

Indian shipping industry report - 2000

The report gives an overview of the Indian shipping industry and studies the changing business environment in which it operates. As the global economy evolves from being capital-intensive to knowledge-intensive, i-maritime analyzes the industry's competitiveness based on soft intangible parameters like human capital, information technology and expertise in addition to various traditional asset-oriented factors

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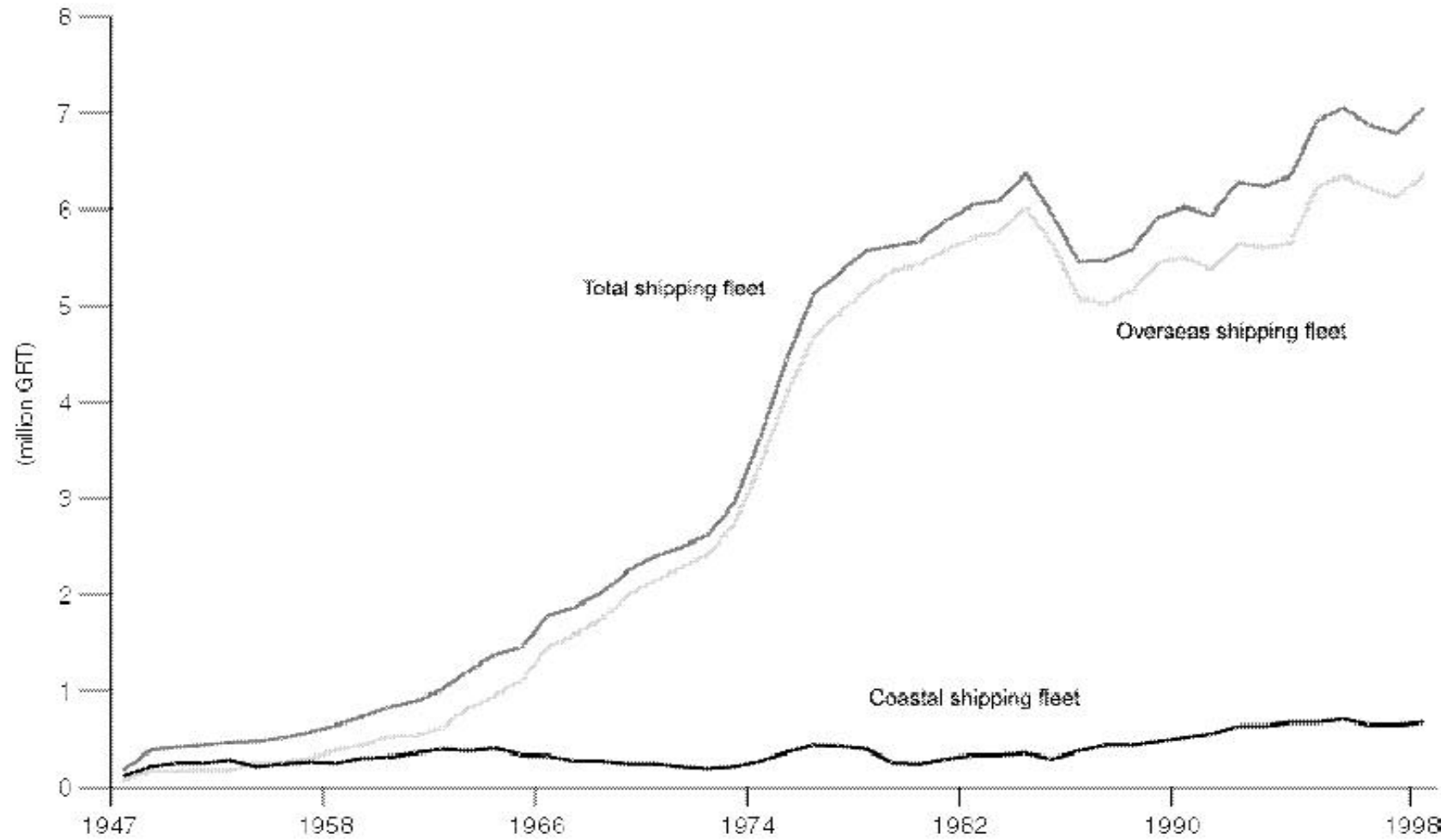
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Indian shipping milestones

1919	- First national shipping company, Scindia Steam Navigation Company, setup - Makes historical trip between Bombay and London with a Swadeshi flag on 5 th April	1968	- Gross tonnage crosses 2 million tonne mark
1927	- Training Ship Dufferin established	1971	- Varun Shipping incorporated
1947	- Gross tonnage of Indian fleet stands at 0.19 million tonnes	1972	- T. S. Rajendra replaces T. S. Dufferin
1948	- The Great Eastern Shipping Company established	1973	- Dr. Chandrika Prasad Srivastava appointed as Secretary General of IMO
1949	- Directorate Marine Engineering Training (DMET) established	1974	- Gross tonnage crosses 3 million tonne mark
1950	- Eastern Shipping Corporation established	1975	- Gross tonnage crosses 4 million tonne mark
1952	- Coastal trade reserved for Indian shipping companies	1976	- Gross tonnage crosses 5 million tonne mark
1956	- Western Shipping Corporation established	1982	- Gross tonnage crosses 6 million tonne mark
1958	- Transchart established - National Shipping Board setup to advise government on the shipping matters	1983	- Essar Shipping incorporated
1959	- Shipping Development Fund Committee established	1987	- Shipping Development Fund Committee abolished - Shipping Credit & Investment Company of India (SCICI) established
1961	- Shipping Corporation of India incorporated by amalgamating Eastern Shipping Corporation and Western Shipping Corporation	1991	- Tolani Shipping Company incorporated
1962	- Gross tonnage crosses 1 million tonne mark	1992	- Partial disinvestment of government's stake in SCI
1963	- Chowgule Steamships incorporated - Dr. Nagendra Singh appointed President of International Maritime Organization (IMO)	1993	- T. S. Chanakya, a shore based academy, replaces T. S. Rajendra
1964	- From this year onwards, National Maritime day is celebrated every year on 5 th April	1996	- Gross tonnage crosses 7 million tonne mark
		1997	- SCICI merges with ICICI
		1998	- Cost Plus Formula in carriage of crude oil dismantled by government and market related freight rates implemented

Growth of Indian shipping fleet



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Introduction

For delivery of goods, the four basic modes of transport are ocean, air, rail and road. Globally, the railway and road networks are largely used for domestic movement of goods while shipping is primarily used for transporting goods in large quantities between nations.

The world sea-borne trade, at around 5.5 billion tonnes in 1999, represents nearly 95% of total merchandise trade and has been growing at more than 3% over the past 2 decades. In terms of value, the global shipping industry is estimated to be more than USD 225 billion and constitutes a significant part of the world GDP.

As India makes a transition from an “import-substitution” closed economy model to an outward-oriented trade regime, the importance of shipping, as an enabler of trade and economic growth cannot be over emphasized.

The country’s transport infrastructure is still underdeveloped. Freight costs, measured as a percentage of total value of imports (c.i.f) is around 10.3%, one of the highest in the world. Against this, the global average is around 5.24% and the average for all developing economies is around 8.04%. Massive improvement in transport infrastructure is necessary to enable future trade and economic growth.

While, around Rs 100 billion (USD 2.5 billion) of investments have been made in the last 5 years to augment port facilities in the country, and equally massive investments in road and rail networks, the shipping sector has received least attention from both investors and government bodies.

This has led to following scenarios:

- Suboptimal realization of benefits from investments in ports as domestic shipping infrastructure is unable to keep pace with demand.
- Sidelineing of the domestic industry by foreign players as the government gradually reduces fiscal, regulatory and other support. This would be a natural outcome of demand from shippers for lower costs and greater efficiency as they also face greater competition in both local and international markets.

On the brighter side, new opportunities are opening up for the sector. Trade volumes - both overseas and coastal - are rising very fast. Opportunities in specialized sectors like LNG, containers, etc. are also arising. Integrated logistics and multimodal transportation are opening up new businesses for shipping companies.

Against this background, ‘Indian shipping industry report - 2000’ gives an overview of the industry and the changing business environment in which it operates. The study is an outcome of i-maritime’s efforts to fulfill the information and research needs of the participants of maritime industry - both global and Indian. We believe that the report would be useful to players in shipping and logistics industry, policy makers, investors and academicians.

The report is divided into 8 sections. In this section we give a brief overview of the ocean transportation in Indian context.

What constitutes Indian shipping industry?

In India, there are three separate Acts which deal with regulation of vessels owned by Indian corporations:

- The Merchant Shipping Act, 1958
- The Inland Vessels Act, 1917
- The Coasting Vessels Act, 1838

The present study is confined to vessels registered under The Merchant Shipping Act. These vessels represent more than 95% of the cargo-carrying capacity of Indian shipping tonnage and constitutes around 330 cargo-carrying ships of around 11.4

million tonnes dwt and another 180 non-cargo carrying ships. Further, lack of data on vessels covered by latter two Acts, makes comprehensive analysis of the other sectors difficult.

However, it should be noted that shipping is not just about vessels, a fact that is even truer in a knowledge economy. The seafarer and the knowledge bank of shipping companies are also an integral part of shipping industry and defining shipping capabilities of a nation is incomplete without taking these into consideration.

In section 2, we establish the linkages between economy, trade and shipping - at a global and local level. We have summarized the forecasts on global economy and trade performance, made by institutions like IMF and World Bank. Further, we have discussed India's trade pattern and dwelt over the problem of falling share of Indian shipowners in India's merchandise trade.

In section 3, we discuss the profile of Indian shipping industry and carry out analysis on various parameters to assess strengths and weaknesses of the industry as a whole.

In section 4, we discuss the institutional and regulatory framework governing Indian shipping industry. In section 5, we discuss the status of Shipping Finance in India.

In section 6 and 7, we discuss the softer aspects of the shipping industry - the seafarers & changing competitiveness of Indian seafarers and impact of Internet & e-commerce on shipping and how India can capitalize on the IT front.

In the subsequent section, we carry out a detailed analysis on the four largest Indian shipowners - SCI, Great Eastern, Essar and Varun. The four companies constitute nearly 70% of Indian shipping tonnage.

Finally, we study the role that can be played by Indian shipping industry as the shipping industry gets gradually merged with the larger logistics and transportation sector and information flow gets demerged from physical goods flow.

An overview of Indian shipping

The total shipping bill for India's merchandise trade - coastal and overseas - is around USD 5.5 billion. In terms of volume, India's imports and exports constitute around 210 million tonnes while coastal trade accounts for another 40 million tonnes.

Overseas Shipping

Indian overseas trade has grown from 80 million tonnes in 1984-85 to 210 million tonnes in 1998-99, an annualized growth rate of 6.8%.

Important trade routes:

Crude and product imports from Gulf, Malaysia and Nigeria

India imports around 40 million tonnes of crude and 20 million tonnes of products every year on a FOB basis, chiefly from Gulf, Malaysia and Nigeria. While Indian shipowners have a considerable stake in this trade, liberalization and relaxation of norms has allowed private-sector refineries to make their own shipping arrangements. Indian shipowners chiefly deploy Suezmaxes from Gulf and Aframax from Malaysia. Most of the vessels chartered from foreign shipowners are large-sized VLCCs. Product imports are carried out chiefly in small vessels of around 30-40,000 dwt.

Iron ore exports from India to East Asia

India exports around 30 million tonnes of iron ore annually, 70 per cent of which is directed toward Japan, China and South Korea. Iron ore exports are predominantly made on a f.o.b. basis, implying lack of opportunity for Indian shipowners. It should be noted that globally iron ore shipments are made in large Capesize and Panamax vessels. These vessels, however, constitute a small portion of the Indian fleet.

Exports from the ports of Mormugao, Chennai and Visakhapatnam are in such vessels while from New Mangalore and Paradip they are carried out in ships of Panamax vessels of upto 65,000 DWT, due to draft restrictions. Shipping Corporation of India is the only major Indian player in iron ore transportation and carries around 0.5 million tonnes to Japan from Visakhapatnam and Paradip. These Handymax vessels are deployed on a triangular route to carry coking coal from Australia and then iron ore to Japan followed by ballast to Australia on return.

Coking coal imports from Australia to Visakhapatnam, Paradip and Haldia

India imports around 10 million tonnes of coking coal, chiefly from Australia, by Handymax vessels for consumption by public sector steel majors like SAIL & RINL and Tata Steel. Indian shipowners, led by SCI, have a share of 4 million tonnes. Coking coal imports by Tata Steel are however made in Panamax size vessels of foreign flag.

Fertilizer and fertilizer material

India imports around 5 million tonnes of fertilizer and 3 million tonnes of rock phosphate and sulfur, chiefly in small size Handymax and Handysize vessels. Imports are made nearly at all the major ports of the country, of which, more than 60 per cent of the imports are routed through the East India ports. While previously Transchart used to play a major role by making around 50 per cent of the shipping arrangements for fertilizer imports, its role has come down substantially over the past few years, primarily because major portion of imports are carried out by private companies nowadays. Better infrastructure facilities at ports such as JNPT, have led to prospects of future fertilizer imports being made in Panamax vessels to capitalize on economies of scale.

Containers

India exports and imports around 1 million TEU's each, mainly through Bombay, JNPT and Chennai. USA, Western Europe and East Asia are the chief destinations through transshipment ports of Dubai, Colombo and Singapore. Only one Indian player, SCI, has a role in container shipping. However, most of the leading global container lines like NOL-APL, Maersk-Sealand and P&O-Nedlloyd offer services to Indian shippers.

Coastal shipping

Against the fairly respectable growth witnessed in India's overseas trade, coastal trade has remained quite stagnant and today accounts for around 40 million tonnes of cargo, chiefly comprising four bulk commodities viz. crude, products, thermal coal and iron ore. This is primarily because of the typical contours of our country which favors road-rail transport more than coastal shipping. This, added to lack of proper regulatory support to coastal shipowners and lack of proper integration with road/ rail network, has led to present scenario of low coastal trade volumes.

Approximately 90% of the coastal movement in India is between the major ports. Some of the important trade routes are as follows.

Thermal coal from Haldia, Paradip and Vizag to Chennai and Tuticorin

More than 14 million tonnes of thermal coal moves along the coast from Haldia, Paradip and Visakhapatnam to Chennai and Tuticorin primarily to meet the fuel requirements of coal-fired power plants of the Tamil Nadu Electricity Board. The responsibility of making necessary shipping arrangements is borne by Poompuhar Shipping Corporation (PSC), a government of Tamil Nadu undertaking. The firm along with its three Handymaxes, hires around 10 vessels of similar size from Indian shipping companies like - Great Eastern, Tolani, Surrendra Overseas, Essar and Varun Shipping, on a one year time charter basis by way of open tender and in case of need, more vessels are also hired on a spot charter basis. PSC has recently planned to charter foreign flag vessels in this route to meet the increased requirement. Overall, these vessels in this trade make more than 500 sailings, every year.

Thermal coal from Haldia and Visakhapatnam generally gets unloaded at Tuticorin, while the same from Paradip gets unloaded at Chennai. With the commissioning of the Ennore port project, existing linkages are expected to change. Shallow draft and geared vessels are presently preferred for the trade. However, with the setting up of modern port equipment systems by South India Corporation (Agencies) Limited (SICAL), at Ennore and Chennai ports, non-geared vessels might be opted for in the future. Because of lack of any major dry bulk cargo movement from the South to the East, these vessels return back ballast to the loading ports.

Iron ore from Visakhapatnam and Paradip to JNPT and minor ports in Gujarat

Around 3 million tonnes of iron ore move in Handymax vessels from the eastern ports to JNPT and Magdalla for shore-based steel plants of Ispat and Essar respectively.

Crude oil from Bombay to various major ports like Kandla, Cochin, and Chennai

Coastal movement of crude oil is to the extent of 10 million tonnes while the above routes account for around 8 million tonnes. Crude originates from Bombay High oil fields of ONGC off Bombay and is chiefly bought by oil majors like IOC, HPCL and BPCL for their shore-based refineries. Coastal movement of POL is around 10 million tonnes.

Cement

Cement is another important commodity moving between various minor ports, in smaller 2,500 - 4,000 dwt vessels. Gujarat Ambuja Cement was the first company to set-up bulk-handling facilities to transport cement by sea. The company has 3 port facilities in Western India and is also planning to build a jetty in southern state of Kerala. The company owns five mini bulk carriers of 2,500 DWT, which carry around 1 million tonnes of cement between the jetties in Western India. Narmada Cement, which has been taken over by L&T, is also using coastal shipping for transporting cement between ports in Western India. Other companies who have used coastal shipping for movement of cement include L&T, Saurashtra Cements, etc.

Overseas trade – share of Indian shipping companies

Indian shipping companies have a small share in India's overseas trade. In FY1997-98, of the total overseas trade amounting to around 202 million tonnes, Indian shipping companies carried around 64 million tonnes, accounting for around 31% of the total trade. This, albeit slightly better than last year, is substantially below the 41% share in the beginning of the decade.

Indian shipping companies' share in India's overseas trade, in value terms, is much lower – a meager 12% as estimated by us, and this is estimated to fall further in the coming years. Total shipping bill on India's overseas trade is estimated to be upward of US\$ 5.0 billion. Certain developments in the international shipping has resulted in our pessimism on possibility of Indian shipping companies increasing their role in Indian shipping industry.

The substantial difference in assessment of role of Indian shipping companies is as a result of a lower than average share in liner trade. Indian shipping companies control around 60% of POL & other liquid trade and around 15% of dry bulk trade, where average freight rates are usually in the range of US\$ 10-20 per tonne. However, share in general cargo and container shipping, where value of shipping services is much higher, is low. In general cargo trade, average freight rates is around US\$ 25-35 per tonne while in container shipping the same could range from US\$ 100 to US\$ 500 per tonne. In general cargo, Indian shipping companies have around 15% share, while in container shipping the share is almost negligible.

Economy, trade and shipping

Global economy

The global economy has recovered strongly from economic meltdown that was triggered by the Asian crisis in the middle of 1997+ and spread to Brazil and Russia in 1998. The emerging economies in Asia have, for the most part, staged a strong V-shaped recovery, the Latin American countries are gradually stabilizing, the impressive growth in United States is now the longest on record and the outlook has also improved for Europe.

World output growth, which fell from 3.3% in 1997 to 1.9% in 1998, is estimated to have accelerated to 2.6% in 1999. Growth in developing countries increased to 3.8% in 1999 from 3.2% in 1998 and expected to touch 5.4% in 2000, which is just marginally below performance achieved in 1998. Amongst developed countries, Japan grew by 0.3% in 1999 and expected to grow by 0.9% this year, against a contraction of 2.5% in 1998. Overall, developed economies grew by 3.1% in 1999 against 2.4% in 1998.

Crude steel production, an important indicator of economic performance, grew by 1.1% in 1999 after a fall of 3.9% in the previous year.

The remarkable turnaround in economic conditions has been caused primarily by the strength of the US economy where burgeoning domestic demand provided a market for products of crisis hit countries. Further, the relatively easy monetary policies followed in Europe and Japan has led to acceleration in growth in the former and reversal of recessionary trend in latter. Finally, the stabilization policies and reform processes implemented in the crisis-hit countries have also been largely successful. Fears of global recession of intensity equivalent to the Great Depression of 1930 proved unfounded and most developmental economists agree that the world is strongly back on the growth path.

Linkages between economy, trade and shipping

A strong interdependence exists between economic growth and trade. International trade economists have long established that a liberal and outward-oriented trade regime increases welfare and income through the following channels.

The first channel for the impact of trade on growth is "investment". Openness can affect both the level and the efficiency of investment and growth in several ways. First an open trade regime can increase market size and hence lead to investment in industries with increasing returns that would not have been viable in a closed smaller market. Openness further leads to increased investment by allowing domestic players access to capital goods that were unavailable previously or were available at too high a cost.

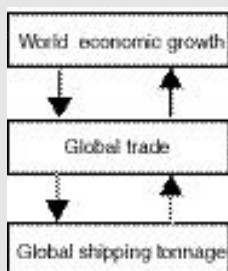
The second channel is "productivity channel". To the extent that open trade regimes lead to greater exposure to world stock of productivity enhancing knowledge, thus openness leads to greater growth. A third channel for the impact of trade on growth is the government policy. If and to the extent that trade openness creates incentives to policy makers to pursue virtuous macroeconomic and

regulatory policies, then it can lead to higher growth.

Economic growth determines the level of competition and investment in an economy. Rising income of people and investments by firms, lead to a greater demand for goods and services. As industries relocate according to competitive advantage (for example shipbreaking - a relatively unskilled labor intensive activity shifted from developed countries to developing countries where unskilled labor are abundantly present), such rising consumption levels would lead to greater flow of goods to meet such demand.

The Asian countries provide an example of such linkages between economic growth and trade. Structural imbalances caused a meltdown in the economy leading to lower investments in infrastructure and industries. This in turn led to lower imports of raw materials and other goods. In the recovery phase, increased competitiveness of the currencies (as a result of depreciation) promoted exports, leading to accumulation of foreign exchange reserves and build up of investor's confidence. This led to renewed investments and hence economic growth.

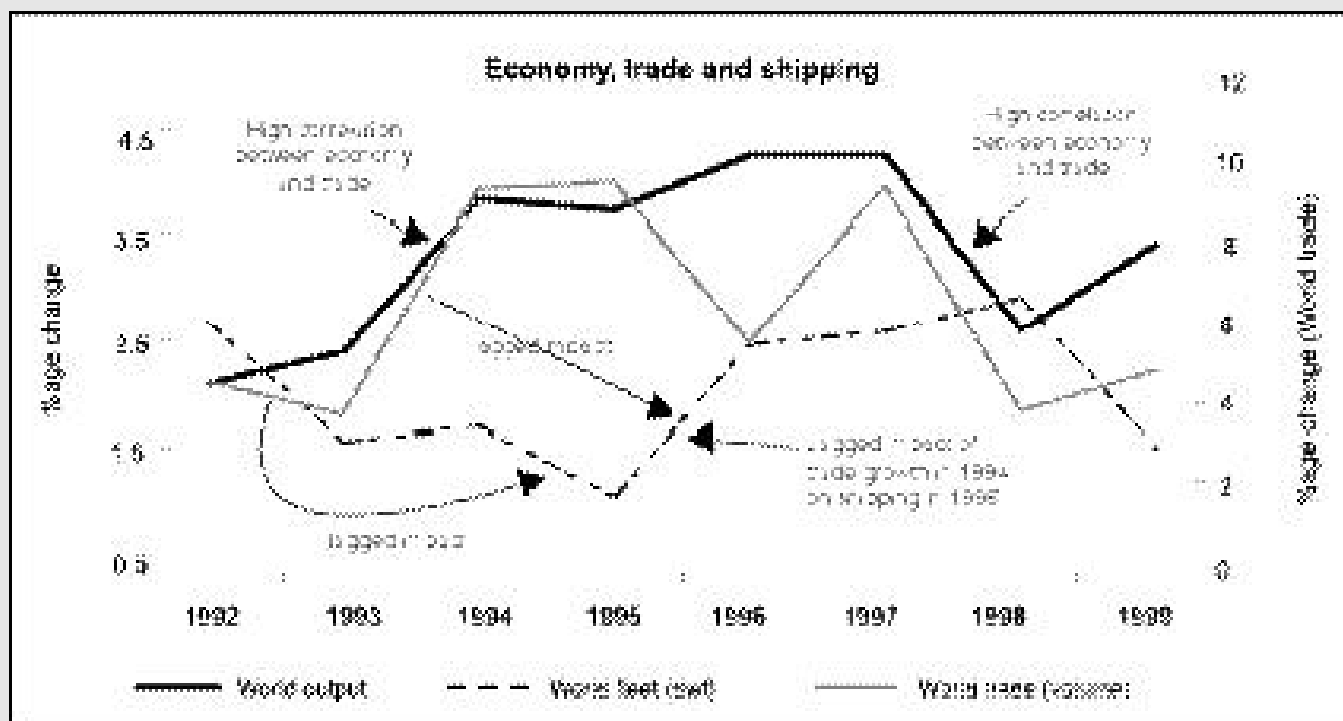
+ We use prefix "FY" to represent the financial year in Indian context, which starts from 1st April and ends on 31st March. To carry out comparisons in an international context, we treat, for example, FY1999-2000 with 1999.



The relation between the economy, trade and shipping demand is strong but it is very difficult to fit them in simple and direct models. The growth in the economy of the world may hide different aspects of the requirement of shipping. As different economies move from one phase of development to other, the consumption pattern changes. An economy with rapid industrialization will be having more manufactured and value added

The world trade in goods determines the extent to which transportation is required, which in turn determines the demand for shipping services. The demand for the shipping services is mainly dependent upon how much trade takes place between the various nations in the world. The demand is not only on the quantity of the service, i.e. total tonnage required in moving the cargo but also the distance that the cargo needs to be moved. The nature of the cargo, its value and the distance that it needs to be moved influence the size and the kind of vessel required.

The world fleet development has a remarkable phase lag in comparison to the world trade. This is typical of the shipping industry whose prospects keep on changing dramatically. When the demand is high the freight rates start to zoom up. With the expectations of high returns, huge orders are placed to build up tonnage and the laid up tonnage is put into use. The demand for new tonnage cannot be met overnight. The time for building a new ship varies from one to two years. This



goods as its exports and thus an increased need for liner and container vessels for its exports. One of the major changes that have taken place in the world trade is the reducing share of coal and crude oil. As the energy requirement is increasingly met by new sources like natural gas, solar and nuclear energy, the need for coal and crude oil has been increasing at a much lower pace. This shift in the world trade has affected the shipping demand for coal and crude oil. These structural changes need to be studied in determining the shipping demand. Trends like these take shape over a long period of time but have a strong influence on the shipping demand.

again depends on the existing order book of the shipyards worldwide and their capacities. The tonnage build up leads to an oversupply of tonnage in the market thereby leading to a crash in the freight rates. Given that the standing costs are high ship owners generally keep their ships in operation even if the freight rates are low. The ships are kept in operation till the variable costs are recovered. Decreasing returns lead to removal of the excess tonnage through ship scrapping. The plot of the annual percentage changes of world output, trade and shipping tonnage shows how there is a lag between the shipping tonnage and world trade.

The recovery in global activity has been accompanied by a more than tripling of oil prices since early 1999, mainly due to production curbs by the Organization of the Petroleum Exporting Countries (OPEC) and several other oil producers. To a large extent, the rise in oil prices represents a recovery from exceptionally weak prices in early 1999, and this recovery has brought prices back closer to a long-term equilibrium. With oil having become a less important factor in the world economy since the 1970s, the consequences of the recent price increase for oil importing countries are smaller than they would have been in the past. In addition, the price rise is contributing to significant improvements in external balances and fiscal positions of oil exporters, including Russia, many countries in the Middle East, East Asia and some African countries. Most economists are of the opinion that prices would eventually fall to more comfortable levels, although in the unlikely state of this not happening, much of the recovery could falter.

Global trade

Concomitant to economic growth revival, world trade has also shown signs of recovery. In volume terms, world trade growth accelerated to 4.9% in 1999 from 3.8% in 1998. In 1997, trade had grown by a record of 10%. In terms of value measured in US dollars, world trade in goods (excluding services) fell by only 0.8% against a fall of nearly 6% in the previous two years. The fall is chiefly due to the fall in commodity prices especially oil, where prices touched historical lows in the beginning of 1999.

Shipping cycles

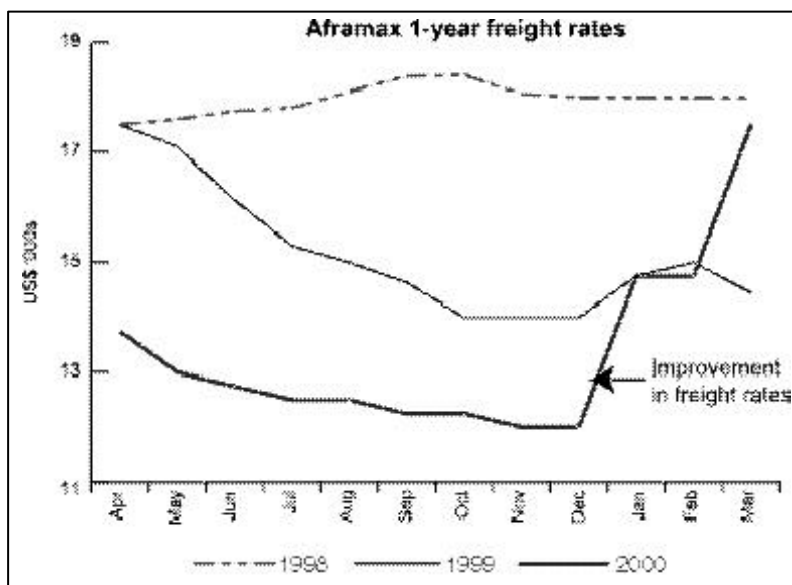
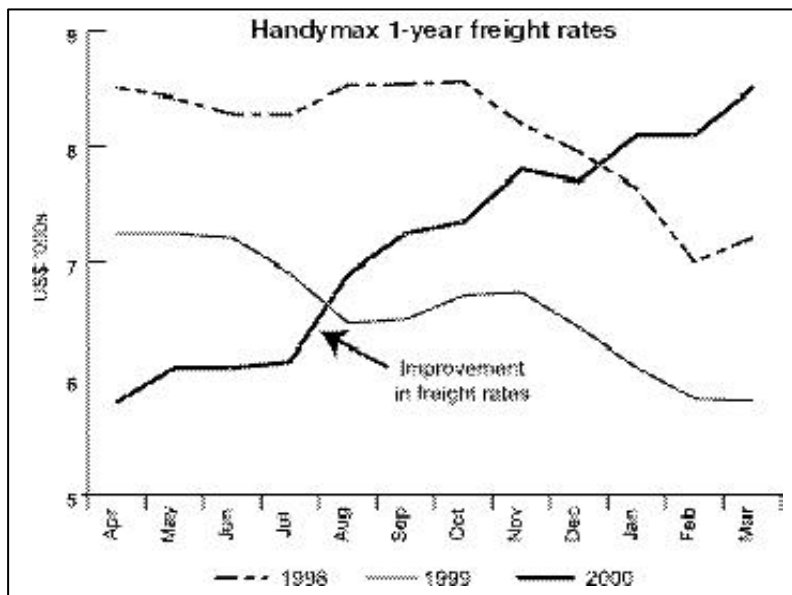
FY1998-99 represented a tough go for the dry bulk markets as freight rates touched 10-year low levels. Fall in steel production globally, led to lower iron ore and coking coal trade, which had a dampening effect on Capesize and Panamax vessels. However, increased trade in steam coal and grain provided some support. Mini bulk commodities, especially steel products and cement, also witnessed a fall in trade and thus negatively affected Handymax and Handysize vessels.

However, economic revival witnessed amongst various developing countries since beginning of 1999, has led to improvements in dry bulk trade and hence dry bulk shipping markets. From 10-year lows in the beginning of the year, the freight rates across nearly all dry bulk segments have touched new highs, as greater industrial activity in developing countries and renewed investment in infrastructure projects have led to a greater demand for steel, which in turn has resulted in increased trade in iron ore and coking coal. All these have had favorable impact on dry bulk tonnage demand.

Overall, the average freight rates in FY1999-2000 for every dry bulk segment are higher than the same in FY1998-99, and expected to cross the average levels of FY1997-98.

A much more robust cycle is being observed in the tanker markets. Notwithstanding the dramatic decline in oil prices, which fell to a 25-year low, crude oil demand and hence trade also witnessed decline. Economic revival has seen increase in demand, although impact on shipping markets has been with a much greater lag than in dry bulk carrier market. Freight rates across tanker segments have increased in the last three months of FY1999-2000. Average Aframax and Suezmax freight rates in FY1999-2000 are touching 10-year highs and expected to continue to appreciate as demand for tonnage outstrips supply.

The following graphs show the freight rate movements in Handymax and Aframax vis-à-vis previous years.



Indian scenario

The Indian economy has shown fall in the growth from 6.8% in FY1998-99 to 5.9% in FY1999-2000. The fall mainly reflects a slow down in agricultural production after previous year's bumper harvest. However, activities in the industrial and services sector strengthened during the year, buoyed by a revival of exports and the pick up in domestic demand. Thus, the growth in GDP from the industrial sector accelerated to 6.9% from 4.0% in the previous year, while services grew at last year's level of 8.2%.

Both imports and exports measured in USD have grown by 8% in FY1999-2000. In contrast, exports fell by 4% in 1998-99 while imports grew by less than 1%. This trend is reflected in terms of volume of cargo handled by major ports, which grew by 8% in FY1999-2000 against stagnation in the previous year.

The buoyancy is explained partly by the revival of world trade on the heels of the East Asian recovery and a modest recovery in some global commodity prices. Low inflation in the domestic economy may have also strengthened the competitiveness of India's exports in global markets.

Growth in imports is primarily due to rise in oil prices even though oil import volumes have not increased. The non-POL imports have, however, remained sluggish in the current financial year with a marginal increase of 1.1 percent in the nine months, as compared to an increase of 15.8 percent in the corresponding period last year.

Indian share in world exports

(US \$ billion)

Year	Exports	Imports	World export	India's share in world export (%)
1950	1.1	1.1	61	1.80
1960	1.3	2.3	130	1.00
1970	2.0	2.1	314	0.64
1980	8.6	14.9	1,998	0.43
1990	18	23.6	3,393	0.53
1999	33.6	41.9	5,497	0.61

Source: Indian Economic Survey, 1999-00

Indian exports increased at a compounded growth rate of 7.22 per cent and imports at a compounded growth rate of 7.71 per cent during the period 1950-99. The world exports during this period, however increased at a compounded growth rate of 9.62 per cent. The growth rates were the maximum during the decade 1970-80. With the current ongoing liberalization of Indian economy, India's share in world export is expected to accelerate in the years to come.

Direction of Indian trade

(US \$ billion)

Countries	1997-98		1998-99	
	Imports	Exports	Imports	Exports
Africa	2.9 (7.0)	1.9 (5.6)	4.2 (1.0)	2.1 (6.2)
America	4.7 (11.4)	7.8 (22.8)	4.7 (11.2)	8.6 (25.5)
Asia (excluding ME)	9.0 (21.7)	9.4 (27.6)	10.3 (24.5)	8.0 (23.9)
Middle East	8.6 (20.9)	3.4 (9.9)	6.9 (16.5)	3.8 (11.2)
East Europe	1.1 (2.6)	1.2 (3.4)	0.8 (2.0)	1.0 (2.9)
West Europe	13.5 (32.6)	9.6 (28.2)	13.4 (31.9)	9.6 (28.6)
Oceania	1.6 (3.8)	0.5 (1.5)	1.6 (3.8)	0.5 (1.4)
Total (including other countries)	41.5 (100.0)	35.0 (100.0)	41.8 (100.0)	33.6 (100.0)

Source : INSA

(Figures in parentheses are percentages)

A substantial portion of the total exports of India through all modes of transport viz. sea, air and land appears to be with the West European countries followed by America. These two regions accounted for nearly 54 percent of the trade in FY1998-99.

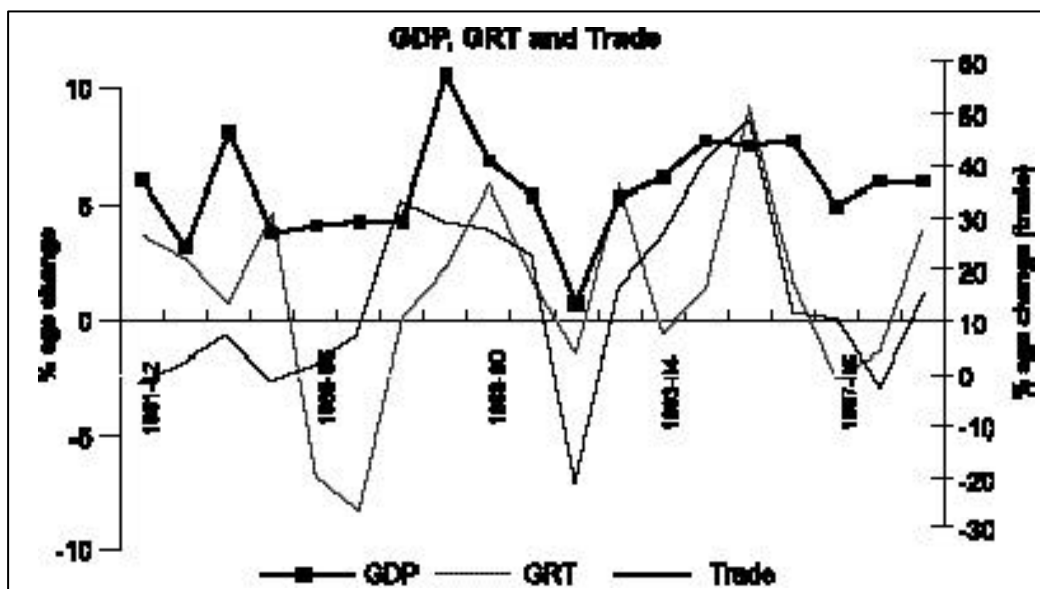
India's trade and shipping tonnage

(percentage)

Period	Growth in trade	Growth in tonnage
1950-60	5.04	8.93
1960-70	1.30	11.00
1970-80	19.07	9.00
1980-90	5.87	0.59
1990-99	6.85	1.76

Source: i-maritime

As in international scenario, there exists a relationship between growth in Indian shipping tonnage and the country's trade.



Global economic and trade prospects

Economists expect strong growth in global economy in the next one decade, driven again by the developing nations worldwide. The following table highlights the growth forecasts made by World Bank, in the report *Global Economic Forecasts - 2000*, and International Monetary Fund, in the report *World Economic Outlook - May 2000*.

Forecasts of growth in global GDP

	(percentage)							
	1991-98	1998	1999	World Bank forecasts		IMF forecasts		
				2000	2001	1999-2008	2000	2001
World output	2.5	1.9	2.6	2.9	2.8	3.1	4.2	3.9
Advanced economies	2.3	2.0	2.6	2.5	2.3	2.6	3.6	3.0
- United States	n.a.	4.3	4.2	n.a.	n.a.	n.a.	4.4	3.0
- European Union	n.a.	2.7	2.3	n.a.	n.a.	n.a.	3.2	3.0
- Japan	n.a.	-2.5	0.3	n.a.	n.a.	n.a.	0.9	1.8
Developing economies	3.2	1.6	2.7	4.2	4.5	4.5	5.4	5.3
- China	n.a.	7.8	7.1	n.a.	n.a.	n.a.	7.0	6.5
- India	n.a.	4.7	6.8	n.a.	n.a.	n.a.	6.3	6.1
- ASEAN	n.a.	-9.5	2.5	n.a.	n.a.	n.a.	4.0	4.4

n.a.: not available

As the above table shows, IMF expects Indian economy to grow strongly at above 6% in the next two years. World Bank had forecasted that the entire South Asian region is expected to grow by 5.2% in the next 1 decade.

Similar forecasts have been made on the trade front. World trade in goods, measured in volume terms is expected to grow by 8.4% and 7.0% in 2000 and 2001 respectively. In terms of US Dollars, world trade in goods is expected to grow at a much lower 0.6% in 2000 and 1.6% in 2001. However, trade in both goods and services, measured in US Dollars, are expected to accelerate to nearly 8% this year and 7.2% in 2001.

Profile of Indian shipping tonnage

Under this section we have studied various structural parameters of Indian shipping industry.

Size of fleet

On basis of beneficial ownership, India is ranked fifteenth in terms of shipping tonnage (deadweight tonnage) under control. India's rank has been hovering around this position for the last one decade.

