Shipping Industry is a vital part of the global freight transportation system. The industry accounts for transporting 90% of the world trade. It is the most affordable and efficient mode of transporting goods, given the large volume of goods these vessels can carry for long distances at a fraction of the cost of other modes of transport like rail, roads, air etc.

Shipping caters to global trade supply-chain, enabling transport of raw materials in bulk, import/export of food products, finished/semi-finished goods etc.

The global shipping industry has faced strong headwinds due to the slowdown in world economy post 2008 crisis. The shipping crisis peaked in 2015 & 2016 due to excess capacity ordered during strong market conditions. As a result, the Industry has witnessed large scale consolidation globally. The 5 largest players accounted for 70% of the market share. The further realignment among global shipping companies to form alliances has led to the major 3 alliances controlling 91% of the global market share.

The domestic shipping industry has a share of 7-7.5% as of 2015-16 of India’s overseas trade. Weak freight rates have led to fewer domestic companies making investments to buy new vessels.

The ship-building industry was conferred infrastructure status in 2016, but hasn’t picked up due to weak global demand for new vessels. It is expected to improve as demand for smaller vessels to operate on inland waterways and coastal shipping picks up pace. Currently, most of India’s ship-building capacity is dependent on orders from the Indian Navy.

The government has been trying to introduce new policies to incentivize coastal shipping companies, which recorded an average annual growth of 14.2% during 2014-18. Coastal shipping is considered as an alternative to easing some of the logistics bottleneck in the country. Recent measures to improve coastal trade includes allowing foreign vessels to carry agricultural, fisheries, animal husbandry, horticulture commodities and fertilizers for coasting trade. These steps are expected to drive competition in the coastal shipping segment. This would also connect a larger market to shipping logistics.
Global industry

Major economies with large manufacturing base have found it convenient to develop and maintain a large shipping industry.

- China, Korea and Japan are the largest ship-builders in the world. China and Korea are directly competing for the top place and Japan at a distant third. The three countries together account for 92% of the global deliveries in 2016.
- The top five countries in terms of cargo carrying capacity are Greece (308.8 mil. Dead-Weight ton (DWT)), Japan (223.8 mil. DWT), China (165.4 mil DWT), Germany (112 mil DWT) and Singapore (104 mil DWT). Germany, China and Greece own 39% of the world container carrying ship fleet.
- Greece located at the cross-road of world maritime map, has been a major maritime nation historically. Its constrained mainland geography, limited its capability to be an industrialized country. But it benefitted from the industrialization taking place in other countries close to its shores.
- Maritime shipping is a highly globalized industry, both in operation and ownership. About 67% of the global fleet (in tonnage) is under a flag of convenience. Flag of convenience (FOC) is a business practice where by vessels are registered by their owners in other nations to take advantage of reduced regulation, lower administrative fees and greater numbers of friendly ports. 58-60% of the vessels by share of world total of Dead weight tonne (DWT) are registered in countries namely Panama, Liberia, Marshall Islands, Singapore and Hong Kong, known to offer an easier and less expensive regulation for registry of ships and relaxed labour laws.

Shipping operations:

Shipping operations are broadly divided into two categories

- Deep-sea shipping which caters to transportation goods between regions and continents. This requires large vessels moving huge volume of goods across continents. The only competing mode of transport is airways which is not cost efficient.
- Short-sea shipping which caters to transportation of goods within the region. This mainly entails moving goods within a specific region or short routes within a country.

There are no direct competitors of deep sea shipping but short-sea shipping competes with other modes of transport like rail and road. With road network in India improving at a rapid pace, the short-sea shipping opportunity would continue to grow at a slower pace. Coastal shipping in case of India would be an example of short-sea shipping.

Types of shipping (by cargo type)

Vessels are classified by cargo-type and size. Shipping vessels by size are shown in figure 1.

Figure 1 Vessels Types (By size and Capacity)

Source: Industry publication and maritime-connector
Vessels are also broadly classified on the basis of the type of cargo carried by them. They are as follows:

- **Bulk carriers**: The bulk carriers transport large parcels of raw materials, general cargo and bulky semi-manufactured goods. Bulk vessels handle few transactions, typically completing about 6-7 voyages with a single cargo each year. Their average revenue depends on a dozen of negotiations per ship each year. The service levels are usually low for these kinds of ships and hence have little overheads. Coal, iron-ore, cement etc. are few industries which use the services of bulk shipping.

