

Shipping: Vital Role for Trade

By Akihiro Suzuki

Japan, an island country surrounded by water and with a scarcity of natural resources, has traditionally developed its economy and enriched the people's livelihood by importing energy and industrial raw materials as well as consumer-related materials, processing the raw materials into high value-added manufactured products, and then exporting them.

Japan's seaborne trade volume in 1991 increased 19.54 million tons from the previous year to 789.27 million tons, accounting for 19.6% of the world's seaborne cargo traffic of 4,025 million tons. Meanwhile, the volume of cargo carried by ships on domestic coastal routes in 1991 totaled 575.2 million tons.

The transportation of such a large amount of cargo was made possible by efficient seaborne transportation, which is the most suitable means for carrying a large volume of cargo over long distances. Japan's merchant fleet forms the nucleus of such seaborne transportation.

The country's shipping industry is playing an important role in the development of the economy and sustaining the people's livelihood. To satisfy the diversifying needs arising from economic development and growth, various kinds of ships ranging from container ships and tankers to specialized carriers are in extensive operation and deployed in a balanced manner. The shipping industry is also constantly engaged in improving operational efficiency and cost-cutting through use of large and highly technologically advanced vessels.

Japan's merchant fleet

There was a total of 80,030 steel ships of 100 gross tons or more, including fishing boats, in the world in mid-1991, an increase of 1,694 ships (2.2%) over the previous year, according to Lloyd's Register of Shipping. In terms of gross tonnage, there was an increase of 12.4 million tons (2.9%) over the same period to 436.03 million tons.

In Japan, the Lloyd's register showed, the number of ships increased by 63 to 10,063 ships from 1990 but the gross tonnage declined 670,000 tons (2.5%) to 26.41 million tons. The ratio of Japanese-owned ships to the world's total declined to 6.1% from 6.4%. Japan, however, still ranked third after Liberia and Panama in terms of both the number of ships and gross tonnage.

According to statistics on Japan's merchant fleet in 1991 compiled by the Japanese Shipowners' Association on behalf of the Ministry of Transport, there was a total of 7,568 steel ships of 100 gross tons or more, excluding fishing boats, in the country. Their total tonnage came to 24.75 million gross tons. By type, ore-bulk carriers accounted for 33% of the total, tankers 29.3%, liquefied gas carriers 6.9%, passenger ships 5.9% and full container ships 5%, with all these five types accounting for 80% of the Japanese ships.

By size, ships of less than 10,000 gross tons accounted for 20% of the total, and those between 10,000 and just under 50,000 tons 21%, 50,000 to 100,000 tons 28%, 100,000 to 150,000 tons 30% and those of 150,000 tons or more 1%. Thus, the average size of the ships came to 3,269 gross tons. The figures show that 29% of the ships were less than five years old, 36% between five and 10 years, 33% 10 to 20 years and 2% 20 years or more.

Oceangoing shipping

Seaborne trade volume

Japan's seaborne trade volume in 1991 reached 789.27 million tons, registering an increase for the fifth successive year. Of that figure, exports increased by 6.2% (4.38 million tons) from 1990 to 74.8 million tons. Itemwise, steel products as well as cement and fertilizers increased while cars and machinery declined. Imports increased by 2.2% (15.16 million tons) from the year before to 714.47 million tons. By item, dry cargo as a whole increased by 3% (12.31 million tons) and oils by 1%

(2.84 million tons). Among the dry cargoes, iron ore, coal, chips and nickel ore increased while phosphate ore, bauxite and forestry products declined. As for oils, crude oil increased but fuel oil decreased sharply.

By destination, exports to Asia, the Middle East, Africa and Central and South America rose. Exports to Asia increased by 16.5% (6.45 million tons) from the previous year to 45.56 million tons, due chiefly to a rise in shipments of metal and chemical products and cement to East Asia and cement to Southeast Asia. Exports to North America, however, declined 18.3% (2.75 million tons) to 12.27 million tons due to a drop in shipments of cement and machinery. Those to Europe also dropped by 3.6% (250,000 tons) to 6.76 million tons as shipments of steel to Western Europe fell 19.1% (110,000 tons) from the previous year.

