

Rating Methodology by Sector

Automakers and Auto Parts manufacturers

*This rating methodology is a modification of the rating methodology made public on July 13, 2011, and modifications are made to the key financial indicators in narrowing down these indicators by significance as part of clarification of rating methodology.

1. Business base

Susceptible as it is to business fluctuations, the demand for new automobiles is relatively volatile. While new car development has to always comply with environmental and safety regulations and, at the same time, satisfy customer needs, investment must be returned within the short period of model changes. Any rating assessment takes this business risk into consideration.

(1) Characteristics of the industry

(i) Market overview

When broadly viewing the market size, global production plunged from its peak of around 70 million units following the collapse of Lehman Brothers, but it has recently been trending back up to that level thanks to demand in emerging economies. Japanese manufacturers now account for approximately 30% of global production.

Demand in developed regions, such as North America, Europe, and Japan, is mature, and the automotive industry relies heavily on economic trends and replacement demand. On the other hand, in the market of emerging countries, such as China and India, with the backdrop of the development of motorization, demand is increasing and it is likely to drive medium-term growth in global demand.

The automotive industry represents a large segment of domestic business, employing approximately 10% of the entire working population of Japan. Domestic production has been at approximately 10 million units in recent years, half of which are exported. Domestic demand is mature, and the average number of years automobiles are used has been gradually increasing. In response to foreign demand, Japanese automakers are likely to shift from exports to overseas production over the medium and long term to avoid foreign exchange risks, to reduce transportation costs, and to better assess local needs. Domestic production is thus unlikely to grow significantly in the future.

(ii) Competitive situation

The Japanese automotive industry uses a vertical division of labor, with automakers at the top and their affiliated parts manufacturers below. In contrast to the U.S. and European auto sectors,

Japanese automakers are characterized by low percentages of in-house production and significant involvement in the product development at parts manufacturers. Despite some groups whose affiliations have loosened, the two generally maintain a tight relationship and make joint efforts in quality improvements and cost reductions. This becomes the source of their competitiveness and affiliated parts manufacturers are also included in the competitiveness.

Global business expansion requires substantial funding for capital expenditure and R&D, forming a high barrier to market entry. Electric vehicles, however, require fewer parts than automobiles with an internal-combustion engine, and their competitiveness largely depends on the quality of the battery system. The automotive industry, therefore, should prepare for the entry of competitors from other industries.

Given the mature domestic demand and intense competition for both cars and trucks, many automakers have conventionally sought overseas demand. As a result, the ratio of overseas sales of large automakers exceeds 70%. Japanese manufacturers have competitive advantages in general in both terms of quality and pricing in overseas markets. Nevertheless, the European market, with preferences and conditions that differ from country to country, may be one in which Japanese manufacturers find it difficult to compete. Meanwhile, the Japanese are falling behind its U.S. and Europe counterparts in some of the emerging markets.

(iii) Cost structure

The automotive industry consists of the joint efforts of automakers and parts manufactures to assemble about 30,000 parts. Because the purchases of parts and materials comprise approximately 70% of the total costs incurred by automakers, the cost reduction capacity of the entire group, including parts manufacturers, is crucial.

New car development and environmentally friendly technologies require a heavy investment in R&D, resulting in a high ratio of R&D expenses to sales of Japanese automakers, at around 5%. Fixed costs, such as depreciation, are also high, due to the large amount of capital expenditure needed for new facility construction, and earnings may suffer a major setback from a decline in facility operating rates.

Although it depends on the market, adding an increase in the cost of raw materials to the price of an automobile is often problematic, and profit margins tend to be compressed by any rise in the cost of such materials.

(2) Key factors in market position and competitiveness

Automakers

(i) Market position

As expressed by the term “the four million club,” in the late the 1990s, annual production of at least four million units was apparently required to cover the increasing R&D expenses for new

technologies and achieve the benefits of mass production. The point at which economies of scale are more effective remains the same. In the current environment, however, not only scale, but also the efficient supply of required technologies, such as environmentally friendly technologies (including partial joint efforts); the establishing of a flexible global production system capable of responding to demand fluctuations; and the ability to produce attractive automobiles have become increasingly important. Significant factors affecting competitiveness now include increased sales in emerging markets with growing demand and possessing environmentally friendly technologies to comply with regulations in each country.

(ii) Sales strategy and product mix

Sales strategy and product mix vary depending on which market is being targeted as major world markets have different replacement cycles and market characteristics. JCR observes such specific issues as whether a product line matches its intended brand image (luxury, driving performance, fuel efficiency, safety, etc.), which car model segment or geographical area is being targeted, and which area of sales networks in Chinese market, for example, is being strengthened and the effectiveness of incentives in the North American markets. In recent years, many large automakers have increased the number of units sold using such strategic global models. Meanwhile, in emerging markets, the price competitiveness of small cars may be enhanced through exclusive models based on drastic changes in their cost. The balance, therefore, between strategic global models and exclusive models will become more important.

(iii) Cost-competitiveness

Environmentally friendly technologies and quality-related expenses are increasing the costs of automobile production. In this environment, demand has been shifting toward smaller, more fuel-efficient models, and cutting the cost of their development and production through cooperation between the automakers and parts manufacturers is increasingly important. JCR places an emphasis on their annual cost-cutting capabilities.