The 20 most important maritime countries/territories
(as on December 31, 1998^a)

Country or territory of domicile ^b	Number of vessels			Deadweight tonnage (million tonnes)				
	National flag ^c	Foreign flag	Total	National flag	Foreign flag	Total	Foreign flag as %age of total	Total as %age of world total
Greece	800	2,353	3,153	42.8	87.1	129.8	67.1	17.9
Japan	854	2,107	2,961	19.2	75.6	94.8	79.7	13.1
Norway	893	732	1,625	29.2	25.0	54.1	46.1	7.5
United States	472	818	1,290	11.3	34.4	45.6	75.3	6.3
China	1,592	472	2,064	22.0	16.4	38.3	42.7	5.3
Hong Kong (China)	106	467	573	5.8	26.9	32.6	82.3	4.5
Germany	599	1,193	1,792	9.4	17.6	27.0	65.3	3.7
Republic of Korea	436	428	864	7.1	18.1	25.2	71.8	3.5
Sweden	159	244	403	1.3	19.5	20.8	93.6	2.9
United Kingdom	388	457	845	6.1	13.8	19.9	69.4	2.7
Singapore	454	286	740	11.2	7.8	19.0	41.1	2.6
Taiwan Province of China	167	313	480	7.6	10.4	18.0	57.7	2.5
Russian Federation	2,198	314	2,512	9.0	7.0	15.9	43.7	2.2
Denmark	409	268	677	6.6	7.1	13.7	51.7	1.9
India	363	66	429	10.7	1.5	12.1	12.0	1.7
Italy	451	134	585	7.4	4.6	12.0	38.6	1.7
Saudi Arabia	59	67	126	1.0	10.2	11.2	90.9	1.5
Turkey	434	56	490	8.6	0.7	9.3	7.5	1.3
Brazil	171	24	195	6.1	2.5	8.6	29.5	1.2
Belgium	23	136	159	0.1	7.6	7.7	98.6	1.1
Total (20 countries)	11,028	10,935	21,963	222.2	393.4	615.6	63.9	84.9
Percentage	50.2	49.8	100.0	36.1	63.9	100.0		
World total	16,452	13,241	29,693	284.3	441.1	725.4	60.8	100.0
Percentage	55.4	44.6	100.0	39.2	60.8	100.0		

Source: UNCTAD

- Vessels of 1,000 GRT and above, excluding the United States Reserve Fleet and the United States and Canada Great Lakes fleets.
- The country of domicile indicates where the controlling interest of the fleet is located, in terms of the parent company. In several cases, this has required certain judgements to be made. Thus, for instance, Greece is shown as the country of domicile with respect to vessels owned by a Greek owner with representative offices in New York, London and Piraeus, although the owner may be domiciled in the United States.
- Including vessels flying the national flag but registered in territorial dependencies or associated self-governing territories. For the United Kingdom, British flag vessels are included under the national flag.

Historical growth of Indian fleet

The gross Indian tonnage has increased from 0.19 million in 1947 to 7.05 million in 1999 representing an annual growth rate of 7.2 per cent. In the same period world fleet grew from 83.51 million GRT to 532.0 million GRT representing a growth rate of 3.62 per cent.

The ninth plan (April 1997 to April 2002) envisages increase in the total Indian fleet strength from 6.9 million GRT to 9 million GRT. This represents total additional acquisition of 2.5 million GRT and replacement of 1.7 million GRT. By April 2000 the total fleet strength stood at around 7.1 million GRT. We believe that meeting the planned targets in the next 2 years is quite difficult.

The growth pattern since independence can be divided into three eras:

- Era of slow growth (1947 to 1960)
- Era of rapid expansion (1960 to 1985)
- Era of decline and stagnation (1985 to till date)

Period	GRT ('000s tonnes)		Annualized growth (%)
	Beginning	End	
1947 - 60	192	844	12.1
1960 - 80	844	5,679	10.0
1980 - 99	5,679	7,053	1.2
1947 - 99	192	7,053	7.2

Source: i-maritime

In the first two decades after independence, the nascent state of industrialism in India, absence of a well settled policy framework and financial & foreign exchange constraints, led to slow growth in Indian shipping tonnage. The annualized growth is highest in this period because of a low base i.e., very small shipping tonnage at the time of independence. However, in absolute terms, the period represented low levels of tonnage acquisition and hence classed as an era of slow growth.

However, the second era especially the period between 1965 to 1980, represented tremendous achievement for the Indian shipping industry in building up a large merchant fleet. The growth was assisted by liberal financial support by SDFC, buoyancy in global economy, trade and shipping and favorable government support.

Crisis at a global level triggered by OPEC oil price hike, a regulatory framework in India that increasingly proved to be restrictive enough, even though it had supported the growth in the earlier era and a natural phenomenon of cyclical boom and bust witnessed in all industrial and business sectors, led to gradual stagnation in the Indian shipping industry since 1980s.



Conditions have been further aggravated by poor market conditions and the gradual withdrawal of government support since the initiation of liberalization process in 1990's.

Indian shipping - down, down and gone?

It has been repeated ad infinitum about the dismal state of Indian shipping, how the nation's overseas cargo is shipped in non-domestic vessels, how the growth in India tonnage has been slow in the past and stagnated of late.

Percentage share of Indian ships in India's overseas trade

Year	General cargo	Dry bulk cargo	POL	Total
1985-86	20.7	22.8	75.2	34.9
1990-91	12.6	24.2	61.8	35.5
1995-96	10.4	14.5	53.3	27.8
1996-97	9.8	16.1	55.3	29.8

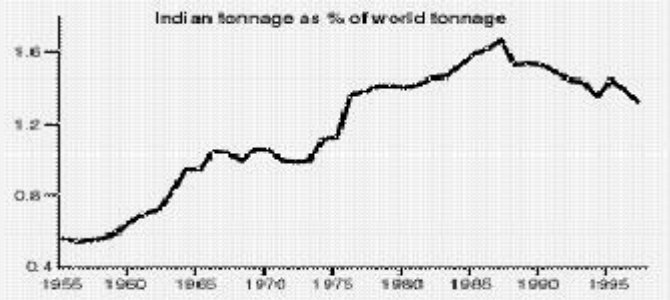
Source: INSA

The above table justifies such fears. In fact POL, where Indian shipping companies have more than 55% share is all set to decrease. Privatization of the oil sector and import on FOB basis by such large oil refineries as Reliance (almost 30 million tonnes of crude import per year) will eventually lead to fall in India shipping companies' share in this trade.

Similar is the case with LNG where the prohibitive capital costs have deterred any major Indian presence.

So even while it is expected that India would become a major LNG importer in the next few years, not much optimism exists amongst Indian shipping companies to be able to capitalize on this development.

Such fears are justified and we believe something needs to be done. However, we would like to present the story of India's performance in shipping with a slightly different viewpoint.



As the above graph shows, Indian tonnage (measured in terms of GRT) as a percentage of world tonnage, has steadily increased since the time of independence;

from 0.5% in 1950 to 1.7% in 1987, albeit since then the ratio has again started falling. As a corollary, Indian tonnage has grown at a rate higher than the world tonnage in the same period.

Annualized growth rate (%)

	Indian fleet	World Fleet
1950-60	7.4	4.4
1960-70	10.8	5.8
1970-80	9.4	6.3
1980-90	0.9	0.1
1990-97	1.0	3.0
1950-97	6.1	3.9

As the above table shows, in 4 of the 5 decades since independence, Indian shipping has grown at an annualized rate higher than average world tonnage. Further, in the entire sample period of 47 years, the former has grown at an annualized rate of 6.1% while the latter has grown at less than 4%. Only in the last 7 years, has the growth in latter overtaken Indian shipping growth rate. Further, around 5-7% of Indian shipping tonnage is involved in cross trading, something that does not get reflected in the table.

A small happy note in a long sad story?

Source: Maritime Monitor, Issue 9, Sept 1-15 1999

The following table represents global & Indian ships of 100 GRT and above. In our subsequent analysis of the Indian fleet, we would refer to the Indian shipping profile as registered under M. S. Act, 1958. This fleet considers vessels of 150 GRT and above. Further many vessels in the above category are registered under Inland Vessels Act and Coasting Vessels Act and hence are not reflected in our analysis.

Comparison between world and Indian fleet

(as on December 31, 1998)

Category	World		Indian	
	Gross tonnage (million tonnes)	% of total	Gross tonnage (million tonnes)	% of total
Oil tanker	152.87	28.59	2.56	37.59
Bulk carrier	156.98	29.36	2.83	41.56
General cargo	91.22	17.06	0.51	7.49
Container ship	53.40	9.99	0.08	1.17
Other types	80.16	14.99	0.82	12.04
Total	534.63	100.00	6.81	100.00

Source: UNCTAD

Segments

The Indian shipping industry with over 100 private and public sector companies has a well diversified merchant fleet of tankers, bulk carriers, container ships, specialized or multipurpose vessels, offshore supply vessels (OSVs) and coastal vessels.

The industry is segmented into three segments for our analysis namely:

- Overseas
- Coastal
 - Cargo carrying
 - Non-cargo carrying (includes OSVs)
- Bare Boat Charter cum Demise (BBCD)

We have carried out following analysis in this section to assess the strengths and weaknesses of Indian shipping:

- Vessel size analysis
- Age analysis
- Ownership profile analysis
- Shipyard analysis on the basis of built of vessels

Overseas

The biggest chunk of the total Indian fleet tonnage is the overseas segment consisting of 241 vessels of total cargo carrying capacity of 10.7 million DWT and constituting around 90 per cent of total Indian tonnage. The change in the structure of the overseas fleet in the last two decades is reflected in the following table.

('000 tonnes)

Type of vessel	December 31, 1980			December 31, 1999		
	No.	GRT	DWT	No.	GRT	DWT
Dry cargo liners	170	1,493	n.a.	31	385	524
Dry cargo bulk carriers	113	2,043	n.a.	104	2,453	4,146
Tankers	22	1,026	n.a.	77	2,980	5,232
- Crude	n.a.	n.a.	n.a.	35	2,058	3,709
- Product	n.a.	n.a.	n.a.	42	922	1,523
OBO carriers	16	815	n.a.	3	171	312
Cellular containers	0	0	n.a.	10	138	180
Passenger cum cargo	4	49	n.a.	1	8	9
Timber carriers	0	0	n.a.	2	7	13
LPG carriers	0	0	n.a.	6	119	138
Acid carriers	0	0	n.a.	7	110	159
Total	325	5,426	n.a.	241	6,371	10,713

Source: D. G. Shipping
n.a. : not available

The most significant change is the fall in dry cargo liners from 170 vessels representing 1.5 million GRT in 1980 to 31 vessels of only 0.38 million GRT in 1999. This number is expected to fall further with SCI, the largest general cargo fleet operator, deciding to gradually exit from the trade due to lower profitability. Factor responsible is the gradual containerization of general cargo.

In the dry bulk cargo fleet there has been a stagnation both in terms of the number of vessels as well as the gross tonnage.

Tanker tonnage has shown significant growth in the last two decades. Total number of tankers increased from 22 vessels to 77, while in terms of GRT, the increase was from 1.02 million to 2.98 million. During this period, Indian shipping appears to have mainly emphasized on consolidation, modernization and acquisition of specialized ship like acid carriers, timber carriers and edible oil tankers.

Massive addition of refining capacity in the country will force a significant change in the oil products trade. The opening up of the sector to private sector operators has seen the commissioning of the 27 million tonnes Jamnagar refinery of Reliance. The public sector oil companies have also made substantial expansions in their existing capacities. The total refining capacity is set to cross over 100 million tonnes. The total consumption of refined products was around 89 million tonnes in 1999 which, even after increased consumption, is expected to leave a surplus. All this is expected to make India a net exporter of refined products. The increased refining capacity is expected to lead to the following changes.

- Increased crude oil shipments. However shipments would be in larger sized vessels as oil companies strive to capitalize on the economies of scale.
- Product imports are expected to become negligible. We expect the product tanker fleet to fall.

Container traffic is expected to grow significantly in the future as a result of the following factors.

- Increasing containerization of general cargo exports from India.
- Investments in container handling facilities in the country. In most of the major ports container-handling terminals have been privatized and investments to the tune of Rs. 30 billion have already come in or are expected to in the near future. Public sector giant Concor has made massive investments in inland container depots. The opening of the sector to private players is expected to only improve the dry port network in the country.

Indian shipping companies have immense opportunities because of the above trend.

Liquefied Natural Gas (LNG) shipping is destined to be one of the most lucrative businesses in the future. India is expected to become a major importer of LNG in the next 2 to 3 years. LNG terminals are being established in various locations like Dahej, Kochi, Dhabol, Ennore, Pipavav etc. The project for carriage of LNG for Enron's Dhabol power plant has gone to a overseas company in which SCI holds 20 per cent stake. Hence the vessel won't be reflected in Indian shipping fleet. Recent LNG policy by the government calls for a minimum of 26 per cent shareholding by an Indian company for any venture carrying LNG to India. Further it encourages registration of the LNG vessel under the Indian flag.

Coastal

The coastal fleet in India consists of 269 vessels of only 0.68 million GRT. The fleet has grown from 0.11 million GRT at the time of independence; an annualized growth rate of 3.57 per cent against a growth rate of 7.20 per cent of the entire Indian fleet. The present condition of the coastal fleet (small and aged fleet) reflects the low level of coastal trade in the country. This is due to competition from roads and railways, and inadequate port infrastructure.

Composition of coastal fleet
(as on December 31, 1999)

('000tonnes)

Type of vessels	August 1993		December 31 st , 1999		
	No.	GRT	No.	GRT	DWT
Cargo carrying vessels:					
Dry cargo	40	31	49	54	84
Dry bulk cargo carrier	21	236	12	194	306
Tankers	13	146	13	130	214
<i>Crude oil carriers</i>	2	55	2	50	82
<i>Product carriers</i>	11	91	11	80	132
Ethylene gas	3	9	3	9	7
RO-RO	-	-	1	1	1
Timber carriers	1	4	-	-	-
Passenger-cum-cargo	12	59	11	66	28
Total (cargo)	90	485	89	454	640
Non-cargo carrying vessels:					
Tug	-	-	61	19	3
Passenger service	-	-	11	2	0
Dredger	-	-	13	55	0
OSV's	68	75	68	73	81
SOSV's	33	85	27	77	57
Total (non-cargo)	101	160	180	226	142
Total coastal	191	645	269	680	782

Source: D. G. Shipping, i-maritime

Bare Boat Charter cum Demise (BBCD)

BBCD is a form of lease financing where vessels are under the command of Indian shipowners (charterer) without ownership rights. Further, the vessels are not registered under M. S. Act and do not fly the Indian flag. In the charter period, the charterer is responsible for the operation of the ship and pays a certain lease installment to the vessel owner. At the end of the contract the vessel ownership passes to the Indian shipowner against a certain balloon payment.

The system was introduced to aid Indian shipowners to acquire new tonnage by distributing financial outgo over a period of time. However off late the system has drawn flak from various sections of the maritime industry. BBCD vessels can be deployed in coastal trade and enjoy government cargo support without having to comply with stringent regulatory norms under Indian flag. This route has been used by foreign shipowners setting up subsidiaries in India leading to the present controversy.

BBCD Vessels

(as on December 31st, 1999)

	Vessels	GRT ('000)	Average age (years)
Cargo carrying vessels:			
Dry bulk	16	117.89	6.9
Tanker	4	21.19	22.1
Total (cargo carrying vessels)	20	139.08	9.3
Non-cargo carrying vessels:			
Tug	1	0.11	7.0
OSV's	2	1.99	16.5
Total (non-cargo carrying vessels)	3	2.11	16.0
Total (cargo and non-cargo carrying vessels)	23	141.19	9.4

Source : D. G. Shipping

Aggregate profile
(as on December 31st, 1999)

Segment	No. of vessels	GRT (‘000 tonnes)	DWT (‘000 tonnes)
Overseas	241	6,373.0	10,713.0
Coastal	269	680.0	782.0
<i>cargo carrier</i>	89	454.0	640.0
<i>non-cargo carriers</i>	180	226.0	142.0
BBCD	23	146.8	245.5
Total	533	7,199.8	11,740.5

Source: D. G. Shipping

Vessel size analysis

Type of vessels	('000 DWT)		
	Overseas	Coastal	BBCD
Dry cargo Liner	16.9	1.7	-
Dry bulk cargo carrier	39.8	25.5	3.7
Tanker (crude oil)	105.9	41.1	-
Tanker (product carrier)	36.3	12.0	14.9
Passenger-cum-cargo	8.8	2.5	-
Timber carrier	6.3	-	-
Cellular container	17.9	-	-
Ore Oil bulk carrier	103.9	-	-
Acid carrier	22.7	-	-
LPG carrier	23.0	-	-
RO-RO	-	1.4	-

Source: i-maritime

The average vessel size of Indian fleet is much below international standards leading to higher transportation costs and hence lower competitiveness of Indian exports and higher costs of domestic production dependent on imported raw materials. The lower size had been the result of inadequate infrastructure at ports, lower parcel size of imports & exports and overall lack of competition due to restrictive covenants under M. S. Act.

All this is expected to change in the near future. Huge investments have been made in augmenting port infrastructure in India. Thus Jawaharlal Nehru Port Trust (JNPT) and Nhava Sheva International Container Terminal (NSICT) can today handle large sized container vessels. Modern equipments are capable of faster loading and unloading of cargo. Similarly, a large number of single buoy mooring (SBMs) installed along the coastline of India have paved the way for import of crude by VLCC's. New upcoming ports in the private sector like Dhamra, can handle very large vessels. The entire process has been expedited as a result of pressure from the exporters and importers demanding lower transportation costs. New regulatory norms have led to reduced cargo support for Indian shipowners. Thus Reliance imports crude through VLCC's hired from foreign shipowners - a lost opportunity for Indian shipping companies.

Indian shipowners have yet to effectively respond to this new challenge. Capital requirement for replacement of smaller tonnage with larger ones is huge and probably beyond the appetite of domestic equity and debt market.

Built of Indian fleet

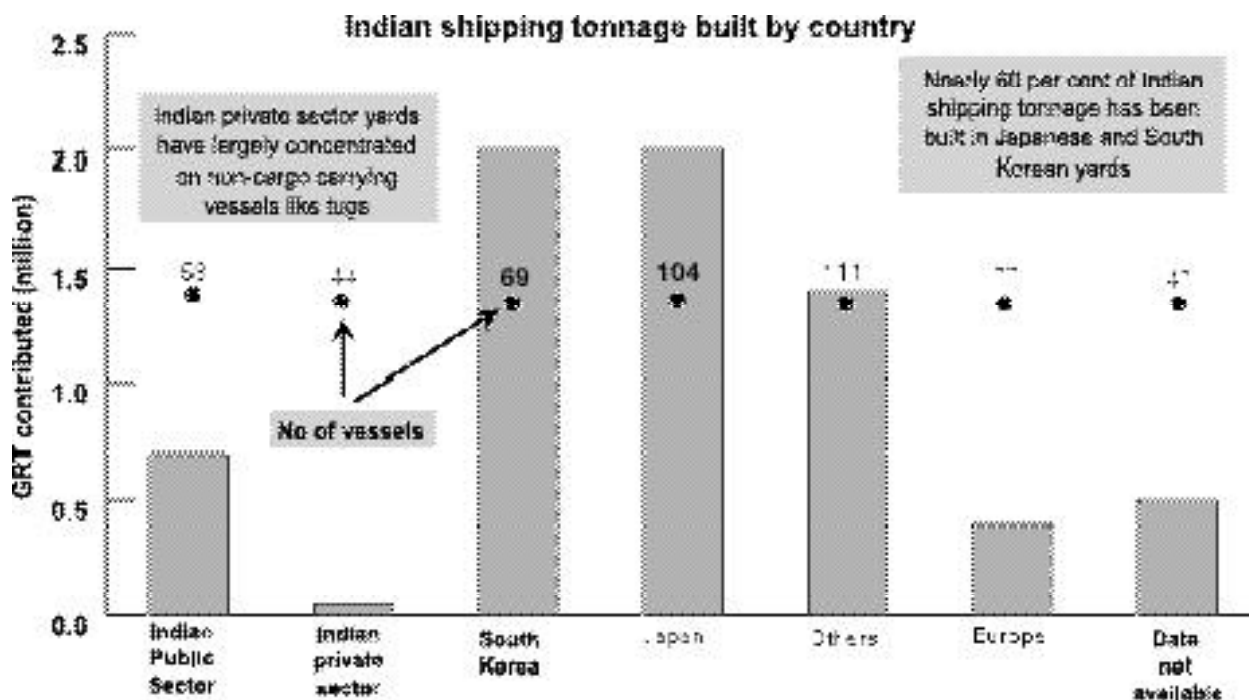
The foreign shipyards have contributed largely to the Indian fleet. They constitute nearly 82 percent of the total Indian gross tonnage. The foreign built ships total 5.8 million GRT. South Korea and Japan are the major ship builders contributing to the gross tonnage. This is because the delivery schedule, cost and quality of ships built in these shipyards have been very good. The presence of cheap steel industry and labour skills in these countries have been the major reasons for their having a vibrant ship building industry. The government also provides substantial incentives and subsidies to the ship building industry in these countries. Europe, which has a strong ship building tradition, is the other major source of ships. The crude tanker fleet, which is one of the largest segments of Indian fleet, is largely built by the South Korean yards. The general cargo vessels have been built mostly in Europe.

Percentage contribution by India / foreign shipyards

(as on December 31, 1999)

Built in Yard	No. of vessels	% of total no. of vessels	GRT contributed	% of total GRT
Indian:				
Public sector	58	11	705,709	10
Private sector	44	9	43,824	1
Sub-Total	102	20	749,533	11
Foreign:				
South Korea	69	14	2,026,143	29
Japan	104	20	2,015,329	29
Europe	111	22	1,409,598	20
Others	77	15	363,008	5
Sub-Total	361	71	5,814,078	82
Data not available	47	9	488,832	7
Total	510	100	7,052,443	100

Source: i-maritime



The share of the Indian shipyards has been very low, as the Indian shipyards have not been able to compete with the foreign shipyards. The Indian built ships total to 0.7 million GRT, which is only 11 percent of the gross tonnage. The Indian shipyards have built various types of vessels but the major contribution has been to the non-cargo carrying vessels. The private sector shipyards in India have mainly built tugs and dry cargo vessels.

The three major Indian public sector shipbuilding yards from where Indian ship owners have acquired vessels are Cochin Shipyard Limited at Cochin, Hindustan Shipyard Limited at Visakhapatnam and Mazagon Dock Limited at Bombay while the three prominent private sector shipbuilding yards are Magdala Shipyard, Bharati Shipyard and ABG Shipyard. The three major foreign shipyards where in Indian merchant vessels are built are Hyundai Heavy Industries Company Limited at South Korea, Mitsubishi Heavy Industries Limited at Japan and Daewoo Shipbuilding & Heavy Machinery Limited at South Korea.

Percentage contribution towards gross tonnage by major shipyards
(as on December 31, 1999)

Country	Shipyard	% share in total GRT
India:		
- Public sector	Cochin Shipyard Limited, Cochin	5.2
	Hindustan Shipyard Limited, Visakhapatnam	3.5
	Mazagon Dock Limited, Bombay	0.7
	Others	0.6
	Sub-Total	10.0
- Private sector	Magdala Shipyard	0.2
	Bharati Shipyard	0.1
	ABG Heavy Industries	0.1
	Others	0.2
	Sub-Total	0.6
Foreign:	Hyundai Heavy Industries Co. Limited, South Korea	17.3
	Mitsubishi Heavy Industries Limited, Japan	6.2
	Daewoo Shipbuilding & Heavy Machinery Limited, South Korea	5.7
	Others	53.2
	Sub-Total	82.4
Data not available		6.9
Total		100.0

Source: i-maritime

The Indian gross tonnage has a substantial amount of second and third hand tonnage vessels. The first hand tonnage consist of 53 percent of the total GRT.

Percentage of new/second hand vessels
(as on December 31, 1999)

Purchase	% of total no. of vessels	% of total GRT
First hand (New)	46	53
Second hand	15	15
Third hand or more	15	25
Data not available	24	7
Total	100	100

Source: i-maritime

Ownership pattern of Indian fleet

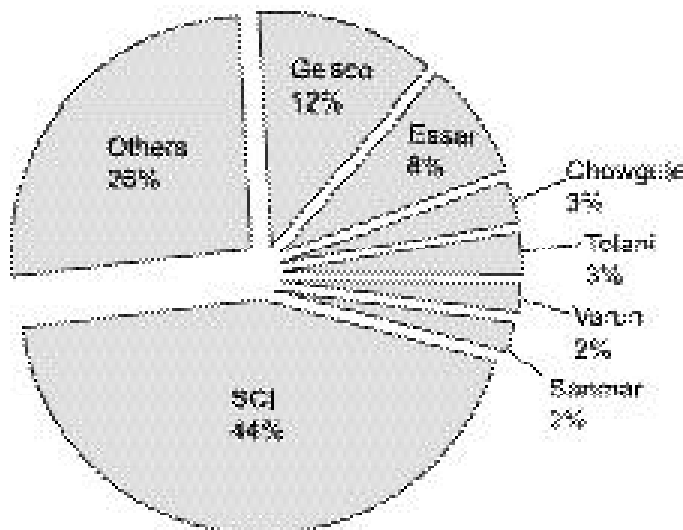
Nearly 50 percent of Indian shipping tonnage is under the command of the Government of India, chiefly through the public sector enterprise, Shipping Corporation of India. This is typical of the Indian scenario where the government plays a major role in various business sectors. Given the heavy expenditure required in the industry the government has to play a major role in developing the sector. Shipping is also of strategic importance to the country with its vast coastline and thus it is important that the country should have a substantial amount of tonnage. Shipping Corporation of India has the largest chunk, it owns 44 percent of the total Indian tonnage.

SCI is the only company with a fleet size of international standards. Some of the world's largest shipowners like Mitsui OSK, World-wide, Vela International, COSCO, Nippon Yusen etc. own fleet of above 10 million DWT- equal to the size of the entire Indian fleet. Eleven companies share over 80 percent of the total tonnage in GRT. Of this, the Shipping Corporation of India owns a total tonnage which is a little more than 3 million GRT. This distribution is in the light that there are more than 100 companies owning ships in India.

The presence of such a large number of companies with few vessels is a marked characteristic of the Indian shipping industry. This makes the revenues of the small companies susceptible to the vagaries of the shipping industry cycle. The risk of these companies is very high as their revenue sources are not diversified. The small sizes of vessels also don't help in taking advantage of the economies of scale. A major consolidation is long overdue in the Indian shipping industry. Companies whose core competence is not shipping are planning to divest their shipping divisions. L&T used to own ships, but it has sold off its division as its small number of ships were proving to be a costly affair for it to maintain. Sanmar and India Cements have substantial shipping tonnage but lately have had plans to separate and sell off their shipping division. It is now easier for the companies to outsource their

shipping requirements.

Distribution of Tonnage (GRT)



Who should transport goods by sea – shipping industry or the shipper?

This question has been raised in numerous occasions over the last few years as the model of growth and value creation changed from diversification to concentration on core competency. In the 70s and early 80s companies diversified across industries and along the value chain (forward and backward integration) in which they were operating.

Subsequently the novelty shifted, and has stayed on till date, to core competency; sticking to the business that you know best while outsourcing other activities.

In such a scenario, it is quite interesting to see Indian Oil Corporation (IOC) looking for opportunities in the shipping of crude oil and final products instead of contracting it out to the other ship owners.

The phenomenon is not very new. Most of the world's oil majors are also the largest ship owners – Esso-Mobil, BP-Amoco, Shell, Chevron and other oil majors together control around 8 -10% of the world tanker tonnage.

In India, user companies like India Cements, L&T, Sanmar Group, Gujarat Ambuja, Reliance Industries and SPIC have made forays into shipping in the past either for in-house requirements or for commercial purposes. Many of them have subsequently exited or looking for opportunities to exit as they have failed to operate successfully. In contrast, Reliance and Gujarat Ambuja have reaped benefits from their shipping operations.

Presently, companies like IOC and Rashtriya Chemicals Fertilizers are deliberating whether to acquire tonnage for carriage of raw material and finished products, required as a result of their core activities of oil refining and fertilizer production respectively. IOC had been offered a 10% stake in Shipping Corporation of India, though the proposal could not take any concrete shape. In the current project, the company is planning to tie-up with SCI, which has the largest tanker tonnage in the country.

Should the user companies enter shipping, or outsource it to the shipowners?

The question is similar to asking whether SCI should enter oil refining or just concentrate on shipping of crude oil and final produce of an oil refinery. The proposal may look strange, but forward integration has produced as many success stories as failures.

One can list a number of pros and cons while answering the original question. Advantages of sticking to the core competency, lack of understanding of key variables in shipping, inability to avail of benefits under such tax regulations like Section 33AC, etc. should deter a shipper entering into shipping.

On the other hand, possibility of having a greater control over logistics and higher certainty in decision making should encourage him to take charge of shipping.

Many of the disadvantages involved in entering shipping could be overcome to a large extent. Thus hiving off of the shipping division into a separate company would lead the subsidiary qualifying for tax exemption under Section 33AC. If the shipper's shipping requirements are large enough to involve the services of the ship full year round, for a long time period, then the shipper need not be worried about factors like profits & losses from asset play or risk of freight rate fluctuations – two factors that concern a shipowner most. Technical and personnel management of the ship could be further outsourced to shipmanagers.

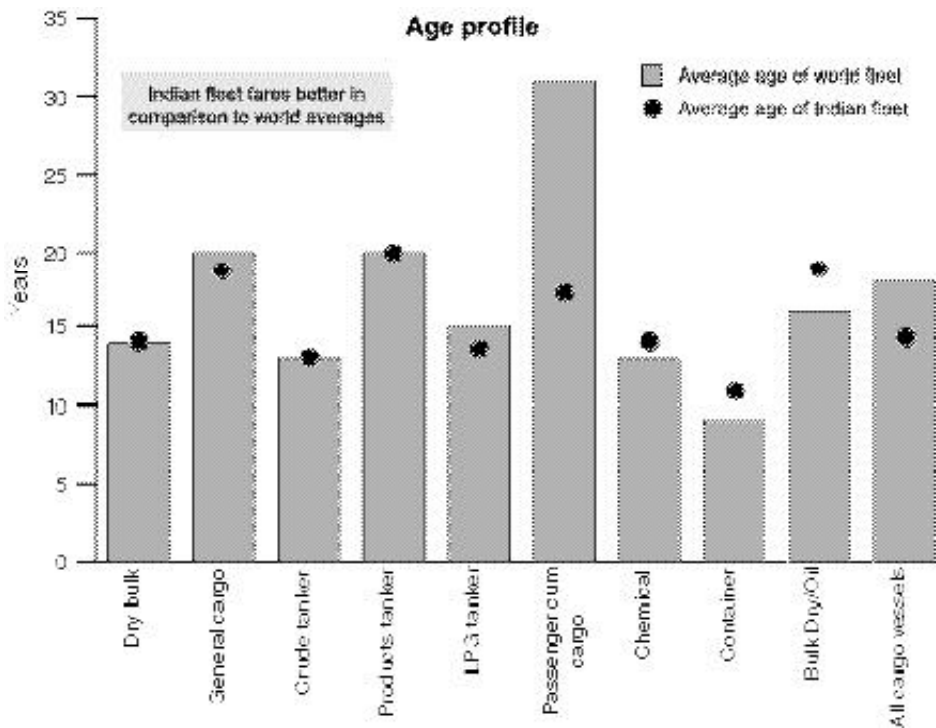
A company needs to weigh all the above factors while reaching a decision on whether to enter shipping or not. There is no standardized answer for this.

The debate on diversification and sticking to core competency apart, the situation provides an opportunity for Indian shipping to grow rapidly, fuelled by funds injected by cash-rich IOC.

This becomes increasingly relevant in a scenario where traditional avenues of finance like capital markets are difficult to access as far as shipping companies are concerned while growth in crude oil imports is rising rapidly with the commissioning of various refineries.

Source: Maritime Monitor, Issue 23 & 24, April 1-30 2000

Age profile of Indian fleet



Source: Lloyd's world fleet statistics 1998 cited in INSA annual review 1998-99

The average age of the Indian fleet is 15.5 years, much lower than the average age of world fleet which presently stands at more than 19 years.

However, the breakup of the Indian fleet into coastal and overseas reveals that the former's average age is 17.9 years and latter's 15.2 years. This still leaves little room for complacency. Certain important sub-sectors within the Indian shipping industry like overseas general cargo fleet, LPG fleet, coastal dry bulk and product tanker fleet have high average ages something that is not represented in the broad major of the average age of the Indian shipping industry. Infact nearly 30 per cent of the Indian fleet is above 20 years old and another 30 per cent are between 15 to 19 years.

Economic age of the vessels

(as on December 31, 1999)

Type of vessel	Economic age as per MoST (years)	No. of vessels above	% Gross tonnage above
Liners	25	3	5.7
Bulk carriers	25	3	2.5
Tankers	20	16	22.1
Crude carriers	20	8	24.9
Product carriers	20	8	15.8
Acid carriers	25	nil	nil
LPG carriers	30	nil	nil
Coastal cargo carrying vessels	30	9	6.5
Drill ships	25	n.a.	n.a.
OSVs	20	3	2.4

Source: i-maritime
n.a.: not available

Age profile as percentage of GRT
(as on December 31, 1999)

Type of vessels	Under 5 years	5 to 9 years	10 to 14 years	15 to 19 years	20 years and above	Average age (in years, weighted as per GRT)
Overseas						
Dry cargo Liner	-	-	2.9	22.9	74.2	20.7
Dry bulk cargo carrier	4.4	8.6	28.7	36.2	22.1	15.6
Tanker (crude oil)	5.4	45.0	2.5	22.2	24.9	13.5
Tanker (product carrier)	14.1	10.5	3.0	56.6	15.8	14.6
Passenger-cum-cargo	-	-	-	-	100.0	29.0
Cellular container	-	47.8	-	45.4	6.8	12.7
Ore Oil bulk carrier	-	-	-	22.1	77.9	21.1
Acid carrier	-	73.4	-	10.6	16.0	11.5
LPG carrier	-	29.9	-	-	70.1	19.3
Total (overseas)	5.5	22.2	12.5	32.4	27.4	15.2
Coastal						
Cargo carrying vessels:						
Dry cargo	17.1	29.6	5.6	24.2	23.5	13.2
Dry bulk cargo carrier	1.0	2.9	28.9	14.4	52.8	21.4
Tanker (crude oil)	-	-	-	100.0	-	18.5
Tanker (product carrier)	-	-	2.0	5.3	92.7	25.0
Passenger-cum-cargo	21.5	21.4	21.4	15.5	20.2	13.0
Ethylene gas	-	100.0	-	-	-	9.0
RO-RO	-	-	-	100.0	-	17.0
Total (cargo)	5.6	9.8	16.5	23.5	44.6	19.2
Non-cargo carrying vessels:						
Tug	23.2	18.6	14.8	19.8	23.5	13.5
Passenger service	-	30.6	53.7	-	15.7	10.8
Dredger	14.6	11.5	20.7	9.2	43.9	15.7
OSV's	3.0	6.5	25.2	62.0	3.3	14.5
SOSV's	0.2	-	26.9	65.1	7.8	16.5
Total (non-cargo carrying vessels)	6.6	6.7	24.1	46.1	16.6	15.4
Total (coastal)	5.9	8.8	19.0	31.0	35.3	17.9
Total (overseas & coastal)	5.5	20.9	13.1	32.3	28.2	15.5

Age and quality – are they related?

Is it always the case that an aged ship is necessarily of lower quality than a newer ship. As per opinion expressed in Concordia Maritime's Annual Report, 1998, age is a flawed principle to gauge the quality of tonnage.

In an IMO paper "IMO and the safety of bulk carriers", it is held that "...there is a clear link between accidents and the age of bulk carriers...". The main reason why age is so relevant to shipping casualties is that corrosion and general fatigue increase, as ships grow older. This is partly because of the stresses to which the ship is inevitably subjected by routine operations, cargo handling, weather and waves and partly to the effect of seawater on steel. Various statistics corroborate the above by showing a high correlation between age and accidents.

However, there are a few notable exceptions to the above rule. A well-maintained 20-year-old ship is of a much better quality than a badly maintained newer ship. Concordia Maritime prides on its fleet of well-maintained, though old ships. In India, Great Eastern is known to follow a rigorous maintenance policy. Further, the ships of 1970's were built with higher fatigue and corrosion margins. Hence the older sailing ships built in early 1970's are of better quality and reliability than those built in late 1970's because of reduced scantlings and structural margins in the latter. The third instance where a younger ship is more prone to accidents than older is ships arises as a result of change in steel used for construction of ships. The majority of ships operating today are built of mild steel.

However, since the early-1980s increasing use has been made of high-tensile (HT) steel, especially in the construction of bulk carriers. As per IMO, HT steel has been used in shipbuilding since 1907 but its recent popularity is due to the fact that plates can be thinner without losing any strength. Whereas a normal side plate will be 24-29mm thick, this can

be reduced to 20mm by using HT steel. The weight saving - which might amount to several thousand tonnes - cuts building costs and also enables the ship to carry more cargo. However, for these savings a price has to be paid. Firstly, HT steel corrodes just as quickly as mild steel. Since HT plates are thinner than those of mild steel, corrosion is likely to reach the danger point more quickly.

A second problem is that "...HTS built ships are more prone to structural problems caused by the way in which load is transmitted through the ships' structural components and the inter-dependency of the structural response...". A young HT steel-built ship is more prone to accident than older mild steel built ship.

In another research publication ("An analysis of Maritime Transportation Risk Factors" by *Harilaos N. Psarftis, et al*, of the National Technical University of Athens, Greece), it was held that it is "...almost certain that the age of a vessel influences her probability of being involved in an accident...". The researchers also found that the most accident prone age group is in fact 15-19 and beyond that age the probability of accidents reduces. Reasons cited for the same are:

- The structural and mechanical deficiencies of a ship generally surfaces by the time she reaches her 19th year of age. In the same spirit, there are good chances that, for financial reasons, problematic vessels would have to be scrapped when time is up for the fourth survey.
- The excessive use of high tensile steel for vessel construction during the early eighties also contributed to risk peaking at the 15-19 group.

IMO regulations calling for modifications of single hull crude and product tankers above 25 years age is expected to put a financial burden on shipowners and also reduce the cargo carrying capacity.

	Tanker (crude)		Tanker (product)	
	No.	GRT ('000)	No.	GRT ('000)
Already crossed 25 years as on 2000	4	206.7	4	37.6
Will cross 25 years by				
2001	4	306.3	4	67.7
2002	0	0.0	3	30.4
2003	0	0.0	1	15.0
2004	0	0.0	2	29.1
2005	0	0.0	2	36.4
2006	0	0.0	1	3.4
2007	1	7.1	6	84.3
2008	2	83.7	10	197.7
2009	0	0.0	1	13.3
2010	8	303.1	2	51.0

Source: i-maritime

As the above table shows, a substantial portion of Indian crude and products tonnage is expected to reach 25 years in near future.

Higher age of fleet has implications in form of greater operating expenses, lower charter rates, greater risks of accidents etc. Research has established a strong correlation between age and accidents. All these are expected to negatively affect Indian fleet's competitiveness.

Assessment

Indian fleet has stagnated in the past two decades after showing impressive growth in 1960s and 1970s. While the past growth was fuelled largely through government aid in form of cargo and financial support, future growth has to come entirely from market forces.

Past port infrastructural facilities, lower parcel sizes of imports and exports and lack of demand from shippers for greater cost efficiency has led to small vessels constituting a substantial portion of Indian tonnage. In the past 5-6 years, these factors have largely disappeared, being replaced by demand for larger ships. Indian shipowners have yet to effectively respond to the new market forces.

A substantial number of vessels are owned by companies with only one or two ships. We expect considerable consolidation in near future and emergence of only a few large players - a phenomenon witnessed globally in many industries like automobiles, cement, etc.

While in terms of average figures, Indian fleet is relatively younger than world fleet, a more detailed analysis reveals that a substantial portion of tonnage needs to be immediately replaced to retain existing levels of competitiveness.

Regulation of Indian shipping industry

In keeping with the strategic importance accorded to the shipping industry, the Indian government has historically on one hand, provided considerable protection to the industry through a scheme of cargo and freight support. And to bring in a measure of equity and control on the other hand, the government had also been following a practice of strictly regulating the industry through restrictive covenants in the Merchant Shipping Act, 1958 especially with regard to acquisition and disposal of ships, as well as the attendant financing mechanisms.

A corollary arising from the above is that while the industry depended upon the regulations during its nascent stages of growth, in its mature state, they proved restrictive and hampered growth. The Indian industry was stuck with a relatively old fleet and without access to sufficient funds for expansion. As a result, the share of the domestic industry in the country's foreign trade stagnated in late 80's and has never been fully exposed to international competition since.

