

## Rating Methodology by Sector

### **Pulp and Paper**

Paper manufacturers produce pulp from chips, the raw material, to produce various paper and paperboard products. Paper manufacturers themselves basically have no sales function, and their products are supplied to end users through distributors, who are primary wholesalers, and wholesalers, who are secondary wholesalers. This rating methodology is applied to paper manufacturers and distributors.

#### **1. Business base**

Pulp and paper products are highly dependent on domestic demand due to constraint of transportation cost. Business environment is severe in the domestic market where demand for paper mainly printing and information paper has been declining. In these circumstances, major paper manufacturers have been seeking opportunities in overseas markets with high growth potential and focusing on businesses other than pulp and paper for growth. JCR sees that higher efficiency in the domestic market through revisions to the production system and developments in growth strategies such as business expansion in the overseas markets will lead to an expansion of gaps among companies in business bases, earnings and financial structure.

##### (1) Characteristics of industry

###### (i) Market overview

Pulp and paper products are broadly divided into paper and paperboard, both of which are highly dependent on domestic demand. Domestic demand for mainstay paper products that are printing and information paper has been declining due to factors such as diversification of information collection methods and digitalization. Meanwhile, among paperboards, the mainstay containerboard, has been firm due to the lack of other viable substitutes with the product being primarily used in the distribution of processed foods, fruit, vegetables, and other products, in addition to the relatively low import ratio.

The domestic market for paper distribution has a hierarchical structure consisting of paper manufacturers, distributors (primary wholesalers), and wholesalers (secondary wholesaler). Although direct sales from paper manufacturers to large-scale customers is the most common approach for some products such as newspaper, the overall mainstream channel is distribution from distributors to customers through wholesalers or from distributors to customers.

###### (ii) Competitive situation

Paper and paperboard industry is a typical process industry that can largely benefit from economies of scale. The three largest manufacturers producing paper and paperboard highly dominate the market as the share exceeds 50% in each product. Oversupply has been continuing for the printing and information paper due to

large scale capital investments made in the past and a trend of domestic demand toward shrinkage; therefore, price competition may occur easily in order to maintain the capacity utilization ratio of production equipment. In a situation where the yen is appreciating, competition may become intensified due to low-priced imported paper readily available in the market. However, the risk of a decline in the sales market is no longer as high as before as a result of the reduction of production capacity and revision of sales strategies mainly by major paper manufacturers since 2019. Meanwhile, with the added value of containerboard, the key paperboard products, being lower than that of paper, its logistics costs limit the sales area that can be covered from production sites to a certain extent. The domestic market, therefore, can be somewhat segmented based on factory locations, and competition with imports is also limited. The reorganization of containerboard manufacturers and progress in the vertical integration by major containerboard manufacturers including downstream corrugated board businesses have enabled companies to escape from the past excessive competition.

In response to the intensified competition, major distributors, which sell the products of multiple major paper manufacturers and have strength in broad product lines, have also merged into three companies. In addition, there are moves by major paper manufacturers to strengthen their direct distributors, while distributors related to general trading companies also maintain a certain level of influence.

### (iii) Cost structure

Pulp and paper industry is an industry which is highly influenced by market conditions and the ratio of the cost of raw materials and fuel to the manufacturing costs is relatively high. The profit structure is hence susceptible to the effect of market conditions and fluctuations in the prices of raw materials and fuel. With regard to foreign exchange effects, yen depreciation (appreciation) has a negative (positive) impact on raw material and fuel costs and a positive (negative) impact on product exports. In order to secure stability of profit, it is important whether a company can pass on price increases when raw material and fuel prices rise.

With much of the raw materials being wastepaper, paperboard is susceptible to changes in the price of wastepaper. However, in the mainstay containerboard, the structure is such that the price pass-on can be easily progressed in a manner led by the top containerboard manufacturers due to the limited competition from imported products and progress in vertical integration.

The primary revenue source of distributors is their wholesale margins, so the risk of falling into the red is low and profit stability is relatively high. Major distributors with a long history of business such as those that originated as Japanese paper wholesalers, also engage in real estate leasing businesses using their own well-located properties, and the contribution of these revenue sources other than the paper wholesaling is also factored into the rating assessment.

