessels that are being delivered to a tonnage provider and 2 units remain uncommitted.

New orders in 2018

19 ro-ro orders were registered in 2018 compared to 11 in 2017. The Grimaldi Group led the way with an order for 9 x GG5G (Grimaldi Green 5th Generation) class units with 7,800 lm capacity as well as 3 x ice-classed 5,800 lm vessels specially designed for subsidiary Finnlines, all ordered at Jinling shipyard. Siem Shipping ordered a pair of 4,100 lm units at its own FSG shipyard, DFDS declared 2 more options (number 5 and 6) at Jinling shipyard; two 2,700 lm ro-ros were ordered by Chinese operator Bohai Ferry at Yantai Raffles shipyard, while 3 more units were ordered for Japanese owners/operators Libera and Kuribayasju Steamship at Naikai Setoda and Naikai Innoshims shipyard respectively.

It is interesting to note that none of the vessels ordered in 2018 have LNG propulsion. Rather, the choice has been to use scrubber technology or burn ultra-low sulphur fuel in Emission Control Areas (ECAs). We consider the large number of vessels contracted in 2018 to be the end of the large ordering spree that started 2-3 years ago. By now most of the major operators are well under way with their fleet rejuvenation programmes and have satisfied most of their capacity needs for the years or even decades to come.

FORECAST

We remain optimistic for the future of the ro-ro sector, though the industry will clearly be exposed to three major risks in 2019: the possibility of a modal shift caused by the increasing bunker costs from IMO's 2020 fuel sulphur cap; diminishing demand due to a visible economic slowdown in relevant geographical areas; and the likely oversupply of tonnage capacity.

Although the latest action taken by global policy makers might reduce the markets' perception of recession risks in the year ahead, it is dangerous to underestimate the risks of unilateralism, protectionism and populism. With both the European Parliament elections and the dreaded Brexit decision on the horizon, we expect quite a volatile year ahead of us. The visibility of economic growth and consequently transport demand in Europe will be reduced until the outcome of Brexit is clear. A 'soft' Brexit is expected to inspire optimism and restore growth, while a 'no-deal' Brexit is almost certainly going to be extremely detrimental to the sector as a whole. If other leading EU nations join the path of recession or economic decline, the negative effect on demand will be aggravated.

If the markets are finally not able to develop sufficient cargo volumes needed to absorb the extra capacity that will be added to the fleet in 2019, it is very likely that the ro-ro industry might be looking at the start of a new negative market cycle that will drag down both charter rates and asset values as from the second half of the year. Let us hope for the best!

The industry will be exposed to three major risks in 2019

*Picture: **ALF POLLAK**, 4,076 lm on 4 decks. Delivered in October 2018 by Flensburg Shipyard (FSG) to Onorato Armatori and operated by DFDS.*

Car Carrier

Stalled

The return to profitability of the car carrier sector appeared to be well underway in 2018 until the start of the summer, when a number of external variables, including, but not limited to, escalating trade tensions between the United States (US) and China, worldwide harmonized light vehicles test procedure (WLTP) related disruptions in Europe, natural disasters in Japan, and weakening economic performances in Europe and China, struck to derail the process and stall it altogether.

BELUGA ACE
Car carrier with a capacity of approximately 6,800 CEU on 14 decks of which 6 hoistable. First unit of a six-ship series dubbed "Flexie". Delivered in March 2018 by Minaminippon Shipbuilding Co. Ltd. in Japan to and operated by MOL.

INTRODUCTION

Protectionist risks remain significant

The International Monetary Fund (IMF) is forecasting a weakening in 2019 of global growth, projected at 3.5%, whereas world trade volume is expected to remain steady at 4.0%. Protectionist risks remain high as do the number of additional downside triggers, such as rising debt levels, Brexit and slowdowns in the economic performances of the US, the European Union (EU) and China.

This should translate into continued demand-side volatility for the car carrier sector, which can only be offset by supply-side rebalancing. To achieve the latter, the most effective course of action remains tonnage recycling (demolitions) and holding off further investment in newbuildings.

CHARTERING ACTIVITY

Chartering activity mirrored the sector's two-faced performance. During the first half of the year, the pace was sustained, with the complete absorption of idle tonnage, and rising charter rates. From the summer until the end of the year, all these gains were lost and even reversed, with a return of idling tonnage, a drop in charter rates and an overall deceleration. This has most likely hindered the operators' quest for freight rate restoration, which will see a number of cargo contracts up for renegotiation or due to be awarded in 2019. As long as freight rates do not improve, the sector will not be able to break the deadlock of its vicious cycle, where low freight rates feed into low charter rates, which in turn lead to unprofitability with operators as well as tonnage providers, and ultimately dearth of investment. We therefore expect 2019 to be – at best – a status quo year, with no remarkable gains to be expected on the freight side and consequently for the sector in general.