Liberalization in the Indian economy has been accompanied by lower levels of protection for the industry especially in the tanker and bulk cargo segments. In addition, funds from existing institutional sources has been raised in line with prevailing domestic rates. As a result Indian ship owners have been exposed to higher levels of competition.

In this chapter we have discussed the Institutional and regulatory framework in which the Indian shipping industry functions.

Merchant Shipping Act, 1958 provides a basic legal framework for governing the Indian shipping industry.

Regulatory institutions

Ministry of Surface Transport

Under the Constitution of India, Merchant Shipping is a central subject and is being dealt with by the Ministry of Surface Transport (MoST) of the Government of India. The Ministry deals mainly with the larger issues relating to policy and legislation while all executive matters relating to merchant shipping are dealt with by the Directorate General of Shipping.

Directorate General of Shipping

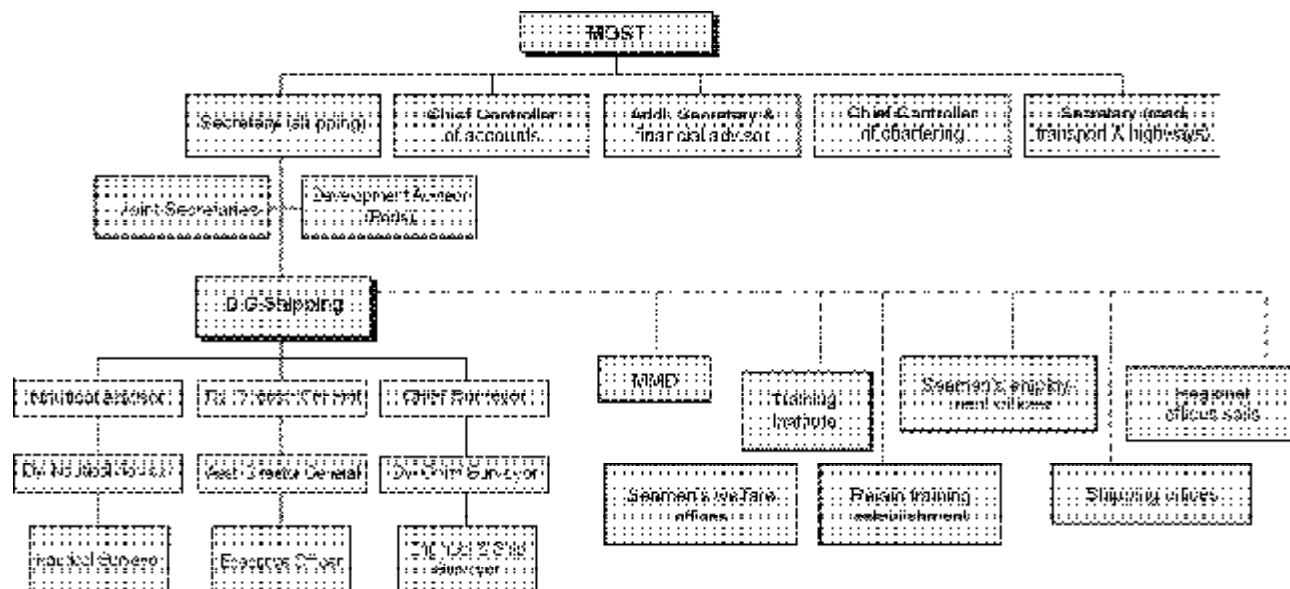
Directorate General of Shipping (DG Shipping) comes within the purview of Section 9 of the Merchant Shipping Act, 1958. It functions under MOST and is the main regulating authority of Indian Shipping Industry. However, with increasing deregulation of the industry, its role has also been diluting.

DG Shipping is responsible for issuing licenses to vessels for operating on both international and coastal routes, as well as for licensing of vessels which are chartered by Indian citizens, including vessels flying foreign flags. MS Act also empowers the body to delegate survey work of Indian ships to the Indian Register of Shipping (IRS).

The Director General of Shipping has the following allied offices and institutions under his administrative control:

- Mercantile Marine Department
- Training Institutes - T. S. Chanakya, Marine Engineering & Research Institute, Lal Bahadur Shastri College of Advance Maritime Studies and Research
- Rating Training Establishments
- Shipping Offices
- Seamen's Employment Offices
- Seamen's Welfare Offices
- Regional Offices (Sails)

Structure



* The boxes under the dotted lines are the allied offices of DG Shipping.

The DG Shipping also has under his administrative control the First Secretary (Shipping), High Commission for India in London, to keep liaison with International Maritime Organization (IMO).

The MOST is planning to restructure the DG Shipping and make it into an independent statutory or autonomous body, with powers to regulate and develop the shipping industry.

Mercantile Marine Department

The functions of MMD include survey of ships, safety measures at sea, registration of ships, shipping casualties and examinations for grant of certificates of competency to seafarers. In the discharge of their duties, the Principal Officer and the other officers are subject to the administrative control of the Directorate General of Shipping.

Mercantile Marine Department (MMD) has offices at Bombay, Calcutta and Madras. The subordinate offices at Jamnagar and Mormugao are under the Principal Officer of Bombay, at Cochin, Visakhapatnam and Tuticorin are under the Principal Officer of Madras and those at Port Blair and Haldia are under the Principal Officer of Calcutta.

Indian Register of Shipping

Indian Register of Shipping (IRS) has been authorized by the Indian government to carry out surveys such as Assignment of International Load Lines, and for the issue of Cargo Ship Safety Construction and the International Oil Prevention (OPP) certificate. While the certification of the above is mandatory, it is not a stricture on the Indian shipping companies to get their vessels classified under IRS.

The objective of IRS is to evaluate, assess and certify quality management systems in the shipping industry. Further, the organization establishes standards and formulates rules for the construction and maintenance of ships, amphibious installations, marine equipment and industrial and general engineering equipment.

IRS has classed over 700 ships since the time of its inception, with the gross registered tonnage (GRT) reaching 7.2 million tonnes. The organization has now diversified into various other activities and expanded its scope of services.

Previously the International Classification Societies including Lloyds Register of Shipping, NKK of Japan and American Bureau of Shipping could issue International Load Line certificates to Indian flag vessels. The government withdrew this permission in the mid-90's and instead has given exclusive authority to IRS to issue such certificates to Indian ships. In addition to certification, most of the Indian shipping companies get their vessels classified under Indian Register of Shipping simultaneously.

However, these ships are also classified under a foreign classification society, the reason being that several of these ships are operating in international waters; if they have to take intermediate surveys, IRS would not be able to carry these out at a foreign port. Further, IRS is still not a member of International Association of Classification Societies and hence enjoys lower acceptability. The government feels that Indian Shipowners could get IRS services at a much lower rate than those charged by foreign societies.

In any case, we believe that the government must leave the industry free to choose whichever agency it wants to for load line surveys, consistent with its commitment to liberalization and deregulation. It must intensify its effort to market its services to both Indian shippers and others and compete with other classification societies of international repute in respect of both quality and cost of service.

In order to maintain acceptable standards and provide world-wide coverage for its services, the IRS has entered into agreements of mutual cooperation with all major International Classification Societies with arrangement of survey all over the world.

National Shipping Board

National Shipping Board is a statutory body set up under the Merchant Shipping Act, 1958 to advise the central government on matters relating to Indian shipping.

The board consists of six members elected by the Parliament, four by the house of the people from amongst its members and the other two by the council of states from amongst its members. The Central Government may appoint to the board other members to represent Central Government, ship owners and seaman.

Ship Acquisition Licensing Committee

With the abolition of SDFC on April 3, 1987, the government constituted a Ship Acquisition Licensing Committee (SALC) under the chairmanship of the Secretary, MOST, with representation of various concerned ministries and agencies. This body was assigned the function of sanctioning approvals to applications for acquisition of ships, by private sector shipping companies. The acquisition proposals of the public sector SCI, were kept away from the purview of the SALC, and were to be processed directly by the MOST with the Public Investment Board (PIB) and the Cabinet Committee on Economic Affairs (CCEA). Similarly the ship financing function, which was within the domain of the SDFC, was taken over by SCICI.

SALC in effect was therefore functioning as capital goods licensing committee for ships purchased from abroad by private sector shipping companies. No separate import license was required for purchase of a ship from abroad by any company. The approval of MOST on the basis of SALC's recommendation, constituted the due authorization for the purchase.

With the budget of 1992-93, foreign exchange is no longer earmarked for ship acquisition and the shipping companies, which want to acquire ships, have to go to the open market and compete with other companies requiring foreign exchange for financing their capital imports. Prior to 1991-92, the SALC used to conduct periodical assessment of the demand of the different types of ships for carrying the national cargo. Approvals given by the SALC for acquisitions were supposed to be related to this demand and supply balance. Earlier, sale of ships which did not complete their prescribed economic life was prohibited, and chartering out required government permission. With the liberalization in respect of sale and chartering out of the Indian flag vessels, shipping has been exposed to market forces.

The situation that developed in 1991-92 necessitated a series of policy relaxation/ reforms, relating to ship purchase, sale authority of Director General of Shipping under M. S. Act, etc. Approvals, supposed to be accorded by the SALC to keep the supply demand equation, have thus lost their relevance, because ships acquired for the national fleet can freely be sold or chartered out. As per the new Export Import policy effective from April '97, certain categories of vessels have been placed under

Open General License (OGL) and no permission is required from this Ministry for import of these vessels. Now, with further liberalization only the smaller category of vessels require the approval of SALC.

Import of the smaller vessels, like passenger launches, boats, barges, tugs & pusher barges, life boats, inflatable rafts and other floating structures, are under the “restricted” list and hence require government permission. Recently, in the current year of 2000, a request has been made to MoST, in the interest of the development of coastal shipping in these specialized services sector, to place these crafts under “OGL” as in case of the other vessels like “bulk carriers, tankers”, etc.

The new shipping policy permits Indian shipping companies to charter out their vessels to foreign companies without prior approval of the Directorate General of Shipping. In case of sale of vessel to foreign parties, shipowners are allowed to retain the sale proceeds abroad (for a period of six months) and use them for fresh purchases. They can liquidate any outstanding loans from the sale proceeds without the approval of the Department of Economic Affairs. Companies now need only to submit monthly fixture reports to the Director General of Shipping.

However, no transfer or acquisition of any Indian ship is valid unless all wages and other amount due to seamen in connection with their employment on that ship have been paid in accordance with the Merchant Shipping Act, and the owner of the ship has given notice of such transfer or acquisition of the ship to D. G. Shipping.

Guidelines to be followed for import of all types of ships by shipping/ non-ship owning companies:

Import of new vessels (by way of new buildings/ construction) under OGL:

- Technical clearance and price reasonableness no longer required. Survey prior to registration by Principal Officer, MMD

Import of second-hand vessels under OGL:

- No price reasonableness for import of vessel in case the CIF value of vessels is less than Rs 1 crore.
- For vessels costing more than Rs 1 crore, price reasonableness certificate from ICICI.
- All vessels should have a minimum of 5 years of economic life remaining at the time of acquisition, economic life as deferred by MoST.
- No technical clearance for import of second hand vessels. But survey at the time of registration by Principal Officer, MMD.

Acquisition of vessels on BBCD method under OGL:

- Technical clearance not required. However, survey on arrival by the Principal Officer, MMD.
- The price reasonableness and interest margin on rental payments will be verified by ICICI. However, the price reasonableness will be required only if the value of the imported vessels on CIF basis is more than Rs 1 crore.
- Charter period should be a minimum of 5 years.
- Rental agreement will come into force after it is taken on record by the RBI.
- All conditions under ‘Import of second-hand vessel under OGL’ would also be applicable in case a second hand vessel is acquired under BBCD.

Acquisition of vessels on “restricted” list by non-ship owning companies:

- SALC will continue to consider the import of vessels by non-ship owning companies, which are still in the “restricted” list, for which permission is required from this Ministry. All the conditions mentioned under ‘Import of second-hand vessel under OGL’ would be applicable for import of these vessels.

Acquisition of vessels on “restricted” list by ship owning companies:

Acquisition of vessels on “restricted” list by ship owning companies will be considered under the automatic approval scheme subject to following conditions:

- The acquisition of ships should be in conformity with the age norms prescribed in para 2 and the second hand vessels should have a minimum of 5 years balance economic life.
- The automatic approval would be given only for special acquisition cases, i.e., where the company has identified into a mutual commitment with the owner regarding the purchase of the vessel.
- The terms of obtaining foreign exchange for purchase of the vessel would be subject to usual approval by Department of Economic Affairs.
- All the conditions under ‘Import of second-hand vessel under OGL’ would also be applicable here.

Training institutions

The maritime training institutes in India can be broadly classified as government maritime training institutes and private sector maritime training institutes.

The government marine training institutes include T. S. Chanakya at Bombay, Marine Engineering and Research Institute at Calcutta & Bombay, and Lal Bahadur Shastri College of Advanced Maritime Studies and Research at Bombay.

The first systematic maritime training education in India started with the establishment of T. S. Dufferin in 1927 by Scindia Steam Navigation Company for developing Indian seamen as Britishers had monopolized all the officers and engineers positions. In 1972, T. S. Rajendra replaced T. S. Dufferin. A shore based academy T. S. Chanakya was later set up in 1993 for providing pre-sea training to nautical cadets and this replaced T. S. Rajendra.

In 1949 the Directorate Marine Engineering Training Institute (DMET) was set up, to impart specialized training in marine engineering. For imparting post-sea training, the Lal Bahadur Shastri College of Advanced Maritime Studies and Research was established in 1949 at Bombay.

The private sector marine training institutes commenced with the establishment of T. S. Rehman at New Bombay in 1910 and GESCO Academy in 1975 and MTI for SCI in 1987. BPT-FOSMA training institute was set up in 1992.

After the Ministry of Surface Transport issued liberalized guidelines in 1997, to encourage the private sector, many new institutes were set up. Several short-term courses on sponsorship basis were started to fulfil the shortages of officers like 3-month course for deck-cadets and 6 months course for trainee marine engineers. Stricter IMO regulations calling for greater training of manpower, has provided a boost to the industry.

Now there are 8 pre-sea training institutes for deck-cadets, 37 (inclusive of workshops) pre-sea training institutes for engineers, 9 pre-sea training institutes for ratings and about 46 post sea training institutes imparting training on various STCW (Standards of Training, Certification and Watchkeeping) and modular courses.

Merchant Marine Education and Research Trust (MMERT) which provides private funds for the upgradation of marine training facilities was set up in 1992. The members of the trust constitute, Indian National Shipowners Association (INSA) representing Indian Shipowners, Maritime Association of Shipowners and Ship Agents (MASSA) representing foreign shipowners/ agents and Foreign Shipowners and Managers Association (FOSMA) representing foreign shipowners. These constituents contribute US \$ 5 per Indian rating per month and US \$ 10 per Indian officer per month to the trust. It was proposed to set up an Indian maritime university in future with the participation of private sector so as to bring all the training institutes under one umbrella.

With the maritime university not coming up, the FOSMA went ahead and set up its own training institute. Thereafter, it has been reluctant to fund the government training institutes. Recently with INSA also deciding to stop funding the MMERT, the future of the marine training institutes in India, which receive about Rs. 40 million annually from MMERT is in danger.

Terms of protection

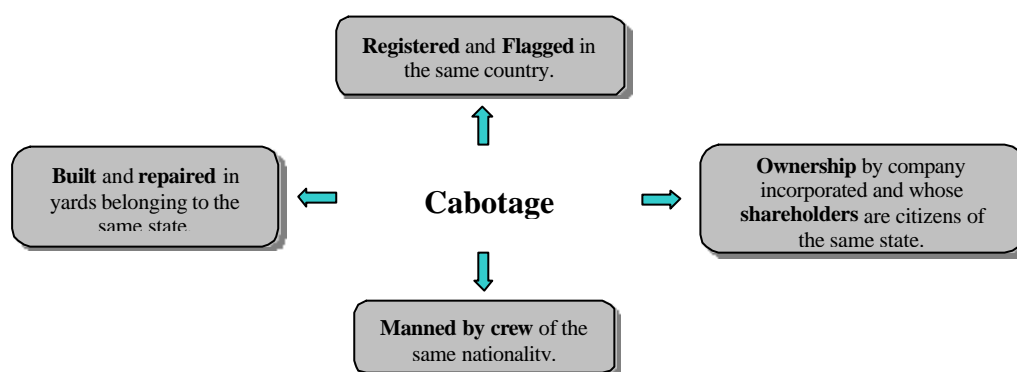
Cabotage law

Cabotage law refers to the set of rules and regulations that governs coastal shipping in a country. It refers to the practice of restraining entry to a country's coastal trade only to national ships with national crew as a matter of strategy; and in the form of exclusive reservation by the state of commercial operations between ports in that country for their own national flag vessels.

Why Cabotage laws?

The rai-son d'e-tre cited by all countries for such laws is that a well developed national fleet is critical to every nation's security interest by providing essential sealift capability in wartime. The other arguments that are presented in support of this are jobs, safety and environmental protection.

Cabotage laws are based on the 4 parameters as given in the figure below:



Additionally, these laws could place re-flagging restrictions where a vessel that had been flagged in a different registry in the past might not enjoy domestic trading privileges, as in US and Brazil, even after it is re-flagged in the domestic registry. Subsidies could be extended to the shipowners in various direct and indirect forms to encourage participation in the domestic coastal trade.

Under the cabotage law, transport of goods between two local ports by foreign ships is allowed only if suitable domestic ships are not available and special licenses are issued to such ships. This practice is prevalent in many countries. In India, it is the responsibility of the Directorate General of Shipping (DG) under the authority vested in him by Section 406 of the M.S.Act, to grant license and to ensure the law is enforced.

This policy is entirely on the lines of the Indian National Shipowners Association's (INSA) stand in the matter where, when an application is received for license for operation of a foreign flag vessel on the Indian coast as required under section 407 and section 21 of the M. S. Act, the DG of Shipping decides on it after due enquiry and determination whether suitable Indian owned ship is available for the purpose. Where a suitable Indian ship is available, no permission or license is granted.

For Container / LASH ships, partial relaxation of cabotage regulations had been granted by the government in respect of operation of foreign flag vessels between Indian ports for a period of 5 years. This has been the point of contention with INSA.

Cabotage laws - the issues in Indian context:

- How stringent are Indian cabotage laws vis-à-vis other countries?
- Should BBCD vessels be allowed domestic trade privileges?
- How much do the cabotage law cost to the shippers in terms of higher costs?
- Cabotage laws and dredging.

Indian cabotage laws vis-à-vis other countries

Cabotage laws in India are governed by section 407 and 408 of Merchant Shipping Act, 1958. These regulations place restrictions on vessel flag and crew. While ownership restrictions were there till a few months back, recent foreign investment promotion policy by the government permits 74% foreign direct investment in the shipping sector under the automatic approval route and even 100% on a case to case basis has led to the annulment of this clause.

No restrictions are placed on place of built of the vessels, in contrast to the cabotage laws in some countries as USA, where only vessels built in US yards are eligible for domestic trade. US-built vessel that is rebuilt overseas also loses its domestic trading privileges.

However, implementation of these laws are alleged to be lackadaisical. The S. N. Kakar Committee on Draft Coastal Shipping Act has observed that "...deployment of foreign vessels in our coasting trade is a regular occurrence and some quarters have alleged that this is taking place even when adequate number of Indian ships are available. This is perceived to deprive Indian vessels of the opportunities of rightful participation in the coastal operations..." Indian National Shipowners Association has also held similar views.

International comparison highlights that cabotage laws in India are in fact not very stringent compared to such countries as USA, Brazil, Greece and Japan. The comparisons made are given in the table below:

Cabotage laws in various countries

	India	USA	Japan	Greece	Brazil	UK	Norway	China	France
Cabotage	yes	yes	yes	yes	yes	some	some	yes	yes
Crewing requirements	yes	yes	yes	yes	yes	yes	no	yes	yes
Ownership requirements	yes	yes	yes	yes	yes	no	yes	yes	yes
Domestic construction provision	no	yes	no	no	yes	no	no	no	no
Re-flagging restrictions	na	yes	yes	na	yes	no	na	yes	na
Fleet subsidies	no	no	yes	no	yes	yes (indirect)	yes	yes (indirect)	yes

Source: Maritime Cabotage Task Force (MCTF). United States

BBCD vessels and domestic coastal trade

The cabotage laws in India are presently ambiguous with a large number of grey areas. The recent controversy relating to domestic trading provisions for Bare Boat Charter cum Demise (BBCD) vessels highlighted this. The BBCD scheme was launched in the wake of the balance of payments crisis, primarily to reduce the foreign exchange outgo in outright acquisition of ships and also to help domestic shipping companies acquire vessels through an easier method of financing. From the nation's perspective, this method was invaluable in achieving the twin objectives of tonnage enhancement and lower foreign exchange outgo during the foreign exchange crisis in early 90s; since exchange outgo instead of being outright, is through multiple installments spread over a period of time.

Certain development has made the sailing rough for BBCD vessels. First, the government allowed foreign direct investment of upto 51% under the automatic route in the shipping sector, which was later increased to 74 % and even 100% on a case to case basis. Subsequently, a few foreign companies established operations in India and purchased vessels under the BBCD route, taking advantage of the clause that allowed such vessels to be treated at par with Indian flag vessels for all purposes including preferences in the shipment of government cargo and cabotage cargo on the Indian coast even when the vessel is not flagged in India.

The matter came to a boil in 1999 when Indian Oil Corporation (IOC) invited tenders from domestic shipping companies for transporting petroleum products along the Indian coast. Also, invitation of offers was made by IOC to companies like Amar

Shipping and Pratibha Shipping, whose fleet mostly comprises ships acquired under the BBCD route, whose majority shareholding is held outside India, and which was opposed by domestic shipowners.

The point of contention - should BBCD vessels be allowed domestic trade?

It is in the negative, as far as the recent decision by the Ministry of Surface Transport is concerned. The arguments against BBCD vessels were that they being foreign flagged, do not have to satisfy the stringent norms under the Indian flag. As a result they were in a position to quote a more competitive rate than the Indian-flagged vessels. As a compromise with MOST, Pratibha Shipping would convert all its vessels into Indian flag to qualify for coastal shipping.

The National Shipping Policy Committee, after going into the grey areas, has recommended that BBCD vessels in companies where the foreign shareholding is more than 51% should not be eligible for cabotage. This recommendation, however, has become irrelevant now in the light of the fact that 100% FDI has been allowed into the shipping sector on a case-to-case basis under the automatic route.

Has cabotage laws led to complacency on the part of the Indian shipowners and hence deployment of BBCD vessels would provide the much needed competition to rejuvenate the sector? Indian coastal fleet has stagnated at 0.7 million tons GRT over the last one decade. The average age of the Indian fleet is almost 20 years. The sector is unable to compete with railways and roads despite having a large number of inherent advantages.

Two years back, Tamil Nadu government owned Poompohar Shipping Corporation responsible for transportation of coal for power plants under Tamil Nadu Electricity Board, filed a request with DG of Shipping for hiring of foreign vessels alleging that Indian shipping lines act in unison and thus do not provide a 'free competition' environment. Further, vessels are unable to meet the target discharge rates and thus operate below desired efficiency level.

Higher costs to the shippers

A study done in 1991 by US International Trade Commission found that cabotage laws in US cost the consumers around us \$3 billion in the form of higher prices. Coastal trade in India is to the extent of around 45 million tons and thus shipping costs incurred are upward of US\$ 600 million. Certain sections of the market feel that this cost could be reduced by atleast US\$ 50 million.

Efficiency gains in ocean freight would have multiplier effects on the economy as a whole. However, supporters of cabotage law point that savings are possible only at the expense of the sacrifice of national security and greater environmental risks. Tax on profits earned by the domestic shipowners goes to the government of India while in the case of hiring of foreign vessels, tax income for the government is forfeited.

Presently, vessels in coastal trade are regulated under Merchant Shipping Act, 1958 and subjected to same rules and regulations like overseas vessels. The Kakar Committee on Coastal Shipping has recommended the relaxation of several of these norms in certain areas like manning, survey, etc. to reduce operating costs on running such vessels. The committee has also recommended the removal of customs duty on stores, spares and bunker. Implementations of such recommendations could lead to rectification of present problem of higher costs to shippers even while only domestic ships are allowed to ply.

Dredging industry

Dredging industry also comes under the preview of cabotage laws. Removal of various restrictions on employment of foreign dredgers in India in 1992 has led to large multinationals like HAM, Boskali, Great Lakes, etc. setting up operations in India. Foreign dredging companies handle around 30% of the total dredging of 55 million cubic meters carried out in major ports in India.

It has been brought to notice that dredging operations can be carried out only by Indian registered dredgers having the necessary license issued under Section 406 of the M. S. Act and only in the event of a suitable Indian dredger not being available can a foreign dredger be employed. There are still a lot of loopholes in the dredging industry that needs to be plugged.

Cabotage laws have always been highly controversial in any country. Recent modification attempts in United States have faced severe opposition. In India, there are numerous grey areas in the cabotage laws, which the Ministry of Surface

Transport can not turn a blind eye to. Cabotage laws will always remain a point of contention for our nation and any amount of prodding on its behalf will not help solve the issue surrounding this controversy. The government needs to put in the maximum efforts in clearing all the issues regarding the cabotage laws so as to help it gain the purpose, which it sets out to achieve.

Transchart

Transchart is a centralized chartering organization, set up in 1958, as an affiliate to the Ministry of Surface Transport (MoST) and headed by a Chief Controller of Chartering. The shipping requirements of public sector undertakings (PSUs) are routed through this body. The main objective behind the formation of Transchart was to conserve foreign exchange and to provide cargo support to Indian shipping companies so as to boost the growth.

The general procedure of operation is that the shipping contracts are first offered to Indian shipping companies. In the absence of suitable Indian tonnage, or in case of refusal by Indian shipowners, suitable foreign tonnage is sought through a network of around 50 registered brokers. To be on the panel, brokers have to meet a certain minimum criteria issued by Transchart. While chartering vessels, Transchart generally looks into the reputation and credibility of the shipowner/ ship manager along with the various criteria of age, flag, classification, insurance and special survey position of the vessel.

Total cargo handled by Transchart today is quite low at only around 22 million tonnes, a growth of 70% over levels in 1980 which was around 13 million tonnes. In the same period, India's overseas trade has grown from around 70 million tonnes to more than 210 million tonnes - a growth of nearly 200%. Thus Transchart's share in total overseas cargo has fallen from around 18% to 10%. In the financial year 1999, cargo handled by the body fell further to 16 million tonnes leading to a fall in share to less than 8%.

Transchart handles all cargoes imported or exported by the government agencies. In the cargo arrangements made by Transchart, Indian flag vessels are always preferred. However total cargo handled by Transchart is quite low at only around 8.8 million tonnes, almost equivalent to the cargo handled in 1980, even though the country's sea-borne trade has risen from 5.7 million tonnes in 1980 to 10.8 million tonnes in 1999.

The following reasons can be attributed to the fall in share of Transchart over the past two decades:

- **Rise of the private sector with the liberalization process that started in mid 80's and gathered momentum in 1991.** Today a greater portion of India's trade can be attributed to private sector companies whose shipping requirements are not routed through Transchart.
- **The objective of conservation of foreign exchange is no longer relevant today.**
- **It is observed that public sector units are increasingly contracting import shipments on the c.i.f. basis and exports on f.o.b. basis** because of the apparent advantages of c.i.f. contracts. Firstly, c.i.f. contracts are perceived to be cheaper than what Transchart negotiates at. Further, under c.i.f. the supplier is responsible for the safe delivery of cargo.

The composition of cargo handled by Transchart has also changed. In 1990, nearly 18% of cargo handled included liner-cargo while in 1999 it is almost negligible. It should be noted that the shipping charges in case of general cargo are much higher than dry bulk. Thus, even while cargo handled by Transchart has stagnated in volume terms, we believe there has also been a significant decline in value terms.

It should be noted that since vessel chartering through Transchart restricts the level of competition, the negotiated freight rates (or price of shipping services) are not optimized. This puts PSU's at a disadvantage vis-à-vis the private sector players operating in the same industry.

The share of domestic shipping vessels in cargo handled by the chartering wing of the Ministry of Surface Transport has overall shown a rising trend over the last 2 decades. However, in terms of volume of cargo, there has been a stagnation as has been mentioned before.

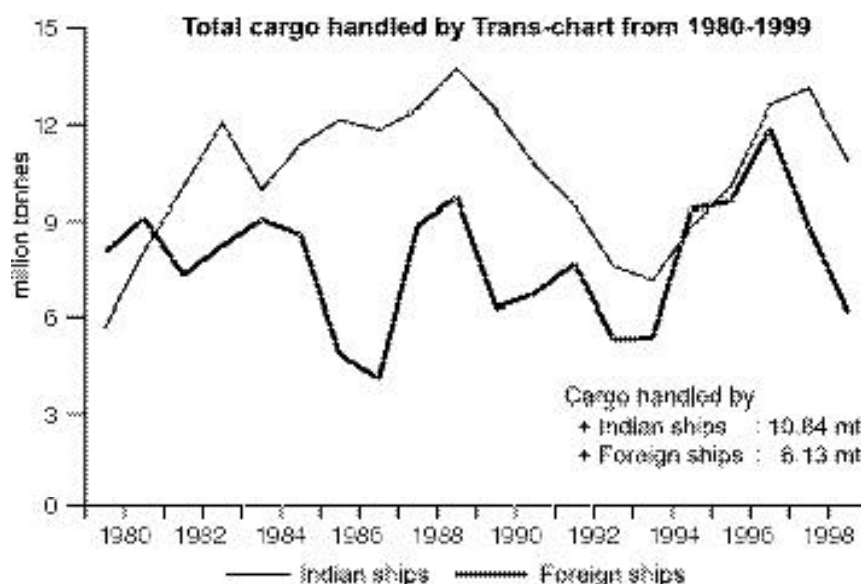
Total cargo handled by Indian and foreign ships 1980-1999

(million tonnes)

	Liner cargo			Bulk cargoes (dry + liquid)			Grand total			% share of Indian ships
	Indian ships	Foreign ships	Total	Indian ships	Foreign ships	Total	Indian ships	Foreign ships	Total	
1980	0.90	0.47	1.37	4.77	7.54	12.31	5.67	8.01	13.68	41.5
1985	1.98	1.59	3.57	9.39	6.98	16.37	11.37	8.57	19.94	57.0
1990	1.98	1.15	3.13	10.42	5.12	15.54	12.40	6.27	18.67	66.4
1995	0.23	0.02	0.26	8.58	9.32	17.90	8.81	9.35	18.16	48.5
1996	0.20	0.03	0.23	9.83	9.53	19.35	10.03	9.56	19.58	51.2
1997	0.30	0.02	0.32	12.27	11.86	24.13	12.57	11.88	24.45	51.4
1998	0.16	0.04	0.20	12.93	8.75	21.68	13.09	8.79	21.88	59.8
1999	0.36	0.04	0.40	10.45	6.08	16.53	10.84	6.13	16.97	63.9

Source: Transchart & INSA

The following graph shows the share of Indian and foreign shipowners in handling of cargo routed through Transchart over the last two decades.



In the next 2-3 years, cargo handled by Transchart is expected to rise as the body has been vested with the responsibility of making shipping arrangements for crude imports. Previously Shipping Corporation of India, which acted as a nodal agency, made such arrangements.

However, with the complete dismantling of Administered Pricing Mechanism in 2002, the role of Transchart is expected to further decline. Government's disinvestment policy is also expected to reduce the role of Transchart. In the current financial year, the government has targeted to complete the disinvestment process in 33 PSUs.

How successful has transchart been in aiding in the growth of Indian shipping industry?

Although there has been no empirical research on this, market participants point out that cargo routed through transchart has not been large enough to induce Indian shipowners to acquire tonnage. They also feel that the reason behind transchart's downfall is due to the fact that the Indian shipping companies themselves are constantly overlooking the norms and guidelines stated in the legal framework. This has been further accentuated by future uncertainty of role of Transchart.

However, one needs to consider the following points before completely disparaging the role played by Transchart:

- More than a quarter of total cargo handled by Indian shipowners has been routed through transchart
- More than 50% of the dry bulk cargo handled by Indian shipping companies, has been routed through the body

Tax provisions governing the industry

Tax concessions

Section 33-AC of IT Act: The government has provided deductions of tax on profits of shipping companies that are appropriated into a special reserve, earmarked for the acquisition of new vessels. Shipping companies can reserve part of their profit (up to twice the paid-up capital) in a special deposit and avail 100 per cent tax deduction. The special deposit can be utilized to buy new ships in a span of 5 years, which has come down from the earlier available 8 years.

Enacted in 1989 and brought into effect from 1st April 1990, Section 33-AC of the Income Tax Act was aimed at giving incentives to the shipping companies to acquire new tonnage. Subsequently, with effect from 1st April 1996, the section was diluted so that no more than 50 percent of the shipping income (in contrast to the total income before) could be deducted from the taxable income. However, in the recent budget, government reverted back to the Act in its original form. This will be effective from April 1st, 2001 and the deduction can be availed from the assessment year 2001-02. This benefit is still not available for multi-activity companies and Private Limited companies.

Over the last few years, many shipping companies have enjoyed the protective umbrella of Section 33 AC of the Income Tax Act. Since the quantum of tax savings was directly linked to the paid up equity, shipping companies were at an advantage to raise their paid-up equity capital. During this period, Great Eastern had two rights issues (at par), a Global Depository Receipt issue (GDR), allotment of shares to International Finance Corporation (IFC) and merger with a subsidiary company GAL offshore. The above issues raised the equity capital of the company by around Rs. 2050 millions. In case of Essar Shipping, between 1991-92 to 1999-2000, the paid up capital of the company has increased by more than Rs. 1,000 million.

There are, however, many issues relating to Section 33 AC:

- Why should the reserves not be considered as equivalent to equity while calculating the upper cap on the ship acquisition reserve?
- Is the time limit of 5 years fixed for ship acquisition ideal for shipping industry considering its cyclicity?
- Why should shipping income of non-shipping companies not get the benefit of Section 33-AC?

Reserves should be considered equivalent to equity

Currently any reserve capitalized would not be considered for calculating the upper limit of the ship acquisition reserve. Again the rationale behind this is not very clear. Reserves belong to the shareholders and are a sort of an investment by them in the company. By deciding not to take out the reserves as dividend, the shareholders actually invest in the company. In this light the reserves should also be considered equivalent to the paid up capital of the company. Any revenue ploughed back into the company should be good for the business and should be encouraged.

The result of reserves not being part of equity is that companies are forced to pay dividends and then the share holders invest in fresh equity to increase the paid up capital of the company. This is an inefficient method as in the process the company has to pay 10 % dividend tax. It has been accepted worldwide that internally generated funds are the cheapest and most efficient source of finance.

Another implication of this restriction is that companies will be forced to dilute their equity in order to increase their paid up capital.

Is the 5 years time period ideal?

The 5 years time limit, reduced from the previous limit of 8 years, given for new acquisition is not ideal for shipping industry considering its cyclical nature. Companies claim that by the time they have accumulated enough in the ship acquisition

reserve to buy a ship, the prices would have gone up and in order to save tax they would be forced to acquire tonnage at astronomical prices.

The fact is that nobody can really predict the cyclicity of the shipping industry accurately hence even if the time limit is increased companies might face the same problem. In practice companies do prolong the life of the ship acquisition reserve as explained above and hence can avoid acquiring tonnage when prices are high.

The timing of asset acquisition is critical to the success of any shipping venture. Companies like Great Eastern have been able to provide higher than average returns largely because of following such a strategy. This particular provision of Section 33-AC would force companies to acquire vessels in inopportune periods, which in turn might lead to results that are quite contrary to the objectives of the Section.

Many non-shipping companies like Indian Cements Limited (planning to hive off its shipping division to a separate company), L&T (the company recently sold off its ships), Reliance Industries, SPIC, Gujarat Ambuja etc. have their own shipping fleet which is quite sizeable. The ships are used for in-house purposes, but could also be hired to other companies.

The rationale of not allowing non-shipping companies to avail benefits of Section 33-AC seems unjustified. Offcourse, since the vessels are used for in house purposes the actual income and hence profits from the shipping division is difficult to gauge. This, along with the recent legislative proceedings paving way for demergers, should see a lot of non-shipping companies hiving off their shipping divisions into separate companies. ICL has already declared its intentions of doing so, and we expect more companies to follow suit.

The very objectives behind Section 33-AC of the Income Tax Act have to be questioned and it is to be seen whether those objectives are being fulfilled. We believe that various issues within the Act need to be reassessed and changes made, so as to enable achievement of the objective of encouraging various companies to acquire vessels.

Minimum Alternate Tax (MAT)

A company's profit and loss account is prepared as per the provisions of the Companies Act, 1956. However, for tax purposes, the income of the company is calculated as per provisions of the Income Tax Act. There were lot of cases whereby companies had profits but were not paying any tax, because income computed, as per tax rules was either nil or insignificant. So, although the companies were showing book profits and declaring dividends to the shareholders, they were not paying any income tax. In order to bring such companies under the income tax net, Minimum Alternate Tax or MAT, as it is popularly known was introduced.

According to MAT, a company is required to pay tax of either 7.5 percent on book profits or the actual tax calculated as per IT rules whichever is higher. In other words, a minimum tax of 7.5 percent has to be paid by the company.

Minimum Alternate Tax (MAT) has been reduced in the recent budgetary provisions. It has been brought down to 7.5 percent on total book profits from the existing 10.5 percent. Earlier, the method of calculation was also different. If the taxable income of a company computed under the IT Act was less than 30 percent of its book profits, the total income chargeable to tax would be an amount equal to 30 percent of such book profits. Minimum Alternate Tax (MAT) has to be paid irrespective of company allocating all the profit to special reserve for getting deduction under Section 33 AC of Income-Tax Act.

Even though Minimum Alternate Tax (MAT) has been reduced to 7.5 percent of book profit, it is still higher in relation to the "zero" tax regimes in many other maritime countries. The major concern of the shipping industry is that it should be provided a level playing field with foreign competitors such as shipping lines from U.K. where tax on shipping profits is as low as 1.5 percent. This is extremely low when compared to much higher taxes paid by the Indian shipping companies.

Tonnage tax

Tonnage tax or more accurately a 'tonnage-based corporation tax' is a system that charges taxes on the basis of tonnage under control rather than actual profits earned. Since tonnage tax is independent of actual book profits made by the company and is instead dependent on tonnage under control, the company might end up paying taxes even during periods of losses.

Tonnage tax is expected to give certainty to ship owners that a major liability will not arise in the future which is the case in present regime where tax liability accrues if reserves under Sec 33-AC are not used within 5 years. It will give companies greater flexibility in planning and financing their capital expenditure. They will also not be restricted by the need to defer tax.

Tonnage tax is prevalent in some of the European countries such as Britain, Netherlands, Norway as well as South Korea. In Britain, corporations have the option of either continuing with the present regime or joining the new system (tonnage tax) for a minimum period of 10 years. Indian shipowners have also been asking for the introduction of the concept in India with an annual tonnage tax in the region of Rs. 5 per net registered tonnage (similar to Singapore). Assuming a net registered tonnage of around 7 million tonnes, the total annual tax outgo for the shipping industry would be in the region of Rs. 35 million only against the around Rs. 1,100 million tax outgo in the financial year 1998-99. This implies availability of extra funds of around Rs. 1,000 million or around US \$20 million for ship acquisition. In a capital-intensive industry like shipping, this quantum of funds is not expected to make any palpable difference, forget revival of the industry.

While tonnage tax cannot harbinger the revival of the industry, it will increase the competitiveness of Indian shipping lines operating under stricter and costlier regulations to compete with Flag of convenience vessels. The net tax outgo as a result, would reduce by shifting from the present regime governed under Section 33-AC and Minimum Alternate Tax. However, to usher a boom in the industry, to replicate the golden years of 1970s much more than the introduction of tonnage tax is required.