- **Tankers**: Tankers are vessels used to transport or store liquids or gases in bulk. Major tank ships include crude tankers, product tankers (clean oil, LPG, LNG, chemicals, hydrogen, vegetable oil, wine) etc. These vessels require the cargo to be pumped into and out of the vessels which requires dedicated facility which includes onshore storage at ports. Tanker size varies from 10,000-550,000 DWT.

- **Container shipping**: Container shipping- as the name suggests, uses containers of various sizes in which the goods to be transported are packed and placed. The unit commonly used to measure the volume of goods carried through container shipping is Twenty Foot Equivalent Unit or TEU, but containers come in various sizes- 20 foot, 40 foot, 45 foot, 48 foot, and 53 foot.
- **Specialized Vessels**: Specialized vessels are used to perform dedicated tasks for offshore operations and servicing other vessels. Some of the vessels also have on-board equipments to perform various tasks related to the maritime industry. Ice-breakers, cable laying vessels, field support vessels, tug-boats etc are common type of special vessels.

**Chartering:**
Chartering is the activity within shipping industry where the charterer or a user hires the services of a vessel/ship from a ship owner. Though larger businesses may choose to charter ships, others with lesser goods to be transported take the services of freight forwarders who aggregate many more small orders of shipments and then transport those goods by chartering a ship.

**Types of leasing**
There are three main types of chartering under which vessels are leased by a charterer or hirer from a ship owner:

- **Demise Charter** or bareboat charter under which the hirer takes the entire responsibility of the vessel and in most cases by the end of the chartering term, the hirer purchases the vessel from the owner. This type of chartering is common in case of tankers and bulk carriers, and charterers are mostly refining companies or commodity majors.

- **Voyage Chartering**: The charterer pays freight on per day basis for using the vessel and the owner of the vessel is responsible for paying all the mandatory dues, employee costs and fuel costs, excluding the cost of loading-unloading of goods (also called stevedoring). This is the most common form of ship chartering and costs for the chartering includes demurrage which is paid to the owner of the ship if the charterer exceeds the laytime or the time required for the loading-unloading of goods. The additional costs for owner of vessel include despatch which is refunded or repaid to the charterer if the loading-unloading takes place quicker and the laytime is saved.

- **Time charter**: The charterer pays the owner of the vessel all the operational and other costs and the owner manages the vessel. The charterer gets to manage the route of the vessel for specific number of days. The applicability of the charter is specific to industries and the financial wherewithal of the charterers.

**Role of Freight forwarders**: Freight forwarders also known as forwarding agents or Non-Vessel Operating Common Carrier (NVOCC) in industry parlance are aggregators of goods and providers of logistics for manufacturers, importers, exporters etc. Their function is not limited to the shipping industry. The forwarders are responsible for

- Handling of goods across the logistics chain including ships, aircrafts, roadways and railcars if required
- Have expertise in processing and documentation at customs, routing of goods through the global logistics network.
- They also provide value added services like additional packaging, insurance of goods in transit, container leasing and storage of goods during transit.

Federation of Freight Forwarders’ Associations in India (FFFAI) is the apex body and sole representative of 28 member associations from all over India. It represents over 6500 freight forwarders who employ roughly 1.1 lakh people.

**Shipping Industry: Global perspective**
About 90% of the world trade is carried out by the shipping industry. Factors which work in favour of shipping as a mode of transport for large volume of goods are:

- Economies of scale make shipping the most economical mode of transport. According to World Shipping Council, the cost to transport a bicycle from Thailand to the UK in a container is about Rs. 500-600. The typical cost for
shipping a DVD/CD player from Asia to Europe or the U.S. is roughly Rs. 90; a kilogram of coffee just Rs. 12, and a can of beer – Rs. 2.