## (2) Important factors in market position and competitiveness

### (i) Market position

In the business of pulp and paper, economies of scale can be achieved at each factory and a market share affects the company's influence on the market, indicating a relatively strong effect of a market position on the

company's competitiveness.

Market positions are important also for major paper distributors for the adequacy of their sales and distribution networks and price bargaining power against large paper manufacturers.

#### (ii) Industrial reorganization

The reorganization of major paper manufacturers has been mostly completed, but there are still movements for alliances by business segment. Management integrations and business alliances may create synergies, including cost savings and streamlining, and benefits such as generation of room for reduction of production capacity, which might have been difficult to achieve by a single company. JCR is paying attention to whether manufacturers can increase their competitive strength through realization of these synergies.

While the restructuring among major distributors is also complete for now, wholesalers are likely to be further reorganized to deal with the even harsher domestic business environment. JCR will pay attention to the extent of the effect of this trend on major distributors.

#### (iii) Competitiveness of factories

In the midst of continued fierce competition in the paper market, an increase of cost competitiveness becomes important, especially for major factories. The competitiveness of paper manufacturing factories is assessed based on factory locations, capacity utilization ratio, energy composition, and other factors. It is necessary to keep capacity utilization ratio at above a certain level through reduction of production capacity and expansion of exports in order to maintain and improve the competitive strength of factories over a medium term in the face of declining domestic demand mainly for printing paper. The differences in these efforts are likely to result in varying levels of future cost competitiveness among companies.

Since significant medium-term growth in domestic demand for paperboard is also unlikely, an increase of cost competitiveness through measures such as integration or disposal of facilities is an issue. The installation of new machines is an optional measure to resolve the obsolescence of facilities, but this often leads to increased production capacity. When installing new machines, therefore, attention must be paid to the effect on domestic demand and market conditions.

#### (iv) Growth strategy

Major paper manufacturers have been streamlining their pulp and paper businesses in the domestic market, where demand forecasts are bleak, through the management integration and modification of production systems. At the same time, they are seeking opportunities in overseas markets with high growth potential and focusing on businesses other than pulp and paper to achieve growth.

For the rating decision, the key criterion is an ability of the companies to increase their earnings from overseas expansion and new businesses, while maintaining certain earnings and cash flow from their domestic pulp and paper business. Companies expanding their business overseas are also assessed based on the target business field, the amount of invested capital, and whether the expansion is primarily through local production

or M&A, etc. that can change their business risk.

## 2. Financial base

### (1) Business size

As indicators of business size, JCR focuses on net sales, production and sales volumes, market share, and the size of factories that may create economies of scale.

Key financial indicators:

- Net sales
- Production and sales volumes
- Market share

### (2) Earnings strength

Since the profit structure is susceptible to the effects of market conditions and price fluctuations of raw materials and fuel, trends in raw material and fuel prices, progress of price pass-through, and differences in business portfolios are taken into consideration in the assessment of earnings strength. For major distributors, JCR observes the trends in their margin levels, taking into account their power relationships with paper manufacturers and progress of price pass-through.

Key financial indicators:

- Operating income
- Ordinary income
- Operating margin
- Ordinary margin

### (3) Cash flow generation capacity

Being a process industry, pulp and paper industry incurs relatively heavy depreciation expenses, which adds to the importance of the assessment of cash flow generation capacity based on operating cash flow, EBITDA, and other criteria. JCR also evaluates the solvency of the companies through, for instance, a comparison of EBITDA against net interest-bearing debt.

Key financial indicators:

- Operating cash flow
- EBITDA
- Ratio of net interest-bearing debt to EBITDA

### (4) Safety

Profits are very vulnerable to fluctuations in raw material and fuel prices and market conditions, and there is a risk of impairing equity capital due to an impairment loss on disposal of equipment. To improve the ability to deal with these risks, a certain level of equity capital must be maintained.

In addition, an increase in overseas investment for future growth tends to create more business risks, which necessitates the establishment of a sound financial structure.

Key financial indicators:

- Shareholders' equity
- Equity ratio
- Debt equity ratio

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