



Methodology
*Rating Companies
in the Automotive Industry*

APRIL 2011



Insight beyond the rating.

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All DBRS ratings and research are available in hard-copy format and electronically on Bloomberg and at DBRS.com, our lead delivery tool for organized, Web-based, up-to-the-minute information. We remain committed to continuously refining our expertise in the analysis of credit quality and are dedicated to maintaining objective and credible opinions within the global financial marketplace.



Rating Companies in the Automotive Industry

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Introduction to DBRS Methodologies

- In general terms, DBRS ratings are opinions that reflect the creditworthiness of an issuer, a security or an obligation. They are opinions based on an analysis of historic trends and forward-looking measurements that assess an issuer's ability and willingness to make timely payments on outstanding obligations (whether principal, interest, dividend or distributions) with respect to the terms of an obligation.
- DBRS rating methodologies include consideration of general business and financial risk factors applicable to most industries in the corporate sector as well as industry-specific issues and more subjective factors, nuances and intangible considerations. Our approach is not based solely on statistical analysis but includes a combination of both quantitative and qualitative considerations.
- The considerations outlined in DBRS methodologies are not intended to be exhaustive. In certain cases, a major strength can compensate for a weakness and, conversely, there are cases where one weakness is so critical that it overrides the fact that the company may be strong in most other areas.
- DBRS rating methodologies are underpinned by a stable rating philosophy, which means that in order to minimize the rating changes due primarily to economic changes, DBRS strives to factor the impact of a cyclical economic environment into its rating as applicable. Rating revisions do occur, however, when it is clear that a structural change, either positive or negative, has transpired or appears likely to transpire in the near future.
- As a framework, DBRS rating methodologies consist of several components that together form the basis of the ultimate ratings assigned to individual securities. Assessments typically include the industry's business risk profile, the company's general business risk profile, the company's financial risk profile and considerations related to the specific security.
- To some extent, the business risk and financial risk profiles are interrelated. The financial risk for a company must be considered along with the business risks that it faces. In most cases, an entity's business risk will carry more weight in the final issuer rating than will its financial risk.

Business and Financial Risk Overview

- On a high-level macro basis, DBRS has a consistent approach to determining the issuer rating of an entity that is common across many industries. (See the appendix for the definition of "issuer rating.") Our high-level approach can be broken into three stages, as shown on the opposite page.
- Where applicable, DBRS uses the concept of business risk ratings (BRRs) as a tool in assessing the business strength of both industries and individual companies within many methodologies across the corporate finance area. DBRS typically assesses five areas to establish the overall BRR for an industry:
 - Profitability and cash flow.
 - Competitive landscape.
 - Stability.
 - Regulation.
 - Other inherent industry considerations.
- Although there is an overlap in some instances (to some degree, in the long term, all five factors tend to relate to profitability and stability), DBRS has found that considering these five measures in a separate fashion is a useful way of approaching this analysis.
- Using the same factors across different industries provides a common base with which to compare the business risks of various industries, even when they are distinctly different. In all cases, DBRS uses historic performance and our experience to determine an opinion on the future, which is the primary focus. For additional discussion on industry BRRs, please refer to the Industry Business Risk Ratings and Industry Business Risk Rating Definitions sections in the appendix.



- It is important to note that the ratings for company-specific business and financial risks as provided under Stage 2 of this document should not be taken as final issuer ratings. For example, an individual company may fit into the “A” range with respect to the analysis of its business risk, but its financial metrics could be more in the BB category. It would be incorrect to believe that the final issuer rating in this case would be either “A” or BB. In determining the final issuer rating, both of these two major areas must be considered. For additional discussion on this topic, please refer to the Interrelationship between Business and Financial Risk section in the appendix.

Three Stages of DBRS Rating Analysis

Stage 1: Industry Business Risk Rating

Consider the overall business risk rating (BRR) for the industry.

Industry Business Risk Rating

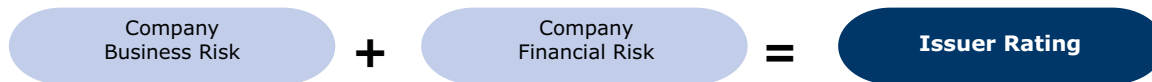


Stage 2: Issuer Rating

Consider the strength of the individual issuer:

- (a) First assessing how the company’s BRR compares with the industry BRR.
- (b) Then assessing the company’s financial risk.