Alternatively, participants in the shipping sector have been asking for the grant of infrastructure status, which would lead to the grant of substantial fiscal and non-fiscal benefits. The National Shipping Policy Committee 1997 has recommended that coastal shipping should be recognized as an infrastructural component along the lines of power, ports and roads, based on the lines that it is an important part of the transport infrastructure and is required for the smooth development of domestic industry and trade. The following benefits will accrue to the shipping industry if it is accorded infrastructure status:

- Exemption from MAT,
- Five-year tax holidays on each vessel acquisition,
- Enhancement of depreciation rate for ships from 20 percent to 40 percent,
- Income tax exemption for Indian seafarers on Indian ships irrespective of the period and area of the ship's operation,
- Access to lower cost debt funds by issue of tax free securities,
- Access to the resources of Infrastructure Development Finance Corporation, etc

Tax relief for merchant navy personnel

To check the outflow and drift of the trained merchant navy personnel for foreign flag employment, an increase in the wage level was given to these personnel by the shipping industry with effect from April 1, 1998. Wage bills work out to be 35 to 40 percent of the total operational cost of shipping lines. The drift has however not abated and Indian merchant navy personnel continue to seek employment in foreign flag vessels. High tax implications for working in Indian Ships is one of the reasons.

Indian ship owners have been asking for amendments to income tax laws in order to retain Indian seafarers. Indian seafarers employed by foreign vessels enjoying NRI status are exempt from payment of income tax. Income tax rules state that for any Indian seafarer who spends 183 days or more at sea (whether inside the territorial waters of India or outside), on a *foreign-owned vessel*, the dollar income earned by him is tax-free.

At the same time, Indian seamen employed on *Indian ships* are subject to income tax. To qualify for tax exemption, seafarers on *foreign-going Indian vessels* have to spend at least 183 days outside the territorial waters of India. As per this rule, not even half of the seamen currently employed on Indian ships are eligible for NRI benefits. Whereas, Indian seafarers employed on a foreign ship even when it is trading in Indian waters, pay no taxes.

If an Indian seafarer is able to spend more than 183 days outside India's territorial waters on an Indian ship for two consecutive years, he acquires a 'Resident but Not Ordinarily Resident' (NOR) status. This NOR status is available for the next seven years irrespective of the fact whether he spends 183 days or not in foreign waters. During these years, any income earned from a foreign source, in foreign currency, is tax-free. However, if it is from an Indian source, then it is taxable.

As the tax element widens the wage disparity between the Indian seafarers on foreign ships and those employed on Indian ships, more and more seafarers are leaving for lucrative foreign jobs creating manpower shortage in the Indian companies. Ship owners are seeking tax exemption for those employed on Indian ships, on par with those on foreign vessels. As per various estimates, if full tax exemption is given, the loss of revenue to the exchequer will be around Rs. 300 to 350 million.

Assessment

Two consequences emerge after the recent changes have been effected in the institutional and regulatory framework governing Indian shipping industry:

- 1. Greater freedom to Indian companies in such decision are shipbuilding, ship acquisition or sale, chartering, etc.**
- 2. Lower government support - both cargo and financial and hence greater role of market forces in shaping the contours of Indian shipping industry.**

Shipping finance in India

Shipping is a capital-intensive industry. Vessels constitute almost 90 percent of the fixed assets (net block + capital work in progress) of a typical shipping company. A LNG carrier costs around USD 250 million, a double-hulled VLCC costs around USD 90 million, a Handysize chemical ship is around USD 70 million, etc. In such a scenario, a ship-owner or a potential ship-owner wishing to acquire a vessel finds considerable gap in his personal funds availability and additional funds requirement.

Shipping finance has to a large extent remained a specialist sector on account of a number of unique characteristics associated with the shipping industry. Some of the characteristics are volatile markets, international service, mobile assets, etc. Despite the intricacies involved in shipping finance, sophisticated financial instruments are conspicuous by their absence. In contrast, asset-based financing in industries with similar profile like Airways have had highly sophisticated instruments to match prevalent risk-return structure. Internationally, term lending backed by security in the form of collateral and mortgage has been the most prevalent form of financial assistance given to shipping companies.

Banks and financial institutions have been the main source of debt finance for shipping companies. The type of finance that the industry can avail is broadly divided into two types - fund based finance and non-fund based finance. Term loan and working capital credits come under fund-based finance. Under non-fund based finance, funds are not actually employed, but a liability is created on the lenders to make payment in case of a default. Letter of Credit, bills discounting and guarantees constitute such facility.

Globally, a few banks like Christiana Bank, ABN Amro, Citibank etc have specialized in providing finance to the shipping industry. As per various estimates, around 200 banks are presently active in this industry worldwide.

Additionally, governments have also provided substantial financial support to respective industries either in direct or indirect forms. Growth of maritime industries, especially shipping, in such countries like Japan and Korea can be attributed to this.

Past scenario

In India, the government has played a major role in development of the domestic shipping industry. Recognizing the importance of shipping sector, a scheme for the grant of loans to shipping companies in India was instituted in 1951 and was continued on an ad hoc basis till 1958. In 1958 a statutory fund called the Shipping Development Fund was established to provide assistance to the shipping industry as a long-term measure of assistance. The loans granted from the Shipping Development Fund carried a concessional rate of interest of 3 percent per annum during 1959-1971 later increased to 4.5 percent during 1971-1982 and subsequently to 7.5 percent. A Committee known as the Shipping Development Fund Committee (SDFC) administered the Shipping Development Fund.

Additionally, other norms like debt-equity rates and promoter's equity contribution were relaxed to a large extent. Finance was granted to the extent of 90 percent of price of a foreign-built new ship or 75 percent of the price of a second-hand ship. Such liberal funding led to massive tonnage acquisition; fulfilling the objective behind setting up of SDFC. Between 1970 and 1977, a total tonnage of nearly 3 million grt was added to the national fleet.

However, highly leveraged asset acquisition led to problems for many companies in meeting principal and interest obligations, a problem accentuated by the depression following the oil price hikes in 1974.

Apart from SDFC, banks in India were also providing loan assistance for shipping. Loans were in the form of syndicated bank lending and were for medium and long-term periods. Euro-currency loans for acquisition of ships especially second hand ships assumed an increasingly important role in the 1970's. Assistance was also provided by way of shipbuilders' credits.

A number of shipping companies went into bankruptcies or became casualties in the shipping depression, which hit India from 1976 to 1986. They defaulted in the payment of their installments towards repayment of loans and interest to SDFC. SDFC had also stood as a guarantor for numerous loans and credits given by the banks and foreign shipyards. In some cases of default of their borrowers, SDFC was required as guarantor to make payment to these creditors. By April 3, 1987, when it was finally wound up, SDFC had provided loans to the extent of Rs. 14.52 billion and paid another Rs. 567 million under guarantees and counter-guarantees.

Subsequently, Shipping Credit and Investment Company of India (SCICI) was established to provide financial assistance to the shipping and deep sea fishing industries in India. ICICI, the main promoter of SCICI, subscribed to 20 percent of the issued

capital of the company. Industrial Development Bank of India, Industrial Finance Corporation of India, Unit Trust of India, Life Insurance Corporation of India, General Insurance Corporation of India and its subsidiaries, State Bank of India and four commercial banks joined ICICI in the promotion of SCICI.

The initial tasks required of SCICI were to implement a rehabilitation package for the sick shipping companies which could be restored back to health, to recover the loans which were due to SDFC and to provide developmental financing to the shipping sector.

Set up as a developmental finance institution for shipping finance, SCICI started giving loans at market rates, except in the initial years when the loans were marginally subsidized. By 1989, SCICI's portfolio had also begun to diversify. It became more or less like a regular banking institution, with its activities no longer limited to shipping. As a banking institution, however, SCICI was influential in advising shipping companies on management and the international environment.

As the Indian fleet grew, SCICI disbursements started declining. By 1996, SCICI disbursement to shipping was down to 19.3 percent. Subsequently SCICI was merged with ICICI and today there is no financial institution dedicated to this sector. The government has also stopped providing concessional finance.

Present scenario

Equity markets

Equity markets basically consists of equity capital markets, venture capital, private equity funds etc. Equity funding in shipping markets is more popular in case of high-risk projects where vessel acquisition is not backed by a firm contract for deployment or where vessels are acquired for asset play. In India, equity route by shipping companies was adopted mainly since 1980's for various factors like phasing of subsidized funding by Shipping Development Fund Committee (SDFC), ease of norms for tapping the equity market and ship owners becoming increasingly aware of the pitfalls of a high leveraged capital structure.

Indian shipping companies have a miniscule market capitalization vis-à-vis the market capitalization of the Indian stock market. Market capitalization of the largest public sector company namely Shipping Corporation of India (SCI) is around US \$120, whereas that of Great Eastern Shipping, the largest private sector is US \$ 150. Currently, we have around 8 shipping companies listed with the stock exchange; scrip's of whose are trading at discounted prices. For instance scrip of Shipping Corporation of India is trading at a discount of 70% to book value and around 80% to net asset value.

Debt markets

Very few of the Indian banks and financial institutions have the necessary expertise or infrastructure to appraise shipping projects. Some of the exceptions are ICICI and State Bank of India who have dedicated shipping divisions. Most other commercial banks show considerable skepticism in taking up exposure in shipping, as the industry through out the ages has been considered highly risky and prone to innumerable dangers, a ship sails in the high seas out of the protective policies and regulation of the domestic government. In comparison to an immovable property, a factory, for instance, physical viewing and monitoring of the vessel is difficult. Additionally the sector is cyclical in nature.

Institutions that are willing to take up shipping proposals in India can be broadly divided into the following six groups:

Financial institutions – As development financial institutions these organizations have wide-ranging project appraisal skills and expertise. Merger of SCICI led to the creation of the marine division within ICICI in April 1997 to cater exclusively to the financing and development needs of corporates engaged in shipping, ship building, ship repairs, aquaculture, deep sea fishing and other marine related activities. However, sanctions and disbursements by ICICI for ship acquisition and related areas have been negligible in the past three years. Despite this, SCICI and now ICICI has been the single largest ship financier in the private sector having funded almost 70 percent of the total tonnage acquired by the private sector. Others like IDBI and ILFS also have sizeable exposure to the shipping sector. However IFCI, IIBI and IDFC have very limited exposure to the shipping segment.

Venture Financing in Shipping

Venture financing is increasingly becoming a dominant mode of funding for the new knowledge based businesses. Venture funding in a theoretical sense is used to fund innovative ideas which are not proven and where capital could be at considerable risk. A lender is always averse to risk as he looks for financial safety and therefore is unwilling to provide debt financing for such a business proposition. A venture financier on one hand tries to understand the risks involved in an investment proposition and on the other hand evaluates the potential benefits that may accrue if the idea becomes successful. Venture capitalist is willing to wait for a few years before the entrepreneur's idea fructifies.

In reality, it is very difficult to judge which ideas would become successful in future. The business success or failure could be a function of multiple variables, many of which like the rapidly changing technological environment, competition with better products and services or substitutes may not be in direct control of the entrepreneur. Therefore a VC prefers to invest in good management teams and in many ideas. Even if few of these ideas become successful, he expects to generate handsome returns on his overall capital invested. Shipping by its volatility and cyclical nature is expected to be more riskier than others industries. Is it than more attractive to the venture capitalists?

Not really! Unless there is innovation with considerable growth potential. Just because an investment is riskier does not guarantee large returns for the venture capitalists. Most of the current venture capital is being invested in high technology related areas like information technology, Internet and biotechnology etc. Shipping being a traditional industry does not fall into the category of high technology.

Therefore, can we conclude that shipping is unlikely to get any venture capital?

The above reasoning is not true. Any business activity is organized around three basic requirements: firstly application of physical assets, secondly utilization of human resources and thirdly knowledge of systems and business processes. Due to the rapidly evolving business environment arising out of technological innovations, all the above three components of the business activity are fast changing.

Further, firms are concentrating on either one or two requirements rather than concentrating in all the three as stated above. Shipowners concentrate on acquiring ships and the responsibility of operations and manning is given to independent professional ship managers. Shipping industry is also currently changing its business practices

significantly by seeking advice from consultancy firms specializing in knowledge and system management and adapting to latest technological advancement in information technology and communication. Banks for which collateral of assets is very important typically finance shipping assets. There is not much bank's finance available for the firms specializing and concentrating on systems and business processes. As these firms can not offer any collateral, venture capital financing can bridge the gap.

i-maritime expects emergence of many new types of shipping firms who would be focussing on delivering the services relating to business processes and not as much on aggregating and owning the shipping assets. New E-Commerce firms concentrating on transactions are going to become extremely popular.

For example the day is not far when charter broking, shipping finance, sale and purchase of new building, second hand and demolition of ships would take place on Internet. We would also expect Internet portals on shipping management, ports, recruitment, ship-repair, and equipment supplies and marine education soon on the net. Under each category, there could be several competitors having a regional or global focus.

Asking whether a firm would use Internet for its business is equivalent of asking whether a firm uses a telephone for conducting its business activities. Internet would become a common platform on which most of the future business would be conducted. We would expect most of the financing of these new types of firms to be through venture capital.

In the next four to five years, we would expect around 30 to 40 Internet portals on various aspects of shipping with several of them competing with each other. Many of the existing shipping firms are also web enabling their businesses. Some of the shipping firms may float independent companies for conducting business through the web. This would also facilitate raising of venture capital for these firms. We would expect almost every firm in the maritime sector to have a web site and conduct their business through it.

Increasingly the role of bank finance would be to fund the physical assets in any business and creation of knowledge assets would be funded by venture capitalists.

As the role and size of knowledge based shipping businesses keep increasing, we expect that in the future venture capitalist firms would play an increasingly bigger role in funding.

Source: Maritime Monitor, Issue 15 & 16, December 1-31, 1999

Public sector commercial banks – Public sector banks control a major portion of the banking business in the country. In terms of exposure to the shipping industry, public sector banks are led by SBI, which has a dedicated shipping and overseas division. SBI is the banker to many of leading shipping companies like Varun, Essar, SCI, Tolani, Dolphin Offshore, DCI etc. Bank of India, Bank of Baroda and Syndicate Bank also have sizeable exposure to the shipping industry. State Bank of Saurashtra, Dena Bank, and Punjab National Bank have wide exposure to the ship breaking industry in Gujarat. However, these banks do not have a dedicated shipping desk. Public sector banks take up considerable time in evaluating a project (for a new client it can take anything between 4 to 5 months). Acquisition of a vessel can be either from a second-hand market or can be new built. In the former case shipowners require quick sanctioning of loans lest the vessel passes over to other competing buyers. Also it may happen that the

Indian Rupee or US Dollar?

Issue- Many of the smaller and medium sized shipping companies seeking financial assistance from Banks and Financial Institutions for the acquisition of vessels have to decide between a Dollar denominated loan or a rupee denominated one. Over the last few years of advising to various shipping companies, we have faced this query from many of them time and again.

We at i-maritime have tried to assess the relative costs of borrowing in US Dollars and in Indian rupees. Based on all these issues we have attempted to determine which of the two options is more attractive in the present scenario. It should be noted that the results are dynamic. Our own analysis 6 months back on the same issue had yielded totally different results from the one we are getting presently.

Analysis

Foreign Currency denominated loan - Foreign currency loan from most banks and financial institution is available at floating interest rates, where the reference interest rate is the *London Inter Bank Offer Rate (LIBOR)*. Money is lent at a certain premium to the LIBOR, which in turn is dependent on the risk perception of the borrower. Presently the LIBOR rates are hovering at around 5.0% to 5.25%. Given the present risk perception attached towards India in general (the same has taken a minor beating after the recent default by Essar Steel for its USD 250.0 million Floating Rate Note) and a company of medium size in particular, we expect that such a company can borrow at a premium of around 3.5% to 4.0% over the LIBOR, thus taking the total interest rate to around 8.5% to 9.5%.

In case of loans of maturity longer than six months, the reference rate is reset every six months. In some cases the rate may be reset every quarter or even earlier. In such a scenario, the firm's future interest payments are therefore uncertain. An increase in rates could adversely affect the cash flows. In the past, LIBOR had crossed the 12.0% mark (January 1985). In the recent past, LIBOR had crossed 7.0% level in January 1995. This results in the introduction of an additional risk component in the project. The firm may however enter into a swap transaction with some other player (which can be the lending institution) to convert the floating interest rate into a fixed interest rate. However this would entail an additional cost of around 200 basis points for a swap (loan) tenure of three years. For a swap tenure of five years, the cost would be even higher.

Taking into consideration the above factors, the equivalent fixed rate interest rate for a USD denominated loan could be anywhere in the region of 10.50% to 11.00% for the firm. Given an annualized six-monthly forward premia of 5.00%, we can assume that the Rupee would depreciate by that rate over the tenure of the loan. Effective Rupee cost of the loan under such a scenario has been summarized in the table. It is observed that given a fixed interest cost of 10.00% on the Dollar denominated loan and an expected Rupee depreciation of 5.00%, the effective cost of borrowing in Rupee terms is a little more than 16%.

Indian Rupee denominated loan- The second option available to such companies is to borrow in Indian currency at prevailing market rates of around 16.00% to 17.00%. The effective Dollar rate works out to be approximately equal to the costs involved in case the promoters borrow Dollar denominated loans. In case the Rupee depreciates by 5.00% as is indicative from the six-monthly forward premia, the effective Dollar rate for a 16.50% rupee loan works out to be around 10.95% which is around the likely cost of Dollar borrowing.

The table summarizes the effective rupee rate for Dollar denominated borrowings and the effective Dollar rate for rupee borrowings for a tenure of three years. Other assumptions include a cost of 2.00% for conversion of a floating rate to a fixed rate. LIBOR is assumed to be 5.00%.

Conclusion- As per present market conditions, the effective interest rates are roughly same for both Dollar denominated loan and a Rupee denominated loan. It is observed that, other things remaining equal a higher rate of depreciation of Indian Rupee vis-à-vis Dollar tilts the balance in favor of Rupee denominated loan. This is apparent from the lower part of the table where with an increase of 100 basis points of the depreciation rate the effective Rupee cost of a 10.50% Dollar loan increases from 16.02% to 17.13%.

Most Indian corporates are presently prepaying their foreign currency loans in the form of ECBs etc. Further there has been a reduced activity in this market because most Indian corporates are now borrowing from the Indian market. This is in sharp contrast to the scenario few years back when the Indian Corporates made a beeline for borrowing from the international markets.

Depreciation rate of Rs / USD	Floating rate of interest	USD loan		Rs loan	
		Net fixed Interest rate	Effective Rs. Interest rate	Interest rate	Effective USD Interest rate
5.00%	Libor+2.5%	9.50%	14.97%	16.00%	10.48%
5.00%	Libor+3.0%	10.00%	15.50%	16.50%	10.95%
5.00%	Libor+3.5%	10.50%	16.02%	17.00%	11.43%
5.00%	Libor+4.0%	11.00%	16.55%	17.50%	11.90%
6.00%	Libor+2.5%	9.50%	16.07%	16.00%	9.43%
6.00%	Libor+3.0%	10.00%	16.60%	16.50%	9.91%
6.00%	Libor+3.5%	10.50%	17.13%	17.00%	10.38%
6.00%	Libor+4.0%	11.00%	17.66%	17.50%	10.85%

Source: Maritime Monitor, Issue 5, July 1-15, 1999

prices may escalate or deflate by the time the loan is sanctioned. In such a scenario public sector banks may not be the ideal avenue for funding a new acquisition.

Private sector banks – Only a few of these banks have taken up exposure to the shipping industry. Most of these banks however limit their clientele to top rated clients and ignore smaller to medium sized players. Banks like Development Credit Bank offer working capital facility, while some like Centurion Bank offer term loans for duration of only two years.

Cooperative banks – Cooperative banking is a well-established system in states of Maharashtra and Gujarat. Most of them are very small and concentrate their operations to a specific geographic region or class of the society. Loan amounts can be as small as Rs. 0.1-0.2 million needed by small fishermen. However they do not have the resources to take up exposures to shipping projects where fund requirement is large. Some of the banks like Saraswat Co-operative Banks, Janakalyan Co-operative Bank, which are relatively large, have sizeable exposure to the shipping industry.

Innovation – key to get the investor back

One common answer that a fund manager or institutional investor would give in case asked to invest in shipping stocks would be "Why should I invest in shipping and not IT, Pharma and FMCG stocks?"

World over, the investment community is enthused about the above stocks. Recently, Infosys Technologies, the first Indian company to be listed in Nasdaq (USA) achieved new glories with its market capitalization crossing USD 11.0 billion (Rs. 46,000 crores). Trading at a price earnings multiple of 328, it became the 15th largest IT scrip in Nasdaq. Similarly Pharma and FMCG stocks are doing extremely well, returns generated are constantly above market returns.

In such a scenario, not only the shipping industry, but members of other industries like cement, fertilizers, iron and steel etc. should formulate strategies to gain the attention of the investors. Is it possible to succeed in getting back investor's interests? Is the recent euphoria for infotech stocks a temporary phenomenon and will wane in a short time period?

The common thread running through these three industries is **knowledge**. These industries are central to what Alvin Toffler would have referred to as the *third wave economy*, in contrast to the *smokestack economy* of yesteryears. And knowledge represents the fourth factor of production after land, labor and capital as defined by Adam Smith.

We do not know about how long investors' interest in these stocks will last, but these industries will become central (or probably have already become central) to the entire economy. We would do well to understand what is happening to the world investment markets. The investor would invest on the expectation of

- a) Return
- b) Growth, and
- c) Safety.

In the case of some sectors, it is a feature that growth patterns are not defined and in the realm of uncertainty, i.e., there is no limit to the growth. Take the case of Tata Consultancy Services in India. The turnover has been growing at an abnormal rate by any standards. From Rs. 7.90 billion in FY1996-97 to Rs. 17 billion in FY1998-99. What is the corresponding growth in the case of The Great Eastern Shipping Company Limited? In the corresponding period, their revenues have grown from Rs. 8.78 billion to Rs. 9.80 billion and profitability has fallen.

We take TCS as a case study since it is not listed on the Stock Exchanges and has not yet witnessed investor frenzy. In case of equity offering by the company, it is unimaginable what kind of valuations it would command and equally unimaginable about the investors' gathering it would generate. Similar is the story with other such companies. Does this mean that it is the end of the road for shipping companies? Should they lose all hope of attracting equity investors, of commanding higher valuations? Or learn a lesson or two from these companies?

They too have to change. Become entrepreneurial. Innovate. Do something new and something that tantamount to real value addition in their own field of operation.

Take the example of Concordia Maritime. In the market of oil transportation, shipping is largely price driven, where it is rare for a vessel to be selected on any other merit than being the cheapest bidder. Companies like Concordia Maritime have made attempts to add further value to their service through better understanding and knowledge of their customer needs. One such result of this strive to deliver better service to the customers is the birth of what is the Stena V-Max class of vessels – a vessel that has the capacity of a VLCC, but requires the draft of a Suezmax. Carriage of oil to Philadelphia involved 70 nautical miles of river navigation. Poor draft necessitated lighterage operations as the 270,000 oil carrier used in the route required greater draft than what was available. The new Stena V-Max can now carry this oil without the need for lighterage operations, thus saving on operational costs.

Greek shipping was till the recent past, largely equity financed. One of the reasons is the entrepreneurial nature of the business in Greece. Even the knowledge-based companies have thrived on equity financing. On the other hand, shipping today is debt driven. Assured returns and defined growth within certain limits. Going by the fundamentals of investment, the present valuations seem difficult to object to.

Those who have ventured to be different, have got the higher valuations. They have used knowledge to innovate and devise new growth avenues and options.

We get back to the basics. Equity is associated with uncertainty. It is the risk capital. Where is the risk that we perceive in companies like The Great Eastern Shipping Company Limited and The Shipping Corporation of India Limited?

The growth patterns are quite defined and less importantly, limited in each case.

Non-banking financial institutions – Large NBFCs like Tata Finance, Srei International Finance, IIT Investments, etc. are already involved in equipment (asset) financing. However, appraisal techniques and methodologies followed by these institutions are different than conventional banks and FIs. These institutions finance ships or dredgers who have a firm long term charter arrangement. Lending is dependent on the duration of the charter as well as the financial strength of the charterer. NBFCs can fund a large proportion of the value of the equipment or vessel. The funding is usually structured in the form of a lease or hire purchase where recourse in case of default by the borrower is easier than in case of term lending

Foreign banks and financial institutions – foreign banks and financial institutions which includes Development Bank of Singapore, GE Capital Structured Finance Group (SFG), IFC (Washington), Korean EXIM Bank, etc have large exposures, both in the form of equity as well as debt in companies like Great Eastern, Varun, Chowgule, etc. Generally these institutions look for large sized shipping corporates for term lending exposure. Recently Essar raised around US \$116 million from GE Capital and Boeing Capital for vessel acquisition

During FY1999-2000, the outstanding debt of the shipping industry was around Rs. 60 billion. Out of the total term loan raised, Indian banks constituted around Rs. 15 billion, Foreign banks around Rs. 10 billion, FIs around 12.50 billion and the Government around Rs. 9.5 billion. Of the total working capital loan, Indian banks contributed around Rs. 1 billion, Foreign banks around Rs. 0.11 billion and the government around Rs. 0.5 billion. The portion of capital raised in the form of debentures was relatively less. It was around Rs. 3.50 billion.

Overall shipping finance markets in India is quite underdeveloped. Lack of sophisticated instruments, reluctance on part of many banks to take exposure citing greater risks and poor state in equity markets act as hindrance to future growth in Indian shipping. In the following inset we have discussed a way out.

Indians and their role in the global shipping industry

Dominance of Indians in today's knowledge based economy, especially in the field of Information Technology, Communication and Banking, augurs well for a country that has lagged behind in development over the last century. Indians are today occupying the topmost positions in some of the world's leading organisations - Rajat Gupta, CEO of McKinsey; Rono Datta, President of United Airlines; Arun Netravali, President of Bell Labs; Vinod Khosla, founding member of Sun Microsystems; Dilip Menenges, Director of Citibank.

Today, Indian IT professionals are dominating the IT sector in US and in great demand in Europe as well. The list goes on and on, reiterating and corroborating the fact that Indians can show the highest level of performance in a global context, despite the low level of development of these industries in India. Can the success of Indians in IT, Communication and Banking be replicated in the field of shipping? Can Indians play a dominant role in shaping the future course of the industry as they are doing in various knowledge firms?

Dr. C.P. Shrivastva, was Secretary General of IMO for 16 consecutive years, from 1974 to 1989 and was in forefront in creation of World Maritime University at Sweden. Dr. Nagendra Singh had served as President of IMO for 2 years from 1963 to 1965. Capt. Jayant Abhyankar is presently serving as Deputy Director of ICC International Maritime Bureau. Are these instances a reflection of a phenomena of the growing role of Indians in the global shipping industry or merely few standalone events?

In the present study, we have attempted to assess the relative preference of Indian seafarers vis-à-vis other nationals based on the following parameters which normally affect the demand for seafarer of any nation. The parameters are:

- | | |
|---|---------------------------------------|
| a. Technical qualification and training | e. English communication skill |
| b. Physical capacity / fitness | f. Sincerity and reliability |
| c. Management and negotiation skill | g. Social / human behavior |
| d. Wages or compensation expectations | h. Emotional attachment to the family |

Further the study seeks to assess, how the relative preferences have changed in the past and the expectations of change in future and suggests steps to be taken by which Indian seafarers can not only retain their present preference by ship owners but also improve upon it.

Establishment of Indian seafarers

India's maritime history goes back to Indus valley civilization 5,000 years back, when an active trade relationship existed with Egypt and Mesopotamia. The new era in India started in mid of the nineteenth century with establishments of trade by East India Company. The need to recruit Laskars, the natives of Asia, arose due to illness, mortality on the way or desertion of British seafarers along the journey. Usually two laskars took the place of one British seafarer a combined salary which was less than that of the latter.

In the initial decades of the last century, working conditions on ships were quite adverse and differentials between salaries of seafarers from developed and developing countries were very high. Indian seafarers, despite stiff oppositions from shipowners, protested and demanded higher wages and better working conditions. Foreign shipowners eventually obliged to the demand, acknowledging implicitly the indispensableness of Indian seafarers on account of their discipline, higher productivity, and better command over English vis-à-vis seafarer from other developing countries.

Emergence of the Flag of Convenience vessels and international ships in late eighties again increased the demand for Indian seafarers. National flags placed severe restrictions on employment of foreign seafarers as well as on wage levels. Flag of Convenience did away with such restrictions, opening up vast opportunities for Indians in shipping companies of developed nations. The ship owners could now hire Indians at lower wage levels vis-à-vis OECD seafarers, without compromising on quality.

However, competition from developing countries such as Philippines, Indonesia, China and other liberalized Eastern Block of socialist countries have also increased simultaneously over the last few years.

Shipping industry has only just recovered from a long recession lasting 4-5 years. Economic downturn had forced shipowners to look for cheaper manpower to improve bottomlines, leading to shift in preference from Indians to seafarers from other developing nations.

The changing nationality of seafarers

OECD countries have been the major source of seafarers, both officers and ratings for a greater part of last century. However, over last few decades there has been a definite shift towards developing countries in the Far East, the Indian sub-continent, and Eastern Europe. Of the total number of seafarers of 404,000 officers and 823,000 ratings, OECD have a 27.5% share, down from 31.5% in 1995.

Today the officers cadre is dominated by OECD followed by India, while ratings chiefly come from Far East especially Philippines. With nearly 40% of OECD officers being over 50 years old, a percentage that is rising fast, demand for officers from developing countries is rising. Most officers from developing countries are Indians although ratings are predominantly from Far East.

Over the last few years, Indian seafarers have faced the dilemma of rising preference of ship owners and managers for seafarers from countries like East Europe, China, Philippines and other developing countries. Indians, it is opined by various market participants, are gradually losing out on factors which determined their competitiveness few years back. An understanding of the reasons underlying such a trend can be found from analysis of the parameters described before and performances of various seafarers on each of these countries.

Comparative analysis seafarers

Technical qualification and training

OECD countries have well-established institutions for training seafarers and standard of marine education are very high. In India, various government training institutes like Training Ship Chanakya, Marine Engineering and Research Institute, Calcutta, LBS College of Advanced Maritime Studies and Research and various other approved training institutes in private sector provide marine education of a standard which is well respected and have been much higher than those in other developing nations. However, of late the developing countries are catching up. China has established three marine universities while Philippines has revamped its training system to raise standards. Most seafarers from East European countries like Russia and Ukraine are ex-Navy officials and hence highly trained.

IMO has revised the competence standards i.e. Standards of Training, Certification and Watchkeeping (STCW) in 1995. Publication by IMO of the "white list" of countries which are considered, in principle, to meet the standards set by the convention in all aspects of technical education, training and communication. Many countries are upgrading their systems to keep pace with the changing standards. Tentatively, the white list of the countries will be published by the end of this year. For India, people in the training field strongly feel that Indian training standard fulfills the need of STCW 1995 or even slightly higher than that.

Physical capacity and fitness

The job on the ship is a tough job with changing climatic conditions and food styles. The physical fitness and capacity to resist the changes are a must for the hard work expected on board. Filipinos and Chinese are good hard workers. Indians too can go along with different climatic conditions as well food styles. Seafarers from Russia and Ukraine, being naval officers, are however ranked highest.

Management and negotiation skill

Officers from OECD countries, because of large number of years in sea, have more experience in management of ships. Additionally, they enjoy preferential treatment in ports due to their racial background. The Indians naturally do adjustments and management of the situation. With good communication skills and interaction abilities Indians have developed the negotiation skill and can prove good leaders.

Wages and compensation expectations

The OECD country nationals are highest paid amongst seafarers followed by Indians. Chinese and Russians, East European and Filipinos follow Indians in that order.

Fluency in English

The official language declared by IMO is a very important prerequisite especially at officers' level. On this parameter Chinese, Russian, East European are at disadvantage although they are gradually catching up.

Sincerity and reliability

IMO reports that 80% of the accidents are due to human negligence. The possibility of losses can be minimized with a sincere and reliable staff on the board. Indians are appreciated for their sincerity, reliability and responsibility towards their work, not only in the field of shipping but also in any other industry in a global context.

Behavior

OECD country nationals are well mannered and well behaved. Indians are also known for their peace loving in nature and are able to adjust to varying conditions. Indisciplined behavior on ship as well as on port is normally observed amongst Filipinos.

Emotional attachment to family

The total cost of ship owner towards its floating staff is dependent on the on-board and off-board period of the employees. More emotional attachment for the family leads to greater off-board period increasing the total cost for the shipowner. Indians have more attachment towards the family life. So they demand to stay on shore for a longer periods or insist on carrying their families on the ship.

This puts more burden and responsibility on the shipowner. Comparatively Russian and Filipinos can stay on board for longer duration.

Reasons for Indians losing the preference

The competitive advantage enjoyed by Indians has changed over the years due to both systematic and unsystematic factors. Preference towards seafarers of other developing nations has increased even though the same towards Indians has, at best, not changed or at worst, fallen. The following reasons can be attributed for this:

- **The last five years have not only seen one of the most severe depressions hitting the shipping market, but also** stringent norms being passed by various bodies increasing operating costs under most heads. The ship owners are facing the twin dilemma of rising operating expenses and low freight rates.

Most expenses like repairs and maintenance, insurance etc. being largely inflexible, ship owners have to cut salaries to improve profit margins. Ship owners world over are thus gradually lowering the number of crew and also shifting to seafarers from such countries like Russia and Philippines. And compared to Indians, these seafarers are available at considerable low salaries.

- **Competitive advantage of Indians vis-à-vis seafarers of other developing nations in terms of the knowledge of English** and technical qualification is gradually waning away. Russian and Chinese are increasingly adopting English as a second language. Similarly many of the seafarers in Russia and Ukraine are ex-Navy personnel and hence highly skilled. While China has also set up three maritime universities for maritime education and training.
- **Many ship owners allege that the heritage of commitment and devotion to work as well as the cultured manners, which** differentiated Indians from seafarers of other nationals in the past, is gradually waning.
- **In the rating market, Filipinos are usually preferred because of their low salary expectations, command over English** and better communication skills.
- **Shipping, as a career objective, is gradually losing its preference amongst Indians, as new knowledge based jobs are** able to provide better opportunities.

Corrective measures

Steps that Indian seafarers should take to regain numero uno position:

- **They should keep themselves abreast with new technologies and trends in the shipping industry and always be at the higher side of quality standards prescribed by apex bodies and ship owners.**
- **For the safety of the ship, the commitment and devotion of the seafarers towards the work is most important. Indians should always maintain the heritage of commitment, reliability and devotion.**
- **On board behavior, politeness, good relation with employer and manning agent, will help them to get respect and job satisfaction.**
- **As the seafarers from other developing countries are available at much competitive rate, to catch up the market in this depression, Indians must be more flexible on their wage expectations.**
- **The government as well as industry participants must strive to increase awareness on the maritime sector amongst people.**

The government for its part, should take initiatives to maintain the standards in the maritime training institutes. It needs to explore the possibilities of founding the high profile technical institutes imparting maritime education on the lines of IITs and IIMs that are highly recognized in the world. Governments should also look in for vocational courses pertaining to various aspects of shipping industry. The ratings market also needs to be given a serious thought. If tapped this can alleviate the employment problem of masses.

While the above discussion has focussed on ships; Indians should also strive to dominate the corporate world in shipping industry. Just as Indians are leading organisations like Mckinsey, United Airlines and ANZ Grindlays, tomorrow it should also come as no surprise if Indians occupy the topmost posts in such global multinationals as P&O or PSA or Leif Hoegh.

We are strongly optimistic on this and believe that it is only a matter of time before this happens.

Shipping industry in the Internet era

Internet technology is fostering new ways in which business is done. The force it has brought into business and trade is very powerful. The shipping industry is being influenced strongly as it is closely related to the economy and the business environment. Use of the Internet to conduct day-to-day business is fast becoming a norm, as the advantages of using the same are enormous.

New business mantra for the firms is networking among the enabling partners. In today's competitive environment, firms don't compete; it is the networks and their efficiency that compete to win. The Internet is fast providing the infrastructure to achieve this. The whole issue is how best to give value to the final consumer. In order to achieve this, different firms come together to streamline their processes of value addition so as to provide a superior offering to the consumer.

Shipping being a part of the logistics business provides a strong link between the producer and the consumer. The goods are of a certain value only when they are in the right place at the right time in the desired quality and cost. This is one of the very basic needs that shipping companies have to meet for its consumers. Those who are able to provide it better can compete in an open market. All the activities of the shipping companies need to revolve around this.

The shipping companies have to integrate themselves with the other entities in the value chain. Given the necessity of developing core competencies and the diverse locations of the sources and destinations of the goods, it is very difficult for a single company to execute the whole process. It is in this context that different participants need to form a seamless network along the value chain. This can provide a very good value proposition to the consumers. Given the good networking, the information flow of goods will also become seamless, thus giving the shipper of goods real time information about the booked cargo.

Earlier most of the business firms had developed strong Extranets between their partners. This was done in order to share the information amongst themselves so as to optimise their objective. Given the diverse locations of the manufacturing units and the market for their products, it was very important for the business firms to share information easily among the partners.

Navigate through cyber or real world?

Internet and shipping have, since nearly a decade, one fundamental commonality. "Navigation" is necessary to visit and tour the "cyber world" in case of Internet, and "real world" in case of shipping. Now they have a second commonality, if not as fundamental, in Bill Gates.

Bill Gates, Microsoft Chairman and the world's richest person, has taken up an 8% stake in Newport News Shipbuilding through his investment firm Cascade LLC, the US\$ 1.8 billion company, employing more than 17,000 people and involved in building defense vessels since 1886. Bill Gates is now one of the largest shareholders in the firm.

So are we seeing a development of interest in the old economy from players in the new one? Does it mean that it would be not very ludicrous to suggest that Azim Premji could be interested in taking up a stake in say Great Eastern? Or say, Narayan Murthy as a prospective buyer of the government's stake in Shipping Corporation of India?

Over the last two years, stock markets worldwide are witnessing a sharp split in the two economies. While "tech" stocks like Microsoft, Yahoo, Amazon, Intel & Wipro, Satyam, NIIT, HCL in India, are reaching new heights, older companies are seeing their stock prices languishing. Are we witnessing a reversal in this trend?

Source : Maritime Monitors, Issue 17 & 18, Jan. 1-31-2000

Supply chain management is being implemented across various industries in order to have a good distribution system. This helps in achieving better inventory management, especially for the businesses with a very high number of product mixes. By and large the shipping industry world-wide has not integrated the new technology well. The service levels provided by the shipping industry have not been up to the expectations of the shippers, and much needs to be done. Some of the major concerns for the shippers are to have access to transparent information on the cargo, transaction costs, compliance of the different regulations and rules. An enhanced use of information technology can provide solutions to these issues

The Internet gives a possibility beyond this. It integrates the firms, suppliers, and distributors with the end consumer. The key features of the Internet are that it has open access, low cost, low entry barrier and can be used for various purposes. All these features of the Internet gives tremendous benefits to the firms. Low cost gives the firm a vast reach to the consumers. A single website can be used to reach the consumers in any part of the globe.

Information on the customer is now one of the most important asset of the companies. The ability of companies to capture information about their consumers is a distinctive strength. In the new economy, the participant with information about the consumer will play a dominating role in any industry. Shipping companies need to know when the consumers are going to book cargo, how much cargo, the type of cargo and from where to where. These are the most valuable pieces of information to a shipping company and the access to these will make it easier for them to take the right decisions. We study the impact of Internet and various web-based companies called “portals”, which aid various business transactions over the net (referred to as e-business), on various sections of the maritime sector.

Shipbroking and Internet

Two activities of shipbrokers are considered in this section:

- Sale & purchase of ships in the secondhand market - intermediary between a buyer and seller of ship.
- Tramp shipping / vessel chartering - intermediary between a tramp shipowner and a shipper

Shipbroking activity is concentrated around certain maritime centers like London and Singapore. The community has always communicated with each other and with clients via traditional and expensive modes of communications like telex and telephone. Success has depended upon the building up of a large network with other shipbrokers, ship owners and shipper communities. Years of operation and well-established infrastructure across various locations in the world were necessary prerequisites for successful operations in a highly competitive environment.

