

Ship Finance

1. Ship Finance

The ship finance is one of a fund raising method backed by the cash flow generated from an acquisition and operation of ships. It includes such a financing method relying on the credit worthiness of the specific company as shipowner but this report is drafted for the credit rating method in the premises of such fund raising solely relying on the value of the ship and the cash flow generated from the operation of a ship.

The credit rating will be assigned to various financial instruments such as loan, bond or redemption right of the investment to a Tokumeikumiai shussi (anonymous investment association) and in some case a ship finance is tranced by the degree of an abundance of the cash flow or the value of the collateral.

The ship finance has a similarity with the Project Finance and the Whole Business Securitization (WBS) in the sense of that the fund is raised relying on the cash flow, but as for the ship finance there are peculiar analytical points in which a unique situation of the marine transport industry has to be considered.

2. General Scheme

Although the financing scheme varies in each project, the basic scheme of the core part is as bellows,



The shipowner company raises fund by a loan and then purchases, owns and let out a ship to the charterer. The charterer pays a charterage to the shipowner company. The shipowner company repays the principal and interest of a loan from the cash flow after deducting necessary expenses from the charterage. The shipowner company is incorporated in abroad such as Panama and in many cases it is SPC for purely limited to owning ships. The eventual administrative and operational entity of the shipowner company is varied as a ship operator (operating company), a shipowner (ship hire out company), a leasing company or a fund management company.

The charterer is a so-called shipping company who performs the actual operation of the ship and collects freight from the cargo owners.

3. Analytical Points

The required analyses for the ship finance are briefly classified into (1) grasping the project scheme,

(2) analysis of the charterer, (3) analysis of the cash flow, (4) analysis of the project structure. The core of the repayment resources are the charterage and it is important to analyze the credit worthiness of the charterer as well as scrutinizing the spec of the ship and the overall project scheme. Then analysis is to be made focusing on what measures are to be taken to mitigate the fluctuating risk of the cash flow. Furthermore the contractual relationship is examined in view of whether the generated cash flow is surely sized and appropriated for the repayment of a loan or for the case of failure of the repayment whether the mortgagor's right can be swiftly exercised.

Following to the examination of the foregoing points, in the premises of no material defect to the project structure, the credit rating will be assigned by taking account of the analyses of the charterer and the cash flow.

(1) Grasping the Project Scheme

Any possible impacts on the repayment resources are examined by analyzing the type, size and spec of the ship to which a loan is considered to extend and also by collecting necessary information about the shipping market situation and the related laws.

(2) Analysis of the Charterer

Analysis is made based on the "Rating Methodology (Corporate)" by JCR.

When the charterer is the SPC of a shipping company, in some case guaranty from the shipping company is required for the payment of the charterage.

(3) Analysis of the Cash Flow

In an ordinary ship finance, during such period when a ship has been let out without any trouble, the repayment of the loan is made by appropriating the remaining amount of the cash flow after deduction of necessary costs. For the case when a certain amount of the loan is still outstanding at the final maturity of the loan (balloon portion), then the loan shall be repaid fully by refinancing the loan or disposing the relevant ship. When some repayment trouble occurs during the loan outstanding period, the loan shall be repaid by a voluntary sale of the ship or an exercise of the ship mortgage.

Therefore in a cash flow analysis of the ship finance, it is essential to analyze the cash flow which is to be received either from a sale of or let out a ship.

(i) Cash Flow from letting out a Ship

In an analysis of the cash flow from let out a ship, the following points are examined such as the level of the cash-in, cash-out, the risk of its fluctuation and the measures to mitigate such risk. In addition to a standard case analysis, by assuming various scenarios of stress and by utilizing a cash flow sheet, a quantitative analysis will be made so as to assess the capability for debt services.

As to the cash-in, the analysis of the charterage is most important. In the analysis of the level of the charterage and risk of its fluctuation, the following points are diligently examined based on the charterhire contract.

- Whether the charter hire period covers the entire period of the loan?
- Whether the level of the charterage is fixed for the entire period of the charter hire contract and whether any adverse change of the contract for the shipowner company is restrained?
- Whether the off-hire or the cancellation clause in the relevant contract is deviated from a standard clause.
- Taking the operational capability of the actual ship management company into consideration, whether such risk that the charterage will not be received is mitigated?
- When any event, anticipated in beforehand, such as dry docking arises, whether a sufficient cash flow is secured?

When the currency of the charterage differs from the currency of the loan, it is examined whether resilience for the exchange fluctuation is secured? In the situation where the shipowner company receives the charterage in US\$ then converts to Yen and applies the proceeds to the repayment of a loan, the shipowner company owes a currency exchange risk. Actually there is a risk that the cash-in amount in term of Yen will be decreased when Yen is appreciating. In this case, it is examined under which exchange rate level the shortfall of the loan repayment will occur. And also if any counter measure to mitigate such risk is provided under the situation of Yen appreciation, the efficacy of such counter measures is assessed.

