

Rating Methodology by Sector

Marine Transportation

1. Business base

The shipping industry is a cyclical industry, and it cannot avoid the repercussions from market fluctuations of such elements of freight rates, bunker oil price, and foreign exchange rates. The industry is also a type of process industry. Consequently, it carries a heavy burden of fixed costs, and its earnings often fall when demand is sluggish. Taking these factors into account, when determining ratings, we focus on how shipping companies are containing these risks. Key points are the diversification of the portfolio by business or vessel type, initiatives to secure stable earnings such as by entering into medium and long term contracts, and cost competitiveness.

(1) Characteristics of the industry

(i) Market overview

The volume of seaborne traffic has been rising, thanks to progress in economic globalization and economic growth in emerging countries. Vessels are the only distribution system to transport large quantities of freight in one shipment, and cover the globe. Because there are no alternative distribution methods, shipping is an important part of the global infrastructure. In Japan, shipping is also responsible for the majority of its trade volume.

Shipping is categorized into liners and trampers. Liners operate on specific routes on a regular basis, and the majority are container vessels. Container vessels transport daily commodities, foodstuffs, clothing, building materials, auto parts, and a wide range of other cargo in standardized containers. With a network of global shipping routes spanning the globe, routes with a high transportation volume originating in Asia and destined for North America and Europe are regarded as the two major routes. In addition, reflecting recent economic growth in emerging countries, the volume of cargo being carried on routes originating in Asia for Latin America and those travelling within the Asian region has been rising.

Trampers transport specific cargoes using dedicated vessels. The main types of vessels of trampers are dry bulkers, tankers, and car carriers. Dry bulkers transport different cargoes in accordance with the size of the vessel. Capesize bulkers mainly transport steel raw materials, panamax bulkers transport coal and grain, while handymax and small handy bulkers transport steel, nonferrous metals, and other minor bulks. Tankers are categorized into crude oil tankers, such as very large crude carriers (VLCCs), product tankers that transport petroleum products, and chemical tankers that carry chemical products. Car carriers are vessels used specifically for the transportation of automobiles and trucks, and their operations are carried out by a limited number of cargo owners,

transport operators, and other players.

Freight rates are determined by the supply-demand balance of the shipping space. Demand in the short-term fluctuates in a cyclical manner, driven by business cycles and other factors. It can temporarily change by large margins. However, it usually takes about three years to build new vessels from the time an order is placed. As a result, even halting orders for new vessels at the time of falling demand would not immediately reduce the supply of the shipping space. The shipping space is adjusted mainly by stopping vessels, mooring vessels, dismantling vessels, and slow streaming. However, reflecting the diverse plans of market participants, the volatility of the freight market is high.

Meanwhile, a majority of freight charges for international shipping is paid in US dollars, and more than 80% of revenue of shipping companies is denominated in the US dollars. In response, shipping companies have sought to denominate their expenses in US dollars during periods of a stronger yen. Now, about 70% of expenses are in US dollars. However, the companies are still exposed to a currency gap and maintain an earnings structure in which their yen-denominated earnings suffer when the yen strengthens.

(ii) Competitive situation

The domestic shipping industry has now established a stable industrial structure through a series of industrial consolidation during the periods of economic slumps in the past. The industry is centered in three general shipping companies, Nippon Yusen Kabushiki Kaisha, Mitsui O.S.K. Lines and Kawasaki Kisen Kaisha, who own a wide range of vessels. Other shipping companies belong to the industry as operators who own specific types of vessels.

Meanwhile, shipping companies compete with global shipping companies based on the principle of shipping freedom. That presents broader business opportunities to Japanese shipping companies, but with severe competition. In the shipping industry, as it is generally difficult to offer differentiated services, freight rates tend to fall in the face of demand weakness. However, regulations related to the safety and responsibilities of cargo owners have been tightening for certain types of vessels, such as tankers. In this sector, facing tougher requirements for safe operational capabilities, shipping companies are likely to be consolidated in the future.

