

Rating Methodology by Sector

Automakers

Note: The following abbreviations are used below: EV (electric vehicle), HV (hybrid vehicle), PHV (plug-in hybrid vehicle), and CASE (Connected, Autonomous, Shared, and Electrification)

1. Business base

Demand for new vehicles is easily affected by economic fluctuations and volatility is relatively high. While automakers are constantly required to develop new vehicles that meet environmental and safety regulations and meet customer needs, they also need to recoup their investments within a short model change cycle, and these business risks are factored into the rating.

(1) Characteristics of the industry

(i) Market overview

The market size of new car sales is large, as automobiles are expensive products and widespread worldwide. The automotive industry has a broad base, accounting for approximately 10% of the domestic workforce. Markets in developed countries such as Japan, the U.S., and Europe are mature and largely dependent on economic trends and replacement demand. Emerging markets, on the other hand, are likely to drive global demand growth over the medium to long term as motorization progresses. However, over the long term, new vehicle sales may decline in some areas due to the spread of sharing.

Overseas sales account for more than 80% of new vehicle sales for many major Japanese manufacturers. The ratio of overseas production is also increasing for the reduction of foreign exchange risks and transportation costs, and understanding of local needs.

(ii) Competitive situation

The Japanese automotive industry uses a vertical division of labor, with automakers at the top and their affiliated parts manufacturers below them, and is characterized by the significant involvement of parts manufacturers in new model development. Although there are some groups in which affiliations have loosened, the relationship between the two in general is close, and joint efforts to improve quality and reduce costs are a source of competitiveness.

Global business expansion requires substantial amounts for capital expenditure and R&D expenses, forming a high barrier to market entry. EVs, however, require fewer parts than automobiles with an internal-combustion engine, and their competitiveness largely depends on the quality of the battery system. For this reason, entry from other industries and alliances across industry boundaries are also expected.

(iii) Cost structure

The automotive industry is built on joint efforts of automakers and parts manufacturers to manufacture about 30,000 parts. Since 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. Large R&D expenses are required to develop new models and to comply with environmental and safety regulations. In addition, the construction of new plants requires large capital investment, which imposes a heavy burden of depreciation and other fixed costs, and profitability can deteriorate significantly due to lower plant utilization rates.

(2) Key factors in market position and competitiveness

(i) Market position

Japanese automakers account for about 30% of global production, both in Japan and overseas. Japanese automakers have in general advantage with their high quality and price competitiveness.

Economies of scale tend to work because of the need for large capital investment and R&D expenses. On the other hand, emission and CO2 emission regulations are becoming stricter in many countries, and the competitive situation may change depending on future responses to these environmental regulations. It is becoming more important to efficiently satisfy the technologies required by environmental and safety regulations, including through alliances, and to create attractive vehicles.

(ii) Sales strategy and product competitiveness

Product competitiveness is the basis of cash flow generation. Performance is often more stable when a company has a large number of mass-market models and when its sales regions are geographically dispersed. Since major markets around the world have different market characteristics, sales strategies and product mixes will differ depending on which markets the company focuses on. After geographically diversifying revenue sources, it is important to introduce products that meet environmental and safety regulations and customer preferences (luxury, driving performance, etc.) in the focused sales areas. Differences in brand power may be reflected in differences in incentives (sales incentives) in the U.S. and other markets.

(iii) Cost-competitiveness

With stricter environmental and safety regulations and the need to respond to CASE, the cost of manufacturing cars is rising. It is becoming more important to improve development efficiency, reduce development and production costs through collaboration with parts manufacturers, and reduce costs and increase competitiveness through business alliances with other companies.

Profitability will be squeezed if cost increases associated with product function enhancements and raw material price hikes are not properly reflected in automobile prices while maintaining a balance

with product competitiveness.

(iv) Quality control

Safety performance requirements are high. Modularization and parts commonization have been progressing, but while there are advantages in cost reduction, the impact of defects is significant, and the risk of mass recalls (free recalls and repairs) and the like is high. It is becoming more important to strengthen the supply chain, including parts manufacturers, and ensure thorough quality control.

