Shipping Market - Overview

Shipping is the lifeline of the global economy. Without shipping, intercontinental trade, the bulk transport of raw materials, and the import/export of affordable food and manufactured goods would simply not be possible.

The international shipping industry is responsible for the carriage of around 90% of world trade.

Seaborne trade continues to expand, bringing benefits for consumers across the world through competitive freight costs. Thanks to the growing efficiency of shipping as a mode of transport and increased economic liberalization, the prospects for the industry's further growth continue to be strong.

This should give shipowners a good opportunity to leverage on their core competences and tap into the unexplored value pool available in the global economy.

**World Economy:**

- Momentum in the global economy has clearly slowed further in 2019 so far, with significant concerns building over the short-term outlook and potential apparent for recession in some parts of the world.
- Projections for global economic growth have generally been revised down during the year, with the IMF now projecting growth of 3.2% this year, and whilst some forecasters project a modest pick up in 2020, others are much more bearish.
- Weakening expansion has come partly on the back of ongoing trade tensions, most notably the ‘trade war’ between the US and China which has seen further escalation in recent months, impacting global investor sentiment and Chinese economic performance.

**Green Shipping**

- Environmental regulation and ‘green technology has begun to dominate the shipping industry agenda, particularly decarbonization targets. The IMO 2020 Sulphur cap is now months away, with fuel switching starting earlier.
- Shipping markets seem to be continuing to trend forwards, despite demand pressures. Limited supply growth and IMO 2020 ‘wildcards’ appear to already be having a positive impact, and may provide further support next year.
### IMO 2020

<table>
<thead>
<tr>
<th><strong>Calendar</strong></th>
<th><strong>Fuel Tank</strong></th>
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<tbody>
<tr>
<td>Goes into effect: January 1, 2020</td>
<td>Caps the allowable sulfur content in marine fuels from its current level of 3.5% m/m to 0.5% m/m</td>
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<th><strong>Drill</strong></th>
<th><strong>Wheel</strong></th>
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<tr>
<td>Regulations will have impact on the downstream energy sector such as refiners, traders and marketers of marine fuels</td>
<td>For those left behind, participant will either need to continue to consume higher priced HSFO and outfit their ships with costly scrubbers or find VLSFO to comply</td>
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<th><strong>Ship</strong></th>
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<tr>
<td>Ships have 3 options to comply:</td>
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<td>1) Install scrubbers to remove sulfur contents of high-sulfur fuels</td>
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<td>2) Switch to use lower-sulfur fuel oil or blend with distillate fuel to achieve lower sulfur mixes</td>
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<tr>
<td>3) Switch from petroleum based fuels to alternative fuels like LNG, methanol, LPG, CNG, biofuels, solar power or fuel cells</td>
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### Key Highlights

- Bunker fuel accounts for 7% of transportation oil consumption (~3.5 million barrels/day). Burning this fuel generates about 90% of all sulfur oxide and dioxide (SOx and SO2) emissions globally. The world's 15 largest ships produce more SOx and SO2 emissions than every car combined.
- The International Maritime Organization is the United Nations Agency responsible for ensuring a clean, safe, secure, and efficient global shipping industry.
- IMO 2020 will be one of the most dramatic fuel regulation changes ever implemented.
- The effects of this change could have significant implications on the global economy. Rising fuel costs means rising freight rates, with the majority of the costs being passed on to consumers.
- According to S&P Global Platts Analytics, the total global impact of this rule on various sectors in the energy space as well as other industries will cost in excess of $1 trillion over five years.
Global Marine Fuel Market

![Global Marine Fuel Market Chart]

- **High Sulfur (HSFO)**
- **Low Sulfur (LSFO)**
- **Gasoil**

*Units: million bbl/day*
Containership market conditions have seen some degree of progress in 1H 2019, but, with the clear exception of the larger end of the charter market, this has been more gradual than expected.

The acceleration of the environmental and regulatory agenda continues to play an increasingly prominent role in the sector, and the uptake of environmental equipment, particularly SOx scrubbers, picked up notably in 2018.