As for imports, those from Asia, the Middle East, Oceania and North America increased. Especially, imports of metal and metal products and chips from North America increased, but as a whole, imports from North America increased by only 0.5% (510,000 tons) to 105.05 million tons. On the other hand, imports from Oceania rose sharply by 8.6% (11.82 million tons) to 149.26 million tons due to increased imports of iron ore, coal and LNG. Imports of crude oil from the Middle East increased but those of oil products declined. As a result, imports from the area rose by only 1.6% (2.8 million tons) to 179.93 million tons (Fig. 1).

Oceangoing fleet and hauling rate

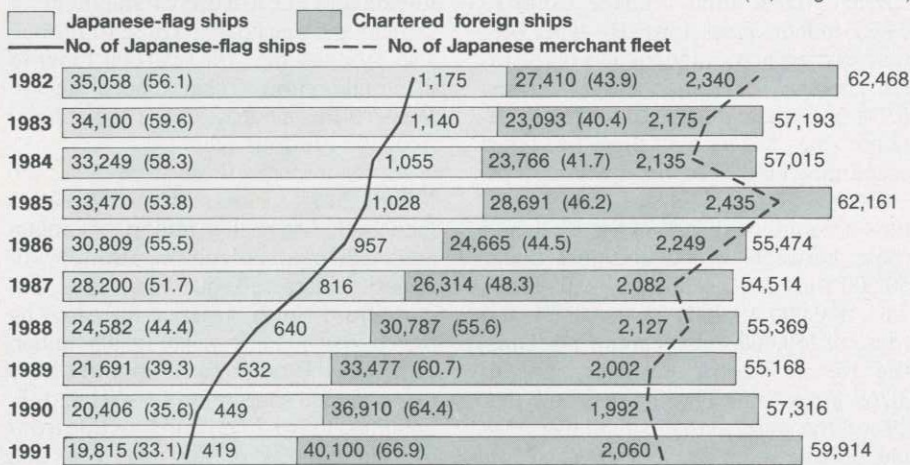
Japan's oceangoing merchant fleet comprises oceangoing ships of 2,000 gross tons or more, in addition to which there are chartered foreign vessels. The combined number of ships increased by 68 (3.4%) and by 2.6 million gross tons (4.5%) from the previous year to a total of 2,060 ships and 59.91 million gross tons, respectively. Japanese flag carriers declined by 30 (6.7%) and by 590,000 gross

Fig. 1 Trends of Japan's Seaborne Trade



Source: Ministry of Transport

Fig. 2 Trends of Japanese Oceangoing Merchant Fleet



Notes: 1. Figures are for oceangoing vessels of 2,000 gross tons or more.

2. Figures in parentheses represent the percentage of total.

Source: Ministry of Transport

tons (2.9%) to 419 ships (19.82 million gross tons), indicating a continuing decline from the previous year.

On the other hand, chartered foreign vessels increased by 98 ships (6.4%) and 3.19 million gross tons (8.6%) to 1,641 ships (40.1 million gross tons). The ratio occupied by chartered foreign vessels in Japan's oceangoing fleet rose further to 80% in number and 67% in gross tonnage, due to the so-called flagging out of Japanese flag carriers following the decline in cost competitiveness of Japanese ships (Fig. 2).

The hauling rate, or the ratio of cargo carried by Japan's oceangoing merchant fleet to total seaborne cargo on routes centered on Japan, stood at some 46% for exports and 71% for imports. The remainder was carried by foreign ships. Of Japan's oceangoing merchant fleet, only 7% of export cargo was transported by Japanese flag carriers and 39% by chartered foreign vessels, while 28% of import cargo was transported by Japanese ships and 43% by chartered foreign ships. As this shows, the hauling ratio of chartered foreign vessels is quite high.

Hauling volume and freight revenues

The volume of export, import and cross-trade cargo carried by Japan's oceangoing merchant fleet in 1991 increased by 7.9% (47.18 million tons) to 645 million tons. Transportation of export cargo increased by 3.8% (1.27 million tons) to 34.24 million tons as a result of an increase in the hauling volume by both liners and trampers, despite a decline in oil transports.

As for import cargo, the volume transported rose by 7.7% (36.24 million tons) to 505.85 million tons as haulings of liners and trampers as well as tankers increased. Transportation by liners, trampers and tankers of cross-trade cargo also increased by 10.2% (9.67 million tons) to 104.91 million tons. This brought the hauling ratios of export cargo to 5.3%, import cargo to 78.4% and cross-trade cargo to 16.3%.

Freight revenues continued to increase against the background of a rise in haulings by tankers. Freight revenues in 1991 totaled ¥2,123.9 billion. Of this, revenues from transportation of export cargo came to ¥572.3 billion (27% of the total), imports ¥1,084.1 billion (51%) and cross-trade cargo ¥467.6 billion (22%).