<table>
<thead>
<tr>
<th>Table 1. Shipping alliances</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2M Alliance</strong></td>
</tr>
<tr>
<td>Maersk (with Hamburg Sud) and Mediterranean Shipping Company.</td>
</tr>
<tr>
<td>Control 37% of the global shipping market.</td>
</tr>
</tbody>
</table>

Source: Review of Maritime Transport, 2017

- Ships are high-value-high assets and hence it is capital intensive industry. The prospect of the industry is highly correlated with global economic activity.
- Shipping companies can be analysed on the basis of their cargo handling capacity and capability. Well-diversified cargo handling capabilities and a good mix of sea-worthy vessels are some of the factors which can be taken into consideration while analysing the fundamentals of a shipping company. Selling and purchasing of vessels is equally important as freight operations for a shipping company.
- Demand is the major driver of carrier revenues, and integrating their services with commodity chains and other value added services has become vital for the growth of shipping companies. Carriers are integrating logistics businesses like just-in-time inventory practices, supply chain integration and logistics information system management which helps them serve their clientele better.

### Figure 2 Dynamics of Shipping Industry

#### Supply
- Addition in shipping capacity.
- No. of ships and size of vessels on order
- Ships to be scrapped
- Ship building and scrapping capacity

#### Demand
- Growth in world trade
- Trade policies
- Prices and movement of basic commodities

#### Characteristics
- Capital intensive
- Technical expertise
- Revenue/Pricing is market and demand-supply driven.
- Labour intensive and skilled labour required.

### Industry benchmarks
- The Baltic Dry Index (BDI) is a measure of the price of shipping major raw materials such as metals, grains, and fossil fuels across 22 different shipping routes around the globe. It is created by the London Baltic Exchange based on daily assessments from a panel of shipbrokers. The BDI is a composite of 3 sub-indices, each covering a different carrier size: Capesize, Panamax, and Supramax. It is reported around the world as a proxy for dry bulk shipping...
stocks as well as a general shipping market bellwether. The Baltic Dry Index is also a leading indicator into the global demand for commodities and raw materials.

Graph 1: Baltic Dry Index

The Baltic Exchange Dry Index which was listed in 1985 at 1000 points touched a year low of 933 in 2017, only to recover to 1,600 levels as last reported. The low freight rates are also indicative of:
- High competition in the industry
- Excess vessel supply
- In turn it has led to lowering of costs for transporting goods by sea.

Improving prospects for the industry: A sharp recovery in the ratio of trade growth to GDP growth has been recorded in 2017 at 1.5. The world trade growth to GDP growth ratio has improved due to improvement in economic growth in the US and other developed economies in the Europe. The ratio stood at 0.8 in 2016 which coincided with multi-year low for Baltic dry Index value of 290 in Q1 of 2016. The improvement in this ratio is a positive indicator for the shipping industry. The ratio is expected to settle in the range of 1-1.2. With sustained scrapping of old vessels, this would lead to improvement in capacity utilization for the shipping sector. (refer to Graph 4 in appendix for scrapping of vessels in India data)
Freight rate movement during FY18

The freight rates remained strong across segments namely bulk and container during the year. Other segment like tankers witnessed subdued freights due to excess capacity and low demand. We tried to analyse freights across few segments which have been briefly discussed below:

Oil Tankers:
- The demand for tankers remained low as the OPEC and other oil producing countries stuck to their target to cut crude-oil production.

<table>
<thead>
<tr>
<th></th>
<th>Jun-17</th>
<th>Jul-17</th>
<th>Aug-17</th>
<th>Sep-17</th>
<th>Oct-17</th>
<th>Nov-17</th>
<th>Dec-17</th>
<th>Jan-18</th>
<th>Feb-18</th>
<th>Mar-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>VLCC</td>
<td>15,411.00</td>
<td>5,461.00</td>
<td>5,673.00</td>
<td>7,189.00</td>
<td>6,999.00</td>
<td>12,824.00</td>
<td>7,226.00</td>
<td>4,986.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suezmax</td>
<td>15,411.00</td>
<td>5,461.00</td>
<td>5,673.00</td>
<td>7,189.00</td>
<td>6,999.00</td>
<td>12,824.00</td>
<td>7,226.00</td>
<td>4,986.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aframax</td>
<td>15,411.00</td>
<td>5,461.00</td>
<td>5,673.00</td>
<td>7,189.00</td>
<td>6,999.00</td>
<td>12,824.00</td>
<td>7,226.00</td>
<td>4,986.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clean</td>
<td>15,411.00</td>
<td>5,461.00</td>
<td>5,673.00</td>
<td>7,189.00</td>
<td>6,999.00</td>
<td>12,824.00</td>
<td>7,226.00</td>
<td>4,986.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Table 2(a). Freight Rates of Crude Tankers (Dirty and Clean) (2016-17 & 2017-18)*

- The markets in turn remained bearish on the increasing price of crude oil as they considered the production cuts were impacting the prices of crude than as an outcome of demand-supply, and hence choose to draw-down from their inventories, which led to more crude tanker capacity getting idle.
- The two factors had already left enough shipping capacity idle, and further addition of new fleet has meant excess capacity in the crude oil segment leading to weak freight rates.