Taken together, these factors will determine the company’s issuer rating.



The **long-term rating** puts more emphasis on business risk than the short-term rating does.



The **short-term rating** stresses financial risk as well as business risk, but places more emphasis on financial risk and liquidity than the long-term rating does.

Stage 3: Rating the Security

Consider covenant and ranking issues that exist for specific securities, using the issuer rating to determine specific security ratings.



Stage 1: Industry Business Risk Rating for the Automotive Industry

An automotive manufacturer is involved in the design, development, manufacture, sale and service of passenger cars and light- and heavy-duty trucks, buses and other heavy-duty motor vehicles for highway use.

- Many original equipment manufacturers (OEMs) are additionally involved in (usually captive) financial services operations, including vehicle-related financing (consumer and dealer), leasing and insurance.
- DBRS's financial analysis of automotive companies is typically based only on the financial statements of the core industrial operations, with the financial services segment treated on an equity basis. While DBRS reviews and briefly assesses such financial services segments in its rating reports, the final rating of the parent OEM is based on its business profile assessment and the financial analysis of its industrial operations, which represent the dominant business.
 - However, in the event that the financial segment's performance is particularly weak or if the subsidiary is considered to be materially undercapitalized, this would have negative implications for the parent rating.
- In cases where financial services subsidiaries are also rated, the rating of the parent typically flows through to the subsidiary. This is based on the parent OEM support of the finance subsidiary. DBRS notes that the level of formal support toward the finance subsidiaries varies considerably across OEMs, from full guarantees to keepwell agreements to comfort letters.
- Additionally, in certain circumstances where the operations of a credit/finance subsidiary are significant and its operations are explicitly ring-fenced, DBRS could rate such finance entities a notch higher than the OEM, if justified.

For the automotive industry, DBRS views the BRR as being BBB (low). This recognizes a wide range of business traits affecting the industry.

- Earnings in the industry have been unstable, in line with fluctuations in economic growth across major regions. Automotive OEMs have high fixed costs and operating leverage, with earnings therefore being particularly sensitive to production volumes.
- While not the case in emerging markets, the industry remains burdened by significant overcapacity in the larger developed markets. In North America, the overcapacity has been somewhat alleviated through plant closures during the financial/automotive downturn. However, significant overcapacity persists in Europe, which did not undergo significant reductions in aggregate production capacity during the downturn.
- Environmental regulations will become increasingly stringent and will likely lead to higher product development costs, which may prove difficult to pass through to consumers.
- While the global automotive industry remains a growth industry, much of the future growth is expected to emanate from emerging markets, given not only their higher projected economic growth but also their automotive penetration rates (i.e., vehicle per capita ratio), which remain substantially lower vis-à-vis mature markets.
- Substantial and escalating product development costs make it increasingly difficult for small to medium-sized automotive companies to effectively compete in the industry. Accordingly, the industry is expected to be subject to a moderate degree of consolidation over the medium to long term.

Based on the five major categories used by DBRS in assessing industry BRRs, the rationale for this assessment is as follows.

INDUSTRY PROFITABILITY AND CASH FLOW

- Profitability in this industry is considered average through the economic cycle relative to the level of profitability in other industries. Profit margins are generally modest compared with other sectors, although there is a considerable range within the industry.
- Global leaders can usually generate higher margins, resulting from relatively low cost positions as well as from highly diversified sales across both product line and geography, which helps to add a degree of stability to earnings.
- Additionally, certain niche (typically premium) auto manufacturers can also exhibit consistently higher margins relative to the industry average. Many OEMs seek to supplement the profit of their core industrial operations from additional earnings generated from their respective captive finance operations.

INDUSTRY COMPETITIVE LANDSCAPE

- The competitive landscape is worse than average.
- Significant barriers to entry persist in the industry, linked with, among other items, high capital investment and extensive distribution network requirements.
- However, the industry remains burdened by overcapacity, particularly in developed markets, despite some recent and ongoing reductions in aggregate production capacity.
- As a result, pricing power is typically modest, although leading global players and certain OEMs with strong brand recognition can have an advantage over their competitors.