Business performance

Due to the slowdown in global business activity, as well as the addition of newly built vessels to the fleet, which resulted in a surplus of bottoms, the shipping market slackened from the latter half of fiscal 1991 (April 1991-March 1992). The business performances of Japan's 32 major shipping firms engaged in oceangoing operations, however, remained favorable in fiscal 1991, since the shipping market centered on the trampers sector maintained a level surpassing that of the previous year during the year 1991 and due also to the fact that cargo movement remained brisk in the first half of the fiscal year.

Also, the freight level of cargo carried by container ships on the North American route was comparatively stable. Despite the effects of the rise in the yen's value, shipping firms managed to operate in the black for the fourth successive year.

Operating income increased by ¥78.3

billion to ¥2,055.7 billion and operating expenses by ¥71.9 billion to ¥1,994.5 billion. Since the margin of increase of the operating income was larger, the shipping firms managed to record a black-ink balance of ¥61.2 billion in their operating profit-loss account, up ¥6.5 billion (11.9%) from the previous fiscal year. This can be attributed not only to cost-cutting efforts but also to the drop in fuel prices which rose sharply in the previous year as a result of the Gulf crisis. As for the current profit-loss account, the shipping firms managed to register a profit of only ¥28 billion, down ¥3.2 billion (10.3%) from the previous year.

Business stabilization measures

Japan's oceangoing shipping firms had been forced to operate in a difficult business environment in recent years. To cope with the previous recession caused by the yen's appreciation, they had been busy streamlining and rationalizing their operations, resorting to such measures as disposal of uneconomical ships and adoption of measures dealing with surplus crew members.

As a result of such efforts and also due to the recovery of the shipping market, the business performance of the shipping firms has improved since fiscal 1988 and profits have stabilized. Yet profits declined in fiscal 1990 due to a rise in fuel costs caused by the Gulf crisis. Profits also declined in fiscal 1991 due to effects of the rise in the yen's value and deteriorating conditions of the shipping market.

Under these circumstances, shipping companies are making efforts in diversifying their business to further promote efficiency of operations and establish a firm business foundation. For this purpose, they aim to develop into comprehensive international distribution business operators through the creation of an efficient overall transportation system including land transport services and the establishment of an enhanced cargo transportation information network.

They are also advancing into a new shipping sector, namely pleasure cruising and other marine leisure businesses. In addition, they are branching out into non-shipping areas such as the real estate



The *Nisseki Maru*, a 149,500-GT tanker built with the latest technology in 1988, can be operated by 18 crew.

business. In the pleasure cruising area, eight firms were operating 12 ships totaling 210,000 gross tons as of 1991, with the number of Japanese utilizing such ships estimated at around 64,000.

Coastal shipping

Of the 6,767.06 million tons of cargo domestically transported in fiscal 1990, coastal shipping accounted for 575.2 million tons, only 8.5% of the total. On an efficiency basis, however, the volume carried by coastal shipping comes to 244.5 billion ton-kilometers, or 44.7% of the total.

There was a total of 9,195 ships aggregating to approximately 3.85 million gross tons, including those of less than 100 gross tons, engaged in coastal shipping as of March 1992.

Freighters, including ships specializing in the carrying of sand, gravel and building stones, accounted for 72% of the total in respect to number of ships and 54% on a gross tonnage basis. Of the others, 19% of the ships were oil carriers, accounting for 23% in tonnage.

By size, 84.9% were of less than 500 gross tons. The average tonnage of the ships is becoming larger year by year as a

result of progress made in modernization of ships in line with rationalization of distribution. The average tonnage now is 418 gross tons, 15.8% higher than the 361 tons 10 years ago.

For the future, Japanese shipping must tackle various problems such as transformation toward the use of double-hull tankers, in which interest has been mounting internationally as a measure to protect the environment. Also, the scrapping and disposal of aging tankers and bulk carriers, and cooperation and coordination with other countries, especially in Asia, must be promoted. Domestically, measures must be adopted to expand the mixed manning of Japanese ships to prevent the flagging out of vessels. Finally, efforts must be continued to stabilize the cargo transportation business, while putting extra efforts into measures such as the promotion of "modal shift"—shifting the mode of Japanese cargo transportation from trucking to railroads, shipping and airfreight—to prevent environmental pollution.

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