Bulk shipping:
- The bulk segment was aided by strong demand for commodity in China especially coal and iron-ore.

*Table 2(b). Baltic Dry Index (Quarterly)*

Source: CMIE
- Cargo volume growth in China supported the bulk shipping and freight earnings exhibited strength during FY18, which were otherwise weak over the past few years due to excess fleet supply.
- The average dry bulk ship freights improved by 40-60% across various vessel sizes between FY17 & FY18.
- Built-up of inventory/capacity across some vessel categories had led to softening of freights till 2017. Segments namely product carriers, LPG carriers, Crude carriers thus witnessed lower freight earning due to excess fleet addition.

Indian Shipping Industry: Size and depth

The Maritime industry in India is an integral part of the country’s logistics costs accounts for close to 14% of the country’s GDP. The industry gains significance owing to the country’s 7,517 km coastline and 12 major ports & over 150 non-major ports along the long coastline.

The 12 major ports cater to EXIM, coastal shipping and cruise shipping. Among the non-major ports, only 30-35% of the 150 ports can cater to coastal shipping and much fewer can cater to EXIM trade. In terms of maritime cargo handled in the country, major ports registered a growth of 4.77% during FY18 at 680 million tonnes.

<table>
<thead>
<tr>
<th>Table 3. Bifurcation of cargo handled at Major ports</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY17</td>
</tr>
<tr>
<td>425.8 MMT</td>
</tr>
<tr>
<td>FY18</td>
</tr>
</tbody>
</table>

Source: CMIE

- 9 out of the total 12 major ports registered positive traffic growth.
- Cochin port registered the highest cargo handling growth at 16.5%. Other ports registering positive growth are Paradip, Kolkata, JNPT, Mangalore, Vizag, Kamarajar, Chennai and Kandla.
- Kandla Port (Deendayal Port) handled the highest volume of 110.10 million tonnes among major ports. The other ports among top 5 ports are Paradip, JNPT, Vishakhapatnam and Mumbai. The top 5 ports together accounted for 60% of the total cargo volume handled by Major ports in India.
- Commodity-wise, Petroleum and its products accounted for 31.5% of total cargo volume, followed by containers (19.7%), Thermal and Steam Coal (14%), Misc. Cargo (13.6%), Coking and Other Coal (7.45%), Iron ore and pellets (7.15%) etc.

Fig 3. Top Commodity, Origin and Destination
Shipping Industry

The domestic shipping industry handles 7-7.5% of the overseas trade by volume.

- The total merchant navy fleet includes coastal and overseas vessel stood at 1,389.
- Around 88% of domestic capacity is for overseas trade involving 451 ships. 92% of overseas trade cargo is handled by global shipping companies. Indian merchant fleet handled around 7% of the total overseas cargo handled at major and non-major ports in 2015-16 as stated in the Economic Survey.
- Cargo handled by Indian vessels has been falling steadily over the years from close to 40% in the late 1980’s. Close to 40% of the total Indian fleet is over 20 years old which also highlights lack of newer-larger vessels in the fleet. There are less than 120 vessels (approx.) for overseas trade with a gross registered tonnage (GRT) of over 35,000. Together these vessels account for 7.2 million GRT.
- Oil tankers (crude and product) constituted 28% of the total overseas fleet of 451 vessels. Dry cargo and bulk carriers accounted for another 28% of the overseas fleet. The remaining vessels consisted of container carriers, LPG/LNG carriers, specialized vessels and supply vessels for offshore services like oil exploration and chemical tankers, passenger carriers etc.
- 938 vessels are coastal vessels used for ferrying goods between ports within the country. These vessels account for 11.7% of the total domestic shipping capacity.

Table 4 compares India with other major economies in terms of liner shipping connectivity and domestic shipping fleet capacity and ownership. The liner shipping connectivity index is computed by the UNCTAD based on the five components of the maritime transport sector: number of ships, their container carrying capacity, maximum vessel size, number of services and number of companies that deploy container ships in a country’s ports. Countries like China have a higher score given the well-developed infrastructure and efficient operations. India’s score is expected to improve going forward as the latest development are taken into account.