INDUSTRY STABILITY

- The cyclical nature of the industry is significant, with profitability and performance dependent on economic cycles and consumer confidence.
- In order to partly offset this cyclical nature, many original equipment manufacturers (OEMs) place a particular emphasis on preserving solid liquidity positions, which better enables them to withstand pronounced downturns.
- Additionally, many OEMs aim to diversify their sales, not only by product but also particularly by geography; in many (although not all) cases, weak sales in a given market or region tend to be offset by stronger sales in other market(s)/region(s).

INDUSTRY REGULATION

- Regulation across the industry is significant and is typically focussed on product safety, although regulation linked with emissions standards is becoming more prominent.
- Product recalls and lawsuits can have long-lasting and harmful effects on a company's brands and can limit upside profitability-to-cash flow generation but are generally not a major issue.
- However, emissions standards are becoming increasingly stringent (particularly in major developed markets); associated product development costs are in turn growing significantly, with such costs becoming more difficult to pass on to consumers.

OTHER INHERENT INDUSTRY CONSIDERATIONS

- The overall area of technology and other risks is somewhat worse than the industry average.
- New product introductions are frequently linked with technical advances, which are usually gradual but nonetheless persistent. This is particularly so with respect to vehicle safety and emissions/fuel efficiency, spurring the development of alternative powertrains.
- Other factors that can significantly affect companies include labour and supplier relations (which can at times be adversarial).
- Additionally, currency fluctuations, which can highly influence earnings depending on a given OEM's production base and vehicle export patterns, can significantly impact earnings.

Stage 2: Issuer Rating

To move from the generic industry BRR toward the issuer rating for a specific company, two tasks must be performed. Specifically, we must determine the business risk and the financial risk for the individual company.

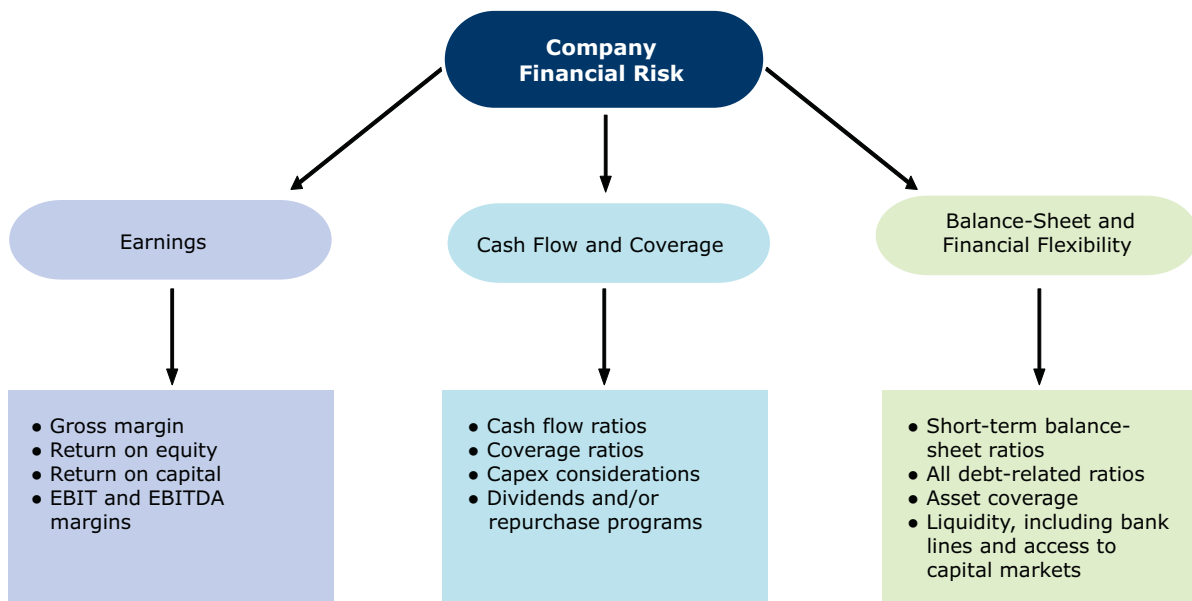
BUSINESS RISK PROFILE

- The business risk profile of the issuer may be better or worse than the industry average due to the presence of unique attributes or challenges that exist at the issuing entity. While not exhaustive, the list of critical factors outlined in the previous section could result in a specific issuer rating being different from the industry BRR.
- This methodology also provides some guidance on which factors are considered the most critical for the industry in question. Issuers may also have meaningful business lines in addition to the base business that extend beyond their most prominent industry, which could add significant attributes or challenges.