(iii) Cost structure

The costs of shipping companies comprise the costs of acquiring vessels and the costs of operating them. The former includes expenses for chartering vessels or building new ones, while the latter includes expenses for bunker oil and crews. These costs fluctuate with their markets, noticeably impacting on the results of the shipping companies. Fixed costs for maintaining and expanding fleets are also high. For these reasons, we focus on measures taken to contain cost fluctuation risks, the burden of fixed costs, and scope for cost cutting.

Among these costs, the rise in bunker oil price has recently become severe. To deal with this situation, shipping companies have been concentrating on adding a clause that states that changes in prices of bunker oil can be reflected on freight charges when entering agreements with cargo owners. But they still cannot fully transfer additional costs onto freight charges. As a result, shipping companies are striving to reduce the consumption of bunker oil by reducing the sailing speed of vessels, particularly container vessels.

(iv) Risks related to policies

While the shipping companies operate in compliance with the legal and tax systems of each country, because their area of operations is basically the single global market, they are exposed to competition with overseas shipping companies with different competitive conditions. Although Japan has adopted a special depreciation system for ships, a tonnage tax system for ships registered in Japan, and other policies, certain overseas countries have adopted more favorable policies to stimulate their shipping industries. As a result, Japanese shipping companies are not necessarily in a better business situation.

Meanwhile, as a schedule for the phasing out of single hull oil tankers were introduced, global regulations related to environmental issues, such as emissions of greenhouse gases and ballast water, have become stricter. This development is likely to increase the burden on shipping companies. However, shipping companies share the same competitive conditions, so companies that can respond effectively to these regulatory requirements can potentially enhance their competitiveness.

(2) Important factors in market position and competitiveness

(i) Market position

Apart from the sectors of car carriers, LNG carriers, and other certain types of vessels, there are so many players in the shipping industry that no company has a market share that is large enough to control market trends. In addition, because trampers usually enter into agreements with individual customers with specific conditions, large-scale companies do not necessarily always have advantages. Still, as earnings sources of the shipping companies are vessels, the companies need to have a reasonable size fleet to ensure a steady income. Based on the scale of their fleets, the three major companies in Japan are within the top five global players, and are listed in the top ranks for trampers.

(ii) Customer base

In the shipping industry, as different types of vessels transport different cargoes, we focus on the status of transactions with major companies in each industry. We believe that having sound customer bases will result in limiting the risks of earnings fluctuations. Most Japanese shipping companies have long histories and a customer base.

On the other hand, because the market in Japan is mature, there are industries that cannot foresee

demand growth. Responding to this situation, using the know-how they have developed through business with companies in Japan, the Japanese shipping companies have been stepping up transactions with foreign companies, mainly in China and other Asian countries. The key question is the extent to which Japanese shipping companies can expand their overseas customer bases while maintaining customer bases in Japan.

(iii) Accumulation of steady earnings

The shipping companies have an earnings structure such that their earnings are susceptible to a range of market conditions. It is therefore important for companies to secure income that is more resilient to market fluctuations, to contain the risks of earnings declines. We focus in particular on the status of the accumulation of earnings from medium and long term contracts for capesize dry bulkers, crude oil tankers, and LNG carriers.

Attention must also be paid to the fact that earnings from medium and long term contracts fluctuate due to the renewal of contracts, trends in foreign exchange rates, and other factors. If the freight market remain sluggish, it is difficult to maintain medium and long term contracts that accumulate sufficient earnings. In addition, each medium and long term contract has different degrees of earnings stability, in accordance with the length and details of contracts. It is therefore necessary to confirm changes in the details of medium and long term contracts on a regular basis.

(iv) Business portfolio

While most overseas shipping companies specialize in specific types of vessels, Japan's three major companies have a range of vessels from liners to trampers. Because each type of vessel has different factors that affect the market for that vessel, it is beneficial to have a portfolio that consists of different types of vessels to limit earnings fluctuations.