Table 4: Major economies and maritime industry statistics (Current Status)

<table>
<thead>
<tr>
<th></th>
<th>India</th>
<th>China</th>
<th>Germany</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP/Per Capita (in $)</td>
<td>$ 2.59 Trillion/ $1,940</td>
<td>$ 11.2 Trillion/ $ 8,123</td>
<td>$ 3.67 Trillion/ $44,469</td>
</tr>
<tr>
<td>Liner Shipping Connectivity Index (Max in 2004 =100)</td>
<td>52.9</td>
<td>167.5</td>
<td>85.9</td>
</tr>
<tr>
<td>Fleet ownership (’000 DWT)*</td>
<td>22,665</td>
<td>165,430</td>
<td>112,028</td>
</tr>
<tr>
<td>Fleet National flag (’000 DWT)*</td>
<td>17,253</td>
<td>78,400</td>
<td>11,020</td>
</tr>
</tbody>
</table>

*Data as per UNCTAD  GDP from World Bank

The Government of India has taken ample steps in order to boost the sector in terms of increasing the shipping fleet in the country as well as increasing the number of vessels built. The Maritime Industry also employs large number of staff in running, maintaining and operating the shipping industry and the allied infrastructure and its services. An estimated .5-.6 million people are employed directly and indirectly to the shipping industry in India. The government aims to create an additional 1.5 million jobs in the sector.

Significant policies and investments:

Other policy initiatives and investments are given as follows-

**Sagarmala Pariyojana** is the flagship programme of the Ministry of Shipping and aims at reducing cost of international and domestic trade. The Plan includes an investment outlay of Rs. 8 trillion over the next decade, out of which close 25% of the total outlay is already in different stages of implementation across major and non-major ports. Some of the key initiatives already implemented include-
- Port community system (PCS): The PCS is a centralised single window platform, which serves as a message exchange gateway for port community stakeholders. It not only serves the purpose of improving efficiency of ports but provides a secure data exchange medium between ports and various related stakeholders. All the 12 major ports have been integrated with PCS.
- Replacing manual forms with web-based e-forms
- Installation of scanners and radio-frequency identification (RFID) for gate automation
- Introduction of direct port delivery at select ports as a pilot project, which reduces dwell time of containers and improves cost efficiency.
- Automating issue of delivery orders and launch of single-window interface for facilitating trade.

### Table 5. Status of Sagarmala Projects

<table>
<thead>
<tr>
<th></th>
<th>Total Projects</th>
<th>Implemented</th>
<th>Under-Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rail Connectivity</td>
<td>35</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>Road Connectivity</td>
<td>115</td>
<td>3</td>
<td>22</td>
</tr>
<tr>
<td>Coastal Berth Scheme</td>
<td>50</td>
<td>-</td>
<td>31 (sanctioned)</td>
</tr>
<tr>
<td>Port modernization and Development</td>
<td>112</td>
<td>15</td>
<td>39</td>
</tr>
<tr>
<td>Multi-Modal Parks</td>
<td>15</td>
<td>1</td>
<td>9</td>
</tr>
</tbody>
</table>

*Source: Ministry of Shipping, January 2018*

**Shipbuilding and ship repair policy:** The proposed policy at creating a niche for the Indian ship builders as manufacturers of LPG, LNG, cruise and chemicals tanker ships besides inland ships. The policy also aims at setting up a maritime development fund to financially assist the domestic ship building industry. The policy also plans to create a ship breaking cluster near Alang in Gujarat. The shipping industry has been conferred the status of infrastructure sector. This would help shipyards in availing benefits of cheaper financing for the ship building and ship repairing industry. The Government also aims to procure only Indian-built vessels by 2025 as a policy. The Union government has finalised standards for vessels to ply on water bodies in this country. 13 categories of vessels, including bulk carriers, container cargo vessels and vehicle carriers have been finalized in consultation with an international firm.

**National Waterways Act:**

The Government has declared 111 waterways as National Waterways under the National Waterways Act 2016. During the two financial years, 2016 and 2017, Rs. 1,000 crore was raised through bonds as a part of Extra Budgetary Resources approved by Ministry of Finance for the development of Inland Waterways.