FINANCIAL RISK PROFILE

- The graphic below is a visual display of the key financial risk profile considerations that are discussed in the Company-Specific Financial Risk Factors section of this methodology, although even the detail provided there is not meant to be exhaustive.
- The discussion will note that DBRS often makes calculation adjustments in key ratios for risks related to a variety of areas. In some cases, a relationship with a parent or associated company will also be important.

Key Financial Risk Metrics



Company-Specific Business Risk Factors

- We now consider if an individual company in the automotive industry would be better, worse or the same as the industry BRR. Our focus here is on the critical business risk factors that relate to this industry in particular. The five critical factors used to determine the industry BRR are applied by DBRS to compare numerous industries and are thus more general in nature.
- By analyzing these key drivers (which will vary on an industry-by-industry basis), the essential strengths and challenges of each industry are captured in an accurate fashion, and transparency is provided. The analysis below is connected to the industry BRR in that the industry BRR establishes where an average company would be considered to score on the matrix. For example, an industry with a BRR of BBB would mean that the following matrix describes the scoring of an average company within the BBB column.

Company-Specific Business Risks – Critical Factors

Rating Business Strength	AA Exceptional	A Superior	BBB Adequate	BB Weak	B Poor
Market Position/Share	<ul style="list-style-type: none"> • Leading market share globally. • Number one or two market position in core native market. • Strong position across full product range. 	<ul style="list-style-type: none"> • Very strong market share in designated territories. • Number one or two market position in core native market. • Solid position across full market range. 	<ul style="list-style-type: none"> • Solid market share in designated territories. • Strong position in core native markets. • Niche brands, with very strong market position in their product segments. 	<ul style="list-style-type: none"> • Modest market share globally and in core native markets. • Niche brands, albeit with solid market position in their product segments. • May be evidence of material market-share decline. 	<ul style="list-style-type: none"> • Insignificant market player, with limited brand recognition or no notable presence in any one product line. • May be evidence of significant market-share loss.
Diversification and Product Cadence					
<i>By Geography</i>	<ul style="list-style-type: none"> • Strong presence in most major markets. • Very high correlation between production capabilities and market demands. 	<ul style="list-style-type: none"> • Strong presence in selected major markets. • High correlation between production capabilities and market demands. 	<ul style="list-style-type: none"> • Meaningful presence in certain key markets. • Modest correlation between production capabilities and market demands. 	<ul style="list-style-type: none"> • Weak global presence, albeit solid in local/regional markets. • Weak correlation between production capabilities and market demands. 	<ul style="list-style-type: none"> • Modest presence in local/regional markets. • Very weak correlation between production capabilities and market demands.
<i>By Product</i>	<ul style="list-style-type: none"> • Very good diversification of products, with strong representation across all vehicle segments. 	<ul style="list-style-type: none"> • Well diversified by product, with solid representation across all vehicle segments. 	<ul style="list-style-type: none"> • Wide product offering, although vehicle sales tend to be highly concentrated in one or two vehicle segments. 	<ul style="list-style-type: none"> • Moderate product offering, although vehicle sales tend to be highly concentrated in one or two vehicle segments. 	<ul style="list-style-type: none"> • Narrow product offering, with vehicle sales being highly concentrated in one vehicle segment.