The Ongoing Anti-Trust Investigation

As anticipated, the sweeping investigation into the global car carrier price fixing scandal that is raging since 2012 produced further developments during 2018. In February, the European Commission (EC) found that CSAV, K Line, MOL, NYK and WWL-EUKOR had participated in a cartel concerning the intercontinental maritime transport of vehicles and imposed a total fine of €395 million. MOL had also participated, but was granted full immunity for revealing the existence of the cartel, and thereby was spared a fine of around €203 million. In March, BMW revealed that it was pursuing damage claims in South Africa against MOL and K Line's local subsidiary for anti-competitive practices. In April, K Line became the second shipping company (after NYK in 2017) to plead guilty in Australia's Federal Court (FC) to criminal cartel behaviour in the continuation of the Australian Competition and Consumer Commission's (ACCC) investigation. In November, criminal charges were laid against K Line by Australia's Commonwealth Director of Public Prosecutions (CDPP). In May, a new front was opened when the Peruvian competition authority, INDECOPI, imposed a total fine of 47 million Peruvian Sol (circa $14.6 million) on CMC, EUKOR, K Line, MOSK, and NYK, following allegations that the companies violated the country's competition laws by colluding with competitors to rig the bids on RoRo shipments to and from Peru between 2001 and 2015. CSAV also formed part of the alleged cartel, but was granted leniency and exemption from the fine, along with NYK, which saw its penalty reduced, for their respective assistance in the case.

Just as we indicated last year, given the seemingly endless proportions that the scandal is reaching, with some probes by governmental authorities still underway, we expect that in 2019 more convictions and penalties will follow, with the possible emergence of further new investigations.

We expect 2019 to be – at best – a status quo year

*Picture: **GLOVIS SUNLIGHT**, car carrier with approximately 61,857 square meters on 12 decks at 229 meters LOA, equivalent to approximately 7,409 CEU with 4 hoistable decks. Delivered December 2017 by Hyundai Heavy Industries (HHI) at the Samho yard in South Korea to Hyundai Glovis and operated by Hyundai Glovis.*

*Picture: **GRANDE TORINO**, car carrier with post-Panamax beam and with approximately 62,000 square meters on 13 decks equivalent to approximately 7,700 CEU with 4 hoistable decks. Delivered in November 2018 by Yangfan Shipyard in China to and operated by Grimaldi Group after a short stint with Hyundai Glovis.*

THE FLEET

Car carrier fleet at January 1st, 2019:

735 vessels

Average age 11.4 years

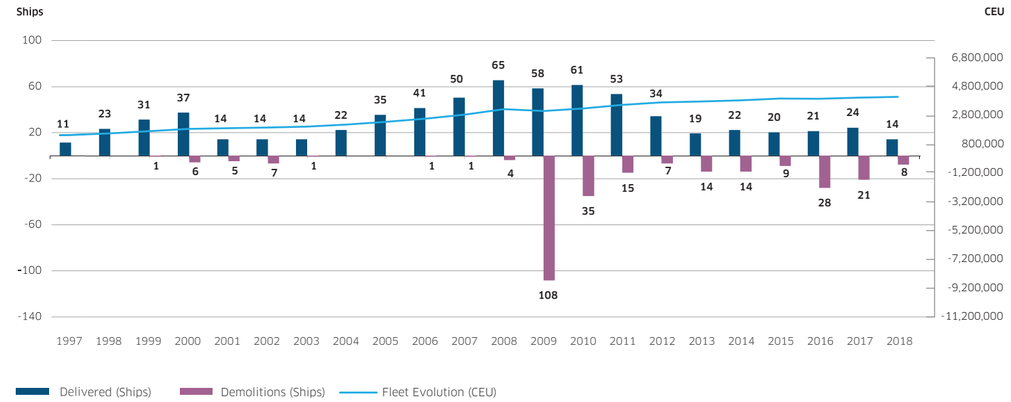
Orderbook 21 vessels

Based on a capacity of 1,000 CEU and above, at the turn of the year, the fleet counted 735 vessels equal to approximately 4.0 million CEU, with an average age of 11.4 years. It marks the second consecutive year that the 4.0 million CEU threshold is breached. Compared to 2017, the fleet contracted by 3%, capacity slipped by 1% and the average age was 11.4 years, up by 4% year-on-year (y-o-y). It is the second contraction in fleet growth over the past three years, bringing the average over the past five years down to approximately 4%. The overall orderbook ended the year at 21 units, representing 3% of the current fleet, stretching out up to 2021, and accounting for a total of approximately 143,000 CEU. Within these 21 units there are 6 units on order for the Grimaldi Group at Yangfan, whose delivery is questionable given the yard's fragility. The orderbook-to-fleet ratio fell for a fourth consecutive year and hit its lowest level in the past 7 years. 14 units, or approximately 67% of this orderbook, are post-Panamax beam vessels, accounting for approximately 108,000 CEU, equivalent to 75% of the CEU capacity on order. Compared to 2017, the number of post-Panamax beam ships on order without committed employment was halved to just 2 units, namely what is left of CIDO's original order at Hyundai Mipo Dockyard (HMD).