### Table 6. National Waterways under Implementation

<table>
<thead>
<tr>
<th>Name of the waterway</th>
<th>Route</th>
<th>Outlay</th>
</tr>
</thead>
<tbody>
<tr>
<td>River Barak (NW 16)</td>
<td>Silchar- Bhanga</td>
<td>Rs. 76 crore (Phase 1)</td>
</tr>
<tr>
<td>River Gandak (NW 37)</td>
<td>Bhaisalotan Barrage- Hajipur</td>
<td>Rs. 12.9 crore (Phase 1)</td>
</tr>
<tr>
<td>Cumberjua (NW 27)</td>
<td>Waterways in Goa</td>
<td>Rs. 22.65 crore</td>
</tr>
<tr>
<td>Mandovi (NW 68)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zuari (NW 111)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kerala (NW 9)</td>
<td>Allapuzha-Athirampuzha Canal</td>
<td>Rs. 1.6 crore</td>
</tr>
<tr>
<td>River Rupnarayan (NW 86)</td>
<td>Kolaghat to Bhagalpuur</td>
<td>Rs. 24 crore</td>
</tr>
<tr>
<td>Sunderbans Waterway (NW 97)</td>
<td>West Bengal</td>
<td>Rs. 18.1 crore</td>
</tr>
</tbody>
</table>

*Source: pib.nic.in*

A feasibility study was conducted across 36 waterways which were technically feasible and work has already been initiated on 8 most viable waterways. Inland Waterways Authority of India is the implementing agency for the Jal Marg Vikas Project. It would also be procuring some vessels for inland water navigation as a pilot project.
Project to augment capacity for navigation on National Waterway-1 (Ganga-Bhagirathi-Hooghly) at a cost of nearly Rs 53.7 billion, with World Bank support has already been initiated.

**Policy for improving port and vessel operation efficiency:**
Major Ports have been benchmarked to international standards and 116 initiatives were identified of which 86 initiatives have been implemented and remaining will be implemented by 2019. Some of the initiatives implemented have led to-

- The cargo handling capacity at major ports has been improved to 1,451MT in 2017-18 from 871 MT in 2014-15. Part of it can be attributed to re-rating of cargo berth capacity based on international norms.
- 27 projects at an outlay of Rs. 4,146 crore to augment 22 MTPA of capacity was awarded in 2017-18. 113 projects with an investment of Rs. 35,367 crore were awarded in the previous three years for 421 MT of new capacity.
- 10 major ports have a draft of 14mtr or above and work is in progress to increase it further to 18 mtr. at many ports. This enables ports to handle larger vessels and reduce transhipment of containers.
- Average turnaround time has reduced to 2.7 days in 2017-18 from 4days in 2014-15. The average berth-day output has increased by 25% to 15,451 tonnes between 2014 and 2018 indicating improved and faster handling of cargo.

**The Merchant Shipping Bill 2016:** Redundant provisions from the existing bill will be dispensed with and remaining provisions will stand consolidated and simplified.

- The Bill, once passed is expected to promote ease of doing business, bring transparency and effective delivery of services.
- Proposes to separate rules for coastal ships and promote it.
- Provides for priority berthing facility for cargo vessel and that too at a concessional port charges.

**Relaxation in Cabotage Law**
- Cabotage refers to the transport of goods or passengers between two ports / places within the same country by a foreign shipping / transport operator. Under Merchant Shipping Act 1958, Cabotage was allowed only if Indian Flagged vessels were unavailable.
- The Government has relaxed the Cabotage law. Foreign ships will now be allowed to transport export-import laden containers or empty containers between Indian ports. The move is expected to lower freight rates, making Indian trade more competitive.
- Additionally, foreign vessels have also been allowed to ply vessels for coastal trade of fertilizers, animal husbandry, fisheries and agri-commodities etc without a license or permit which would also help bring down cost of transportation of these goods.