Total fleet capacity expansion of 1.8% in 1H 2019 (5.6% in full year 2018); expected to reach a more moderate 3.0% in 2019 and 3.3% in 2020, alongside a slower pace of deliveries.

In early Q3 2019, there were 423 box ships (including delivered newbuilds, completed and pending retrofits) of 3.4m TEU fitted or due to be fitted with Sox scrubbers (15% of total fleet capacity), with a further 136 units of 1.3m TEU on order due to be delivered with scrubbers fitted (52% of orderbook capacity)

Fundamental re-balancing limited so far in 2019. Some potential upside for trade growth in 2H; further re-balancing across 2019-20 likely to be gradual though with additional support expected from scrubber retrofit time and other IMO 2020 impacts, freight and charter market (especially at the larger end) gains appear possible.

Containership Fleet Development

[Graph showing fleet development with labels: Deliveries, Demolition, Contracting]
Bulk Carriers Market

- The bulk carrier market has so far had an eventful 2019, with earnings falling to historical lows in Q1 before recovering to reach multiyear highs in Q3.
- The weighted average bulk carrier earnings fell 13% y-o-y to $10,493/day in January-August, but passed $17,000/day in late August for the first time in six years.
- Bulk carrier asset prices have generally eased back this year against a backdrop of weak global investor sentiment.
- Global seaborne dry bulk trade is currently projected to grow by just c.1.5% to reach 5.3bn tonnes in full year 2019, the slowest expansion since 2016.
- In 2020, fundamentals are currently projected to be fairly balanced, with potential for the market to hold on to some of its recent gains. While there are risks to the demand outlook, the implementation of IMO 2020 next year could continue to provide support, including through slower speeds and impacts from scrubber retrofit time.
- The Capesize market has seen contrasting trends as the year has progressed, first coming under significant pressure from the Vale dam collapse in Q1 (spot earnings fell below $1,000/day in February). However, steady gains through Q2 and Q3 took spot earnings in the segment to over $30,000/day for the first time in almost six years in early September.
- The Panamax market also came under significant pressure in early 2019 (spot earnings averaged just $8,932/day in Q1), reflecting weak Chinese coal and grain imports as well as the pressured Capesize market. However, Panamax spot earnings have improved steadily in recent months, and reached almost $20,000/day, a six year high, by late August.
- Trends in the Handy markets have followed a similar trend to the larger bulk carrier sectors in 2019 so far. Supramax trip earnings averaged $10,034/day in January-August, down 19% y-o-y, but stood at a nine-year high of over $17,000/day in late August.
Global seaborne products trade has faced a number of challenges in 2019 so far, including the slowest pace of growth for a decade in global oil demand in 1H 2019, and periods of extended refinery maintenance, with many refiners adjusting products yields ahead of the IMO 2020 Sulphur cap.

Increasing US and Latin American imports are expected to support growth of 1.3% in seaborne products trade in 2019, to 23.5m bpd, with product tanker dwt demand projected to rise by 2.6%.

In 2019, tanker fleet growth is projected to accelerate to 6.1% and 4.3% in the crude and products sectors respectively, driven by firm deliveries and limited recycling.

With the tanker orderbook at a historically low level, fleet growth is expected to moderate in 2020 (to 1% in the crude sector and 2% in the products sector), whilst the IMO 2020 Sulphur cap could help to boost crude and product tanker demand growth to c.5-6%, underpinned by higher refinery throughput and gasoil trade.

The tanker market outlook for 2020 seems positive, and there is potential for other IMO 2020-related factors, including scrubber retrofit time and changes to floating storage and vessel speeds, to further tighten the market.

Start-ups in the US and Australia are projected to drive robust overall expansion of 8% in LNG trade volumes in 2019 (and 8% in terms of tonne-miles), with growth in 2020 projected to reach 9% (13% in tonne-miles).

LNG carrier fleet capacity is projected to expand by 7% in both 2019 and 2020. Newbuild ordering has remained firm in 2019 so far, although has eased back from 2018’s record level.