Expanding non-shipping businesses is also an effective way to control earnings fluctuations. For example, despite its smaller scale, the real estate business offers steady earnings sources. Other businesses can also add earnings if they can achieve a certain level of profitability. Moreover, logistics and other services that are closely related to the shipping business can generate synergies when customer needs are treated in a comprehensive manner, contributing to an expansion in the shipping business.

The business portfolio of each company reflects its management policies and strategies. Because this portfolio is reviewed as required to respond to changes in the business environment, it is necessary to monitor any changes in the business portfolio of each company and their impact on the operating results of the relevant company.

(v) Cost competitiveness of fleets

Vessels are usually operative for more than 20 years after they are built, and there are many

vessels that are chartered under medium and long term contracts. Meanwhile, as the freight market can fall significantly, it is important to minimize the costs of fleets to secure income. We therefore focus on whether shipping companies can enhance the cost competitiveness of their fleets by maintaining low cost vessels and chartered vessels with low charges.

2. Financial base

(1) Earnings strength

We place a heavy weight on earnings strength from the perspective of the maintenance and expansion of the business. As the earnings of shipping companies, however, are easily affected by economic cycles and changing market conditions, we evaluate the companies based on results for a certain length of the economic cycle, and not only based on results for one term. When significant changes in the earnings level are monitored, we analyze factors that triggered such changes. If these factors are not the economic cycle or temporary developments, but are structural and sustained changes that are taking place, then we reflect such changes to ratings. It is also important to achieve a high level of earnings when the economy is booming. However, we focus more on whether or not companies have an earnings structure resilient to an economic slump, limiting a fall in earnings in the face of sluggish economic conditions.

Key financial indicators:

- Operating income
- Ordinary income
- EBITDA
- Ordinary income on sales
- ROA

(2) Cash flow

To maintain and expand their fleets, shipping companies continually raise funds and make investments. For this reason, it is necessary to confirm if the investments made have produced the results expected, and if the cash flows generated have been used appropriately to repay external debts. When building vessels, there is a time lag between the time of making a decision on investments and the completion of building vessels, and most payments are usually made several years later. It is therefore important for shipping companies to maintain cash flows that are adequate to cover past investments.

Key financial indicators:

- Operating cash flows
- Free cash flows
- Ratio of interest-bearing debt to EBITDA
- Ratio of interest-bearing debt to operating cash flows

(3) Safety

Because the volatility of earnings of shipping companies is high, it is important to have sound shareholders' equity that will act as a buffer against earnings fluctuations. In addition, the shipping industry is a kind of process industry, so heavy capital investments often results in high levels of interest-bearing debt. Shipping companies also include a number of leased and chartered vessels in their fleets, which are financed through off balance-sheet transactions. For these reasons, we focus not only on interest-bearing debts that are reported in the balance sheets, but also on debts such as lease transactions and the status of contracts of chartered vessels.

Key financial indicators:

- Shareholders' equity
- Interest-bearing debt
- Interest-bearing debt and lease obligations
- Equity ratio
- Debt equity ratio

Because of the possibility of human or mechanical error as well as other factors in the information herein, JCR makes no representation or warranty, express or implied, as to accuracy, results, adequacy, timeliness, completeness or merchantability, or fitness for any particular purpose, with respect to any such information, and is not responsible for any errors or omissions, or for results obtained from the use of such information. Under no circumstances will JCR be liable for any special, indirect, incidental or consequential damages of any kind caused by the use of any such information, including but not limited to, lost opportunity or lost money, whether in contract, tort, strict liability or otherwise, and whether such damages are foreseeable or unforeseeable. Information herein is statements of opinion, and not statements of fact as to credit risk decisions or recommendations regarding decisions to purchase, sell or hold any securities such as individual bonds or commercial paper. JCR retains all rights pertaining to this document. Any reproduction, adaptation, alteration, etc. of this document, is prohibited, whether or not wholly or partly, without prior consent of JCR.

Japan Credit Rating Agency, Ltd.

Jiji Press Building, 5-15-8 Ginza,
Chuo-ku, Tokyo 104-0061, Japan
Tel. +81 3 3544 7013, Fax. +81 3 3544 7026