Cost-reduction efforts through such means as joint purchasing through cooperation and sharing uniform chassis have been made in the past. Recently, however, some companies are leveraging partial alliances to reduce cost and increase competitiveness in response to the increasing need for environmentally friendly technologies.

(iv) Quality control

Activities such as parts standardization and the simultaneous worldwide launch of key models are on the rise. Parts standardization immediately reduces cost, and a simultaneous global launch provides the full benefit of the “new car” effect. Any defect, however, has a greater impact, and the risk of massive recalls, with collection and repair for free of charge increases. The importance of

strengthening supply chains, including parts manufacturers and vigilant quality control, is increasing.

(v) Global production system

Despite the recent shift to overseas production, more than 50% of domestically produced automobiles are still exported, leaving many manufacturers susceptible to foreign exchange fluctuations. To ensure profits in an adverse foreign exchange environment, many manufacturers need to rebuild their global production systems, including increasing the efficiency of their domestic production bases through fixed cost reductions and plant mergers, promoting local procurement for parts and materials currently sent to overseas assembly plants from Japan, and shifting further to overseas local production. The challenges for the time being are considered to be building a production and sales system in emerging markets and securing stable local procurement. The use and selection of affiliated parts manufacturers and local parts manufacturers will also be important.

(vi) Environmental regulations

With tighter regulations on fuel economy and CO₂ emissions, particularly in North America, Europe, and Japan, the development of environmentally friendly automobiles has been accelerated. The sales ratio of hybrid models is rising and entry into the electric vehicle market is gathering momentum. At present, Japanese manufacturers are leading the environmentally friendly technologies in many aspects. Few individual companies, however, are capable of developing all aspects by themselves, and alliances aiming to improve environmentally friendly technologies, cost reduction, and other factors are increasing. JCR examines whether progress in targeted models and areas is being made, the advances toward the mass production of electric vehicles and its profitability, and the specific progress and effectiveness of cooperative alliances.

Auto parts manufacturers

Key factors in the competitiveness of auto parts manufacturers include, in particular, global supply capacity, cost-competitiveness, and the ability to develop new technologies (environment, safety, information, etc.). JCR focuses on the progress of efforts in these aspects.

For a parts manufacturer affiliated with a specific automaker, its position within the group is important. For an independent manufacturer, its core competence in acquiring orders and its continuity are important. For both affiliated and independent manufacturers, the ability to develop proposals and planning capacities for cost reductions and new technologies are important for receiving stable orders.

While automakers are seeking optimum global procurement, parts manufacturers also need to build a global supply system. While overseas expansion and investment in capacity expansion were particularly aggressive in the years leading up to fiscal 2007, more recently, responding to emerging markets has become important. The decision whether to expand is made based on the profitability of

each of the new overseas bases. Additionally, the risk of losing business opportunities associated with strategic global models must be considered if a manufacturer's global supply capacity is not recognized by its customers.

While the export ratio of automobiles is more than 50%, the parts for export cars are delivered domestically, limiting the export ratio of parts manufacturers to 20% to 30% and, thus, preventing parts manufactures' exposure to foreign exchange risk. When the yen is rising, however, parts manufactures need to respond to the accelerated overseas relocation of automakers in addition to decreases in export vehicles and cost reductions demanded by automakers.

2. Financial base

(* "Key financial indicators" listed below apply to both automakers and auto parts manufacturers.)

(1) Earnings strength

JCR focuses on the factors that change the operating margin and monitors its improvement. These factors may include brand power, cost-competitiveness, the ability to respond to foreign exchange fluctuations, sales networks, and the effect of each model's sales trends on the sales results.

Because the profits of many Japanese manufacturers are largely dependent on overseas markets, forecasts of earnings and cash flow require analysis to identify the countries and/or regions generating the actual sources of earnings in addition to the prospects for demand in the major markets of the world. Because a high export ratio may cause a significant disparity between the operating income or loss in an original location compared to that of a destination, JCR attempts to understand also the operating income or loss in terms of destination. In view of stability, JCR observes whether the profitability of domestic business can be supported by domestic sales and whether the earnings are balanced among different regions, including North America, Europe, and Asia.

Key financial indicators:

- Operating margin
- Operating income and ordinary income

(2) Cash flow

Companies need the ability to generate adequate cash flow for investment in improvements and maintenance of competitiveness in response to ongoing intense global competition and investment burden. The capacity for manufacturers with a sales financing business to generate consolidated free cash flow often becomes difficult when business is growing. JCR tracks any changes in the free cash flow levels of the automotive business.

Key financial indicators:

- Cash flow from operating activities, EBITDA
- Free cash flow (free cash flow of automotive business for automakers)
- Ratio of interest-bearing debt to EBITDA

(3) Safety

Because automakers are required to invest heavily in R&D and in areas such as global business expansion and new model development, companies need adequate financial strength. However, some large manufacturers are effectively debt free in their automotive business, despite carrying a large amount of consolidated interest-bearing debt. JCR surveys the practical interest-bearing debt in the automotive business, excluding the sales finance business and the net D/E ratio. While promoting sales, the sales financing business increases the burden of interest-bearing debt and may be exposed to the risk of bad debt losses and a deterioration in financial assets if credit management is not done properly. The ratio of bad debt losses, therefore, must also be examined.

Key financial indicators:

- Practical interest-bearing debt (excluding cash and cash equivalents) (practical interest-bearing debt in automotive business for automakers)
- Debt equity ratio
- Ratio of bad debt losses (for automakers operating automobile sales finance business)

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