**Financial performance of Indian Shipping companies:**
- The domestic shipping industry together clocked Rs. 8,455 crore of revenue with a flat revenue growth of 0.7% in FY18 as per data from ace equity for 13 companies. The size of the domestic shipping industry has not witnessed a major growth in capacity and cargo handled over the years even though the exports have grown consistently.
- The revenues of companies grew on a slower pace owing to low freight rates. The charter freight yield remained low during the second half of 2017-18, especially in the crude tanker segment.
- Share of operational and maintenance (O&M) costs fell by 280 basis points to 65% as a percentage of total expenditure. Major cost heads under O&M include cost of spares and maintenance and cost of port, light and canal duties. This fall in share of O&M costs was offset by higher employee costs and fuel costs which led to increase in expenditure by 6.6% in FY18 over FY17. Fuel costs moved sharply by 70% as crude prices increased.
The operating margins contracted by 760 bps to 27.9% in FY18. Interest cost of shipping companies increased by 8.8% in FY18.

Higher costs and higher interest costs have in turn adversely impacted the net profit margins of the industry.

**Table 7. Financial Performance of Shipping companies (2017 & 2018)**

<table>
<thead>
<tr>
<th>Rs crore.</th>
<th>2017</th>
<th>2018</th>
<th>YoY (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Sales</td>
<td>8,434</td>
<td>8,491</td>
<td>0.7</td>
</tr>
<tr>
<td>Expenditure</td>
<td>6,441</td>
<td>6,868</td>
<td>6.6</td>
</tr>
<tr>
<td>- Employee Cost</td>
<td>17.4%</td>
<td>19.1%</td>
<td>17.5</td>
</tr>
<tr>
<td>- Power &amp; Fuel</td>
<td>4.4%</td>
<td>6.9%</td>
<td>56</td>
</tr>
<tr>
<td>- O &amp; M Expenses</td>
<td>67.8%</td>
<td>65%</td>
<td>-4</td>
</tr>
<tr>
<td>Operating Profit</td>
<td>1,993</td>
<td>1,623</td>
<td>-18.6</td>
</tr>
<tr>
<td>Other Income</td>
<td>985</td>
<td>737</td>
<td>-25.2</td>
</tr>
<tr>
<td>Other Operating income (Incl. OI)</td>
<td>2978</td>
<td>2,360</td>
<td>-20.7</td>
</tr>
<tr>
<td>OPM (%)</td>
<td>35.5%</td>
<td>27.9%</td>
<td>-21.4</td>
</tr>
<tr>
<td>Interest Cost</td>
<td>1,504</td>
<td>1,636</td>
<td>8.8</td>
</tr>
<tr>
<td>PAT</td>
<td>-80</td>
<td>-952</td>
<td>~</td>
</tr>
</tbody>
</table>

*Source: Aceequity  Data for 13 companies*

**Opportunity for shipping industry in India**

**Coastal shipping**

- Coastal shipping is being encouraged by the government as it is expected to drastically reduce the cost of logistics. Coastal shipping has been growing faster than the overseas trade shipping and is expected to continue of the growth voyage over the next 5 years. As per government data, Indian ports handled 234 million tonnes of coastal trade cargo in 2017-18, recording a growth of 16% over the previous year. The coastal trade cargo has grown at 14.2% average, annually for 2014-18.

Benefits offered to coastal shipping currently are:
- Benefits like reduced GST on bunker oil for vessels used for coastal trade
- 40% discount on cargo and vessel related charges,
- 80% discount would be given on vessel and cargo related charges for two years to Ro-Ro vessels used for for transportation of vehicles.
- Priority berthing of coastal ships without any charge
- Introduction of green channel clearance for faster evacuation of coastal cargo at major ports
- Allowing the reimbursement of freight subsidy on primary movement of subsidised urea
- Development of coastal shipping is dependent on last-mile connectivity for efficient movement of cargo from ports to the industrial units. Measures being taken under Sagarmala Pariyojana are expected to address these issues.

**Inland shipping**

- Inland shipping is a work-under-progress in India due to the absence of essential infrastructure such as cargo terminals, jetties etc. The World Bank backed National Water 1 (NW1) is expected to be the first waterway stretch to be developed in the country. About 40% of the country’s traded goods are either destined or originate from this resource rich region along the proposed NW1.

The rivers being seasonal- swell with monsoon, and recedes in dry season, maintaining navigable depth in the river is a major challenge. Maintaining aquatic biodiversity and given the importance of the river Ganga in the social and
cultural landscape of the country, the waterway is being developed in the least intrusive way. The success of this project would be a possibly benchmark for the development of similar waterways in other parts of the country.