Internet is now challenging these established traditional structures. The coming up of exchanges over the Internet like www.netshipbroking.com, www.shipchartering.com.sg and www.shipping-auction.com has provided shipowners and shippers an opportunity to circumvent these intermediaries and lower their cost of transactions. All this, without the necessity on the part of such exchanges, to build the kind of network and infrastructure that were so essential to succeed in shipbroking in yesteryears. The above mentioned portals allow the shipping community to advertise their open positions and post sale & purchase requirements for a fraction of the cost. Shippers can similarly post their requirements for vessel chartering.

Such exchanges offering different kinds of services and targeting different segments, have one thing in common - they consolidate buyers and sellers in a market that is fragmented due to geographical dispersion as well as the absence of any dominant player. They are referred to as “infomediaries” in the cyber world who disseminate information about a market and create a platform on which ship owners, shippers and other players can do business.

Greek based Internet Shipbrokers’ site www.netshipbrokers.com has created a platform for receiving open cargoes, vessel open positions and S&P requirements submitted by brokers, owners and charterers which are subsequently circulated amongst the subscribers via email. The circulated information also contains contact numbers and addresses so that interested subscribers can make contact directly. Participants can also browse through the database in the website directly and perform searches on various fields on an online database. Additionally, the exchange would match complimentary requirements of the participants. If a match is found, the concerned members are notified who in turn can contact each other directly for further negotiations.

Similar exchanges are being built by Maritime Global Net’s www.mglobal.com, Miami based www.maritimelink.com and India based www.maritimei.com (not related to i-maritime). These sites follow different business models. Maritime Global provides its services free while Internet Shipbrokers ask for a “minimal fee”. Maritime Links has gone for a combination of subscription to reports and advertisements.

With improvements in technology, an even greater portion of offline negotiations, vessel inspection etc. could be conducted online. A prospective buyer of a ship can survey a vessel and hold negotiations on a real time basis with other people by use of videoconferencing technologies.

How have the brick-and-mortar shipbrokers geared themselves up to this new competition? Will they survive the new age? London-based Clarkson has launched www.clarkson.co.uk, an Internet-based delivery system for research products and market information, but do not offer shipbroking services.

Other firms like Manhattan based Poten & Partners have launched www.poten.com, similarly offering information and research, although on a limited scale. Certain market sources claim that these shipbrokers are using the internet exchanges as a source of information in addition to their existing networks. Beyond this, none of the shipbrokers have shown much ingenuity in embracing the new technology.

Success in ship broking is largely dependent upon client/broker relationship and build-up of trust and confidence between the two. This entails a greater degree of face to face interaction, a feature that the internet might not be able to provide that the brick-and-mortar exchanges can claim as a competitive advantage. Further, free access to the internet portals without verification of identity of participants means possibility of manipulation and rigging. Many companies would like to have advice on such issues as market movements, formulation of contract agreement, etc. an area which the newer exchanges might not be able to take up, at least in the short term. Some people see an enhanced role of traditional shipbrokers, as a deluge of data and information due to the internet necessitates the expertise to analyze them.

What impact would these infomediaries have on chartering rates offered by shipping companies or buy & sale prices of secondhand vessels? With a global reach achieved at a fraction of the cost and a more transparent setup vis-à-vis existing structures, a greater number of participants are expected to join in offering their quotes leading to an increase in liquidity. In such a scenario a more efficient "price discovery" would result.

Will shipbroking continue to concentrate around such traditional maritime centers as London and Singapore? In matching of ships and bulk cargoes, market share of London based brokers, numbering around two thousand, is close to around 50% in case of tankers and 30-40% of dry bulk chartering business worldwide. Over half of world's new and second hand tonnage is bought and sold by Baltic members in a market worth US\$ 10 billion annually. However future maritime centers need not be cities where brick-and-mortar brokers operate, but the websites which are most user friendly and comprehensive.

Liner Shipping and Internet

Liner shipping, especially container trade, was the first to use Information Technology extensively - initially in the form of proprietary systems and later via internet. Various container lines including American President Lines, Maersk-Sealand, etc. are offering services like tariff enquiry, cargo booking and container tracking as well as information on sailing schedules via the net.

A large number of portals have sprung up in the recent past to aid shippers and shipping companies to enter into spot market contracts – which account for around 30% of the transactions and which are dominated by freight forwarders and Non-vessel owning container companies (NVOCCs). These exchanges aim to reduce the delay and brokering costs associated with identifying and contracting ocean carriers through an auction. Shippers, often small scale ones, suffer from lack of transparency & information and are forced to accept unreasonable prices.

And in the process the exchanges are threatening to divert business from the brick-and-mortar NVOCCs. Even more threatening to the NVOCC is the intention of some infomediaries to manage all of the information that accompanies the physical flow of goods. Some of the exchanges are aiming to capture the traditional customs compliance, shipment tracking and other information intensive tasks that NVOCCs once managed.

www.eraterequest.com and www.gocargo.com operate online exchanges where shippers post information about their requirements and shipowners bid. The former is focused on providing the lowest rates for shippers through an auction. A shipper specifies information regarding his cargo, loading / unloading points, date of shipment etc. The exchange then delivers, within 24 hours, the contact information of the lowest-cost carrier (bids made by other carriers are not disclosed to the shipper). The latter enables the shipper to choose not only on the basis of price but also to select a particular carrier (and hence quality).

www.freightgate.com follows a different strategy where instead of shippers submitting bids to which carriers respond, FreightGate requires that shippers enter their requests at a preferred price, and then allows carriers to review the bids. All the three exchanges are provided free access to the shipper, but the carrier must pay a certain portion of the bid amount. A similar model is followed by www.freight-on-line.com, however here the service is free for the carrier while the shipper pays a fee.

www.celarix.com is both similar and radically different from the aforementioned players. Celarix, like the above players, provides a marketplace on which carriers and shippers can link. Shippers can submit requests for container space at a given price and then review several offers proposed by carriers. The site however discloses the names of the carriers, so that shippers can choose on both price and quality and carriers can also compete on both the parameters. Celarix also allows shippers to request bids only from certain preferred carriers as opposed to making their request accessible to all relevant carriers.

www.oceanexchange.com and www.shipping-auction.com follow a different model than the above exchanges. Here the carriers post unused vessel space and then shippers bid for these spaces. In the latter, the auction is open from 1 hour to 21 days.

Shippers view each auction and decide whether to bid or not. If they do submit a bid, they are e-mailed each time they are out-bid during the auction period by. In oceanexchange.com, both shippers and carriers have to pay a fee while in the latter only the shipper is required to pay a fee.

Some of the sites like eraterequest.com and gocargo.com have a very poor (or none at all) check on authenticity of information provided by shippers and carriers. This leaves room for price manipulation and rigging. However, some like celarix.com and oceanexchange.com carry out sufficient checks on the information provided by the participants. Some of these exchanges could act as “price deflators”; by bringing in more transparency in operations and by carrying out auction amongst the carriers, freight rates are expected to decrease – something witnessed even in other industries.

A recent study “Marine shipping in transition: the rise of infomediary” by three students from Harvard Business School finds that the traditional intermediaries are now threatened by the new infomediaries. However, existing intermediaries are unable to take advantage of the net. “...First, they lack the technical personnel and Internet-savvy to populate such a business in the short term. Second, they risk cannibalizing their existing analog systems, which, in the words of one industry expert, “are so disorganized and cryptic as to justify the rates they’ve charged shippers for years.” Finally, it is not clear that the management within the intermediaries necessarily acknowledges the infomediary threat...”

These portals, in addition to other things, help in minimizing costs involved in container repositioning. A study by Drewry Consultants of London last year estimated that one-fifth of all containers moved by ships were empty, accounting for around US\$ 11 billion a year in unwanted shipping costs. Some of the waste is inevitable; there is more container movement from Asia to Europe and America than there is going back. However, this difference in trade volume in either direction does not account for the entire empty container movement. Part of the movement is because of the lack of an efficient mechanism to look up for potential shippers – a problem that many websites are aiming to solve.

Shipyards and internet

The shipyard industry has yet to make any brave strides to embrace the internet. Many shipyards have their own corporate websites giving information about the company, but do not facilitate any form of transaction over the net.

However, the sector also holds tremendous opportunities for internet and e-commerce. An exchange where a shipowner wanting to build a new ship could post his broad specifications in terms of type (liquid, ore carrier, dry bulk, etc), size, desired date of delivery, expected financing terms, etc. and invite various shipyards to provide their quotations. On selection of a certain yard, the specifications (as offered by the selected yard) could be resubmitted for getting competitive offers from other shipyards.

Subsequent due diligence and detailed negotiations could be carried out in the traditional manner. This exchange would enhance the reach of the shipowner and help him get better quotes and negotiate with larger number of yards even while saving on time and costs. Take the barging industry in India. There are large number barge builders at different geographic locations - a fact that deters a shipowner to approach and negotiate with each of them because of time and cost factors.

Adoption of e-commerce

E-commerce as defined by WTO is the distribution, marketing, sale or delivery of goods and services by electronic means. Using the electronic means, companies have been doing business for a long period of time by using Intranets and EDI (Electronic Data Interchange). However, with the advent of the Internet, the whole way of communicating electronically has changed business and trade.

The reach and low cost of the Internet makes it one of the most popular mediums for e-commerce. Security of transactions has been one of the major concerns in the Internet. But with the improvements in the technology and protocols, this threat has been minimised to a large extent. Advantages far outweigh the risks involved in the e-commerce platform. The sheer growth in the number of Internet users worldwide is a proof of this. It has also become clear now that more than the Business to Consumers (B2C) segment, the real potential of e-commerce on the Internet is in the Business to Business (B2B) segment. This will affect all the transactions that are economic in nature.

In the developed country, e-commerce has crossed the stage of early adopters. It is now set to jump to the next level of early majority. This stage in the adoption of new technology is the largest segment and during this phase it is going to experience the most rapid growth. In the Indian context, the adoption process is still in the early adopters stage. But given the predominance of information

Maritime portals in India

The Internet and e-commerce boom has led to a spurt of portals in nearly every industry. While shipping has been a laggard, it has gradually caught up with the trend and today there are nearly a hundred sites that, we know of, catering to the industry.

In the last few months a couple of portals catering to the shipping and maritime sectors have come up. While some of them seem to have done their homework thoroughly, other leave a lot to be desired.

Maritimei.com (quite close to our firm's name i-maritime) founded by an ex-mariner with years of experience, positions itself as the "global maritime e-biz portal". But it takes a bit of effort to relate Bollywood masala, ethnic Indian cuisine, Indian humor and Indian women online with the turbulent seas that is so common to shipping. Eventually the portal wishes to establish itself as an ecommerce portal - again not just for the maritime sector but also for air and surface transport industry. Such dilution of focus is unwarranted. The business section, expected to provide quotes for stevedoring charges in Indian ports, contains a request for such quotes from an unknown person on 15th March 2000. Source of data on secondhand market prices of various types of vessels is unknown neither is date on which such prices existed mentioned. We thought shipping is almost a synonym for uncertainty, and fluctuations in vessel parameters quite frequent.

Shippingonweb.com calls itself a "common e-marketplace". The market place is free for all - authenticity of person submitting quotes to transport or for transportation is not checked. The author filled up offers for transportation of textiles from Timbuktu1 to Timbuktu2. The offer was readily accepted without even the minimal validation and put for display. Such facilities seem to justify fears of many industry participants to transact through the Internet because of lack of identity of the opposite partner. The site gives a list of forwarders, carriers and transporters, at certain Indian locations, although the database seems to be have been prepared perfunctorily. Similar sounding Shippingonthenet.com is a much better portal by a London based company while the domain name shippingontheweb.com is up for sale.

Shippingstop.com, promoted by Essar Shipping is a well made portal with a fairly large repository of data on global shipping sector. One of the best features of the website is the database on vessels; the site boasts of a database of 40,000 vessels with basic technical data and information on owners. The portal also has a database of around 2000 ports and berths, list of various service providers across the globe and list of various charters. Although quantum of data on each of these is

quite limited, the site could be the right place to begin for a person looking for detailed information. For participation in the exchange to conduct business, the portal has a basic authentication process in place, although we have not been able to test its effectiveness. Fee would be charged for successful transactions on the portal. The portal aims to eventually become an exchange for various shipping related transactions like chartering, sale and purchase, ship supplies and also plans to cover other allied sectors like shipbreaking and shipyards. While the previously covered websites were more Indian in their approach, shippingstop.com has a truly international perspective.

One factor could prove to be a hurdle for the portal - perception of neutrality. Analysts argue that neutrality is a prerequisite for successful commerce; other shipowners might not use the platform given that it has been developed by Essar. In such a scenario, the portal might need to tie up with more shipping companies - probably Indian ones to start up with. Overall, we would recommend our readers to visit this website.

Indiaport.com is a average site. In contrast to being global as shippingstop.com, this portal is India specific. Further, in opposition to the shipping sector, its main emphasis is on ports. The portal has tied up with various ports in India to provide data. By making registration mandatory, even for accessing basic information, is a dampener. Further, another backdrop of this portal is that some of the time sensitive information (vessel position at ports) is outdated and hence of little use. (More updated information on vessel position is available at www.exim-india.com) The site cannot boast of such parentage as shippingstop.com and, as per initial information, has been developed by a web consulting firm. Readers should note that indiaports.com is a different website.

Transportersindia.com is only slightly more than a collection of web links to a few maritime national and international associations. The market place is again no more than a uncensored bulletin board where people can post their requirements or view others requirements. The market place could be easily misused and hence we do not expect it to become popular amongst industry participants.

It is surprising that India does not have a maritime portal of world class standard, even though the country is home to some of the leading web consulting and developing firms in the world. Visit to some of the best logistics and transportation portals, as ranked by Forbes and available at <http://www.forbesbest.com/b2b/asp/industry.asp>, would easily highlight the reason for our skepticism about most Indian maritime portals.

Source : Maritime Monitor, Issue 33, September 1-30-2000

technology in the country and its awareness it is expected that Internet, as a concept will be rapidly accepted. More and more companies are realising the opportunities that open up by adopting it.

The advantages of Internet can be in aspects of shipping, like cargo booking, chartering, sourcing spare parts, manning requirements, tracking of containers and cargo. All these activities are going to benefit as the parties on each side can have easy and cheap access of information. They can meet and exchange information on the web quite unmindful of the physical distance between them.

The Shipping industry has been a laggard in the adoption of information technology. Some of the major ports in the world have long embraced information technology to reap the benefits. Singapore and Rotterdam are some key examples, which prove how the efficiency increases with adoption of information technology. This adoption has been very slow in the shipping industry. But it is expected that in the near future the shipping industry will also take on the advantages of the new technology. The world majors like Maersk-Sealand have started booking cargo through the Internet. This reduces the overall cost associated with the documentation.

The transparency associated with the process is very much valued by the shipper. The trend in the other industries has been the shift of power from the service provider to the consumer and shipping won't be left untouched by this force.

The adoption of the Internet by the shipping companies is a matter of time. Those who are late in adopting it, will be forced to do so by the larger business environment around them. The shipping industry exists to fulfil the transport needs of the other industries. In order to provide seamless service to the consumers, shipping companies have to integrate with the larger business environment and this is best enabled by the Internet.

Cartels have long ruled the shipping industry, especially in the liner trade.

This has led to very high entry barriers for new shipping companies, the result being the inefficiency that has crept into the service. The Internet with its powerful ability to disseminate information is set to change all this. The resistance to the use of Internet in the shipping industry is expected to come from the players like large existing conferences and intermediaries. Role played by each member will be redefined and the balance of power is expected to shift to the consumer, the shipper of goods.

History is witness to the fact that no industry has been able to resist the change brought in by new technology. The shipping industry will also not remain unaffected by the happenings in the overall economic environment. For a portal to develop as an e-commerce platform for the shipping industry, the active participation of big shipping companies and shippers is necessary. Shippers with large volumes of cargo will be an attractive business for the shipping companies. This will enable the portal to sustain itself.

The benefits will accrue to the shipper of the goods through lower prices and to the shipping company through their enhanced abilities to sell their empty spaces.

A few portals have emerged in the Indian shipping industry. www.shippingonthenet.com, www.maritimei.com, www.indiaports.com and www.shippingstop.com are trying to transfer many of the business processes in shipping from present offline mode to online mode. However these portals have yet to make their presence felt.

Savings from e-commerce

The following table highlights observed savings in various industry categories as a result of web-enablement of various business processes. The extent of business savings is dependent, inter alia on the extent of fragmentation in the industry - a factor prevalent in the shipping industry which is part of the larger transportation industry cited below.

	Savings
Aerospace Machinings	11%
Chemicals	10%
Coal	2%
Computing	11%-20%
Electronic components	29%-39%
Freight Transport	15%-20%
Healthcare	5%
Life Science	12%-19%
Machinings (Metals)	22%
Media & Advertising	10%-15%
Steel	11%
Oil & Gas	5%-15%

Source: Goldman Sachs

Shipping Corporation of India Limited

Fact sheet

Registered office

Shipping House, 245, Madam Cama Road,
Mumbai - 400 021, India
Tel : +91-22-202 6666
Fax: +91-22-202 6905

Promoter

Government of India

Board of Directors

- P. K. Srivastava (Chairman & Managing Director)
- B. M. Ghildiyal (Personnel & Administration)
- K. K. Kothari (Finance)
- K. K. Palit (Technical and Offshore)
- M. P. Pinto (Container)
- S. S. Rangnekar (Liner)
- A. K. Rastogi (Ministry)
- R. Shanmugam (Ministry)
- A. Joshi (Ministry)

Non-official / part-time Directors on Board

- M. G. Bhide (Former Chairman cum Managing Director, Bank of India)
- S. H. Khan (Former CMD, Industrial Development Bank of India)
- Dr. P. Singh (Director, Indian Institute of Management-Lucknow)
- N. C. Singhal (Former Vice Chairman and Chairman cum Managing Director, Shipping Credit and Investment Company of India Ltd.)
- O. N. Marwah (Director Marketing, Indian Oil Corporation)

Number of vessels: 117
Corporate ranking in Indian shipping sector: 1

Major events at a glance

- 1950 - Eastern Shipping Corporation (ESC) was established
- 1956 - Western Shipping Corporation (WSC) was established
- 1961 - Shipping Corporation of India (SCI) came into being as a result of amalgamation of ESC & WSC
- 1966 - Management of Jayanti Shipping Company Limited was taken over by the Government of India
- 1970 - SCI fleet crossed 1 million DWT mark
- 1971 - Jayanti Shipping Company Limited became subsidiary of SCI
- 1973 - Jayanti Shipping was merged with SCI
- 1973 - SCI fleet crossed 2 million DWT mark
- 1975 - Irano-Hind Shipping Company, a joint shipping company was established as a result of economic and cultural accord signed between the Government of Iran and Government of India
- 1975 - SCI fleet crossed 3 million DWT mark
- 1976 - SCI fleet crossed 4 million DWT mark
- 1978 - New management structure was evolved in consultation with Indian Institute of Management, Ahmedabad, to meet the challenges faced by SCI in view of its expanded tonnage & recessionary trends affecting International shipping
- Under the reorganization, the main functions in SCI have been broadly grouped five divisions, which include two profit centers covering liner and passenger & bulk carrier and tanker operations.
- 1981 - SCI fleet crossed 5 million DWT mark
- 1986 - Mogul Line Limited was merged with SCI
- 1988 - Maritime Training Institute (MTI) was set up at Powai, Bombay
- 1992 - SCI's status changed from private limited company to public limited company with the government disinvesting 18.5% of its share in favor of Financial Institutions and mutual funds
- 1998 - SCI acts as Nodal Agency for shipping of crude imports
- 1999 - Partial dismantling of Administered Price Mechanism in oil industry
- End of Cost Plus Formula regime in crude shipping and implementation of market related freight rates
- 1999 - SCI enters highly specialized LNG shipping by picking up 20% stake in Greenfield Shipping Company Limited
- 2000 - Government grants mini-ratna status to SCI giving it the autonomy to take decisions upto Rs. 3 billion

Shipping Corporation of India was set up by the Government of India in 1961 as a 100 percent owned enterprise with 19 ships of 0.2 mn DWT, by amalgamating Eastern Shipping Corporation and Western Shipping Corporation. The former was the first public sector shipping corporation established in 1950 with 74 percent equity participation by the government and remaining by Scindia Steam Navigation Company Limited, Bombay, whose stake was later taken over by government in 1956. ESC was assigned routes in the Eastern trades chiefly Australia, Far East, Japan and Malaya. In 1956, Western Shipping Corporation Ltd. (WSC) was established to serve the countries west of India like Europe, West Asia and America. Two private lines, Jayanti Shipping Company and Mogul Lines were merged with SCI in 1973 and 1986 respectively.

SCI today has fleet strength of 117 vessels of around 5 million DWT. The fleet is highly diversified, encompassing nearly every shipping sub-sector. It has its fleet operations in three specialised areas namely Bulk & Tanker Services (B&T), Liner & Passenger Services (L&PS) and Technical & Offshore Services (T&OS). Additionally, the company mans and manages vessels of government authorities like Andaman & Nicobar Administration, Lakshadweep Administration, Geological Survey of India, Director General of Lighthouses & Lightships, Council of Scientific & Industrial Research and the National Institute of Oceanography.

Irano-Hind Shipping Company, a joint venture in Iran, owned 51 percent by the Islamic Republic of Iran Shipping Lines (IRISL) and 49 percent by SCI, was set up in March, 1975 as a result of an agreement between the Governments of Iran and India. The company owns 8 ships of about 0.2 million DWT which includes breakbulk, bulk, reefer and specialized container cargo carrying vessels.

Management and group structure

Govt shareholding in SCI now stands at 80.12 percent with the disinvestment of 19.88 percent government holding to financial institutions, nationalised banks and mutual funds. The government is further considering the disinvestment of 40-55 percent of its stake in SCI, which will result in SCI losing its status of a public sector company and becoming a private sector company. This will lead to the withdrawal of financial and cargo support from the government. The following table exhibits the distribution of equity shareholding in SCI.

Distribution of equity shareholdings	
(as on April 12, 1998)	
Category	% share holding
I. Foreign Holdings	5.42
II. Govt./Govt. sponsored Financial institutions	88.10
III. Corporate Bodies (Not covered under I & II)	6.32
IV. Directors & their relatives	0.00
V. Top 50 shareholders (Not covered under I,II,III,IV)	0.10
VI. Others	0.07
Total	100.00

Source: The Stock Exchange Official Directory, June 1999

In the past, SCI was largely governed by bureaucratic red tape with frequent intervention of MOST in its day-to-day affairs, but with the induction of MOU based performance monitoring, more autonomy has come in its management decisions. Further, the government recently granted mini-ratna status to SCI giving the board autonomy for taking investment decisions upto Rs. 3 billion instead of Rs. 0.5 billion earlier. This includes cap of Rs. 2 billion in case of replacement tonnage and Rs. 1 billion for new acquisition.

The company in the past was able to attract substantial budgetary support and concessional finance for placing shipbuilding orders with Indian yards. This led to tremendous growth in fleet size. However, with liberalisation, concessional finance was stopped, compelling SCI to acquire vessels by way of deferred credit from shipyards and funds generated internally.

SCI recently appointed management consultants PricewaterhouseCoopers (PwC) for restructuring its business. PwC carried out a SWOT analysis of SCI's business and operations and suggested an integrated plan of action. This is in view of the government's proposal to disinvest 40 percent of its stake to a strategic partner. This divestment will lead to shift in management control from the government to any of the international shipping lines like Mitsui, Maersk, NOL etc. who have shown interest in taking up stake in SCI. Initially, this stake in SCI was offered to various Indian oil majors in public and private sector, but the government received lukewarm response leading to the present offer to international lines.

PwC has recommended the government to restructure the company into three independent entities. Each entity would be in command of vessels of a particular shipping segment. The proposal has faced stiff opposition from employees.

Fleet analysis

Fleet profile

With 117 ships, the company has a presence in nearly all segments of shipping and offshore. SCI constitutes 23 percent of the Indian fleet in terms of the number of vessels. The overseas fleet constitutes 86 percent of its total vessels. The table given below exhibits the fleet profile of SCI.

Fleet profile of SCI

(as on December 31, 1999)

Type of vessels	No. of vessels	GRT ('000)	DWT ('000)
Overseas:			
Dry cargo Liner	27	349.0	468.9
Dry bulk cargo carrier	24	597.5	987.2
Tanker (crude oil)	26	1,405.5	2,487.6
Tanker (product carrier)	14	303.6	491.0
Cellular container	3	65.9	86.8
Ore Oil bulk carrier	2	133.3	246.9
Acid carrier	3	63.1	93.0
LPG carrier	2	35.6	35.2
Total (overseas)	101	2,953.4	4,896.7
Coastal:			
Cargo carrying vessels:			
Tanker (crude oil)	2	50.1	82.2
Tanker (product carrier)	2	30.1	49.0
Passenger-cum-cargo	2	9.7	5.4
Total (cargo)	6	89.8	136.7
Non-cargo carrying vessels:			
OSV's	10	13.1	17.9
Total (non-cargo carrying vessels)	10	13.1	17.9
Total (coastal)	16	102.9	154.6
Total (overseas & coastal)	117	3,056.3	5,051.2

Source: i-maritime

Shipping Corporation of India constitutes 44 percent of the Indian fleet capacity in terms of deadweight tonnage. Out of its total tonnage capacity of 5 million tons, the overseas fleet accounts for 97 percent. In the overseas fleet, the dry bulk carriers and crude oil tankers account for 19 percent and 49 percent of the capacity respectively.

The company's fleet size has largely stagnated over the last 10 years. From 126 vessels with total cargo carrying capacity of 4.9 million DWT as on June 1992, the fleet strength stands reduced to 117 vessels as on December 31, 1999. However, the total deadweight has increased, only marginally, to 5 million DWT largely as a result of scrapping of older vessels and acquisition of newer and larger tonnage.

Age profile

One third of the company's fleet in terms of gross tonnage is over 20 years. The average age of the SCI fleet is 15.6 years, slightly higher than the average age of the Indian fleet. The overseas fleet of SCI is younger than its coastal fleet with their average ages being 15.4 years and 20.7 years respectively. The table below exhibits the age profile of SCI fleet.

Age profile of SCI fleet
(as on December, 1999)

('000 GRT)

Type of vessels	Under 5 years		5 to 9 years		10 to 14 years		15 to 19 years		20 years & above		Average age
	No.	GRT	No.	GRT	No.	GRT	No.	GRT	No.	GRT	
Overseas:											
Dry cargo Liner	-	-	-	-	1	11.1	7	88.2	19	249.6	20.1
Dry bulk cargo carrier	1	28.0	2	44.9	17	428.1	2	58.1	2	38.4	13.3
Tanker (crude oil)	1	51.8	5	372.3	1	51.8	11	416.6	8	513.0	15.9
Tanker (product carrier)	2	43.7	3	69.5	-	-	6	145.3	3	45.1	12.8
Cellular container	-	-	3	65.9	-	-	-	-	-	-	7.0
Ore Oil bulk carrier	-	-	-	-	-	-	-	-	2	133.3	22.0
Acid carrier	-	-	3	63.1	-	-	-	-	-	-	8.3
LPG carrier	-	-	2	35.6	-	-	-	-	-	-	9.0
Total (overseas)	4	123.5	18	651.2	19	491.0	26	708.2	34	979.5	15.4
Coastal:											
Cargo carrying vessels:											
Tanker (crude oil)	-	-	-	-	-	-	2	50.1	-	-	18.5
Tanker (product carrier)	-	-	-	-	-	-	-	-	2	30.1	25.0
Passenger-cum-cargo	-	-	-	-	-	-	1	0.8	1	8.9	25.3
Total (cargo)	-	-	-	-	-	-	3	50.9	3	38.9	21.4
Non-cargo carrying ves'l:											
OSV's	-	-	-	-	-	-	10	13.1	-	-	15.8
Total (non-cargo carrying vessels)	-	-	-	-	-	-	10	13.1	-	-	15.8
Total (coastal)	-	-	-	-	-	-	13	64.0	3	38.9	20.7
Total (overseas & coastal)	4	123.5	18	651.2	-	-	39	772.2	37	1018.5	15.6

Source: i-maritime

13 vessels representing about 19.2 percent of gross tonnage and 20.8 percent of deadweight have crossed their economic life as defined by Ministry of Surface Transport. By 2005 the present fleet will consist of 47 vessels, representing about 42 percent of the gross tonnage and 44 percent of deadweight, that would cross their economic life. The following table exhibits the company's vessels having surpassed their economic life.

SCI vessels above economic life
(as on December 31, 1999)

Type of vessel	Economic age as per MOST	No. of vessels			GRT ('000)		DWT ('000)			
		2000	2002	2005	2000	2002	2005	2000	2002	2005
Bulk carriers/Liners	25	-	3	13	-	42.9	290.3	-	71.3	485.0
Tankers (crude & product)	20	13	14	25	588.2	613.2	971.8	1,051.2	1,092.4	1,720.8
Acid carriers	25	-	-	-	-	-	-	-	-	-
LPG carriers	30	-	-	-	-	-	-	-	-	-
Coastal vessels	30	-	-	1	-	-	8.8	-	-	5.2
OSV's	20	-	-	8	-	-	10.4	-	-	14.2
Total		13	17	47	588.2	656.2	1,281.5	1,051.2	1,163.7	2,225.5

Source: i-maritime

The IMO regulations calling for modification of single hull tankers above 25 years, are expected to lead to substantial costs for SCI as well as lead to reduction in tonnage carrying capacity. Of the 44 tankers (crude & product), 4 tankers have already crossed 25 years and another 8 are expected to do so in the next 2 years. Many of the older tonnages have been sold by SCI by the time this report came into publication.

Operations

Liner and Passenger services

SCI operates break-bulk cum container services along major routes like India-U.K. continent, India-US (east-coast)/ Canada, India-Japan/Far East and India-South Africa. The liner service is suffering due to overall reduction in availability of breakbulk cargoes leading to stiffer competition and resulting in reduced freight rates.

Recently SCI and Contship Container Lines entered into an agreement for providing direct container services between the Indian subcontinent and US East Coast. SCI operates in the India-UK route in alliance with Zim Lines of Israel and Yang Ming Lines of Taiwan.

SCI's liner operations, especially general cargo, have largely been governed by national social obligations rather than commercial reasons. In commercial terms, the division is incurring losses, however presence of SCI in the trade has prevented other operators to raise freight rates thereby benefiting Indian shippers. SCI plans to reduce its breakbulk fleet from 23 to 15 vessels in a phased manner.

SCI operates regular passenger-cum-cargo services between the mainland ports of Calcutta/Chennai/Visakhapatnam and Andaman & Nicobar Islands. Similar services are offered between the mainland ports of Cochin/Calicut and Lakshadweep islands. In addition to its own vessels, SCI also mans and manages passenger carriers of Andaman & Nicobar administration and Lakshadweep administration.

Bulk and Tanker services

Bulk carriers

SCI with its sizeable fleet of bulk carriers and OBO carriers is engaged in the transportation of iron ore, fertilizers, coal and other bulk commodities. These bulk carriers play a key role in the export of iron ore from India to Japan and import of wheat and coking coal from Australia. Some of the SCI bulk carriers are also involved in cross trading.

Tanker

SCI has a 70% stake in the total crude oil imports of around 40 million tonnes made in India.

Dismantling of the Administered Price Mechanism (APM) and other steps in the oil industry pose two threats to the company. For one the cost-plus method of remuneration has been replaced by market related rates, exposing the company to competitive forces as well as increasing the volatility of its earnings. Second, SCI's role as nodal agent for import of crude has been revamped, as a result individual oil companies can directly award shipping contracts to shipowners other than SCI. Thus Mangalore Refinery and Petrochemicals Limited has subsequently appointed Great Eastern for import of crude.

Oil companies like Reliance are looking for ways to reduce costs by capitalising on the economies of scale. Thus, Reliance has chartered VLCC's from international shipowner's for oil imports from Africa. SCI needs to acquire a fleet of VLCC's in the near future in order to be able to maintain its present market share.

Increase in total oil refining capacity in the country from 70 million tonnes to around 110 million tonnes now and around 130 million tonnes in next 2 years, is expected to substantially reduce product imports from their present level of around 20 million tonnes. This raises question on the deployment of the product tanker as well as the LPG fleet of SCI.

Liquefied Natural Gas

SCI is the first Indian company to make a foray into LNG transportation. The company has taken up 20% stake in Greenfield Holding Company Limited, incorporated in Cayman Islands. Mitsui O.S.K. Lines of Japan and Atlantic Commercial Finance Inc. of the United States, an Enron affiliate, would hold 60% and 20% stake in the company respectively. The venture has been formed for construction, ownership and operation of one LNG tanker for transporting LNG from Enron's gas field in

the Persian Gulf to its Dabhol Power Plant in Maharashtra. The venture has already placed an order with Mitsubishi Shipyard, Japan, for building M. T. LNG Laxmi, a 135,000 cbm tanker.

The company has also bid for the carriage of LNG for Petronet LNG, a joint venture between four public sector oil majors. The contract is for an annual carriage of 7.5 million tonnes between Qatar and India.

The LNG sector offers significant opportunities to Indian shipping lines. LNG imports are expected to cross 40 million tonnes by 2010.

Technical and Offshore services

SCI provides technical consultancy to A & N Administration, UTL Administration, Directorate of Light Houses & Light Ships, Geological Survey of India and other government agencies for executing their various projects related to ship acquisition, extension of life, modification, upgradation etc.

SCI provides logistic support to ONGC by deploying its Anchor Handling Tug Supply Vessels (AHTSVs) on a long-term charter basis. Besides this, SCI operates and maintains (O&M) specialised vessels viz. Geophysical/ Seismic Survey Vessel, Well Stimulation Vessel and Multipurpose Support Vessel of ONGC on a contract basis.

SCI has bid for the management of Mumbai Port Trust's (MbPT) general cargo terminal in association with Mumbai based United Liner Agency (ULA) and Ukraine-based Novolog, an associate company of the Germany-based Martrade Shipping. The move represents SCI's foray into port operations, a phenomenon common amongst liner operators world over. This move, if successful, will help SCI secure and expand its existing services.

Tonnage acquisition

SCI has down sized its fleet acquisition programme for the ninth plan (1997-2002) from 53 vessels of 2.38 million DWT at a budget of Rs. 57.5 billion to just 21 vessels of 1.69 million DWT.

Till date, the company has been able to acquire only 4 vessels of 0.13 million DWT. The possibility of fulfilling acquisition plan for 17 vessels of around 1.5 million DWT in the next 2 years looks remote because of recession in the global freight markets, change in trade patterns since the acquisition plan was conceptualized, difficulties in raising required funds, procedural issues affecting project approvals and limited powers of SCI's board due to political and bureaucratic intervention. This shows lack of autonomy of the board despite SCI being granted mini-ratna status.

However, SCI recently signed a contract with Hyundai Heavy Industries Co. Ltd., South Korea for the acquisition of four Aframax crude oil tankers of 110,000 DWT each on June 1, 2000. These vessels are expected to be delivered to SCI by 2003. The firm has also placed orders for 1 Aframax with Cochin Shipyard Limited. It also recently took delivery of the last of 3 Handymaxes that were built by Hindustan Shipyard Limited

Divestment in SCI

The government's decision to divest 40% in Shipping Corporation of India, from its present shareholding of 81%, has multiple ramifications. The idea that was brought up almost 2 years back in line with the recommendations of the Disinvestment Committee, is yet to materialize. Initially, the government tried to elicit interests amongst the public sector oil majors like IOC, BPCL and HPCL for a 30% stake, but none of them showed interests in the proposal. Similarly, another 10% stake reserved for private sector refineries like Reliance and Essar also failed to generate any interest. Subsequently, the government planned to sell off the stake to a "strategic partner" which could also include any of the large foreign shipping majors like Mitsui, Maersk, NOL etc. As per various market reports, these players have already shown interest in taking up 40% share in SCI.

Various issues need to be resolved before the divestment procedure is taken any further:

- Will privatization of SCI lead to sacrifice of interests related to national security?
- Will privatization lead to improvement in performance of the company? Will this lead to better and more competitive rates for shippers?
- What is the appropriate valuation of the 40% stake being offered by the government?
- Is 40% the right amount to be divested?
- Who is a strategic partner? Is a foreign shipping company one?

These issues need to be seriously deliberated and discussed so that a win-win situation is created by the process of disinvestment not only for the government and strategic investor, but also the customers and the general public.

National security

Merchant navy is considered the fourth arm of defense. SCI transports around 70% of the imports of crude into the country, undisturbed flow of which is essential for the economy. The question is can an undisturbed flow be guaranteed if ownership of SCI passes on to an Indian private corporation or even a foreign concern? Probably the government could incorporate clauses whereby a section of the fleet would be available at its discretion during times of emergency. However, one should note that such clauses would have a negative impact on a potential investor and should be nullified with appropriate sweeteners like tax breaks or concessional finance on reserved fleet, etc. Further, as per various market sources, the liner fleet of SCI is run at uneconomical rates. While the company has a share of only 10% in this trade, it has been able to keep freight rates charged to Indian shippers by foreign companies at low levels. A private operator would not agree to incur such losses which would result in increased freight rates being charged to Indian shippers.

Improvement in performance

Will privatisation lead to improvements in the performance of the company? Well this subject has been discussed innumerable times by various institutions and experts, the conclusion drawn more often than not is that it will lead to improvement in performance. Across various industries, countries and time zones it has been proven quite emphatically that privatization, if undertaken properly, does lead to increased efficiency in operations of the firm and larger value creation for the society.

Valuation

What is the appropriate valuation of SCI? At present market price of Rs. 13 per share, the company's market capitalization is only Rs. 3.6 billion. Few months back when the share price had touched a high of Rs. 41, the market capitalization stood at Rs. 11.6 billion. The share price had touched a maximum of Rs. 160 (in January 1994), the market capitalization stood at Rs. 45.0 billion. How does one encompass these widely fluctuating share prices to deduce the most appropriate valuation of Shipping Corporation? The situation gets further complicated if one considers the market value of the fleet of SCI. As per estimates made by i-maritime, the net asset value (NAV) per share of SCI is around Rs. 95. This implies that the total market value of the company, based on this measure, is around Rs. 27.0 billion (nine times the current market capitalization of the company).

Methodology	Date	Valuation (Rs. billion)
Market Capitalization	March 2000	3.6
	October 1999	11.6
	January 1994	45.0
Net Asset Value	December 1999	27.0
Book Value	March 1999	18.2

A strategic buyer with 40% stake is not expected to get full management control and thus would, at best, demand a lower valuation and at worst, be reluctant to invest at all. Only by giving a majority shareholding can the government demand a premium.

Appropriate level of divestment

Presently government owns 80% of SCI while the remaining 20% is held by banks, financial institutions & mutual funds and public. Divestment of 40% shareholding to a strategic partner would lead to government and the buyer holding 40% each while financial institutions & others would hold remaining 20%. A strategic buyer is expected to demand management control over the firm. Under the proposed shareholding structure, the government would have equal power and this could prove unattractive to the buyer. To get a better valuation, a larger proportion of shareholding needs to be put on sale. Government should however retain 26% share in the company, atleast for the time being, sufficient as per Company's Act 1956 to block any special resolution.

Strategic partner

How does a strategic partner differ from a non-strategic one? A financial institution or bank, primarily interested in financial returns on an investment, with a hands-off approach on management of the firm, is an example of a non-strategic investor. On the other hand, a strategic investor is less interested on the immediate financial returns. Existing operations of the investor are related, one way or the other, to the operations of the firm. The main objective behind such an investment by a strategic investor is to capitalize on synergies that could emerge. Examples include a shipping company like Mitsui and Maersk or companies using the services of shipping industry like an oil refinery or cement manufacturer. Mitsui, a leading LNG transporter would get an opportunity to increase its presence in LNG trade in India through a strategic investment in SCI. Indian oil companies were initially recognized as strategic partners and hence an offer to buy stakes was initially made to them. However, an oil company really does not have much say in the operations of the firm with a 10% stake and this partly accounts for the disinterest shown by them.

Source: Maritime Monitor, Issue 19 & 20, Feb 1-29, 2000

Financial analysis

The following two tables exhibits the salient aspects of SCI's financials over the last four years.