Against a backdrop of IMO carbon targets, interest in LNG as a marine fuel has picked up significantly and is now forming part of many large ship newbuild discussions.

As the global shift towards cleaner energy sources continues, natural gas and LNG look likely to play a significant role, potentially as a ‘bridging’ fuel to a lower carbon future.
Key Trends in Ship Financing

- Syndicated and bilateral senior debt remains the major source of finance for the shipping industry - the global debt portfolio is estimated at c.$400bn (inc. c.$60bn Chinese leasing) - the capacity and make up of providers has changed dramatically. Driven by a range of factors (including the shipping recession, the financial crisis, Basel III, ECB audits), the dominance of European banks has moderated, with European banks accounting for c.50% of global debt today

- There have been some increases in ship finance capacity, especially from Export Credit and policy banks (e.g. China EXIM) and Chinese leasing companies. Other new entrants, typically new funds or other banks seeking to increase their maritime exposure, have also targeted the space vacated by European lenders at higher margins

- The average length of loans ("tenor") has shortened (excluding cruise sector loans), averaging around six years in 1H 2019. Shorter tenors are in part driven by increased capital requirements under Basel III

- State-backed Export Credit Agencies (ECAs) play a crucial role in financing newbuilding activity by giving insurance for loans and guarantees for contracts at their domestic yards, particularly in China and South Korea

- ECA deals are also attractive as they can provide longer tenors of up to 12 years. European ECAs have been very active of late, particularly in the cruise sector which is dominated by European yards, and where there has been record levels of contracting (current cruise orderbook over $61bn)

- Private equity interest has returned in recent years but with a new focus, on loan books or even entire banks. There is also activity from Norwegian KS schemes and other European funds for investment in asset plays

- Pension, insurance and wealth funds have provided some funding, with the medium term profile of maritime deals fitting the length of investment they seek, although they generally have lower risk appetites than required for available deals
Bridging the Gap

- How Financial sector and Shipping Industry can work together to achieve sustainable development over the years
  - Shipping Industry will go through dramatic transformation post implementation of IMO 2020
  - The Industry has played a key role in the GDP growth of the global economy and therefore sustainable development of the industry is very important for global supply chain
  - The Industry has evolved over the years and there has been huge technological changes in the Industry
  - Financial sector has a key role for development of this Industry and without its support it would be challenging for the Industry to have sustainable development

- Does financial sector needs to take a long term view of shipping and maritime
  - Owing to the cyclicality of the industry, a wholistic view needs to be taken while providing financing and refinancing
  - Larger banks reluctant to participate in the refinancing market despite significant requirements, leading to some growth for alternative sources of financing with higher margins

- Barriers to be overcome for better working relationship
  - Overcoming trust deficit and building relationships are the key
  - Banks need to focus on alternate structures like JOLCO
  - Dedicated desk for Shipping must be set up in financing institutions in this space
  - Shipping Industry also needs to take a long term view while dealing with the financial sector
PROPOSED FINANCING SOLUTIONS
Sale and Leaseback Structures

**Structural features**
- Vessels owned by **Lessor**
- Vessels leased to **Lessee** with an “Option” to **purchase** vessels at end of tenor

**Financing Terms**
- **100% financing** (Debt of [75-80]% and equity of [20-25%] from specialist leasing investors)
- **10 years tenor** with a balloon repayment therefore, reducing repayment in initial years.
- The inherent advantages are:
  - Monetization of equity in the vessel
  - Longer tenor
  - Competitive rates

**Note:** Can have potential appetite from Asian investors;

*Balloon repayments depend upon the credit of the company and type & age of the assets to be financed*
Structural features
- A Trust company will be created and the assets will be held by them in an off balance sheet structure.
- Company SPV will be fully owned by The Investor.
- Company Intermediate SPV has an option to buy the vessel at the end of the lease.