Cruise Tourism
Cruise industry is expected generate both employment and foreign exchange if the right infrastructure is provided to this segment. The government has introduced the following steps to attract cruise ships to Indian shores:
- Port charges have been reduced to $0.35 per GRT for first 12 hours of stay, and these charges will stay till 3rd November 2020.
- Foreign flag carrying passengers can call at Indian ports with obtaining a license from Director General of Shipping till 5th February 2024.
- Cruise with Indian ports as home port will not be levied charges for priority/ousting/shifting.

As a result, number of cruise vessels visiting the 5 major ports namely Mumbai, Goa, Mangalore, Cochin and Chennai has increased by 75% to 166 in 2017-18 vs 2014-15. The numbers of cruise passengers have increased from 82,600 in 2013-14 to 1.91 lakh in 2017-18.

Global Industry Challenges
- **Trade Barriers & Global threat- “Protectionism”:** Shipping is a global business and its performance is closely linked to the state of the global economy. Therefore, if the global economic situation is adversely impacted, it could have an effect on the state of the shipping market. Additionally, the recent trade dispute between the US and China may become a trade war.

- **Geo-Political Risk:** OPEC nations control more than one third of the oil supply. Their stance on crude production and targets can have a material impact on the crude, product and LPG freight markets. Among crude-producing nations, politically unstable countries such as Nigeria and Venezuela produce significant amounts of crude oil and change in political situation in these countries may impact the supply/demand scenario. These events may have a consequential impact on the oil tanker market. Issues such as US sanction on Iran are additional factors which may affect the global shipping markets.

- **Chinese Economy:** China has been a major source of global growth especially for commodities. If its economy falters or the authorities in the country change their policy towards import of various goods or providing stimulus to production of specific goods and products, all these factors would have a direct impact on the freight rates and demand-supply for shipping globally.

- **Regulatory risks:** Imposition of rules pertaining to emission norms, flags of convenience, labor laws etc could adversely impact the business of shipping companies. International Maritime Organisation (IMO) has announced cap on Sulphur content in marine fuel at no more than 0.5% against the current limit of 3.5% beginning 2020. Alternatively, the ships could be fitted with an emission reducing system called scrubbers. Installation of scrubbers would require vessels to be docked for a long period which would lead to loss of revenue and there is a substantial cost involved.

- **Lack of infrastructure for coastal shipping:** Coastal shipping and its penetration would depend on deployment of infrastructure likes roads at coastal industrial hubs. Green Channel clearance which exempts routine examination of goods for coastal trade goods has been implemented in 8 out of 12 major ports. But lack of exclusive berths, storage area and gates for coastal cargo leads to considerable delay in clearance.
Outlook:

- **Cargo growth**: Refined petroleum products, finished steel goods, automobiles, pharma products, food and cotton products would be major export volume drivers. Volume growth for overseas trade shipping is expected to be in the range of 6-7% during the year.

- **Share of coastal shipping** is expected to increase to 20% of total cargo handled by 2020. Coastal shipping would continue its double-digit growth and double over the next 5 years from the current 234 MT. Cargo segments facilitating this growth would be cement & coal, to cut dependence on railway network and also bring down cost of transportation.

- **Development of cruise/passenger liner industry** is expected to improve further which would help in improving capacity utilization and traffic some major ports. Passenger numbers are expected to grow to 5,00,000 over the next 3 years.

- **Fleet addition across domestic shipping companies**: Fleet addition by domestic shipping companies especially in overseas trade segment may not witness a major change given the limited number of players. Volatile freight rates are a major concern which may hamper the growth of shipping companies in a market with limited access to capital.
Appendix:

Table 4. Common terms and shipping metric’s

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deadweight Tonnage (DWT)</td>
<td>Maximum permissible weight of cargo, fuel, stores and crew etc. which can be carried by a vessel.</td>
</tr>
<tr>
<td>Gross tonnage (GT)</td>
<td>Volume of all enclosed space inside the ship. Refers to vessel and not the cargo or contents.</td>
</tr>
<tr>
<td>Nautical Miles &amp; Long ton</td>
<td>1852 meters or 6,076 feet &amp; 2,240 pounds respectively.</td>
</tr>
<tr>
<td>LCL/LTL</td>
<td>Loose freight (less than container or truck load)</td>
</tr>
</tbody>
</table>

Graph 4. Number of vessels scrapped in Shipyards under GMB

Source: Gujarat Maritime Board