Profit and Loss Account

	(Rs. million)			
	1999-00	1998-99	1997-98	1996-97
TCE earnings from shipping	20,612	18,700	16,050	14,865
Profit from sale of ship	-	26	192	433
Total Turnover	26,148	25,823	25,215	24,420
PBDIT	5,499	6,043	6,379	7,121
Interest	724.2	1,004	865	1,998
Net profit	1,616	2,013	2,462	2,333
Cash profits	4,364	4,603	4,960	4,690

Balance Sheet

	(Rs. million)			
as on 31st March	2000	1999	1998	1997
Paid up equity	2,823	2,823	2,823	2,823
Net Worth	n.a.	18,121	16,584	14,744
Loan Funds	n.a.	17,881	19,014	19,418
Net Block of Fleet	n.a.	30,713	29,662	29,012
Net Current Assets	n.a.	4,151	5,225	4,637

n. a. : not available

Total turnover of the company has stagnated over the last 4 years, having grown at an annualized rate of 5%, which is much below the average rates achieved by shipowners in the private sector. This stagnation reflects a similar stagnation in the fleet profile of the company.

Depression in nearly every segment of the shipping markets and greater exposure of the company to market forces, has resulted in a steady fall in profitability at an annualized rate of 12% over the same time period.

Despite a not-so-strong Income Statement, the Balance Sheet of the company is quite healthy. Debt-equity ratio stood at 1.2 as on March, 1999, having steadily fallen from a high of 2.1 in 1994-95. This leaves a lot of room to raise fresh debt to finance expansion.

Unlike most other shipping companies, income from asset play is negligible in case of SCI. Major source of non-operating income is the interest from investments made in short-term securities and deposits with public financial institutions. Over the last 2 years, the company has drawn upon these reserves to acquire new tonnage and hence the interest income is expected to fall in the future.

The company's scrips command rather low valuations in the stock markets and are traded at price earnings multiple of around 2.2. The stock price at Rs. 20 is much below the Book Value or Net Asset Value of the scrip, which stand at around Rs. 60 and Rs. 100 respectively.

SWOT analysis

Strengths

- More than 50 years of experience (including experience of ESC and WSC)
- Largest operator in Indian industry commanding 44 percent of the Indian tonnage. The company has dominant presence in every market segment viz. tankers, coastal, OSV's bulkers, containers liner etc.
- The company being in the public sector enjoys considerable cargo and price support from government.
- Well developed marketing network for its container operations.

Weaknesses

- Large interference by government agencies even in its day-to-day operations.
- Dependent on government for cargo support.
- Having operated in a protected environment, the company has limited commercial expertise.

Opportunities

- With the on going economic liberalization, Indian trade is increasing at a rapid pace. The company having a dominant presence in all market segments is in a favorable position to avail the opportunities arising out of this increase in trade.
- With greater export thrust and larger addition of value added products in Indian exports, more and more export cargo is going to move through container ships. With a large container fleet, SCI can avail the opportunities in this market segment.
- There is tremendous potential for LNG transportation in India.

Threats

- Resource constraints, reduced budgetary support, liberalisation of regulatory environment leading to greater competition are the main threats faced by the company.
- Further, the company in the recent past has seen mass exodus of quality seamen to other operators in India and abroad resulting in the company being left with poor quality seafarers.
- Product and crude imports and the movements of products along the coast are expected to undergo a major change with new private sector refineries coming up. The proposed laying of pipelines could also affect the coastal movement of products.

With the imminent privatization leading to greater operational freedom and management autonomy coupled with reduction in government budgetary, price and cargo support, the company is going to witness a sea change in its environment and operations in the years to come. Decision-making and company policies would be more market driven and more bottom line conscious.

Over the years, the company has developed excellent technical expertise but it lacks the commercial expertise resulting from operating in a protected environment and enjoying price and cargo support from the government.

The next few years would test SCI's ability to successfully make the transition to a market-oriented environment and capitalize on opportunities thrown open in such sectors as LNG, containers etc.

The Great Eastern Shipping Company Limited

Fact sheet

Registered office

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Promoters

Sheth and Bhiwandiwalla family

Board of Directors

- Kanaiyalal Maneklal Sheth (Executive Chairman)
- Sudhir Jayantilal Mulji (Executive Deputy Chairman)
- Bharat Kanaiyalal Sheth (Managing Director, Shipping Division)
- Vijay Kantilal Sheth (Managing Director, Offshore Division)
- Asha V. Sheth
- R. N. Sethna
- K. P. Byramjee
- A. K. Parikh
- Manu Shroff
- T. N. Pandey

Key management staff

- K. J. Vesuna (Tanker)
- S. S. Mahapatra (Bulk)
- Soli Engineer (Offshore)

Subsidiaries

- The Great Eastern Shipping Co. London Ltd., London
Business: Shipowners and charterers
- The Greatship (Singapore) Pte Ltd., Singapore
Business: Shipping agents
- The Great Eastern (Fujairah)
Business: Dry bulk operations

Number of vessels: 64 (Including subsidiary's vessels)
Corporate ranking in Indian shipping sector: 2
Ranking in private shipping sector: 1

Major events at a glance

- 1948 - The Great Eastern Shipping Company Limited incorporated. Company acquires first liberty ship from USA
- 1949 - Great Eastern becomes the first Indian shipping company to place order for construction of ships, 'Jag Ganga' and 'Jag Jamuna' at the Kobe Shipyard, Japan
- 1962 - Great Eastern becomes the first Indian line to start a liner cargo service from the west coast of USA and Canada to India
- 1974 - Great Eastern opens London office to facilitate finding employment for its tankers and OBOs, which were adversely affected by depression in freight markets. It also provides a window on international technological, operational and financial developments in shipping
- 1975 - Great Eastern sets up first private sector cadet training academy in India
- 1983 - Great Eastern becomes first Indian shipping company in the private sector to acquire Offshore Supply Vessels, which are employed by ONGC for its offshore requirements
- 1985 - Great Eastern becomes the first Indian company in the private sector to acquire rigs
- 1986 - Enters financial services sector with subsidiary Suvibha Investments
- 1987 - International Finance Corporation, Washington subscribes to 2 million equity shares of Rs. 10 each at a premium of Rs. 3 per share. This represents IFC's first ever investment in any shipping company
- 1991 - Great Eastern enters property development
- 1992 - Suvibha, now Prime Securities, ceases to be a subsidiary of Great Eastern
- 1993 - Merger with A. H. Bhiwandiwalla & Company Limited (AHB); enters commodity-trading operations
- 1994 - Great Eastern becomes the first (and till date the only) Indian shipping company to launch a GDR issue
- 1995 - GAL Offshore, a 100% subsidiary and into offshore, merges with Great Eastern.
- 1996 - Great Eastern becomes the first Indian shipping company to get an ISO 9002 for its Tanker and Offshore business
- 1999 - Great Eastern hives off its property division into a separate company called Gesco Corporation Limited
- 2000 - Great Eastern floats third subsidiary, Great Eastern (Fujairah) LLC - FZC in United Arab Emirates

Great Eastern owes its origin to the endeavours of Sheth and Bhiwandiwala families involved in the sugar trade and adept at chartering ships for importing sugar from Java. With a capital base of only Rs. 2 million and a single liberty ship, The Great Eastern Shipping Company Limited was set up in 1948.

Fifty years down the line, Great Eastern has grown to become the largest shipping company in the Indian private sector with a reputation of being one of the best managed shipping firms world-over. The company has, in its fifty years of operation, made some unconventional moves like emphasizing on bulk (tramp) shipping, establishment of a subsidiary in London, not only to avoid constraints of regulatory framework in India but also to have a window on the international developments in shipping.

The company diversified into property and real estate development to provide insulation against the cyclical nature of shipping. However, in 1999 the property division was hived off as a separate entity namely Great Eastern Corporation Limited. The company had in the past made a foray into the financial services sector through its subsidiary company, Suvibha Investment Company Limited that was renamed as "Prime Securities Limited". Since FY1992, Prime Securities Limited after six years of operations as subsidiary, ceased to be a subsidiary company.

Great Eastern briefly entered commodity trading in 1993, a business that started as a result of the merging of A. H. Bhiwandiwala & Company Ltd. (AHB) together with its two wholly owned subsidiaries namely Dhirvijay Investments Pvt. Ltd. and MDSV Investments & Trading Pvt. Ltd. However commodity trading was discontinued within 2 years due to heavy losses. GAL Offshore, which was in offshore, rigs and tugging business merged with the Great Eastern in 1995.

The Sheth and Mulji family controls all senior management positions. The family, together with their associates and through a holding company have an estimated 20% shareholding. The management of the company is conservative and has been sustaining profitable operations in the past, even during unfavourable operating conditions. It also maintains an excellent record in its timing of purchase and sale decisions of ships. The table below exhibits the distribution of equity shareholding in Great Eastern.

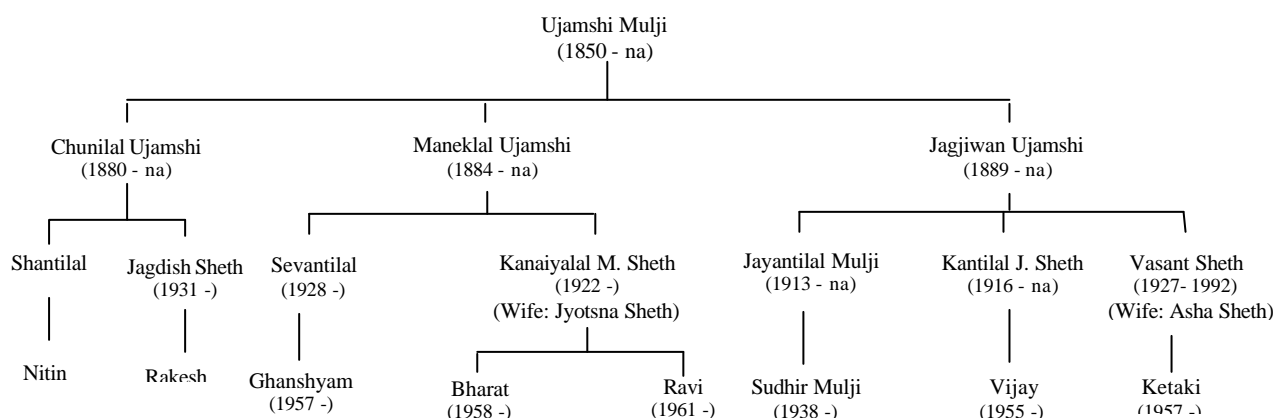
Distribution of equity shareholdings
(as on August 28, 1998)

Category	% share holding
I. Foreign Holdings	37.11
II. Govt./Govt. sponsored Financial institutions	17.99
III. Corporate Bodies (Not covered under I & II)	6.37
IV. Directors & their relatives	7.76
V. Top 50 shareholders (Not covered under I,II,III,IV)	1.85
VI. Others	28.93
Total	100.00

Source: The Stock Exchange Official Directory, June 1999

Management and group structure

The family tree



Note: na denotes dates not available

The International Financial Corporation (Washington) holds 17.9 million equity shares of Great Eastern, which constitute 14.4 percent stake in the company as on June 2000.

The Sheth family has an excellent track record in shipping. Mr. Jagdish Sheth was the Chairman of the Shipping Corporation of India. The extended family members are also in shipping.

Although Great Eastern has a balanced fleet of bulk carriers and tankers, it does not have any presence in LNG and container trade. The management also seems to have neglected diversification into related areas like ship repair, port development & operations and coastal shipping where the company would have had greater expertise and synergies with the current shipping operations. Instead the management chose unrelated diversification into real estate development.

The company has subsidiaries at London, Singapore and Fujairah (UAE). The Great Eastern Shipping Company London Ltd., incorporated in 1974, operates six bulk carriers and helps Great Eastern by acting as a vessel-buying agent. The Greatship Singapore Pte Ltd. is into shipping agency business. The Great Eastern (Fujairah) was recently setup in Middle East and is engaged in the business of dry bulk operations.

Fleet analysis

Fleet profile

The company and its subsidiary commands a fleet of 67 vessels with a total cargo carrying capacity of about 1.7 million deadweight and is the largest private sector shipping operator in India. The fleet is highly diversified both across segments as well as size. The company is primarily involved in bulk trade - both dry and POL. However the company has no presence in the liner trade. The following table exhibits the fleet profile of Great Eastern.

Fleet profile of Great Eastern
(as on December 31, 1999)

Type of vessels	No. of vessels	GRT ('000)	DWT ('000)
Overseas:			
Dry bulk cargo carrier	16	322.5	540.5
Tanker (crude oil)	2	137.1	250.3
Tanker (product carrier)	14	347.0	573.4
LPG carrier	1	21.3	28.4
Total (overseas)	33	827.9	1,392.6
Coastal:			
Cargo carrying vessels:			
Dry cargo	2	3.2	5.1
Total (cargo)	2	3.2	5.1
Non-cargo carrying vessels:			
Tug	10	6.6	1.7
OSV's	12	11.8	10.7
Total (non-cargo carrying vessels)	22	18.5	12.4
Total (coastal)	24	21.6	17.5
Total (overseas & coastal)	57	849.5	1,410.1

Source: D. G. Shipping

Great Eastern operates four mini bulk carriers. As per various market sources the company is not able to deploy them profitably.

Great Eastern Shipping Company London Ltd. which operates six aged bulk carriers has a total cargo carrying capacity of about 0.2 million DWT. Recently many of these vessels have been sold off and as per latest annual report, the number of dry bulk carriers under London subsidiary stands at 4.

In addition to the vessels registered under M. S. Act, Great Eastern also has vessels which are registered under Inland Vessels Act or Coasting Vessels Act. The following table exhibits the vessels that belong to Great Eastern but are not registered under M. S. Act, 1958.

Vessels not registered under M. S. Act

(as on July 7, 2000)

Type of vessels	No. of vessels	DWT ('000)
Offshore Vessels:		
Barge	1	4.8
Drilling Units	2	7.6
GESCO London Fleet:		
Bulk Carriers	4	203.4
Total	7	215.8

Source: Annual Report 1999-00, Great Eastern

Age profile

The average age of the Great Eastern fleet is 14 years, which is less than the average age of Indian fleet. Its overseas fleet is older than the coastal fleet with an average age of 14.0 years and 11.6 years respectively. The average age of Great Eastern Shipping Company London Limited fleet is 24 years. The following table exhibits the age profile of Great Eastern fleet.

Age profile of Great Eastern fleet

as on (December 31, 1999)

('000 GRT)

Type of vessels	Under 5 years		5 to 9 years		10 to 14 years		15 to 19 years		20 years & above		Average age
	No.	GRT	No.	GRT	No.	GRT	No.	GRT	No.	GRT	
Overseas:											
Dry bulk cargo carrier	2	3.2	1	22.2	1	23.7	6	157.4	6	116.1	17.7
Tanker (crude oil)	1	58.4	1	78.7	0	0.0	0	0.0	0	0.0	5.0
Tanker (product carrier)	2	86.0	1	27.6	0	0.0	8	169.5	3	63.9	13.7
LPG carrier	0	0.0	0	0.0	0	0.0	0	0.0	1	21.3	22.0
Total (overseas)	5	147.6	3	128.5	1	23.7	14	326.9	10	201.3	14.0
Coastal:											
Cargo carrying vessels:											
Dry cargo	2	3.2	0	0.0	0	0.0	0	0.0	0	0.0	2.0
Total (cargo)	2	3.2	0	0.0	0	0.0	0	0.0	0	0.0	2.0
Non-cargo carrying vessels:											
Tug	4	1.2	1	0.4	1	2.6	3	1.9	1	0.6	13.2
OSV's	1	2.2	0	0.0	3	2.4	6	5.9	2	1.3	13.3
Total (non-cargo vessels)	5	3.3	1	0.4	4	5.0	9	7.8	3	1.9	13.3
Total (coastal)	7	6.5	1	0.4	4	5.0	9	7.8	3	1.9	11.6
Total (overseas & coastal)	12	154.1	4	128.9	5	28.7	23	334.7	13	203.2	14.0

Source: i-maritime

Presently the Great Eastern fleet contains 4 vessels constituting about 7.6 percent of the total gross tonnage, which have crossed their economic life as specified by Ministry of Surface Transport. However, by 2005 there will be 22 vessels constituting about 35.6 percent of gross tonnage, which will cross their economic life if no new tonnage is acquired. The following table exhibits the Great Eastern vessels, which have surpassed their economic life.

Great Eastern vessels above economic life

(as on December 31, 1999)

Type of vessel	Economic age as per MoST	Number of vessels			GRT ('000)			DWT ('000)		
		2000	2002	2005	2000	2002	2005	2000	2002	2005
Bulk carriers / Dry cargo	25	-	1	5	-	22.2	99.1	-	37.9	163.5
Tankers (crude & product)	20	3	4	9	63.9	85.1	196.3	108.0	136.7	323.0
LPG carriers	30	-	-	-	-	-	-	-	-	-
Coastal vessels	30	-	-	-	-	-	-	-	-	-
OSV's	20	1	3	8	0.6	1.9	7.2	-	2.0	8.2
Total		4	8	22	64.5	109.2	302.6	108.0	176.6	494.7

Source: i-maritime

Operations

The company's maritime operations are divided into two divisions, namely, the shipping division and the offshore division. Around 30% of the firm's shipping income is through deployment of vessels in international cross trade.

Shipping division

The company's dry bulk fleet consists of 16 vessels whose average age is 17.7 years. Over the years, the company has been able to reduce the impact of fall in freight rates by hedging between one-third and one-fourth of its fleet through a combination of period charters and Contracts of Affreightment. The dry bulk division contributes around 35% of the company's turnover from shipping

A large number of the company's tankers are employed with the Indian oil industry on a long-term charter basis. Also, some of the product tankers are employed in the spot market. The company's LPG carrier is employed on an international time charter. The tanker division contributes around 45% of the company's turnover and is expected to increase in future as company acquires more tankers.

Great Eastern recently deployed two Aframax vessels for transportation of crude oil from Persian Gulf for Mangalore Refineries and Petrochemicals Limited (MRPL).

The company's tanker fleet is dominated by product tankers involved in coastal trade, whose deployment is expected to be difficult in near future. Some of the company's tankers are presently involved in international cross trade.

Great Eastern has formed a joint venture with Indian Oil Corporation (IOC) and South Korean conglomerate SK Corporation of South Korea to bid for Petronet LNG contract. As per the initial agreement, IOC and GESCO will jointly hold 50 percent stake while the remaining will be divided among two Korean majors. Samsung is expected to get the order for building the vessel.

Offshore division & others

After the merger of GAL Offshore Services Ltd. in 1995, the offshore division comprises of three distinct activities viz. (1) Operation of tugs comprising offshore supply vessels, harbour tugs and anchor handling tugs (2) Oil drilling and (3) Offshore construction.

Great Eastern's offshore supply vessels are employed with various foreign oil companies operating on the Indian coast.

The company's harbour tugs are employed with major and minor ports along the Indian coast fixed on a long-term charter. Great Eastern's Jack-up rig Kedarnath and drill barge Badrinath are employed with ONGC.

The offshore division contributes around 20% of the turnover from shipping operations.

Tonnage acquisition

Great Eastern has recently acquired two Aframax vessels of 105,000 DWT each from Samsung Shipyard in South Korea. The firm has recently placed orders for 2 Aframax tankers with foreign yards, the first expected to be delivered by April 2002 and second by April 2003. The company is also considering to place an order for another Aframax tanker, which would be delivered only by end 2003.

Further, with a low debt-equity ratio of 0.8, there exists lot of scope for Great Eastern to expand its present fleet. However the company has still not gone for any major tonnage acquisition despite the depression in the shipping industry and the low second hand prices of ships.

Financial analysis

The financial results for the year 1999-00 can not be compared with that of previous years as the company has hived off its real estate division into a separate company. The following tables exhibit the salient aspects of the Great Eastern's financials over the last four years.

Profit and Loss Account

	(Rs. million)			
	1999-00	1998-99	1997-98	1996-97
TCE earnings from shipping	5,413	5,914	5,672	4,995
Profit from sale of ship	480	5	340	96
Total Turnover	9,945	9,908	9,640	8,781
PBDIT	3,684	3,768	4,121	3,529
Interest	608	578	650	691
Net profit	1,105	1,264	1,642	1,364
Cash profits	2,916	2,910	3,200	2,589

Balance Sheet

	(Rs. million)			
as on 31st March	2000	1999	1998	1997
Paid up equity	2,588	2,876	2,876	2,876
Net Worth	11,281	12,109	11,990	11,586
Loan Funds	10,053	9,347	8,318	8,357
Net Block of Fleet	15,867	15,439	13,249	13,367
Net Current Assets	3,259	3,223	4,249	4,290

The equity capital of Great Eastern after hiving off its property division into a separate company, is Rs. 258 million considering a 10 percent deduction in equity capital.

The company's turnover is found to be steadily increasing over the last four years. The total income of the company has grown from Rs. 3.98 million in FY1949 to around Rs. 9.8 billion in 1999. The profitability of the company is also declining over the last four years.

Debt-equity ratio for the company is found to be steadily increasing over the years from 0.45 in 1992 to 0.77 in FY1998-99. Great Eastern recently placed a Non-Convertible Debenture of Rs. 175 million with institutional investors to part-finance its capital expenditure largely incurred due to the delivery of two newly built Aframax crude carriers.

The company was listed in 1956 and has over the past 52 years of incorporation come out with 8 bonus issues and 5 rights issues. In addition there has been debenture conversion and a GDR issue. Great Eastern is the first shipping company in India to have launched a GDR issue of USD 100 million in February 1994, which is presently traded at a discount as the shipping industry is globally not doing well. Great Eastern's debt issues enjoy AAA rating from CRISIL showing its strength and confidence on its ability to meet interest and principal obligations.

Great Eastern has provided a return of more than 20% to any shareholder who had invested at the incorporation of the company. Most of the returns have come from dividends and very minor portion of the same from capital appreciation.

However, investors who have invested in the recent past (around 1992-93), have got very poor returns in the order of around 2.6%. This is primarily because of the stock exchange boom in that period which led to a sky high and a subsequent bearish phase in the market in 1998, when we have assumed that the investor exits. This has also been characterised by the bullish phase in the shipping markets in general in 1992-93 and depression in certain segments in 1998.

The company has produced positive returns during every 5-year block and even in the worst phase of shipping industry. In only one of the 5-year blocks, have investors lost money. The phase represented by 1958 - 1963 saw the reopening of the Suez Canal and continuous mild winters in Europe all leading to lower demand for shipping service. The following table exhibits the shareholder returns over the last 50 years for the Great Eastern Shipping Company Limited.

Shareholder returns for the Great Eastern Shipping Company Limited

Shareholders' returns (Cumulative figures)						Shareholders' returns (on 5 years block)		
Period	No. of years	Return (%)	Period	No. of years	Return (%)	Period	No. of years	Return (%)
1992-98	6	2.64	1948-53	5	16.60	1948-1953	5	16.58
1987-98	11	21.23	1948-58	10	24.30	1953-1958	5	32.10
1982-98	16	21.26	1948-63	15	16.00	1958-1963	5	-0.54
1977-98	21	19.43	1948-68	20	19.40	1963-1968	5	29.3
1972-98	26	21.06	1948-73	25	21.80	1968-1973	5	31.56
1967-98	31	26.49	1948-78	30	19.50	1973-1978	5	8.15
1962-98	36	27.69	1948-83	35	20.20	1978-1983	5	24.12
1957-98	41	20.72	1948-88	40	20.70	1983-1988	5	23.93
1952-98	46	21.05	1948-93	45	22.20	1988-1993	5	34.14
1948-98	50	20.59	1948-98	50	20.60	1993-1998	5	6.49

Source: Maritime Monitor

Great Eastern has achieved returns upward of 25 percent twice in the last decade. In the initial years of operation, returns generated were in the tune of 50 percent. Of course much depends upon the shipping cycle prevailing at the time of measurement of such parameters.

Debt and Equity

The diversity between the equity and debt markets was highlighted when Great Eastern Shipping Company's existing Rs. 175 crore non-convertible debenture (NCD) issue as well as Rs. 35 crore new NCD issue were both rated AAA (triple A rating), even as the share price of the company lingers at a 52-week low of Rs. 16/- and price-earnings ratio of only around 3.3. A high rating of AAA of the debt instruments highlights the company's strength and confidence in its ability to meet interest & principal obligations. On the other hand, a low share price is reflection of investor's disinterest; its growth prospects are unexciting for the investors in this present craze for growth stocks.

Great Eastern's stock is undoubtedly undervalued. Blame it on the cyclical nature of the industry, the general weak nature of most Indian shipping companies when compared to global giants, a regional approach

in an industry that is truly global and lack of presence in such sectors as LNG & containers. Such low valuation means raising further capital through equity route is difficult. What is surprising is that the company is not taking advantage of its debt raising capacity - a AAA credit rating and a low debt-equity ratio - to raise capital and acquire tonnage, available quite cheap because of the present depression in many segments of shipping.

And this probably explains why the firm has a low equity valuation even while having the best of ratings in debt market. Operating with more or less defined growth patterns, the company does not offer anything exciting to the equity investors, even while providing fair level of certainty to a debt investor.

Source: Maritime Monitor, Issue 21 & 22, March 1-31, 2000

SWOT analysis

Strength

- Largest operator in the private sector with 52 years of experience.
- Management understands shipping business and has a good reputation in both shipping and financial circles.
- Has been a consistent profit making company even in bad times. Over the last 52 years of company's operation its profit after tax were negative only for 6 times. However, the company has never incurred cash losses. This gets further relevance when we consider the number of private shipping companies that got lost in mid 70's.
- Has qualified, well-trained and skilled off-shore and on-shore staff.
- Strong balance sheet which can support expansion in shipping.

Weaknesses

- Management can be charged for missing opportunities in related activities like coastal shipping, logistics, port development and operations etc.
- While the company has a large fleet by Indian standards, internationally it is quite small.

Opportunities

- With only 30% of all Indian overseas trade being conducted by Indian fleet, Great Eastern can increase its share in foreign trade.
- Company may find long term opportunities in shipping related areas like ship repair, ship building, ship breaking and port development.
- There is enormous potential for LNG transportation in India.

Threats

- Shipping being a cyclical industry, any down turn in freight rates could have severe impact on profitability.
- In another 5 years more than 50 percent of the fleet will be more than 20 years which need to be augmented with new vessels or require repairing and maintenance.
- A large product tanker fleet, whose deployment in Indian products import trade is expected to be difficult.

Essar Shipping Company Limited

Fact sheet

Registered office

2/3, Main Guard Cross Road,
Bangalore - 560 001, India
Tel : +91-22-559 1382
Fax : +91-22-559 1650

Corporate office

Essar House
11, Keshavrao Khadye Marg,
Mahalaxmi,
Mumbai - 400 034, India
Tel : +91-22-495 0606
Fax : +91-22-495 4312/ 495 4330

Promoter

Ruia family

Board of Directors

- Shashi Ruia (Chairman)
- Ravi Ruia (Vice Chairman)
- Sanjay Mehta (Managing Director)
- Capt. B. S. Kumar
- R. N. Bansal
- N. N. Kampani
- O. P. Khaitan
- S. K. Poddar
- S. Doreswamy (ICICI Nominee)
- M. P. Modi (ICICI Nominee)
- Morten Arntzen

Subsidiaries

- Essar Tankers Limited, Chennai, India
Business: Yet to commence operations
 - Essar International Limited, London
Business: Is engaged in owning and chartering of ships, ship broking and related activities
- Essar International Limited has two subsidiaries:
- Greywood Maritime Inc, Liberia
 - Redwing Navigation Limited, Liberia

Number of vessels:	74 includes	: 39 Barges : 12 BBCCD/Subsidiary vessels
Corporate ranking in Indian shipping sector:	3	
Ranking in private shipping sector:	2	

Major events at a glance

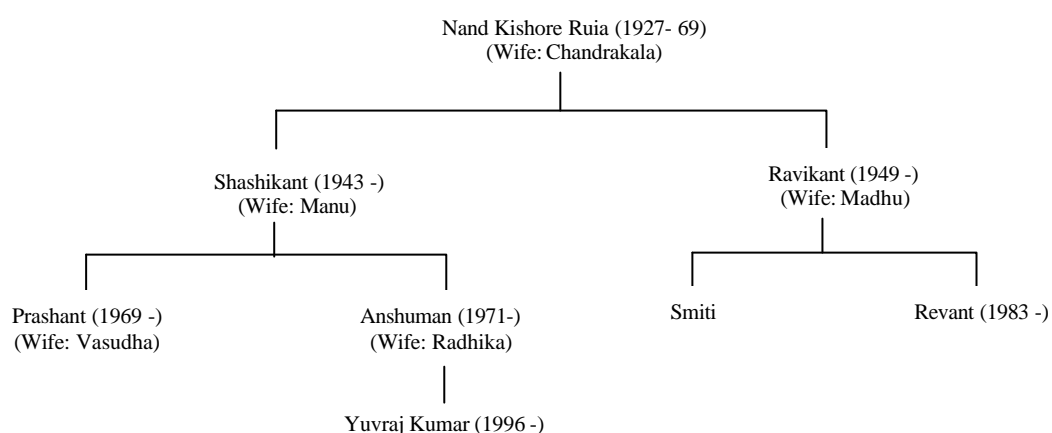
- 1969 - Essar Investment Limited (EIL) sets up Essar Bulk Carriers (EBC) as a wholly owned subsidiary
- 1975 - Karnataka Shipping Corporation (KSC) Limited established by Karnataka Government
- 1983 - EIL acquires KSC. Merger of EBC and KSC to form Essar Shipping Limited
- 1988 - Essar International Limited formerly Essar Guernsey Limited, the wholly owned subsidiary of Essar Shipping Limited, incorporated
- 1991 - Company acquires management control of South India Shipping Corporation (SISCO)
- 1994 - Joint venture with Poompuhar Shipping to form Essar - Poompuhar Shipping Company Limited with the purpose of carrying out coal shipments for Tamil Nadu Electricity Board
- 1996 - SISCO merged with Essar Shipping
- 1998 - Takes over Vadinar port project from Essar Oil

Essar Shipping Limited (ESL) came into existence in 1983 with the merger of Essar Bulk Carriers (formed in 1969) and Karnataka Shipping Co. Ltd. The company belongs to the Rs 38 billion Essar group, which consists of other companies like Essar Steel and Essar Oil. The promoters acquired management control in South India Shipping Corporation (SISCO) in 1991, and finally merged it with ESL with effect from April 1, 1996. ESL also has two wholly owned subsidiaries, Essar Tankers Limited (ETL), and Essar International Limited (EIL). ETL is yet to commence operations, while EIL is engaged in owning and chartering of ships, ship broking and related activities.

ETL also has two wholly owned subsidiaries, Redwing Navigation Limited and Greywood Navigation Limited, both incorporated in Liberia and engaged in shipping activities.

Management and group structure

The family tree diagram



The promoters hold around 40% stake in the company. The following table exhibits the distribution of equity shareholding in Essar Shipping Ltd.

Distribution of equity shareholdings
(as on August 28, 1998)

Category	% share holding
I. Foreign Holdings	27.02
II. Govt./Govt. sponsored Financial institutions	18.11
III. Corporate Bodies (Not covered under I & II)	30.51
IV. Directors & their relatives	0.01
V. Top 50 shareholders (Not covered under I, II, III, IV)	0.79
VI. Others	23.56
Total	100.00

Source: The Stock Exchange Official Directory, June 1999

Fleet analysis

Fleet profile

ESL has a well-diversified fleet of about 36 vessels operating in the overseas and coastal segments. In addition, it has around 41 barges for coastal trade. This aggregate fleet is inclusive of all the vessels under lease and Bareboat Charter cum Demise (BBCD) agreement. The company has 6 modern Suezmax double hull tankers and 11 minibulk carriers. Of the overseas vessels, 26 percent are crude oil tankers and 26 percent of dry bulk carriers. The non-cargo carrying fleet constitutes 30 percent of ESL fleet strength. The table below exhibits the fleet of 23 ships owned by ESL and registered under M. S. Act.

Fleet profile of Essar Shipping

(as on December 31, 1999)

Type of vessels	No. of vessels	GRT ('000)	DWT ('000)
Overseas:			
Dry bulk cargo carrier	6	125.7	206.1
Tanker (crude oil)	6	475.0	911.1
Tanker (product carrier)	2	25.0	39.2
Ore Oil bulk carrier	1	37.8	65.1
Total (overseas)	15	663.6	1,221.5
Coastal:			
Cargo carrying vessels:			
Tanker (product carrier)	1	17.2	30.5
Total (cargo)	1	17.2	30.5
Non-cargo carrying vessels:			
Tug	3	0.7	0.0
OSV's	3	3.9	5.3
SOSV's	1	4.5	3.0
Total (non-cargo carrying vessels)	7	9.1	8.2
Total (coastal)	8	26.3	38.7
Total (overseas & coastal)	23	689.9	1,260.1

Source: D. G. Shipping

The BBCD vessels under the command of ESL are owned by Redwing and are Liberia-flagged. The following table exhibits the other vessels of ESL, which are under their command but are not registered with D.G. Shipping.

Vessels not registered under M. S. Act / BBCD Vessels

(as on June 21, 2000)

Type of vessels	No. of vessels	GRT ('000)	DWT ('000)
Bulk carrier	1	25.5	42.1
Mini bulk carrier	11	16.3	16.3
Dumb barges	39	--	39.0
Total	51	41.8	58.4

Source Annual Report, 1999-00, Essar Shipping Ltd.

The total deadweight tonnage under the command of ESL is around 1.4 million tons. The overseas vessels account for 90 percent of the tonnage. The share of the coastal cargo carrying vessels in the total tonnage capacity is 2.2 percent.

Age profile

The average age of ESL vessels is 11.5 years. The average age of ESL overseas fleet is 11 years. The average age of crude oil tankers is 8.5 years. However, its coastal fleet is quite old with the average age of 22.2 years.

The following table exhibits the ESL vessels that are expected to cross economic age (as defined by Ministry of Surface Transport) over the next 5 years.

Essar's vessels above economic life

Type of vessel	Economic age as per MoST (Years)	No. of vessels			GRT ('000)			DWT ('000)		
		2000	2002	2005	2000	2002	2005	2000	2002	2005
Bulk carriers	25	-	-	1	-	-	15.0	-	-	27.0
Tankers (crude & product)	20	1	3	3	17.2	42.3	42.3	30.5	69.7	69.7
Coastal vessels	30	-	-	-	-	-	-	-	-	-
OSV's	20	-	3	3	-	3.9	3.9	-	5.3	5.3
Total		1	6	7	17.2	46.2	61.2	30.5	75.0	102.0

Source: i-maritime

In the ESL fleet, 69 percent of the gross tonnage is between 5 to 9 years. ESL is having 71.6 percent of its overseas tonnage between the age of 5 to 9 years and about 22.9 percent of the vessels are between 15 to 19 years of age. In the coastal fleet about 65 percent of the tonnage is above 20 years. This table exhibits the age profile of ESL fleet.

Age profile of Essar's fleet
(as on December 31, 1999)

Type of vessels	Under 5 years		5 to 9 years		10 to 14 years		15 to 19 years		20 years & above		Avg. age
	No.	GRT	No.	GRT	No.	GRT	No.	GRT	No.	GRT	
Overseas:											
Dry bulk cargo carrier	-	-	-	-	1	21.9	4	88.8	1	15.0	16.9
Tanker (crude oil)	-	-	6	475.0	-	-	-	-	-	-	8.5
Tanker (product carrier)	-	-	-	-	-	-	2	25.0	-	-	19.0
Ore Oil bulk carrier	-	-	-	-	-	-	1	37.8	-	-	18.0
Total (overseas)	-	-	6	475.0	1	21.9	7	151.7	1	15.0	11.0
Coastal:											
Cargo carrying vessels:											
Tanker (product carrier)	-	-	-	-	-	-	-	-	1	17.2	25.0
Total (cargo)	-	-	-	-	-	-	-	-	1	17.2	25.0
Non-cargo carrying vessels:											
Tug	-	-	3	0.7	-	-	-	-	-	-	8.7
OSV's	-	-	-	-	-	-	3	3.9	-	-	16.0
SOSV's	-	-	-	-	-	-	1	4.5	-	-	19.0
Total (non-cargo carrying vessels)	-	-	3	0.7	-	-	4	8.4	-	-	16.9
Total (coastal)	-	-	3	0.7	-	-	4	8.4	1	17.2	22.2
Total (overseas & coastal)	-	-	9	475.7	1	21.9	11	160.1	2	32.0	11.5

Source: i-maritime

Operations

Shipping

ESL is the second largest private operator with a diversified fleet of bulkers, tankers and OSV's. The company has a policy of maintaining its vessels on an optimum mix of time and voyage charters to maximise revenue and to protect against the cyclical fluctuation in the shipping industry. Majority of the company's vessels is employed on long-term / medium-term time charters. The company has shifted its focus to energy transportation and has integrated logistics solutions to its clients.

The crude carriers account for 68.9% of the total gross tonnage and are deployed mostly on the long-term time charter, indicating a more stable income stream. Their average age of 8.5 years, augurs well for the company in view of the expected increase in crude oil imports to service the needs of various oil refineries which have come up in the recent past or expected to come up in the near future.

Four of the 6 crude carriers, each with a carrying capacity of 154,970 dwt are the largest vessels in the Indian fleet after M.T. Kanchanjunga (DWT of 276,755 tonnes) belonging to SCI (which SCI is planning to scrap).

To capitalise on the economies of scale, ESL intends to phase out its small and old bulk carriers and offshore supply vessels. It is planning to acquire a second-hand Capesize vessel.

While this is commendable, it should be noted that the Reliance refinery at Jamnagar is importing oil in VLCCs because of economies of scale. Similarly, in case of the upcoming Essar Oil refinery in Vadinar, VLCCs could achieve better economies of scale.

Unlike SCI and Great Eastern, a very small portion of Essar's tonnage consists of product tankers. This augurs well for the company, due to changing nature of the products' trade.

Essar Shipping, has formed a joint venture with Malaysia International Shipping Corporation (MISC) to bid for the Petronet LNG transportation contract.

Ports

The company is implementing an all-weather, natural deep-water port at Vadinar for handling of crude oil & products to cater chiefly to Essar Oil's upcoming refinery nearby. The total cost of the project is expected to be around Rs 15 billion. The project that was taken over from Essar Oil led to a downgrading of credit rating by CRISIL. We believe that the project could accrue lot of benefits to the company, despite short-term financial problems.

Tonnage acquisition

The company has grown aggressively in the last decade. With a total tonnage of 1.4 million tonnes under command, it is now the third largest shipping company in India.

The ESL will be gradually phasing out its existing fleet of product tankers, bulk carriers and minibulk carriers and over the next few years it will be acquiring younger and large-sized Capesize vessels (150,000 DWT) and VLCCs.

Financial analysis

The tables given below exhibit the salient aspects of Essar financials over the last four years.

Profit and Loss Account

	1999-00 (12 months)	1998-99 (12 months)	1997-98 (6 months)	1996-97 (18 months)
TCE earnings from shipping	3,330	4,018	2,077	6,485
Profit from sale of ship	237	-	221	61
Total Turnover	4,697	4,400	2,526	8,050
PBDIT	2,059	2,003	1,376	3,630
Interest	761	753	503	1,259
Net profit	484	480	451	974
Cash profits	1,243	1,200	820	2,244

Balance Sheet

as on 31st March	2000	1999	1998	1997+
Paid up equity	1,967	1,967	1,967	1,967
Net Worth	10,677	10,256	9,839	9,565
Loan Funds	19,372	16,431	6,679	6,089
Net Block of Fleet	7,457	5,528	7,486	8,059
WIP of port project	11,095	10,287	-	-
Net Current Assets	1,651	717	3,425	2,234

+ : as on September 30, 1997

Owing to changes in the accounting period, it is difficult to analyze the operations of ESL in terms of changes in key parameters.

However, it is quite clear that profitability has fallen over the last few years mainly as a result of increased depreciation and BBCD charges. In the 4 consecutive fiscal years previous to 1998-99, a substantial portion of PBT has been contributed by non-recurring, non-operating income like sale of assets.

In the financial year 1998-99, the company generated as much profits as in FY1997-98, even though accounting period of the latter was just 6 months. This is primarily because non-operating income which contributed almost 70% of PBT in FY1997-98, contributed less than 20% in FY1998-99. The company has frequently relied on selling ships to subsidiaries and leasing them back, mainly to improve liquidity and to book profits.