Financing Terms
- Senior Lender will finance about [70-75]% of the vessel value
- The equity infusion of [25%-30]% by the Company will come in as subordinate debt to the SPV
- [8-10] years tenor with a balloon repayment therefore, reducing repayment in initial years.
- The inherent advantages are:
  - Longer tenor
  - Competitive rates

*Balloon repayments depend upon the credit of the company and type & age of the assets to be financed
Credit Insurance backed Financing

**STRUCTURE**

1. **COMPANY**
   - SPV 100% owned by company
   - Bareboat Charter Agreement
   - Vessel owned by SPV

2. **SPV**
   - Corporate Guarantee
   - Bank Loan
   - Interest and Principal Repayment

3. **LENDERS**
   - Insurance Cover
   - Credit Insurance

**COMMENTS**

**Structural features**
- Vessel owned by SPV
- Vessel are leased to the company and corporate guarantee is given from the company to lenders

**Financing Terms**
- Credit Insurance cover will be used to finance about [70-75]% of the vessel value
- **[8-10] years tenor** with a balloon repayment therefore, reducing repayment in initial years.
- The inherent advantages are:
  - Longer tenor
  - Competitive rates

*Balloon repayments depend upon the credit of the company and type & age of the assets to be financed

*Tenor depends on the age and type of the vessel.
**Pricing depends on the age and type of the vessel.
Chandra has 17+ years of experience in corporate finance, M&A, capital raising and shipping and aviation structured finance. He has worked on a number of transactions across Europe, India, Middle-East and Asia. Chandra has held various positions and worked with United Arab Shipping Company (UASC), KPMG, Morgan Stanley etc. at different location. Chandra in the last decade has worked on asset financing transactions of around USD 9.0 BN in for shipping companies.

KB CHANDHIRAMOULI
Director, Shipping and Aviation Desk, Faber Capital

Selected Transaction Experience
- Successfully completed the largest financing transactions in container shipping industry for 2013 by raising around USD 1.8 bn for 17 new build container vessels through Syndicated and Bi-Lateral Facilities
- Closed structured financing transactions of around USD 700 Mn for financing and refinancing of containers through Japanese Operating Lease structures
- Raised around USD 1.5 bn in 2010-11 towards financing of 9 x A13,500 vessels
- Completed the refinancing of three ECA backed loans for new build vessels
- Successfully completed the Senior unsecured financing of around USD 750 Mn and Murabaha transaction of USD 200 Mn
- Successfully closed two French tax structure financing for A13,500 vessels
Bulk Carriers Market

Capesize Fleet Development

Panamax Fleet Development

Handymax Fleet Development

2019/20 = Forecasts
Vessels Delivery Data

DELIVERIES QUARTERLY - MILLION GT

MILLIONS

Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | 2016 | 2017 | 2018 | 2019 | 2020

Tanker | Bulk and GC | Container | Offshore | Pass/Ferry and RoRo | Miscellaneous

0 | 5 | 10 | 15 | 20 | 25 | 30

Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4
# World Seaborne Trade Data