For the cash-out analysis, the analysis chiefly focuses on the ship management cost and interest rate. As to the ship management cost, at first it is examined which type of charter hire the subject contract is classified and the break-down of the cost to be born by the shipowner company. For the case of bareboat charter, the cost to be born by the shipowner company would be marginally limited. On the contrary for the case of time charter, the shipowner company bears such costs as manning cost, lubricating oil cost, repair, survey and inspection cost. It is examined whether those costs, assumed in a standard case, are fixed at a reasonable level and in addition to that, it is analyzed to which extent necessary cash flow for the loan repayment is assured when the aforementioned costs rise.

As to the interest rate, it is confirmed whether the interest rate is fixed by the loan contract or swap contract. For the case of floating interest rate, it is analyzed to which level the applicable interest rate is presumed as a standard case or the sensibility of the interest rate fluctuation when the applicable interest rate rises.

(ii) Cash flow to be received by a sale of a Ship

For the analysis of the cash flow to be received by a sale of a ship, the outstanding amount of

the loan and the LTV of the value of the ship are important factors. As to the value of the ship, such factors as the book value of the relevant ship, the evaluation value of the ship and a market price of second handed ships publicized by research companies are taken into consideration. In the past, the volatility of the supply and demand of ships, price of new building ships, price of second handed ships had been relatively high and in many cases those factors had largely fluctuated within a short period. Therefore a prudent judgment is required.

Also a ship is expected to be sold in the market or to the relevant charterer. For each case, the probability of the realization of the cash flow through the sale and the market situation is examined.

(iii) Main Indices to be used for Analysis

For the cash flow analysis, important and qualitative indices are as below.

- DSCR, IRR, LLCR
- Break-even of profit, Equilibrium point of the cash flow when business conditions deteriorate
- LTV

(iv) Evaluation of other material Risk

(a) Completion Risk

In a ship finance where an interim down-payment is made during the ship building period, the risk of the ship completion has to be examined. The following points are to be examined, i.e. the capability of ship building and the credit worthiness of the ship building company, the creation of the pledge for reclaiming right of the advance payment to the ship building company, the assignment clause of the ship building contract, the sureness of conclusion of the charter party upon the completion of the ship. In some case, only a preliminary credit rating is assigned during the ship building period and a final rating would be assigned when the ship is built.

(b) Refinance Risk of the Balloon Portion

When a substantial amount remains outstanding on the final maturity date of the loan, in some case the repayment of the relevant loan is made not by a disposition of the ship but by refinancing the loan. For this case, it is necessary to examine whether the aggregate amount of the cash flow, to be generated through the life of the charter party, would be maintained to such level as satisfying the lenders and so as to be no less than the required refinancing amount. For this the nature of the relevant ship, the then current situation of the shipping market and the financial environment, the refinancing risk would be analyzed.

(4) Analysis of the Structure

(i) Bankruptcy Remoteness from the Related Parties

When the route of the cash flow or the actual situation of the operation is considered, in some

case the bankruptcy remoteness from the related parties (practical entity of the shipowner for an operation and management of the ship) is not thoroughly provided. As a typical case, the default risk of the shipowner is not completely segregated. In this case, the degree of the adverse effect and the measures to mitigate the adverse effect would be scrutinized.

(ii) Mortgage and Maintenance

In a ship finance, since the cash flow generated from a ship is entirely applied to repayment of a loan, it is important whether the creditor is surely entitled to size the cash flow or whether it is stipulated in the contract to the effect that the mortgagor's right could swiftly be exercised without any obstacle in case of failure of the repayment of a loan.

In a standard case, it is expected that the following clauses are incorporated in the contract;

- The quality of the ship (including flag and class of the ship) is maintained by the charter party or the loan agreement
- By the covenants of the loan agreement, SPC would not take any actions which causes unbeneficial events for the repayment of a loan
- For not causing any trouble to the repayment of a loan, such mechanism as waterfall, administration of the cash flow and customer's account is provided
- Proper insurance
- Principle collaterals (ship mortgage, assignment of the charter party and assignment of the insurance) are surely created

4. Points for Monitoring

Even for a ship finance, a constant and regular monitoring and review of the credit rating would principally be conducted.

The analysis would be made following to the aforementioned analytical points, especially the change of the following matters would be scrutinized most diligently.

- Voyage record of the ship (including accident)
- The operational capability and the credit worthiness of the related parties
- The situation in performing the obligations under the related contracts and any possibility for change of such contracts
- Change of the exchange rate, the administration cost of the ship and the interest rate which would cause any affection to the cash flow
- Change of the external environment such as a shipping market, legal system and tax system



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