(v) Global production system

It is important to build a flexible global production system capable of efficiently supplying products to regions of high demand and focus. Although there has been a shift to overseas production in recent years, about 50% of domestic production is still for export, and many automakers are still vulnerable to the effects of exchange rate fluctuations. In order to secure profits even during the strong yen phase, continuous streamlining of domestic production bases is required. In overseas production, securing a stable labor force and stable local parts procurement is important. If protectionist trade policies are introduced, it may be necessary to restructure the global production system.

(vi) Compliance with environmental regulations

Governments around the world have declared their commitment to achieving a carbon-neutral, decarbonized society, and regulations on CO2 emissions and gasoline-powered vehicles are becoming stricter. Consumers are also becoming increasingly aware of global warming countermeasures.

From a life cycle assessment perspective, environmental regulations on automobiles and customer needs may differ based on differences in power source composition in each country. It is necessary to have a lineup that can respond to conditions in the sales area.

EVs are superior in terms of acceleration and have less noise and vibration, but there are many issues that need to be addressed before they can be used widely, such as cruising range, battery life, recharging time, and recharging infrastructure. In addition, profitability of EVs is likely to be lower than that of gasoline-fueled cars. Against this backdrop, some companies are focusing on cost reductions, including batteries, to promote EVs all at once, while others are aiming to gradually develop and expand sales of zero-emission vehicles while maintaining profitability by offering a diverse lineup of EVs, HVs, PHVs, and other vehicles. Progress must be made in lowering battery prices, improving development efficiency, and reducing costs, and cost competitiveness must be strengthened.

In addition to EVs, various other types of zero-emission vehicles are being developed and will continue to be developed, but it is important to maintain profitability, while complying with environmental regulations in the focused sales areas.

2. Financial base

(1) Earnings strength

JCR focuses on what factors are responsible for the high and low ratio of operating margin and how it will improve in the future. Various factors can be considered, including brand power, sales trends of mass-market models, cost competitiveness, ability to respond to exchange rate fluctuations, and sales network.

As many Japanese automakers rely heavily on overseas markets for profits, profit/loss and cash flow projections require analysis of which countries/regions are substantial sources of earnings, as well as demand forecasts for major markets around the world. In cases where the ratio of exports is high, operating income/loss by location and operating income/loss by destination may look completely different, so efforts are also made to understand operating income/loss by destination. In terms of stability of profitability, JCR pays attention to whether the company's earnings are balanced in North America, Europe, Asia, and other regions.

Key financial indicators:

- Operating margin
- Operating income, Ordinary income

(2) Cash flow generation capacity

Due to the severe global competition and the continuing investment burden, companies must be able to have sufficient cash flow generation capacity for investments to maintain and improve their competitiveness. Companies with sales finance business often have negative consolidated free cash flow during the phase when this business is expanding, so JCR focuses on the free cash flow of the automotive business.

Key financial indicators:

- Cash flow from operating activities, EBITDA
- Free cash flow of automotive business
- Ratio of interest-bearing debt to EBITDA

(3) Safety

Automakers are required to have a reasonable level of financial strength due to the large amount of capital investment and R&D expenses required for global expansion and development of new models. When a company has a sales finance business, consolidated interest-bearing debt is often large. JCR thus focuses on net interest-bearing debt and net debt equity ratio of the automotive business excluding the sales finance business. JCR believes it is important to expand equity capital and build up net cash in the automotive business in order to be prepared for various event risks and also fixed cost payments when the business performance deteriorates.

While the sales finance business has the function of promoting sales, it also increases interest-bearing

debt and entails the risks of bad debt losses and deterioration of financial assets if credit management is not properly implemented. It is also important to check bad debt loss ratio and other factors.

Key financial indicators:

- Net interest-bearing debt of automotive business
- Debt equity ratio
- Bad debt loss ratio (in case of operating sales finance business)

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