Company-Specific Business Risks – Critical Factors

Rating	AA	A	BBB	BB	B
Business Strength	Exceptional	Superior	Adequate	Weak	Poor
Production Efficiency	<ul style="list-style-type: none"> Most efficient producer, with high operating leverage and continuous innovation. 	<ul style="list-style-type: none"> First quartile producer, with good operating leverage. Capacity utilization usually strong, with high manufacturing flexibility. 	<ul style="list-style-type: none"> Cost position average. Margins potentially adversely affected by sub-optimal capacity utilization. 	<ul style="list-style-type: none"> Cost position generally below average (third quartile). Margins likely adversely affected by sub-optimal capacity utilization and weak manufacturing flexibility. 	<ul style="list-style-type: none"> Cost position significantly below average. Margins adversely affected by sub-optimal capacity utilization and weak manufacturing flexibility.
Product Quality/Warranty Cost	<ul style="list-style-type: none"> Models consistently rank very highly in quality surveys. Very low warranty costs, with minimal year-over-year volatility. 	<ul style="list-style-type: none"> Models consistently rank highly in quality surveys. Low warranty costs, with minimal year-over-year volatility. 	<ul style="list-style-type: none"> Models generally rank well in quality surveys, although there may be some occasional fluctuations. Warranty costs also subject to some volatility. 	<ul style="list-style-type: none"> Quality survey results may vary across product line or time periods. Warranty costs subject to volatility. 	<ul style="list-style-type: none"> Models typically do not rank well in quality surveys. Warranty costs subject to volatility and can at times be elevated.
Supply Chain Management	<ul style="list-style-type: none"> Highly collaborative relationship with core suppliers, which typically are key project partners. Input costs well controlled, with high ability to pass on cost increases to consumers. 	<ul style="list-style-type: none"> Collaborative relationship with core suppliers, which are active project partners. Input costs controlled, with considerable ability to pass on cost increases to consumers. 	<ul style="list-style-type: none"> Stable relationship with core suppliers. Input costs tend to be stable, although ability to pass on cost increases to consumers can be limited. 	<ul style="list-style-type: none"> Relationship with core suppliers can at times be adversarial. Input costs subject to some volatility, with limited ability to pass on cost increases to consumers. 	<ul style="list-style-type: none"> Relationship with core suppliers typically adversarial. Input costs subject to some volatility, with little ability to pass on cost increases to consumers.

PRIMARY FACTORS

Market Position/Share

- The competitive landscape is a key consideration with respect to the business risk profile of automotive OEMs. Competition is based largely on price, quality, style, safety and reliability, with market concentration and product differentiation having an important influence. Pricing is of key importance due to a high degree of fragmentation in most regions, which tends to add volatility to sales and earnings. However, a degree of stability is afforded to companies with well-established brand images and a strong market position in a particular region.
- This is particularly evident for niche producers of premium vehicles, which generate above-average margins partly from strong brand equity and product excellence. Sustainability of sales provides support for ongoing investments in research and development, as well as new plants and equipment. While strong market positions in a particular product group and region are viewed favourably, market share trends (particularly declining share) are also taken into consideration.

Diversification and Product Cadence

- Sales diversification should provide increased earnings stability, mainly in the form of reduced reliance on a particular market and business.

Geographic

- Revenues and earnings distributed between several regions in measurable proportions reduces exposure to changing business conditions in a particular market, including fluctuating supply and demand and pricing and input costs.
- The impact of foreign exchange volatility can also often be reduced with diversification, depending on the location of production facilities (significant deviations could lead to exposure to currency fluctuations and even political backlash in areas where a given OEM is deemed to have an unduly low regional manufacturing presence).

Product

- If there is a strong dependence on a single product and a competitor introduces an attractive competing product, the company could face difficulty. As such, the degree of reliance on one or two core products or broad diversification among various product lines (i.e., cars and light trucks) is examined.
- An additional factor is the general product cadence of the OEM. Typically, there is a significant correlation among the relative age of an OEM's product range, its market share and its profitability.

Production Efficiency

- This area assesses the cost structure, the level of capacity utilization, the integration and co-operation of global design and manufacturing functions, the flexibility of production facilities (multiple models and the use of common platforms or modules) and the use of joint ventures to supplement production capacity.

Product Quality and Warranty Costs

- The product quality of an OEM is an important factor in determining product acceptance and, ultimately, market share. It is important to note that this is a long-term indicator as perceived product attributes and quality can often significantly lag actual product quality.
- Product quality can, however, affect OEM performance in the short term as well through product warranty costs, which can significantly affect profitability.

Supply Chain Management

- The relationship between automotive OEMs and their suppliers (e.g., degree of ownership, collaborative or adversarial) is a key rating consideration. Historically, many OEMs have spun off their suppliers in an effort to reduce fixed costs. Suppliers are in turn being increasingly relied upon to design and produce complex components and modules.
- The more vital these outsourced components become to the OEM, the more important the relationship with suppliers becomes. Sub-optimal supplier relations can affect the quality of components, which can ultimately influence product and warranty costs and, hence, profitability.
- Other areas assessed include the relative dependence on parts suppliers (e.g., single-source suppliers), the participation of local suppliers in each market, the procurement function and contract bidding process and the financial health of suppliers.
- Supply chain management with respect to raw materials is yet another important consideration. Automotive production is highly energy- and raw-material intensive, and producers are exposed to often volatile commodity costs. A company's ability to manage such costs (notably steel, aluminum, resin and precious metals) is taken into account, given the potentially significant impact on earnings.
- The ability to pass on rising costs to consumers and the nature of contracts (e.g., short- or long-term versus spot exposure) are all considered as part of a company's ability to moderate input-cost volatility. Maintaining relationships with multiple suppliers typically improves bargaining power and reduces the risks associated with potential supply disruptions.