ESL's balance sheet also does not generate much confidence in the short run. The company had maintained a debt equity ratio of less than 0.7 in the past, however with taking over of around Rs. 550 crore of secured debt from Essar Oil against the Vadinar project, the debt equity ratio has jumped to more than 1.5.

The increase has also been as a result of unsecured borrowings, which has jumped from almost a negligible level few years back to Rs. 7 billion by March 1999. Investments in group companies is unlikely to yield benefits, atleast in the short

run. Further, most of it is pledged with banks and financial institutions. There has been a substantial diminution in their value, but has not been taken into consideration by the management.

While the Vadinar project has affected the balance sheet and put pressure on the liquidity, we believe that the company would be able to generate substantial benefits in the middle and the long term. In addition to supplying oil to Essar Oil, the terminal might also be used to supply oil to other companies like Bharat Oman Refineries who are already in talks with Essar Oil. In addition, we believe that a shipping company's foray into port operations, as we have experienced in case of large giants like P&O, is a step towards the right direction.

Two developments in the recent past could however have a negative impact on the company – the downgrading of the company's Rs. 1,002.6 million non-convertible debentures from BBB+ to C (below investment grade indicating substantial risk of default) by CRISIL. The agency says that the revised rating reflects the stress on ESL's cashflows following transfer of terminal project from Essar Oil to ESL and delay in tying up for the funds in this respect. The default on FRN issue by Essar Steel, a group company, accentuates the problem. As per unconfirmed reports, the company is being downgraded to D (Default grade) by CRISIL.

Notwithstanding this, the company has been able to raise US\$ 115 million from GE Capital Structured Finance Group and Boeing Capital Corporation having a maturity period of 12 years for prepaying its high-cost loans.

Returns generated have steadily decreased over the last few years. In the last 4 years, returns to shareholders in the form of Return on Networth (RONW) has been below 10%. This is reflected in the low share prices prevailing in the stock markets. The scrip is presently trading below par value.

SWOT analysis

Strength

- Management is strong in managing the regulatory environment.
- Company's fleet is quite young (11.5 years) and hence it is able to deploy the fleet in a better way and charge higher charter rates.
- Part of the Rs 38 billion Essar Group. Has received, and is expected to continue to receive in future, considerable support from group companies.

Weaknesses

- Declining volume of fixtures through transchart company's future earnings have greater fluctuations in line with international freight rates.
- Being part of the Essar group is also a weakness, especially so after the recent default on a FRN issue by Essar Steel.
- In the past few years, a substantial portion of company's profits have come from non-recurring asset transactions with subsidiaries.
- A weak credit rating.

Opportunities

- The company may find long term opportunities in LNG transportation.

Threats

- With progressive liberalization of the regulatory environment governing Indian shipping, the company may find increased level of competition on its tanker and offshore segments.

Varun Shipping Company Limited

Fact sheet

Registered office

Laxmi Building,
6, Shoorji Vallabhdas Marg
Mumbai 400 001, India
Tel : +91-22-265 8114
Fax : +91-22-262 1723

Promoters

Khatau family

Board of Directors

- Dilip D. Khatau (Chairman)
- Arun Mehta (Vice Chairman and Managing Director)
- Yudhishthir D. Khatau (Executive Director)
- Rina D. Khatau
- R. K. Rath (Nominee of ICICI Ltd.)
- C. M. Maniar
- Praveen Singh
- Dr. A. K. Bhattacharya
- Banssi S. Mehta

Subsidiaries

- VSC International Pte Limited (Singapore)
- Tarun Shipping and Industries Limited

Number of vessels: 13 (including BBCD vessels)
Corporate ranking in Indian shipping sector: 4
Ranking in private shipping sector: 3

Major events at a glance

- 1971 - Cable Corporation of India promotes Varun Shipping Company (VSL)
- 1973 - VSL commences operations with one product tanker
- 1983 - Company diversifies into support services for oil exploration
- 1986 - Company's shares listed on stock exchanges
- 1995 - Company promotes a wholly owned subsidiary company in Singapore, VSC International Pte Ltd
- 1996 - VSL becomes the first private sector Indian company to acquire LPG carrier
- 2000 - Appoints American Marine Advisors to arrange funds for LNG vessel acquisition

Varun Shipping Company Ltd. (VSL) is part of the Khatau group of companies which include Cable Corporation of India (CCI), Carona Ltd., Khatau Junker, Indokem, Khatau International etc. CCI promoted VSL in 1971, which commenced its operations in 1973 with the acquisition of one product tanker. It entered into support services for oil exploration in 1983 by acquiring Anchor Handling and Towing Supply (AHTS) vessels. Further, the company entered into the bulk cargo shipping in 1993 and subsequently in the field of LPG transportation in 1996.

VSL has two subsidiaries namely VSC International Pte Ltd. and Tarun Shipping & Industries Ltd. VSC International Pte Ltd. is a wholly owned subsidiary of VSL incorporated in Singapore in 1995 and owns two ships which are deployed with VSL under BBCD arrangement. VSL also has a shareholding of 49.91 percent in Tarun Shipping & Industries Ltd. which was incorporated in 1994. Tarun Shipping & Industries Ltd. owns one ship and operates two ships on time charter.

Management and group structure

VSL is a publicly listed company on the Bombay Stock Exchange with promoter and group companies having a major shareholding of around 35 percent. IFC (W) has a shareholding of 3.43 percent in the company. The table below exhibits the distribution of equity shareholding in Varun Shipping.

Distribution of equity shareholdings
(as on September 30, 1999)

Category	% share holding
I. Promoter Group and Group Companies	34.68
II. Directors and Directors Relative	1.00
III. Financial Institutions	18.22
IV. Insurance Companies	0.07
V. Nationalised Banks	0.01
VI. Mutual Funds	0.15
VII. Non-Residents	2.08
VIII. Residents	43.79
Total	100.00

Source: www.securities.com

Fleet analysis

Fleet profile

VSL is the third largest private operator in Indian shipping sector having operations in the shipping and support services for oil exploration. VSL with 13 vessels, has a total deadweight tonnage capacity of around 0.3 million tons. The share of VSL in the total Indian tonnage is 2.3 percent. The table exhibits the fleet of ships owned by VSL.

Fleet of Varun Shipping
(as on December 31, 1999)

Type of vessels	No. of vessels	GRT ('000)	DWT ('000)
Overseas:			
Dry bulk cargo carrier	2	49.1	85.2
Tanker (product carrier)	3	59.7	94.2
Acid carrier	1	4.1	7.9
LPG carrier	3	61.9	74.5
Total (overseas)	9	174.8	261.9
Coastal	-	-	-
Total (overseas & coastal)	9	174.8	261.9

Source: D. G. Shipping

In addition to the above-mentioned vessels, VSL has also acquired vessels on BBCD charter. The following table exhibits the BBCD vessels of Varun Shipping.

BBCD vessels of Varun Shipping
(as on December 31, 1999)

Category	Number of vessels	GRT ('000s)	DWT ('000s)
Tanker	2	5.6	14.6
OSV	2	1.9	-
Total	4	7.6	14.6

Source: D. G. Shipping

Age profile

The average age of VSL fleet when calculated as per GRT of vessel is 19.2 years, which is more than the average age of Indian fleet. The table below exhibits the age profile of VSL fleet.

Age profile of Varun fleet
(as on December, 1999)

Type of vessels	Under 5 years		5 to 9 years		10 to 14 years		15 to 19 years		20 years & above		Avg. Age
	No.	GRT	No.	GRT	No.	GRT	No.	GRT	No.	GRT	
Overseas:											
Dry bulk cargo carrier	-	-	-	-	-	-	2	49.1	-	-	15.0
Tanker (product carrier)	-	-	-	-	-	-	3	59.7	-	-	17.2
Acid carrier	-	-	-	-	-	-	-	-	1	4,121	20.0
LPG carrier	-	-	-	-	-	-	-	-	3	61,874	24.2
Total (overseas)	-	-	-	-	-	-	5	108.8	4	65,995	19.2
Coastal	-	-	-	-	-	-	-	-	-	-	-
Total (overseas & coastal)	-	-	-	-	-	-	5	108.8	4	65,995	19.2

Source: i-maritime

The table below exhibits the vessels that will surpass their economic age as mentioned by Ministry of Surface Transport in year 2005 if no new tonnage is added.

Vessels above economic life

Type of vessel	Economic age as per MoST (years)	No. of vessels			GRT ('000)			DWT ('000)		
		2000	2002	2005	2000	2002	2005	2000	2002	2005
Bulk carriers	25	-	-	-	-	-	-	-	-	-
Tankers (product)	20	-	-	3	-	-	59.7	-	-	94.2
Acid carriers	25	-	-	-	-	-	-	-	-	-
LPG carriers	30	-	-	-	-	-	-	-	-	-
Total		-	-	3	-	-	59.7	-	-	94.2

Source: i-maritime

Operations

The company is primarily involved in four sectors, namely the petroleum product / chemicals tanker segment, dry bulk carrier segment, LPG carrier segment and offshore segment.

The product tankers of the company are employed with the Indian public sector oil companies for carriage of petroleum except one, which is chartered to a foreign company.

It is expected that VSL tanker fleet will face uncertainty with the commissioning of new refineries in India, as with the increased domestic production of petroleum products there will be reduction in imports of these products. However, company can offset the fall in demand caused by reduced imports with greater movements of refined products along the Indian coast.

All of the company's LPG carriers are employed by the Indian public sector oil companies except one, which is deployed with a foreign charterer. VSL has converted one of its LPG carriers to carry ammonia for IOC. The two bulk carriers of VSL are employed with the foreign companies on charter. The two offshore supply vessels of the company are deployed with ONGC.

Varun Shipping bided for Petronet LNG project by forming a joint venture with Hanjin Shipping of South Korea. The company for its proposed LNG venture had appointed the US-based American Marine Advisors (AMA) as the merchant banker for the arrangement of funds.

Tonnage acquisition

Varun Shipping plans to acquire second hand vessels to strengthen its existing fleet and to diversify the gas operations by entering into the LNG market. For this, it is planning a convertible debenture issue of Rs. 360 million. The company has already made a budget of Rs. 950 million for ship acquisition of which Rs. 280 million will come from the right issue while remaining from the debt. However, dull market conditions prevailing in the shipping sector would be major factor in the shareholder's investment in the issue. Also considering the company's deteriorating profitability, it will not be an easy task to achieve.

Financial analysis

The tables given below exhibits the salient aspects of Varun Shipping financials over the last four years.

Profit and Loss Account

	(Rs. million)			
	1999-00	1998-99	1997-98	1996-97
TCE earnings from shipping	1,617	1,629	1,442	1,353
Profit from sale of ship	-	-	198	122
Total Turnover	1,848	1,829	1,777	1,593
PBDIT	792	844	869	722
Interest	302	322	276	235
Net profit	89	75	261	216
Cash profits	479	513	563	455

Balance Sheet

	(Rs. million)			
as on 31st March	2000	1999	1998	1997
Paid up equity	363	363	359	359
Net Worth	1,472	1,611	1,600	1,438
Loan Funds	2,825	2,966	2,417	2,096
Net Block of Fleet	3,890	4,036	3,353	3,024
Net Current Assets	311	458	496	350

VSL's income from shipping operations has grown at a CAGR of 15 % between FY1995-96 and FY1999-00. PBDIT has grown at a much smaller rate of 0.3% (CAGR), while PBT has actually fallen by 37%. Much of it could be attributed to high non-operating income (from sale of ships) in FY1995-96. This is largely due to the growth in expenses on account of BBCCD rentals and crew wages, as well as the higher administrative charges (largely miscellaneous).

The latest results show a decline in operating profit margins by 1.6 percent. The non-operating income in the four years before FY1999 has come from sale of ships. In any case, ships have mostly been sold to group companies and then hired back on lease, largely to improve liquidity as well as book profits.

It is interesting to watch the fleet profile of Varun - transfer of asset ownership between VSL and its subsidiaries has been quite frequent. MT Vishwa Doot, sold and leased back in FY 1996 is now back in the books of VSL within a period of 3 years. Similar is the case with M. T. Vayu Doot.

The balance sheet of VSL does not generate much confidence. It has a debt-equity ratio of nearly 2.0. There does not seem much room for further debt and given the fact an equity issue is difficult at this stage, chances of further expansion of fleet by the company seems low.

The liquidity position of the company is not satisfactory, what with VSL increasingly going in for sale of ships and loan funds to finance acquisitions. Its investment portfolio is long term in nature, being solely in-group companies and hence not really liquid.

Returns generated on the total capital have decreased steadily over the last few years. If ROCE calculations exclude profits from sale of ships (which are essentially made to subsidiaries), it is realized that returns generated by the company are not very impressive over the last 6 years.

The financial health of the company is also not very impressive. A high debt-equity ratio leaves little room for further growth; nor does the stock price (around Rs. 10) inspire much confidence about raising fresh equity.

SWOT analysis

Strength

- The company has an experience of 27 years in shipping
- A continuous dividend track record
- An A+ rating from Investment Information and Credit Rating Agency (ICRA)

Weaknesses

- The company has weak financials that is low liquidity and high debt-equity ratio of about 1.6. Hence its earnings are susceptible to ups and downs of internal and international shipping cycles
- Profitability of the company has reduced over the years
- The company has a small and aged fleet

Opportunities

- The company may find potential in LNG transportation

Threats

- Product imports are expected to undergo a major change with the coming up of new private sector refinery. Hence there exists uncertainty over the future deployment of company's product tankers.

Shipping to logistics

Shipping industry - changing profile

The contours of shipping industry is changing rapidly. To *ship* goods now means to transport goods not only by ocean mode but also by any form of conveyance. In the age of “stick to core competency”, shippers are willing to pay a premium to one who takes the entire responsibility of transporting goods from suppliers’ doors to their door and from theirs to the customers’.

Shipping is today losing its identity as an independent industry, increasingly getting merged with the overall transportation sector.

Transportation business itself is transforming itself into larger logistics business which includes inventory management, warehousing, packaging and customs clearance with a promise to deliver door-to-door service. In this era of integrated logistics and multimodal transportation, traditional ship owning is increasingly getting commoditized - a challenge faced by every ship owner worldwide.

The threat also presents enormous opportunities to ship owners. As the report of United Nations Conference on Trade and Development - *Review of Maritime Transport 1999* notes that these opportunities “...opens the door to an industry that is estimated to provide for an annual business volume of around USD 40 billion and, most importantly, for above average growth rates...”

The trend is most strong in container shipping where majors like P&O-Nedlloyd, Maersk etc. have established systems to take responsibility of total logistics requirements of their clients.

While a pure shipping company was entirely dependent on assets in the form of ships, containers etc. a logistics service provider has to develop extensive inland transport capabilities, first-rate port facilities, sophisticated information technology and most importantly well-trained personnel. The trend is increasingly catching up in other goods, including bulk commodities, where shipowners are taking responsibility for door-to-door transportation.

The new role of a total logistics service provider profoundly changes shipper-carrier relationships from a short-term assignment based to a long-term continuous one. The logistics service provider is integrated in production and marketing processes of the shipper. Prices and conditions negotiated bear little relevance to the traditional ocean tariff or the commodity and destination. Focus is not only to satisfy the client but also the client’s client.

Need for greater coordination between various players and rapid development of information & communications technology has led to transportation and logistics industry increasingly getting segmented into two parts:

- flow of physical goods
- flow of information

Flow of goods requires trucks and vessels while flow of information requires a well developed IT and communications infrastructure and skilled manpower. Thus a logistics and transportation service provider not only has to build a large fleet of physical assets in form of vessels, trucks, rail infrastructure, warehouses etc. (or tie up with operators in command of such assets) but also build up such assets as IT infrastructure and expertise over business processes-much more sophisticated and extensive than applicable in any single sub-segment.

The increasing debundling of information flow from flow of physical goods can be highlighted by increased demand from shippers for such real time information as scheduling, cargo movement status, online support, reservation & price quotations, etc., and increased necessity to maintain and process huge databases for successful operations on part of service provider.

Logistics industry is not just a simple agglomeration of physical infrastructure constituting each sub-segment but a complicated interplay between them. Expertise over this “interplay” is what constitutes the “soft” assets of a logistics service provider and highly critical to success of the venture.

Data, information, knowledge and expertise

Onshore functions could be divided into different levels of sophistication - at the levels of *data, information, knowledge* and *expertise*.

Thus processing of accounts, maintaining databases of various marine service suppliers and shippers, call centers etc. represent activities that range at the data and information levels. Decisions pertaining to business strategies and policies lie, on the other hand, at the knowledge and expertise end of the spectrum.

India is in a position to cater to all levels of requirements, ranging from data to expertise, of a global shipowning and logistics firm. This fact should be judged against the background of recent developments. Many software and finance firms like GE Capital have opened up call centers in India to cater to global clients. At the same time firms like Mckinsey, Microsoft and GE have opened up research centers in the country.

Many international ship management firms are catering to their international clients from offices set up in India. Last year P&O Nedlloyd announced it's plans to set up the company's global support center in Pune, India. We believe that in near future many of the data and information processing jobs of international shipowners and other maritime companies could shift to India. Eventually, over a longer time frame, even activities pertaining to the knowledge and expertise levels could also shift to India or Indians as in observed world over in such knowledge firms like Mckinsey, Citibank, Unilever, United Airlines, i2-Technologies etc. where an Indian is at the helm of affairs.

Competitive assessment

In the following sections, we have assessed the competitiveness of the Indian shipping industry and firms within it to capitalize on these fundamentals based on various factors and parameters.

Human resources

The country possesses a large pool of highly skilled IT and other personnel; resources critical for carrying out back office functions in any logistics operations. India is presently becoming the center for activities like research, product development, database management and call centers for various software, pharmaceuticals, engineering and other knowledge firms.

Two factors are responsible for such a trend - large number of skilled personnel and low cost of operations in India.

Foreign ship owners can achieve substantial monetary gains by transferring large sections of their onshore activities to India. Indian ship owners, already having strong infrastructure in the country, can provide these services for foreign ship owners.

Infrastructure

IT and communications infrastructure, two important parameters for setting up of logistics companies, are still underdeveloped in India. However, various industry participants consider this as a blessing in disguise – the country does not need to pass through various stages of such infrastructure as has been the case in various advanced nations. India can directly leapfrog to the latest technology options to build a strong IT and communications network.

Internet and e-commerce

Internet is today changing the way things are carried out – making redundant many of the businesses that existed in the past while creating opportunities in other areas. Shipping and logistics are also being greatly influenced by this new revolution. The fragmented nature of the industry has generated possibilities of huge potential cost savings as a result of web-enablement of business processes.

India is set to emerge as a leading country in the field of Information Technology and e-commerce. This augurs well for various industries including shipping and transportation, where adaptation of these technologies are expected to increase their competitiveness vis-à-vis other countries.

This is one of the most lucrative opportunities available to Indian shipowners to capitalize upon. To develop a shipping and logistics portal in the USA, initial costs could range from USD 7-8 million while the same portal could be developed in India at around USD 1-2 million only. Customization of various shipping softwares are being carried out at as low as Rs. 150,000 by Cyber Marine, a Bombay-based software firm, while costs can be upward of Rs. 450,000 if the same job is carried out by any Norwegian company. Today i-maritime is able to provide business consultancy services to various international maritime companies at costs, which are fraction of costs of foreign consultants. LBS College of Advanced Maritime Studies and Research has already drawn the attention of foreign seafarers.

Indian shipowners can “productise” their knowledge-bank to develop various shipping and maritime portals to serve various target markets. Such portals could also dramatically increase the shipowners’ market valuations.

Many of the global shipowners could transfer large portions of their onshore jobs involving information processing and database management to India to achieve substantial reduction in cost of operations. This aspect provides an opportunity for various Indian shipowners to provide various onshore jobs for foreign shipowners. This could include not just ship management – i.e. management of physical assets, but eventually the entire business of foreign shipowners.

Indian Navy and Coast Guard

The Indian Navy and Coast Guard are together responsible for protecting the nation's maritime interests. Their Headquarters are located in New Delhi.

The Indian Navy defends the countries coastline, island territories, offshore installations, sea lanes of communication, fishing interests, port & harbours, shipbuilding industry and marine infrastructure. The three Commands of Indian Navy are Western Naval Command (Mumbai), Eastern Naval Command (Vishakapatnam) and Southern Naval Command (Kochi). The establishments under western naval command are barracks and main dockyard, one 'carrier' dock, submarine pens and a supply school (INS Hamla). The region includes Mazagon and Goa shipyards. The establishments under Eastern Command are a submarine base (INS Virbahu), a submarine school (INS Satyavahana), a naval air station (INS Dega) and a new entry training (INS Chilka). The region includes Hindustan and Garden Reach Shipyards. The establishments under Southern Command are a naval air station, and professional schools (INS Venduruthy) ship repair yards, a trial establishment (INS Dronacharya). Karwar (near Goa) has been selected as the site for a new naval base whose first phase is due for completion in 2003.

The Coast Guard was constituted in 1978 as an armed force of the Union (through Coast Guard Act, 1978) & thus forms a part of the Defence Ministry. It ensures security and protection keeping in line with its motto "Vayam Raksham", meaning 'We Protect'. The coast guard engages in the surveillance of exclusive economic zones, anti-smuggling & anti-poaching activities, search operations and pollution control operations.

The active fleet strength of the Indian Navy and Coast Guard is 199 vessels. There are 21 vessels, which are being built with 37 more vessels in the pipeline. The two fleets of the navy, i.e., the Eastern and the Western, consist of an aircraft carrier (INS Viraat), warships (INS Savitri & INS Delhi), anti-submarine, general purpose ships, several fast attack crafts (INS Vibhuti, INS Vipul & INS Nashak) carrying surface-to-surface missiles fleet tanker (INS Jyoti with a carrying capacity of 30,000 tonnes of fuel), etc. The following table exhibits the composition of Indian Navy/Coast Guard fleet as on 1999.

Composition of Indian Navy/Coast Guard fleet
(as on 1999)

Type	Active	Building (Projected)
Attack Submarine	-	(1)
Patrol Submarines	17	1 (4)
Attack Carriers (Medium)	1	(1)
Destroyers	5	3
Frigates	13	5 (3)
Corvettes	25	3
Patrol Ships	7	-
Fast Attack Craft - Missiles	5	-
Large Patrol Craft	8	4 (15)
Landing Ships	10	1
LCUs	10	-
Minesweepers - Ocean	12	-
Minesweepers - Inshore	6	-
Minehunters	-	(6)
Research & Survey Ships	11	2
Training Ships	4	-
Submarine Tender	1	-
Diving Support/Rescue Ship	1	-
Replenishment Tankers	2	1 (1)
Support Tankers	6	-
Water Carriers	2	-
Ocean Tugs	2	-
Sub-total	148	20 (31)
Coast Guard Vessels	51	1 (6)
Total	199	21 (37)

Source: Jane's Fighting Ships

Overseas fleet
(as on December 31st, 1999)

S.No.	Company and vessel	Shipyard	Country	Year of Built	GRT	DWT
I - Dry cargo						
Binny Shipmanagement						
1	M. V. Indian Volour	A. G. "Weser" Werk Seebeck	Germany	1971	9,629	15,546
Bombay Marine Engg. Works						
2	M. V. Vibha - I	Bombay Marine Engineering Works	India	1973	472	700
India Steamship Co.						
3	M. V. Indian Prosperity	Mitsui Engineering & Shipbuilding Co.	Japan	1971	12,034	18,854
4	M. V. Indian Goodwill	Mitsubishi Heavy Industries	Japan	1978	14,267	20,401
Shipping Corporation of India						
5	M. V. S/O Mizoram	Mitsui Engineering & Shipbuilding Co.	Japan	1976	11,873	18,847
6	M. V. S/O Arunachal Pradesh	Mitsui Engineering & Shipbuilding Co.	Japan	1976	11,873	18,840
7	M. V. S/O Andhra Pradesh	Mitsubishi Heavy Industries	Japan	1977	14,166	20,608
8	M. V. S/O Manipur	Mitsubishi Heavy Industries	Japan	1978	14,166	20,627
9	M. V. S/O Nagaland	Mitsubishi Heavy Industries	Japan	1978	14,166	20,574
10	M. V. S/O Tripura	Mitsubishi Heavy Industries	Japan	1978	14,166	20,608
11	M. V. Vishva Nandini	Veb Warnowert	Germany	1978	11,001	13,745
12	M. V. Ravidas	Stocznia Gdanska Im. Lenina	Poland	1979	13,691	16,209
13	M. V. Trimbakeshwar	Hindustan Shipyard	India	1979	13,505	20,868
14	M. V. Tulsidas	Gdansk	Poland	1980	15,720	16,395
15	M. V. Vishva Kaumudi	Veb Wamowert	Germany	1980	11,001	13,715
16	M. V. Vishva Pankaj	Sunderland Shipbuilders	U. K.	1980	12,648	16,169
17	M. V. Vishva Parijat	Sunderland Shipbuilders	U. K.	1980	12,648	16,146
18	M. V. Vishva Pallav	Sunderland Shipbuilders	U. K.	1980	12,648	16,169
19	M. V. Vishva Parag	Sunderland Shipbuilders	U. K.	1980	12,648	16,146
20	M. V. Vishva Parimal	Sunderland Shipbuilders	U. K.	1980	12,648	16,169
21	M. V. Chandidas	Stocznia Gdanska Im. Lenina	Poland	1980	13,691	16,209
22	M. V. Kabirdas	Stocznia Gdanska Im. Lenina	Poland	1980	13,691	16,217
23	M. V. Ramdas	Stocznia Gdanska Im. Lenina	Poland	1980	13,691	16,209
24	M. V. Bhavabhuti	Uljanij pula	Yugoslavia	1981	11,439	15,289
25	M. V. Bhartendu	Brogradiliste "Uljanik"	Croatia	1981	11,439	15,289
26	M. V. Vishva prafulla	Sunderland Shipbuilders	U. K.	1981	12,648	16,146
27	M. V. Veer Savarkar	Hindustan Shipyard	India	1981	13,505	20,854
28	M. V. Vishvakarma	Stocznia Gdanska Im. Lenina	Poland	1983	16,885	20,435
29	M. V. S/O Hariyana	Hindustan Shipyard	India	1983	11,144	16,800
30	M. V. S/O Gujarat	Hindustan Shipyard	India	1984	11,144	16,789
31	M. V. S/O Orissa	Hindustan Shipyard	India	1986	11,144	16,806
II - Cellular container						
Shipping Corporation of India						
1	M. V. Lal Bahadur Shastri	Hyundai Heavy Industries Co.	South Korea	1993	21,963	28,903
2	M. V. Indira Gandhi	Mazagon Dock	India	1993	21,963	28,948
3	M. V. Rajiv Gandhi	Hyundai Heavy Industries Co.	South Korea	1993	21,963	28,966
Shreyas Shipping						
4	Orient Prosperity	Singapore Shipbuilding & Engineering	Singapore	1979	4,510	7,400
5	Orient Vision	Narasaki Shipbuilding Company	Japan	1979	4,802	6,302
6	Orient Commerce	Kochi Jyuko K. K.	Japan	1982	6,369	8,776
7	Orient Independence	Kurushima Dockyard Company	Japan	1982	6,369	8,776
8	Orient patriot	Spocznia	Poland	1983	17,702	20,182
9	Orient Spirit			1982	16,108	20,828
10	Orient Strength			1983	16,100	20,825
III - Dry cargo bulk carrier						
Arcadia Shipping						
1	M. V. Arcadia Progress			1975	20,854	35,224
Balaji Distilleries						
2	M. V. Balaji Diplomat	Mitsui Engineering & Shipbuilding Co.	Japan	1979	18,696	35,104
3	M. V. Balaji Premium	Imabari Shipbuilding Co.	Japan	1982	22,308	36,205
4	M. V. Balaji Vintage	Osaka Shipbuilding Co.	Japan	1983	21,968	37,497
Binny Shipmanagement						
5	M. V. Nirmal Bhushan	Usuki Tekkosho	Japan	1972	9,851	15,952
6	M. V. Aditya Kiran	Namura Shipbuilding Co.	Japan	1976	16,266	28,756

Overseas fleet
(as on December 31st, 1999)

S.No.	Company and vessel	Shipyard	Country	Year of Built	GRT	DWT
	Century Shipping					
7	M. V. Aditya Kanti	Hayashikane Shipbuilding & Engineering Co.	Japan	1977	16,576	26,432
8	M. V. Aditya Gaurav	Mitsui Engineering & Shipbuilding Co.	Japan	1984	24,676	42,308
9	M. V. Aditya Gopal	Daewoo Shipbuilding & Heavy Industries	South Korea	1994	26,745	43,815
10	M. V. Aditya Gautam	Daewoo Shipbuilding & Heavy Industries	South Korea	1994	26,824	43,815
	Chettinad Cement					
11	M. V. Chettinad Prince	Mitsui Engineering & Shipbuilding Co.	Japan	1985	24,653	42,592
12	M. V. Chettinad Tradition	Hashihama Zosen	Japan	1985	26,014	43,589
	Chowgule Steamship					
13	M. V. Maratha Mission	Cochin Shipyard	India	1985	41,671	76,905
14	M. V. Maratha Majesty	Cochin Shipyard	India	1988	41,688	76,650
15	M. V. Maratha Messenger	Namura Shipbuilding Co.	Japan	1995	38,000	71,252
16	M. V. Maratha Mighty	CSBC Shipyard, Keelung	Taiwan	1996	38,852	72,800
17	M. V. Maratha Memory	CSBC Shipyard, Keelung	Taiwan	1997	38,852	72,873
	Damodar Bulk Carriers					
18	M. V. Damodar Krishna		Spain	1975	44,044	77,670
	Ellon Hinengo					
19	M. V. Bay Island	A/S Nordsovaerftet	Denmark	1985	1,557	2,156
	Essar Shipping					
20	M. V. Nand Rati	Hindustan Shipyard	India	1984	16,829	26,700
	Great Eastern Shipping					
21	M. V. Jag Kanti	Imabari Shipbuilding Co.	Japan	1976	22,183	37,950
22	M. V. Vidya	Oshima Shipbuilding Co.	Japan	1977	16,732	27,490
23	M. V. Jag Ratna	Namura Shipbuilding Co.	Japan	1977	21,936	35,104
24	M. V. Jag Ravi	Osaka Zosenho	Japan	1977	21,910	36,183
25	M. V. Jag Vikas	Namura Shipbuilding Co.	Japan	1977	16,393	26,781
26	M. V. Jag Vikram	Osaka Zosenho	Japan	1980	16,910	27,029
27	M. V. Jag Manek	Hitachi Shipbuilding & Engineering Co.	Japan	1981	35,050	60,973
28	M. V. Radhika	Nippon Kai Heavy Industries	Japan	1983	24,978	41,502
29	M. V. Jag Raksha	Imabari Shipbuilding Co.	Japan	1984	26,361	45,345
30	M. V. Jag Rahul	Ishikawajima-Harima Heavy industries	Japan	1984	22,248	37,604
31	M. V. Jag Rishi	Oshima Shipbuilding Co.	Japan	1984	24,111	41,093
32	M. V. Jag Rashmi	Mitsui Engineering & Shipbuilding Co.	Japan	1990	23,652	39,867
33	M. V. Jag Rekha	Emaq Engenhariae	Brazil	1992	22,190	37,635
34	M. V. GE - 1	Bharati Shipyard Private Limited	India	1997	1,592	2,183
35	M. V. GE - 2	Bharati Shipyard Private Limited	India	1997	1,592	2,183
36	M. V. Jag Rani			1984	24,643	41,545
	I L & F S					
37	M. V. Jag Shanti		Japan	1972	15,498	26,645
	ICICI					
38	M. V. Pearl Prosperity	Sumitomo Heavy Industries	Japan	1978	19,169	34,554
	India Cement					
39	ICL Raja Rajan	Mhi Yokohama Shipyard & Engin Works	Japan	1979	29,680	53,644
40	ICL Parthibhan	Sanoyasu Dockyard Co.	Japan	1979	31,010	55,882
41	ICL Raja Mahendran	Namura Shipbuilding Co.	Japan	1984	27,706	47,893
42	ICL Jayam Kondam			1981	26,847	43,300
	India Steamship Company					
43	M. V. Ratna Deep	Cochin Shipyard	India	1983	41,300	76,440
	Pearl Ship					
44	M. V. Pearl Luck	Nippon Kokan K. K.	Japan	1977	20,421	35,137
45	M. V. Pearl Grace	Caneco Shipyard	Brazil	1982	23,374	39,316
	Radiant Shipping					
46	M. V. Jag Vasant	Kasado Dockyard Co.		1976	15,575	26,432
	Salgaocar Mining Industries					
47	M. V. Sunrise	Hitachi	Japan	1974	34,920	58,635
	Samrat Asia					
48	M. V. Samrat Ruckka	Dalian shipyard	China	1982	18,047	28,102

Overseas fleet
(as on December 31st, 1999)

S.No.	Company and vessel	Shipyard	Country	Year of Built	GRT	DWT
	Sanmar Shipping					
49	M. V. Sanmar Pavillion	Imabari Zosen K. K.	Japan	1977	21,926	36,416
50	M. V. Sanmar Pride	Mitsui Engineering & Shipbuilding Co.	Japan	1978	18,700	35,158
51	M. V. Sanmar Progress	Oshima Ship Building Co.	Japan	1984	24,111	41,098
52	M. V. Sanmar Pioneer	Sanoyas Hishino Meisho Corporation	Japan	1986	23,531	40,836
53	M. V. Sanmar Pageant	Hyundai Heavy Industries Co.	South Korea	1986	24,621	41,808
	Shipping Corporation of India					
54	M. V. Lok Kranti	Kanasashi Shipbuilding Co.	Japan	1975	19,211	33,633
55	M. V. Lok Kirti	Kanasashi Shipbuilding Co.	Japan	1978	19,211	33,633
56	M. V. Rani Padmini	Cochin Shipyard	India	1981	42,010	76,384
57	M. V. Lok Pragati	Garden Reach Shipbuilders and Engineers	India	1981	16,040	26,928
58	M. V. Kanpur	Daewoo Shipbuilding & Heavy Industries	South Korea	1986	28,739	47,175
59	M. V. Alaknanda	Daewoo Shipbuilding & Heavy Industries	South Korea	1986	28,739	47,222
60	M. V. Mandakini	Daewoo Shipbuilding & Heavy Industries	South Korea	1986	28,739	47,195
61	M. V. Uttarkashi	Daewoo Shipbuilding & Heavy Industries	South Korea	1986	28,739	47,225
62	M. V. Dev Prayag	Daewoo Shipbuilding & Heavy Industries	South Korea	1986	28,739	47,341
63	M. V. Rishkesh	Daewoo Shipbuilding & Heavy Industries	South Korea	1986	28,739	47,315
64	M. V. Hardwar	Daewoo Shipbuilding & Heavy Industries	South Korea	1986	28,739	47,311
65	M. V. Lok Maheswari	Hindustan Shipyard	India	1986	16,816	26,800
66	M. V. Varanasi	Daewoo Shipbuilding & Heavy Industries	South Korea	1987	28,739	47,351
67	M. V. Patliputra	Daewoo Shipbuilding & Heavy Industries	South Korea	1987	28,739	47,303
68	M. V. Murshidabad	Daewoo Shipbuilding & Heavy Industries	South Korea	1987	28,739	47,311
69	M. V. Dakshineshwar	Daewoo Shipbuilding & Heavy Industries	South Korea	1987	28,739	47,277
70	M. V. Ganga Sagar	Daewoo Shipbuilding & Heavy Industries	South Korea	1987	28,739	47,281
71	M. V. Lok Rajeshwari	Hindustan Shipyard	India	1988	16,816	26,639
72	M. V. Lok Pratima	Garden Reach Shipbuilders and Engineers	India	1989	15,952	26,872
73	M. V. Lok Prakash	Hindustan Shipyard	India	1989	16,835	26,790
74	M. V. Lok Prem	Hindustan Shipyard	India	1990	16,818	26,714
75	M. V. Lok Pratap	Hindustan Shipyard	India	1993	16,834	26,714
76	M. V. Maharashtra	Hindustan Shipyard	India	1995	28,029	45,744
77	M. V. Goa	Hindustan Shipyard	India	1998	28,029	43,000
	SISCO					
78	M. V. Nand Srishti	Kasado Shipyard		1978	14,995	26,982
79	M. V. Chennai Veeram	Hyundai Heavy industries Co.	South Korea	1983	23,991	37,940
80	M. V. Chennai Valarchi	Hyundai Heavy industries Co.	South Korea	1983	23,991	38,019
81	M. V. Chennai Polivu	Hyundai Heavy industries Co.	South Korea	1983	23,991	38,022
82	M. V. Chettinad Princess			1986	21,941	38,398
	South India Corporation					
83	M. V. Chettinad Glory	Kanda Zosen K. K.	Japan	1984	19,864	33,325
	Surrendra Overseas					
84	M. V. APJ Anand	Kanda Zosen K. K.	Japan	1977	10,319	16,883
85	M. V. APJ Angad	Koyo Dockyard Co.	Japan	1977	15,752	27,299
86	M. V. APJ Anjali	Kanasashi Zosen K. K.	Japan	1982	16,900	27,192
87	M. V. APJ Sushma	Kanasashi Zosen K. K.	Japan	1983	16,908	27,213
88	M. V. APJ Shalin	Cochin Shipyard	India	1988	41,699	76,650
89	M. V. APJ Akhil	Hitachi Zosen, Maizuru Works	Japan	1989	27,997	39,989
	TBR Radiant star					
90	M. V. Jag Vijay	Nippon Kokan K. K.	Japan	1977	14,540	21,329
	Tolani					
91	M. V. Prabhu Parvati	Kasado Dockyard Co.	Japan	1983	25,742	41,385
92	M. V. Prabhu Jivesh	Kanasashi Shipbuilding Co.	Japan	1983	22,009	37,651
93	M. V. Prabhu Yuvika	Tsuneishi Zosen K. K.	Japan	1984	25,899	43,648
94	M. V. Prabhu Satram	Nippon Kokan K. K.	Japan	1984	28,096	48,280
95	M. V. Prabhu Das	Minami Nippon Zosen K. K.	Japan	1985	18,869	31,253
96	M. V. Prabhu Daya	Hindustan Shipyard	India	1987	16,817	26,716
97	M. V. Prabhu Puni	Hashihama Zosen K. K.	Japan	1991	25,905	43,595
98	M. V. Prabhu Mihika	Tsuneishi Zosen K. K.	Japan	1991	25,905	43,469
	Varun Shipping					
99	M. V. Surya Kripa	Mitsui Engineering & Shipbuilding Co.	Japan	1985	24,639	42,628
100	M. V. Matru Kripa	Mitsui Engineering & Shipbuilding Co.	Japan	1985	24,487	42,605
	V. S. Dempo & Co					
101	M. V. Priyamvada	Rhein Stahl Nordseewerke GmbH	Germany	1982	11,894	7,460

Overseas fleet
(as on December 31st, 1999)