For the second consecutive year, only 5 new orders were placed during 2018, equivalent to approximately 21,000 CEU with an average intake of 4,200 CEU. 3 of the units are for Chinese operators and destined for Chinese domestic trades, namely 2 units of 2,200 CEU for COSCO Shipping Ro-Ro Carriers ordered at Wuchang SB Group and 1 unit of 2,300 CEU for Anji Automotive ordered at Jinling. Of the remaining two orders, one unit of 7,000 CEU capacity was a hidden order by NYK at Shin Kurushima's Toyohashi site, which came to light during the course of 2018. Last but not least, there was 1 additional unit ordered by Shoei Kisen Kaisha at their own Imabari Tadotsu site of 7,500 CEU capacity on the back of an employment with K Line. In other words, there

*Picture: **GRANDE HALIFAX**, car carrier with approximately 56,800 square meters on 12 decks equivalent to approximately 6,700 CEU with 4 hoistable decks. Delivered in January 2018 by CSC Jinling Shipyard in China to and operated by Grimaldi Group.*

Car carrier fleet evolution



continue to be no speculative orders, a recent trend which is contributing substantially to a more organic fleet growth in the face of challenging demand.

There are only 2 ships in the orderbook that are still uncommitted, a contraction of 50% y-o-y. This should come as no surprise, given the sector's persistent poor earnings which continue to discourage speculative investment.

14 units were delivered during the course of the year, accounting for approximately 93,000 CEU, with an average capacity of 6,633 CEU. While the size of units being delivered remains steady – down approximately 1% y-o-y – both the number of deliveries and the CEU capacity fell by approximately 40% y-o-y.

5 units saw their delivery dates deferred beyond 2018, accounting for approximately 38,000 CEU. In addition, 1 unit on order was cancelled, equivalent to 7,000 CEU. The construction of the latter is not yet complete, so it remains to be seen what will become of her.

Demolition activity slumped with only 8 ships being beached (although a total of 12 ships were sold for demolition), accounting for approximately 32,000 CEU, down 62% in terms of fleet and 64% in terms of CEU. Average age was 27.9 years compared to last year's 28.9. Most importantly, 2018's tally of beached ships is almost half the annual average over the last 6 years. In line with the trend of the last few years, it was the operators that were the most active, with 6 out of the 8 ships, or 75%.

Looking ahead, 16 ships, or approximately 53,000 CEU, representing 2% of the current fleet, will be 28 years and above in 2019. In 2020, 20 ships, or approximately 70,000 CEU, representing 3% of the current fleet will be 28 years and above. Just like last year, the lion share of the ownership of the units due to reach their "demolition age" lies in the hands of operators, with NYK standing out with 5 units, followed by COSCO Shipping Ro-Ro Carriers, Carim Engineering and Wallenius all with 2 units each. We therefore expect scrapping activity to pick up again over the next 12-24 months, regardless of scrap prices, as operators continue in their quest to restore freight rates to levels more sustainable for their business. The entry into force of the IMO's global sulphur cap on January 1 2020 will likely also significantly contribute to a rise in the number of ships being recycled over the next 24 months.

Sale and purchase activity plummeted 84% y-o-y with only 6 transactions, including 2 purchase option declarations. The average age was 14 years and the average size was 4,554 CEU, for a total of approximately 27,000 CEU. This is a far lower tally than we had anticipated. In part it was driven by an improving charter market throughout the first half of the year. Starting in September the import rules in China imposed Tier II engines for all vessels being imported, effectively restricting the tonnage pool for Chinese buyers, who however still acquired two units in the last quarter of the year. Overall, 2018 presented much fewer opportunistic deals, so operators and tonnage providers, already low on appetite for more tonnage, were not motivated to invest. With 2019 expected to be another year of weak balance sheet performances, we anticipate some spoils, but who will be there to seize them? Logically, not those actors solely invested in the car carrier sector, and it is questionable whether outsiders will even be attracted considering the sector's recent discouraging track record.

Demolition activity slumped with only 8 ships being beached

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