ADDITIONAL FACTORS

Barriers to Entry

- The development costs associated with light vehicle production have risen sharply as much more discerning and sophisticated consumers generally demand an extremely refined product. Additionally, elevated levels of regulation, primarily regarding matters such as safety and emissions standards, impose very high development costs.
- When one also considers costs associated with the high capital intensity of production and the extensive distribution and servicing networks required to remain competitive in these markets, the effective barriers to entry become quite high. In emerging automotive markets, such as eastern Europe, China and India, barriers to entry for prospective automotive producers are relatively low, reflecting the open competitive landscape of these markets combined with sparse regulation.
- Furthermore, it is typically the very inexpensive mini-cars that are gaining prominence in emerging markets, with such vehicles being much less costly to design and produce.

Maturity of Markets

- Traditional domestic markets, including North America, Europe and Japan, are very mature, with demand growth generally in line with GDP growth and excess capacity. As a result, new emerging markets have become increasingly important to generate measurable earnings growth.
- Increased international sales also provide increased stability via earnings diversification, although expansion risks exist. Emerging markets such as eastern Europe, China and India have very low vehicle penetration levels and are exhibiting strong economic growth.

Finance Subsidiaries

- The role of the finance subsidiary as a marketing tool and the diversities of businesses (captive versus multi-businesses), geography and services mix are all evaluated by DBRS. Subsidiaries that have expanded their financing activities well beyond their parent's products are viewed with caution. In addition, the finance subsidiary's penetration of the parent OEM's sales, financial profile (e.g., financial structure), sources of funding, matching of assets and liabilities and portfolio credit profile are also reviewed.
- In evaluating the financial profile of the automotive operations, the finance subsidiary is treated as an equity investment to remove the influence of high leverage associated with the finance operations.

Research and Development

- Technological capabilities and strengths are assessed, including in-house technological expertise; technology sharing through the use of joint ventures to develop products and to share development costs; purchase of technology; product development track record; and the ability to meet safety and fuel consumption standards.

Labour

- The characteristics of a company's labour force and the track record of the OEM with respect to labour relations (e.g., strike history, staffing levels) are also taken into consideration. Highly unionized workforces are less flexible, which, in particular, reduces the ability to adjust quickly to changing market conditions and increases the risk of work stoppages in the event of a strike.
- In addition, legacy costs for pension and health-care benefits (notably for companies with large underfunded pensions) add to expenses and increase the potential for large operating cash outflows. The ability to control these costs has become critical for U.S. firms relative to most Asian-based competitors, which do not face the same burden, notably for companies with high leverage and modest cash flow.
- The migration of production facilities to regions with significantly lower employment costs and outsourcing have continued over the past several years as a means to control costs.

Dealer Network

- The assessment of an automotive OEM's dealer network includes its size and strength in each market; the quality and location of the dealers, the services offered to customers; the support provided by auto manufacturers regarding training, finance, etc.; and the degree of ownership by auto manufacturers.
- Strong dealer networks can lead to increased barriers to entry for competitors. Conversely, inflated dealer networks can compromise distribution efficiency while increasing costs and undermining profitability.

COMMON BUSINESS CONSIDERATIONS

- There are two major considerations that were not included with the prior analysis but can have a meaningful impact on an individual company in any industry: country risk and corporate governance (which includes management). These areas tend to be regarded more as potential negative issues that could result in a lower rating than otherwise would be the case, although DBRS would certainly consider exceptional strength in corporate governance as a rating attribute.
- In most cases, our focus on the two areas is to ensure that the company in question does not have any meaningful challenges that are not readily identifiable when reviewing the other business risk considerations and financial metrics outlined in this methodology.