| Year | Iron Ore | Coal | Grain* | Total Major Bulk | y-o-y growth | Minor Bulk | Total Dry Bulk | y-o-y growth | Containers | Other Dry | Total Dry | y-o-y growth |
|------|----------|------|--------|-----------------|-------------|-----------|---------------|-------------|------------|-----------|-----------|-------------|-------------|
| 1995 | 404      | 402  | 193    | 998             | 7.3%        | 915       | 1,913         | 6.3%        | 389        | 657       | 2,960     | 6.3%        |
| 1996 | 392      | 422  | 198    | 1,012           | 1.4%        | 941       | 1,953         | 2.1%        | 423        | 721       | 3,097     | 4.7%        |
| 1997 | 426      | 447  | 211    | 1,084           | 7.2%        | 998       | 2,083         | 6.6%        | 460        | 751       | 3,294     | 6.3%        |
| 1998 | 423      | 451  | 209    | 1,082           | -0.2%       | 1,026     | 2,109         | 1.2%        | 492        | 695       | 3,296     | 0.1%        |
| 1999 | 399      | 458  | 223    | 1,080           | -0.2%       | 1,079     | 2,159         | 2.4%        | 546        | 801       | 3,505     | 6.4%        |
| 2000 | 447      | 509  | 230    | 1,186           | 9.8%        | 1,143     | 2,329         | 7.9%        | 606        | 829       | 3,763     | 7.4%        |
| 2001 | 449      | 546  | 234    | 1,229           | 3.6%        | 1,148     | 2,377         | 2.1%        | 628        | 830       | 3,835     | 1.9%        |
| 2002 | 477      | 557  | 232    | 1,266           | 3.0%        | 1,207     | 2,472         | 4.0%        | 675        | 871       | 4,018     | 4.8%        |
| 2003 | 512      | 599  | 234    | 1,346           | 6.3%        | 1,272     | 2,618         | 5.9%        | 781        | 807       | 4,206     | 4.7%        |
| 2004 | 589      | 641  | 225    | 1,455           | 8.1%        | 1,392     | 2,847         | 8.7%        | 887        | 762       | 4,496     | 6.9%        |
| 2005 | 660      | 671  | 248    | 1,579           | 8.5%        | 1,463     | 3,041         | 6.8%        | 974        | 741       | 4,757     | 5.8%        |
| 2006 | 709      | 712  | 255    | 1,676           | 6.2%        | 1,522     | 3,199         | 5.2%        | 1,061      | 724       | 4,983     | 4.8%        |
| 2007 | 773      | 762  | 277    | 1,812           | 8.1%        | 1,639     | 3,451         | 7.9%        | 1,185      | 641       | 5,277     | 5.9%        |
| 2008 | 837      | 790  | 284    | 1,911           | 5.5%        | 1,605     | 3,516         | 1.9%        | 1,233      | 695       | 5,445     | 3.2%        |
| 2009 | 897      | 804  | 297    | 1,999           | 4.6%        | 1,405     | 3,403         | -3.2%       | 1,069      | 670       | 5,178     | -4.0%       |
| 2010 | 990      | 926  | 317    | 2,233           | 11.7%       | 1,602     | 3,835         | 12.7%       | 1,246      | 730       | 5,811     | 12.2%       |
| 2011 | 1,050    | 999  | 315    | 2,364           | 5.9%        | 1,709     | 4,073         | 6.2%        | 1,358      | 714       | 6,144     | 5.7%        |
| 2012 | 1,107    | 1,112| 345    | 2,564           | 8.5%        | 1,745     | 4,309         | 5.8%        | 1,403      | 752       | 6,465     | 5.2%        |
| 2013 | 1,188    | 1,183| 363    | 2,734           | 6.0%        | 1,826     | 4,560         | 5.6%        | 1,474      | 779       | 6,813     | 5.4%        |
| 2014 | 1,340    | 1,217| 407    | 2,964           | 8.4%        | 1,848     | 4,812         | 5.6%        | 1,557      | 810       | 7,178     | 5.4%        |
| 2015 | 1,364    | 1,183| 429    | 2,930           | -11.1%      | 1,892     | 4,822         | 0.2%        | 1,593      | 830       | 7,245     | 0.9%        |
| 2016 | 1,418    | 1,141| 450    | 3,009           | 2.7%        | 1,880     | 4,889         | 1.4%        | 1,671      | 855       | 7,414     | 2.3%        |
| 2017 | 1,473    | 1,202| 476    | 3,151           | 4.7%        | 1,938     | 5,089         | 4.1%        | 1,769      | 888       | 7,747     | 4.5%        |
| 2018 | 1,476    | 1,263| 473    | 3,212           | 1.9%        | 2,011     | 5,223         | 2.6%        | 1,845      | 914       | 7,983     | 3.0%        |
| 2019 (f) | 1,455     | 1,278 | 476 | 3,209 | -0.1% | 2,092 | 5,301 | 1.5% | 1,894 | 931 | 8,125 | 1.8% |
| 2020 (f) | 1,487     | 1,296 | 488 | 3,271 | 1.9% | 2,145 | 5,415 | 2.2% | 1,959 | 949 | 8,323 | 2.4% |
Capacity of Shipyards in Production

Note: Shipyard capacity has been estimated by taking the yard’s maximum output over the two preceding years.