S.No.	Company and vessel	Shipyard	Country	Year of Built	GRT	DWT
	West Asia Maritime					
102	M. V. Gem of Tuticorin	Mitsui Engineering & Shipbuilding Co.	Japan	1985	23,635	40,478
103	M. V. Gem of Madras	Hitachi Zosen Technical Services Corp.	Japan	1986	25,131	41,938
104	M. V. Gem of Vizag	Split	Yugoslavia	1989	28,155	48,320
	IV - Ore, Oil, Bulk carriers					
	Essar Shipping					
1	M. V. Nand Shivchand	Cantieri Navali Riuniti	Italy	1982	37,813	65,075
	Shipping Corporation of India					
2	M. V. Maharshi Dayanand	Gotaverken Oresundsvarvet AB	Sweden	1978	66,644	123,450
3	M. V. Maharshi Karve	Gotaverken Oresundsvarvet AB	Sweden	1978	66,644	123,450
	V - Tankers (crude oil)					
	Essar Shipping					
1	M. T. Shravan	Hyundai Heavy Industries Co.	South Korea	1991	79,718	153,000
2	M. T. Iswari	Hyundai Heavy Industries Co.	South Korea	1991	79,718	153,000
3	M. T. Kamlesh	Hyundai Heavy Industries Co.	South Korea	1991	79,718	153,000
4	M. T. Kishore	Hyundai Heavy Industries Co.	South Korea	1992	74,718	153,000
5	M. T. Chanda			1992	80,569	149,544
6	M. T. Nanda			1992	80,569	149,544
	Great Eastern Shipping					
7	M. T. Jag Ladki	Harland & Wolff SB & HI	U. K.	1992	78,710	145,242
8	M. T. Jag Leela	Samsung Shipbuilding Co.	South Korea	1999	58,374	105,051
	Ratnakar Shipping					
9	M. T. Ratna Abha	Ishikawajima Harima Heavy Industries	Japan	1982	40,614	60,300
	Shipping Corporation of India					
10	M. T. Netaji Subash Bose	Mitsubishi Heavy Industries	Japan	1973	51,526	89,392
11	M. T. Vivekananda	Mitsubishi Heavy Industries	Japan	1974	51,717	89,371
12	M. T. B. R. Ambedkar	Mitsubishi Heavy Industries	Japan	1974	51,718	89,454
13	M. T. Chhatrapati Shivaji	Mitsubishi Heavy Industries	Japan	1974	51,718	89,490
14	M. T. Lokmanya Tilak	Mitsubishi Heavy Industries	Japan	1975	51,535	89,411
15	M. T. Satyamurti	Mitsubishi Heavy Industries	Japan	1975	51,533	89,351
16	M. T. Rajendra Prasad	Brodogradiliste I Tvrnica Diesel Motora	Croatia	1975	63,460	115,723
17	M. T. Kanchanjunga	Brodogradiliste "Uljanik"	Croatia	1975	139,820	276,755
18	M. T. Subedar joginder Singh PVC	Hyundai Heavy Industries Co.	South Korea	1984	37,885	67,137
19	M. T. Maj. Dhansingh Thapa PVC	Hyundai Heavy Industries Co.	South Korea	1984	37,885	67,153
20	M. T. Naik Jadunath singh PVC	Hyundai Heavy Industries Co.	South Korea	1984	37,885	67,169
21	M. T. Company Hav. Maj. Piru Singh PVC	Hyundai Heavy industries Co.	South Korea	1984	37,885	67,161
22	M. T. Capt. Gurubachan singh Salaria	Hyundai Heavy industries Co.	South Korea	1984	37,885	67,167
23	M. T. Lance Naik Karam singh	Hyundai Heavy Industries Co.	South Korea	1984	37,885	67,170
24	M. T. Maj. Somnath Sharma PVC	Hyundai Heavy Industries Co.	South Korea	1984	37,885	67,225
25	M. T. Rama Raghoba Rane PVC	Hyundai Heavy Industries Co.	South Korea	1984	37,885	67,227
26	M. T. Maj. Shaitan Singh PVC	Hyundai Heavy Industries Co.	South Korea	1985	37,855	67,185
27	M. T. Abdul Hamid PVC	Hyundai Heavy Industries Co.	South Korea	1985	37,855	67,164
28	M. T. AD Tarapore PVC	Hyundai Heavy Industries Co.	South Korea	1985	37,855	67,124
29	M. T. Motilal Nehru	Cochin Shipyard	India	1990	51,778	85,429
30	M. T. Jawaharlal Nehru	Cochin Shipyard	India	1992	51,778	85,429
31	M. T. Ankleshwar	Samsung Heavy Industries Co.	South Korea	1994	80,130	139,115
32	M. T. Gandhar	Samsung Heavy Industries Co.	South Korea	1994	80,130	139,115
33	M. T. Maharaja Agrasen	Hyundai Heavy Industries Co.	South Korea	1995	80,130	139,020
34	M. T. Guru Gobind singh PVC	Hyundai Heavy industries Co.	South Korea	1995	80,130	139,020
35	M. T. Abdul Kalam Azad	Cochin Shipyard	India	1999	51,793	92,687
	VI - Tankers (product carriers)					
	Amer Ship Management					
1	Amer Energy			1979	18,101	30,990
	Century Shipping					
2	M. T. Aditya Vikram	Asakawa Shipbuilding Co.	Japan	1981	3,850	7,070
3	M. T. Aditya Vijay	Minami Nippon	Japan	1981	16,899	29,990
	Essar Shipping					
4	M. T. Nand Kishore	Samsung Shipbuilding Co.	South Korea	1981	13,906	19,602
5	M. T. Nand Hari	Samsung Shipbuilding Co.	South Korea	1981	11,135	19,604

Overseas fleet
(as on December 31st, 1999)

S.No.	Company and vessel	Shipyard	Country	Year of Built	GRT	DWT
Great Eastern Shipping						
6	M. T. Jag Prakash	Scotts SB & Mchy Co.	Scotland	1974	15,489	25,080
7	M. T. Jag Priya	Scotts SB & Mchy Co.	Scotland	1975	20,415	32,360
8	M. T. Jag Prabhu	Kurinoura Dock K. K.	Japan	1978	28,010	50,600
9	M. T. Jag Preeti	Nippon Kokan K. K.	Japan	1981	21,206	28,679
10	M. T. Jag Pari	Nippon Kokan K. K.	Japan	1982	20,991	28,679
11	M. T. Jag Padma	Ishikawajima-Harima Heavy industries	Japan	1982	27,771	47,048
12	M. T. Jag Praja	Hellenic Shipyards	Greece	1982	17,199	29,990
13	M. T. Jag Prayog	Hellenic Shipyards	Greece	1982	17,199	29,990
14	M. T. Jag Pranam	Odense Shipyard	Denmark	1984	28,010	50,600
15	M. T. Jag Palak	Korea Shipbuilding & Engineering Corp.	South Korea	1985	18,542	26,970
16	M. T. Jag Pragati	Korea Shipbuilding & Engineering Corp.	South Korea	1985	18,542	26,970
17	M. T. Jag Pratap	Hanjin Heavy Industries Co.	South Korea	1995	27,627	45,693
18	M. T. Jag Pradip	Hanjin Heavy Industries Co.	South Korea	1996	27,627	45,684
19	M. T. Jag Laxmi			1999	58,374	105,051
I L & F S						
20	M. T. Sanmar Sonata		Japan	1982	29,864	48,532
Pratibha Shipping						
21	M. T. Pratibha Yamuna			1982	26,450	46,122
22	M. T. Praibha Krishna			1979	18,271	31,150
23	M. T. Pratibha Cauvery			1981	17,268	29,810
Sanmar Shipping						
24	M. T. Sanmar Sentinal	Odense Shipyard	Denmark	1986	28,017	50,600
25	M. T. Sanmar Symphony	Odense Staal Skibsuaerft	Denmark	1985	28,017	50,600
Shipping Corporation of India						
26	M. T. Aurobindo	Brodogradiliste "III Maj"	Croatia	1976	15,045	24,411
27	M. T. Kolandia	Brodogradiliste "J. L. Mosor"	Croatia	1976	15,045	24,490
28	M. T. Dadabhai Navroji	Brodogradiliste "J. L. Mosor"	Croatia	1977	15,045	24,469
29	M. T. Vasaveswara	Hellenic	Greece	1982	17,199	29,990
30	M. T. Jhulelal	Hayashikane SB. & Engg. Co.	Japan	1983	13,279	19,954
31	M. T. Maj. Hoshiar Singh PVC	Hyundai Heavy Industries Co.	South Korea	1985	28,704	45,421
32	M. T. Lance Naik Albert Ekka	Astilleros Ames S. A.	Mexico	1985	28,704	45,473
33	M. T. Flying Officer Nirmal Singh Sekhavat PVC	Hyundai Heavy industries Co.	South Korea	1985	28,704	45,485
34	M. T. Lt Arun Khedar Pal	Hyundai Heavy industries Co.	South Korea	1985	28,704	45,453
35	M. T. Bharat Darsan	Guangzhou Shipyard	China	1991	16,515	29,775
36	M. T. Rabindranath Tagore	Hanjin Heavy Industries Co.	South Korea	1993	26,481	45,135
37	M. T. Bakim Chandra Chaterjee	Hanjin Heavy Industries Co.	South Korea	1994	26,474	45,135
38	M. T. Suvarna Swarjaya	Hyundai Heavy Industries Co.	South Korea	1998	21,827	32,901
39	M. T. Sampurna Swarjaya	Hyundai Heavy Industries Co.	South Korea	1999	21,827	32,940
Varun Shipping						
40	M. T. Vishwadoot	Swan Hunter Shipbuilders	U. K.	1982	18,959	29,999
41	M. T. Shakti doot	Kanda Zosenho K. K.	Japan	1982	17,751	29,999
42	M. T. Jaladoot	Hashihama Zosen K. K.	Japan	1984	22,989	34,247
VII - Passenger-cum-cargo						
Andaman & Nicobar Administration						
1	M. V. Akbar	Helsingor Skibsv. OG Maskinbyg	Denmark	1971	8,279	8,820
VIII - Acid carriers						
Shipping Corporation of India						
1	M. T. Tirumalai	Astilleros Espanoles S. A.	Mexico	1991	21,035	31,004
2	M. T. Planimalai	Astilleros Espanoles S. A.	Mexico	1992	21,035	31,013
3	M. T. Sabarimalai	Astilleros Espanoles S. A.	Mexico	1992	21,035	31,013
Southern Petrochemicals Industries						
4	M. T. SPIC Pearl	Scheepswerf "De Hoop" B. V.	Netherlands	1978	13,514	23,116
5	M. T. SPIC Emerald	A/S Nakskov Skibsvaerft	Denmark	1983	11,712	17,400
6	M. T. SPIC Diamond	Hyundai Heavy Industries Co.	South Korea	1991	17,778	17,577
Varun Shipping						
7	M. T. Vayudoot	Kurinoura Dockyard Co.	Japan	1980	4,121	7,860

Overseas fleet
(as on December 31st, 1999)

S.No.	Company and vessel	Shipyard	Country	Year of Built	GRT	DWT
IX - Timber carriers						
	Garware Shipping					
1	M. T. Raigad	Kurushima Dockyard Co.		1978	3,742	6,281
2	M. T. Shivneri			1979	3,744	6,283
X - LPG carriers						
	Great Eastern Shipping					
1	M. T. Jag Vayu	Hellenic Shipyard	Greece	1978	21,308	28,400
	Shipping Corporation of India					
2	M. T. Nanga Parbat	Hyundai Heavy Industries Co.	South Korea	1991	17,778	17,601
3	M. T. Annapurna	Hyundai Heavy industries Co.	South Korea	1991	17,778	17,601
	Varun Shipping					
4	M. T. Maharshi Vyas	Moss Rosenburg Verft	Norway	1975	15,092	18,165
5	M. T. Maharshi Vasishth	Swan Hunters Shipbuilding	U. K.	1976	15,559	17,650
6	M. T. Maharshi Vishwamitra	Chantiers De France, Dunkerque	France	1976	31,223	38,705
Total (overseas vessels)				241	6,372,736	10,712,698

Note: SISICO's fleet which has been mentioned independently in DG Shipping's Tonnage Statement, is now a part of Essar Shipping.

Coastal fleet
(as on December 31st, 1999)

S.No.	Company and vessel	Shipyards	Country	Year of built	GRT	DWT
I - Dry cargo						
Administration of U T of Lakshdweep						
1	M. V. Ubaidulla	Alcock Ashdown & Co.	India	1992	738	900
2	M. V. Lacca Dives	Alcock Ashdown & Co.	India	1994	738	900
3	M. V. Cheriya	Alcock Ashdown & Co.	India	1997	738	960
Amic Technocons						
4	M. V. Amic - I	Amic Technocons	India	1991	199	350
Atlas Shipping						
5	M. V. Atlas Fortune	West Coast Lighterage Company	India	1978	437	600
Bombay Marine Engineering Works						
6	M. V. Vibha - II	Bombay Marine Engineering Works Private Limited	India	1975	499	700
Chowgule Steamship						
7	M. V. Maratha Cruiser	Sing Koon Seng (Pte)	Singapore	1990	1,446	1,878
8	M. V. Maratha Classic	Chowgule & Co.	India	1993	1,594	2,048
9	M. V. Maratha Courage	Lotelim Yard, Goa	India	1994	1,594	2,047
10	M. V. Maratha Crystal	Bornea Shipyards, Bintulu	Malaysia	1997	1,986	3,250
Ellon Hinengo						
11	M. V. Nicotrade	Nieuwe Noord Nederlandse Scheepswerven N	Netherlands	1966	499	1,175
12	M. V. John Richardson	Batservice Verft A/S	Norway	1969	402	808
13	M. V. Solomon	P/F Skala Skipasmidja		1973	300	827
Fairmacs Shipping & Transport Services						
14	M. V. Maratha Convey	Harlingen S/W	U. S.	1979	1,599	3,108
Garuda Carriers & Shipping						
15	M. V. Ispat Sagar	Krasnoyirskiy Sudostroitelniy Zavod	U. S. S. R.	1981	1,836	2,800
16	M. V. Ispat Shanti	Krasnoyirskiy Sudostroitelniy Zavod	U. S. S. R.	1981	1,836	2,800
17	M. V. Ispat Shakti	Krasnoyirskiy Sudostroitelniy Zavod	U. S. S. R.	1982	1,836	2,800
18	M. V. Ispat Gaurav	Chowgule & Co.	India	1998	1,532	3,489
Great Eastern Shipping						
19	M. V. G. E. - 3	Bharati Shipyards	India	1998	1,593	2,528
20	M. V. G. E. - 4	Bharati Shipyards	India	1998	1,593	2,528
Hauers Lines						
21	M. V. Island Pride	Orskovs Staalskibsvaerft	Denmark	1969	298	957
22	M. V. Island Grace	Johan Drage A/S		1976	299	1,000
Mangla Bulk Carriers						
23	M. V. Mangal Meena	Mangala Engineering Works Private Limited	India	1983	950	1,294
24	M. V. Mangal Jyoti	Mangala Engineering Works Private Limited	India	1987	1,575	2,193
Mercator Lines						
25	M. V. Savitri	N. V. Shipyards Schouten Scheepswerf Hoja	Belgium	1974	499	869
26	M. V. Sundari	G. R. Engineering Works Private Limited	India	1984	569	891
Polaris Shipping						
27	M. V. Nand Mayur	N. V. Shipyards Schouten Scheepswerf Hoja	Belgium	1974	499	825
Pranik Shipping						
28	M. V. Pranik Pravesh	ABG Shipyards, Magdala	India	1997	1,874	2,680
Reacon Engineers (India)						
29	M. V. Rossana	Aarhus Flydock & Maskinkomp Frederikshavn	Denmark	1969	399	1,064
Recon International						
30	M. V. Kashi Sagar			1970	461	527
Sadhana Technical Works						
31	M. V. Namratha	Frederikshavn Yard & Dockyard	Denmark	1972	1,493	2,100
Samrat Asia						
32	M. V. Samrat Ajay	Magdala Shipyards Private Limited	India	1995	1,874	2,350
33	M. V. Samrat Vijaya	Magdala Shipyards Private Limited	India	1995	1,874	2,350

Coastal fleet
(as on December 31st, 1999)

S.No.	Company and vessel	Shipyard	Country	Year of built	GRT	DWT
	Sealand Shipping & Export					
34	M. V. Maratha Concord	Astilleros Del Cantabrico y De Riera	Mexico	1978	1,818	3,897
	Shanti Shipping Co. Private Limited					
35	M. V. Island Princess	Orskovs Staalskibsvaerft	Denmark	1967	760	830
36	M. V. Island Queen	Batservice Verft A/S	Norway	1970	690	844
37	M. V. Gulma	Krystavgen Ship & Batbyggeri		1971	332	360
	Shaparia Shipping					
38	M. V. Hemant Sagar	Shaparia Dock and Steel	India	1976	483	696
	TCI Seaways					
39	M. V. TCI Shakti	A/S Nordsovaerfttet	Denmark	1982	1,510	2,156
40	M. V. TCI Vijay	A/S Nordsovaerfttet	Denmark	1985	1,557	3,014
41	M. V. Lakshmi			1984	1,557	2,298
	Transport Corporation of India					
42	M. V. Boruka-I	A/S Nordsovaerfttet	Denmark	1976	300	710
43	M. V. Boruka-II	A/S Nordsovaerfttet	Denmark	1976	300	710
44	M. V. Boruka Prabhu	A/S Nordsovaerfttet	Denmark	1978	400	1,229
45	M. V. Boruka Vikram	A/S Nordsovaerfttet	Denmark	1982	1,510	2,160
	Vikram Shipping					
46	M. V. Kumar	Magdala Shipyard Private Limited	India	1994	1,874	2,350
47	M. V. Mangalam	Magdala Shipyard Private Limited	India	1994	1,874	2,350
48	M. V. Neerja	Magdala Shipyard Private Limited	India	1994	1,874	2,350
49	M. V. Vasavadatta	Magdala Shipyard Private Limited	India	1994	1,874	2,350
	II - Tugs					
	Aditi Shipping					
1	M. V. Adi Shakti	Sanyo Zosen K. K.	Japan	1976	457	279
	Akam Shipping					
2	Tug Khusboo			1998	117	0
	Amit Ship Management					
3	M. T. Bristwo	Hooghly Docking & Engineering Co.	India	1976	313	0
	Bharati Shipyard					
4	Rel Tug VI	Bharati Shipyard Private Limited	India	1999	465	0
5	Rel Tug VII	Bharati Shipyard Private Limited	India	1999	465	0
	Essar Shipping					
6	E T - III	Universal Dockyard Limited	China	1991	225	0
7	E T - IV	Universal Dockyard Limited	China	1991	225	0
8	E T - V	Universal Dockyard Limited	China	1992	225	0
9	E T - VI	Universal Dockyard Limited	China	1992	225	0
	Essar Steel					
10	E T - VII	ABG Shipyard	India	1996	293	0
11	E T - VIII	ABG Shipyard	India	1996	293	0
12	E T - IX	ABG Shipyard	India	1996	293	0
13	E T - X	ABG Shipyard	India	1996	293	0
	Gal Offshore Shipping					
14	Sharda M	Bodewes Bergum B. V.	Netherlands	1975	610	193
15	Gal Beauford Sea	Allied Shipbuilders Limited	Canada	1982	841	521
16	Gal Rose Sea	Allied Shipbuilders Limited	Canada	1982	841	521
	Great Eastern Shipping					
17	Rishab	Yokohama Yacht Co.	Japan	1985	217	250
18	Malini	Cant. Navale Ferrari	Italy	1987	2,572	193
19	Anasuya	Bharati Shipyard Private Limited	India	1996	290	0
20	Kumari Tarani	Bharati Shipyard Private Limited	India	1997	290	0
21	Kanti	Bharati Shipyard Private Limited	India	1998	290	0
22	Vahbiz			1999	292	0
23	Sangita			1994	398	0
	Jesia Mistry Agencies					
24	RESCO - I	Kiong Nauong Shipbuilding Contractor Company	Singapore	1997	91	0

Coastal fleet
(as on December 31st, 1999)

S.No.	Company and vessel	Shipyard	Country	Year of built	GRT	DWT
	Natvar Parikh & Co.					
25	N. P. Soha III	Seri Modalwan SDN BHD	Malaysia	1994	109	0
	Natvar Parikh Industries					
26	Anuja	Pondan Shipyard	Singapore	1993	252	0
27	Soha II	Super Light Shipbuilding Contractor	Malaysia	1993	110	0
	Ocean Sparkle					
28	M. T. Ocean Glory			1981	196	0
29	M. T. Ocean Pride			1982	294	0
	Parikh Marine Agencies					
30	Orchird	Rajang Maju Shipbuilding SDN BHD	Malaysia	1994	110	0
31	Tug Jasmin - I			1977	113	0
32	Rose			1999	134	0
	Petcon Enterprises					
33	M. T. Gurgur		Netherlands	1976	249	176
	Prince Marine Transport					
34	Tug Pamba			1970	108	0
	Procyon Offshore Services					
35	Tug sch-3	Kiong Jong Shipbuilding and Contractors	Malaysia	1994	107	0
	Raj Shipping					
36	M. T. Shakti	Blutworth Shipyard	U. S.	1998	83	0
	Reliance Industries					
37	Rel Tug - I	Bharati Shipyard Private Limited	India	1992	150	72
38	Rel Tug - II	Bharati Shipyard Private Limited	India	1992	150	72
39	Rel Tug - III	Bharati Shipyard Private Limited	India	1995	420	238
40	Rel Tug - IV	Bharati Shipyard Private Limited	India	1995	420	238
41	Rel Tug - V	Kepel	Philippines	1982	121	106
42	Rel Tug - VIII	Kanagava Zosen	Japan	1980	192	0
43	Rel Tug - IX	Kanagava Zosen	Japan	1985	216	0
44	Rel Tug - X			1982		
45	Rel Boat Express	Alcock Ashdown & Co.	India	1996	147	0
	Sahara Shipping					
46	Tug Lion Kind			1998	78	0
	Samson Maritime					
47	M. V. Malacca	N. V. Schpsw "Appingedam"		1963	167	210
48	M. V. Orinoco	J. & K. Smit's Scheeps, Kinderdijk		1964	670	0
49	M. V. Ocean Opal	K. K. Imai Seisakusho	Japan	1976	338	0
50	Ocean Lapiz	Imamura Zosen	Japan	1977	366	0
51	M. V. Ocean Ruby	Carrington slipways Pty.	U. K.	1980	717	0
52	Ocean Garnet		Japan	1982	397	0
53	Tug Ocean Amber	Theriot-Modec enterprises	U. S.	1982	347	0
54	Amethyst			1992	242	0
	Sesa Shipping					
55	Tug Courages	Universal Dockyard	Hong Kong	1988	121	0
	Shahi Shipping					
56	Royal Godavari	Universal Dockyard	Hong Kong	1988	121	0
	Shiva Marketing					
57	M. V. Shiva Shakti			1995	157	0
	United Shippers					
58	M. V. Srinath	Promet SB	Singapore	1977	34	0
	Vikram Shipping					
59	M. V. Krishna - I	ABG Shipyard	India	1996	241	0
60	M. V. Krishna - II	ABG Shipyard	India	1997	241	0
	VNS Offshore Services					
61	M. V. Kanshi Gauri	F. Schichav GmbH	Germany	1956	132	192

Coastal fleet
(as on December 31st, 1999)

S.No.	Company and vessel	Shipyard	Country	Year of built	GRT	DWT
III - Dry cargo bulk carriers						
ABG Shipyard						
1	M. V. Nand Pragati	ABG Shipyard	India	1998	1,874	2,550
Chowgule Steamship						
2	M. V. Maratha deep	Osaka Shipbuilding Co.	U. S. S. R.	1974	21,164	33,400
Gujarat Ambuja Cements						
3	Ambuja Shikar	Magdala Shipyard Private Limited	India	1993	1,871	2,500
4	Ambuja Vaibhav	Magdala Shipyard Private Limited	India	1993	1,864	2,500
5	Ambuja Gaurav	Magdala Shipyard Private Limited	India	1994	1,864	2,500
Poompuhar Shipping						
6	M. V. Tamil Anna	Hitachi Zosen, Maizuru Works	Japan	1985	27,968	39,085
7	M. V. Tamil Periyar	Hitachi Zosen, Maizuru Works	Japan	1986	27,997	39,990
8	M. V. Tamil Kamaraj	Hitachi Zosen, Maizuru Works	Japan	1987	27,997	39,990
Salgaonkar & Brothers						
9	M. V. Sameervani			1945	10,804	17,000
10	M. V. Swatirani	Uraga Heavy Industries		1962	11,814	27,000
Salgaonkar Engineers						
11	M. V. Gosalia Prospect	Hiqashi Nippon Jukogyo	Japan	1971	12,219	17,529
Sesa Shipping						
12	M. V. Orissa	Italcantieri	Italy	1979	46,178	81,783
IV - Tankers (product carriers)						
Amar Ship Management						
1	M. T. Amar Ganga			1980	3,391	6,535
Essar Shipping						
2	M. T. Nand Prakriti	Hellenic S/Y	Greece	1975	17,237	30,465
Hede Ferominas						
3	M. T. Hoogli Harvest	Imamura Zosen	Japan	1974	493	872
ICCI						
4	M. T. Nand Smiti	Dong Hae SB. Co.	South Korea	1982	4,275	6,600
Jaisu Shipping						
5	M. T. Al Nims	Mangala Engineering Works	India	1976	298	508
6	M. T. Kamal XXI	Mangala Engineering Works	India	1987	1,575	2,300
Mercator Lines						
7	M. T. Richa	A. B. Lodose Varf	Sweden	1974	6,649	9,814
Reliance Industries						
8	M. T. RelChem Arjun	Eriksbergs M/V A/B	Sweden	1971	14,960	23,928
Samson Maritime						
9	M. T. Ocean Devotee	K. K. Matsuura Zosensho	Japan	1978	1,090	2,052
Shipping Corporation of India						
10	M. T. Jay Narayan Vyas	J. L. Mosor Trogir	Yugoslavia	1975	15,035	24,529
11	M. T. R. A. Kidwai	Brodogradiliste "J. L. Mosor"	Croatia	1975	15,035	24,439
V - Tankers (crude oil carriers)						
Shipping Corporation of India						
1	M. T. C. V. Raman	Mitsubishi Heavy Industries	Japan	1981	25,040	41,123
2	M. T. Homi Bhabha	Mitsubishi Heavy Industries	Japan	1982	25,040	41,126
VI - Passenger-cum-cargo						
Administration of U T of Lakshdweep						
1	M. V. Bharat Seema	Moss Rosenberg Verft A/s	Norway	1964	2,997	1,733
2	M. V. Tipu Sultan	Agro SB. & Repairing Co.		1982	3,748	3,028
3	M. V. Dweep sethu	Chowgule & Co.	India	1985	492	98
Andaman & Nicobar						
4	M. V. Sentinel	Mazagon Dock Limited	India	1982	2,625	1,118
5	M. V. Chowra	Mazagon Dock Limited	India	1983	2,625	1,288

Coastal fleet
(as on December 31st, 1999)

S.No.	Company and vessel	Shipyard	Country	Year of built	GRT	DWT
6	M. V. Nicobar	Stocznia Szczecinska	Poland	1990	14,195	5,200
7	M. V. Nancowry	Stocznia Szczecinska	Poland	1991	14,176	4,963
8	M. V. Swaraj Dweep			1999	14,239	4,650
Shipping Corporation of India						
9	M. V. Harshavardhan	Mazagon Dock Limited	India	1974	8,871	5,271
10	M. V. Ramanujam	Husumer Schiffswerft	Germany	1982	823	163
Union of India (MOST)						
11	M. V. Yerewa	Mazagon Dock Limited	India	1964	1,552	370
VII - Passenger services						
Damania Shipping						
1	Damania	Kvaerner Fjellstrand	Singapore	1994	481	45
Hind Offshore						
2	M. V. Kenwell - 93			1980	143	0
3	M. V. Sumai Tangkas	Calmarine (Pte) Ltd.	Singapore	1980	152	0
S. K. S.						
4	Jasmine	Slingby	U. K.	1994	12	0
5	Tulip	Slingby	U. K.	1994	12	0
Seaspan Shipping						
6	Seaspan III	Tsakalis Bros	Greece	1990	643	0
Triton Overwater Transport Agency						
7	Triton - I	Griffon	U. K.	1992	35	0
8	Triton - II	Griffon	U. K.	1992	35	0
SVUL Project						
9	M. V. Satyam			1988	122	0
10	M. V. Shivam			1988	122	0
11	M. V. Sundram			1988	122	0
VIII - Ethylene gas carrier						
Reliance Industries						
1	Relgas Isheta	Bodewes Schpsw "Volharding" Foxhol B.V.	Netherlands	1991	3,035	2,647
2	Relgas Nayantra	Bodewes Schpsw "Volharding" Foxhol B.V.	Netherlands	1991	3,035	2,628
3	Relgas Vikram	Rauma-Repola Offshore, Mantyluoto		1991	2,655	1,685
IX - Ro-Ro						
Natvar Parikh Industries						
1	M. V. N. P. Gopi	Singapore Shipbuilding Engineering	Singapore	1983	956	1,386
X - Dredger						
Dredging Corporation of India						
1	DCI Dredge I	IHC	Netherlands	1972	964	0
2	DCI Dredge V	A Vuyk And Zosen Scheepswerven N V	Netherlands	1974	3,613	0
3	DCI Dredge VI	IHC Verschure NV	Netherlands	1975	3,802	0
4	DCI Dredge VII	Mazagon Dock Limited	India	1976	1,075	0
5	DCI Dredge VIII	IHC GustoB V	Neitherlands	1977	8,150	0
6	DCI Dredge IX	IHC SmitBV	Netherlands	1984	5,100	0
7	DCI Dredge XI	IHC SmitBV	Netherlands	1986	5,100	0
8	DCI Dredge XII	IHC SmitBV	Netherlands	1990	6,355	0
9	DCI Dredge XIV	IHC Holland	Netherlands	1991	6,355	0
10	DCI Dredge XV			1999		
11	DCI Dredge Aquarius	De Merwede	Netherlands	1977	2,985	0
12	DCI Tug VI	Kambara Marine Development & SB Co.			8,070	0
Jaisu Shipping						
13	Kamal XXV	Mazagon Dock Ltd.	India	1975	3,132	0
XI - Offshore supply vessels						
Administration of UT of Lakshdweep						
1	M. V. Thinnakara	Alcock Ashdown & Co.	India	1993	738	960
Dolphin offshore						
2	OSV Ganga	Inamura	Japan	1982	369	272
Essar Shipping						
3	M. V. Nand Heera	Daewoo Shipbuilding & Heavy Machinery	South Korea	1984	1,313	1,751
4	M. V. Nand Krishna	Daewoo Shipbuilding & Heavy Machinery	South Korea	1984	1,313	1,751

Coastal fleet
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S.No.	Company and vessel	Shipyard	Country	Year of built	GRT	DWT
5	M. V. Nand Panna	Daewoo Shipbuilding & Heavy Machinery	South Korea	1984	1,313	1,751
	Essar Shipping					
3	M. V. Nand Heera	Daewoo Shipbuilding & Heavy Machinery	South Korea	1984	1,313	1,751
4	M. V. Nand Krishna	Daewoo Shipbuilding & Heavy Machinery	South Korea	1984	1,313	1,751
5	M. V. Nand Panna	Daewoo Shipbuilding & Heavy Machinery	South Korea	1984	1,313	1,751
	GAL Offshore Shipping					
6	Gal Amer Sea			1975	640	0
	Garware Shipping					
7	M. V. Garware - I	Maroil Engineers & Shipbulding Pte.	Singapore	1983	881	1,050
8	M. V. Garware - II	Maroil Engineers & Shipbulding Pte.	Singapore	1983	881	1,050
9	M. V. Garware - III	Maroil Engineers & Shipbulding Pte.	Singapore	1984	881	1,050
10	M. V. Garware - IV	Maroil Engineers & Shipbulding Pte.	Singapore	1984	881	1,050
11	M. V. Garware - V	Maroil Engineers & Shipbulding Pte.	Singapore	1984	881	1,050
	Great Eastern Shipping					
12	M. V. Malavia I	Imamura Zosen	Japan	1983	869	1,073
13	M. V. Malavia II	Teraoka Shipyard Co. , Nandan				
14	M. V. Malavia III	Nippon Kokan K. K.	Japan	1984	1,084	1,251
15	M. V. Malavia IV	Nippon Kokan K. K.	Japan	1984	1,085	1,242
16	M. V. Malavia V	Sigbjorn Iversen Mek Verksted, Flekkefjord		1980	650	993
17	M. V. Malavia VI	Langsten Slip & Batbyggeri A/S	Norway	1981	650	993
18	M. V. Malavia IX	Sanyo Shipyard Co.	Japan	1983	1,351	1,517
19	M. V. Malavia X	Nippon Kokan K. K.	Japan	1999	2,180	2,542
20	M. V. Malavia XI	Greenbay Marine Pte	Singapore	1989	810	0
21	M. V. Malavia XII	Greenbay Marine Pte	Singapore	1989	810	0
22	M. V. Malavia XIV	Greenbay Marine Pte	Singapore	1989	810	0
	Hede Ferominas					
23	M. V. Feromina Harvest	Vosper Thornycroft Uniteers Pte.		1971	629	759
	ONGC					
24	M. V. Sindhu - 1	Mazagon Dock Limited	India	1984	1,310	1,450
25	M. V. Sindhu - 2	Mazagon Dock Limited	India	1985	1,310	1,450
26	M. V. Sindhu - 3	Mazagon Dock Limited	India	1985	1,310	1,450
27	M. V. Sindhu - 4	Mazagon Dock Limited	India	1986	1,310	1,450
28	M. V. Sindhu - 5	Inchon Engineering & shipbuilding Corporation	South Korea	1985	1,302	1,450
29	M. V. Sindhu - 6	Inchon Engineering & shipbuilding Corporation	South Korea	1985	1,302	1,450
30	M. V. Sindhu - 7			1985	1,302	1,450
31	M. V. Sindhu - 8	Inchon Engineering & shipbuilding Corporation	South Korea	1985	1,302	1,450
32	M. V. Sindhu - 9	Inchon Engineering & shipbuilding Corporation	South Korea	1985	1,302	1,450
33	M. V. Sindhu - 10	Inchon Engineering & shipbuilding Corporation	South Korea	1985	1,302	1,450
34	M. V. Sindhu - 11	Inchon Engineering & shipbuilding Corporation	South Korea	1985	1,302	1,450
35	M. V. Sindhu - 12	Inchon Engineering & shipbuilding Corporation	South Korea	1985	1,302	1,450
36	M. V. Sindhu - 14	Mazagon Dock Limited	India	1987	1,310	1,450
37	M. V. Sindhu - 15	Mazagon Dock Limited	India	1992	1,323	1,450
38	M. V. Sindhu - 16	Mazagon Dock Limited	India	1993	1,323	1,450
39	M. V. Sindhu - 17	Mazagon Dock Limited	India	1993	1,323	1,450
40	M. V. Samudrika - 1	Goa Shipyard	India	1986	949	950
41	M. V. Samudrika - 2	Goa Shipyard	India	1986	949	950
42	M. V. Samudrika - 3	Goa Shipyard	India	1986	949	950
43	M. V. Samudrika - 4	Hindustan Shipyard	India	1985	949	950
44	M. V. Samudrika - 5	Hindustan Shipyard	India	1986	949	950
45	M. V. Samudrika - 6	Hindustan Shipyard	India	1986	949	950
46	M. V. Samudrika - 7	Hindustan Shipyard	India	1987	949	950
47	M. V. Samudrika - 8	Garden Reach Shipbuilders & Engineers	India	1986	949	950
48	M. V. Samudrika - 9	Garden Reach Shipbuilders & Engineers	India	1986	949	950
49	M. V. Samudrika - 10	Garden Reach Shipbuilders & Engineers	India	1986	949	950
50	M. V. Samudrika - 11	Hooghly Dock & Port Engineers	India	1986	949	950
51	M. V. Samudrika - 12	Hooghly Dock & Port Engineers	India	1986	949	950
52	M. V. Samudrika - 14	Southern Ocean Shipping Co. Pte.	Singapore	1986	949	950
53	M. V. Samudrika - 15	Southern Ocean Shipping Co. Pte.	Singapore	1985	949	950
54	M. V. Samudrika - 16	Southern Ocean Shipping Co. Pte.	Singapore	1985	949	950
55	M. V. Samudrika - 17	Southern Ocean Shipping Co. Pte.	Singapore	1986	949	950
56	M. V. Samudrika - 18	Southern Ocean Shipping Co. Pte.	Singapore	1986	949	950
	Seaspan Shipping					
57	M. V. Seaspan - I	Halter Marine	U. S.	1984	157	0

Coastal fleet
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S.No.	Company and vessel	Shipyard	Country	Year of built	GRT	DWT
Shipping Corporation of India						
58	M. V. C. P. Srivastava	Robin Shipyard Pte.	Singapore	1984	1,310	1,758
59	M. V. Feroze Gandhi	Robin Shipyard Pte.	Singapore	1984	1,310	1,758
60	M. V. SCI - 01	Robin Shipyard Pte.	Singapore	1984	1,310	1,775
61	M. V. SCI - 02	Robin Shipyard Pte.	Singapore	1984	1,310	1,776
62	M. V. SCI - 03	Robin Shipyard Pte.	Singapore	1984	1,310	1,771
63	M. V. SCI - 04	Robin Shipyard Pte.	Singapore	1984	1,310	1,812
64	M. V. SCI - 05	Robin Shipyard Pte.	Singapore	1984	1,310	1,819
65	M. V. SCI - 06	Robin Shipyard Pte.	Singapore	1984	1,310	1,817
66	M. V. Capt. F. M. Juvale	Robin Shipyard Pte.	Singapore	1985	1,310	1,809
67	M. V. Dr. Nagendra Singh	Robin Shipyard Pte.	Singapore	1985	1,310	1,817
VNS Offshore Services						
68	M. V. Kansi Namrata	J. G. Hitzler Schiffswerft Und Maschinenf	Germany	1969	487	737
XII - Specialized vessel for offshore services						
Elcome Surveys						
1	M. V. Flamboyan			1983	392	469
Bombay Offshore Supplies & Services						
2	M. V. Boss - I (AHT)	Shimoda Dockyard Co.	Japan	1982	491	407
Council of Scientific & Industrial Research						
3	M. V. Sagar Sampada	Danneborg Vaerft A/S	Denmark	1984	2,661	800
Department of Ocean Development						
4	M. V. Sagar Paschimi			1996	188	0
Director General of Lighthouses & Lightships						
5	M. V. Sagar Deep	Brodogradliste Titovo	Croatia	1983	2,755	1,568
6	M. V. Pradeep	Rajabagan, Calcutta	India	1984	602	162
Essar Shipping						
7	M. V. Essar Stena - I	Singapore (Rebuilt)	Singapore	1981	4,485	2,970
Geological Survey of India						
8	M. V. Samudra Manthan	Aktien-Gesellschaft "Weser" Seebeckwerft		1985	2,374	1,825
9	Samudra Kaustubh	Delta Shipyard B. V.	Netherlands	1985	284	94
10	Samudra Saudhikama	Delta Shipyard B. V.	Netherlands	1985	284	94
Jaisu shipping						
11	M. V. Noorani Sea Horse	Steward Sea Craft	U. S.	1970	99	99
ONGC						
12	M. V. Sagar Samarat	Mitsubishi Heavy Industries	Japan	1973	4,186	6,398
13	M. V. Samudra suraksha	Ankerlokken Vaerft Forde A/S	Norway	1982	5,006	4,348
14	M. V. Sagarika IV			1983	4,207	1,096
15	M. V. Samudra Nidhi (MSV)	Daewoo Shipbuilding & Heavy Machinery	South Korea	1985	2,995	2,189
16	M. V. Sagar Vijay(D/S)	Hitachi Zosen Corporation	Japan	1985	11,103	9,239
17	M. V. Sagar Sandhani	Southern Ocean Shipping Co. Pte.	Singapore	1985	2,156	1,300
18	M. V. Samudra Sarvekshak	Societe Nouvelle Des Ateliers Et Chantie		1986	4,018	2,124
19	M. V. Samudra Prabha (NDT)	Hyundai Heavy Industries Co.	South Korea	1986	4,018	2,124
20	M. V. Samudra Sanchani (Research)			1986	1,500	2,145
21	M. V. Sagar Bhushan	Hindustan Shipyard	India	1987	11,103	9,239
Peerless Drive						
22	M. V. Peerless Stena - I	Tangen Verft A/S	Norway	1983	2,248	2,001
23	M. V. Peerless Stena - II	Scheepswerf "De Hoop" B. V.	Netherlands	1982	3,964	1,430
24	M. V. Peerless Stena - III	Scheepswerf "De Hoop" B. V.	Netherlands	1984	3,966	2,067
Raj shipping						
25	M. V. Anweshak	Atlantic Marine Inc.	U. S.	1974	715	1,469
Samson Maritime						
26	M. V. Pearl (SPSM)	Verlome	Netherlands	1966	482	670
South India Corporation						
27	Sagar sevak	J.G. Hitzler Schiffswerft Und Maschinenf	Germany	1972	490	860
Total (coastal vessels)				269	679,707	781,927

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