Country Risk

- Governments often intervene in their economies and occasionally make substantial changes that can significantly affect a company's ability to meet its financial obligations; therefore, considerations include the company's main location or country of operation, the extent of government intervention and support and the degree of economic and political stability.
- As such, the sovereign rating itself may in some cases become a limiting factor in an entity's rating, particularly when the sovereign has a lower rating and the entity does not have meaningful diversification outside its domestic economy.

Corporate Governance

- Effective corporate governance requires a healthy tension between management, the board of directors and the public. There is no single approach that will be optimal for all companies.
- A good board will have a profound impact on a company, particularly when there are significant changes, challenges or major decisions facing the company. DBRS will typically assess factors such as the appropriateness of board composition and structure, opportunities for management self-interest, the extent of financial and non-financial disclosure and the strength or weakness of control functions. For more detail on this subject, please refer to the DBRS criteria *Evaluating Corporate Governance*.
- With respect to the pivotal area of management, an objective profile can be obtained by assessing the following: the appropriateness of core strategies; the rigour of key policies, processes and practices; management's reaction to problem situations; the integrity of company business and regulatory dealings; the entity's appetite for growth, either organically by adding new segments or through acquisition; its ability to smoothly integrate acquisitions without business disruption; and its track record in achieving financial results. Retention strategies and succession planning for senior roles can also be considerations.



Company-Specific Financial Risk Factors

KEY METRICS

- Recognizing that any analysis of financial metrics may be prone to misplaced precision, we have limited our key metrics to a small universe of critical ratios. For each of these ratios, DBRS provides a range within which the issuer's financial strength would be considered as supportive for the same level of business risk as the automotive industry. For example, a company where the outlook for both business risk and financial risk metrics falls within the BBB category would, all else being equal, be expected to have an issuer rating in the BBB range.
- To be clear, the ratings in the matrix below should not be understood as the final rating for an entity with matching metrics. This would only be the case to the extent that the business risk of the company and a wide range of other financial metrics were also supportive. The final rating is a blend of both the business risk and financial risk considerations in their entirety.

Automotive Industry Financial Metrics

Key Ratio	AA	A	BBB	BB	B
Debt-to-capital	< 20%	20% to 30%	30% to 45%	45% to 60%	> 60%
EBIT coverage	> 8.0x	5.0x to 8.0x	3.0x to 5.0x	1.5x to 3.0x	< 1.5x
Cash flow-to-debt	> 60%	30% to 60%	20% to 30%	10% to 20%	< 10%
EBITDA-to-interest	> 10.0x	7.0x to 10.0x	4.0x to 7.0x	2.0x to 4.0x	< 2.0x
Debt-to-EBITDA	< 1.0x	1.0x to 2.0x	2.0x to 3.5x	3.5x to- 5.0x	> 5.0x
Return on equity	> 14%	9% to 14%	7% to 9%	5% to 7%	< 5%

- While the data in the above table are recognized as key factors, they should not be expected to be fully adequate to provide a final financial risk rating for any company. The nature of credit analysis is such that it must incorporate a broad range of financial considerations, and this cannot be limited to a finite number of metrics, regardless of how critical these may be.
- DBRS ratings are based heavily on future performance expectations, so while past metrics are important, any final rating will incorporate DBRS's opinion on future metrics, a subjective but critical consideration.
- It is also not uncommon for a company's key ratios to move in and out of the ranges noted in the ratio matrix above, particularly for cyclical industries. In the application of this matrix, however, DBRS is typically focusing on multi-year ratio averages.
- Notwithstanding these potential limitations, the key ratios are very useful in providing a good starting point in assessing a company's financial risk.
- It is important to note that actual financial ratios for an entity can and will be influenced by both accounting and accounting choices. In Canada, this will include the shift to International Financial Reporting Standards (IFRS). DBRS acknowledges that IFRS and other accounting choices will have an impact on the financial metrics of the companies that it covers. The financial risk factors include ratios based on data from company financial statements that are based on Canadian Generally Accepted Accounting Principles (GAAP) and U.S. GAAP, for the most part. When company financial statements are based on GAAP in other countries, including IFRS, the ratios and ranges may need to be redefined.
- Recognizing that the metrics in the table above do not represent the entire universe of considerations that DBRS examines when evaluating the financial risk profile of a company, the following provides a general overview that encompasses a broader range of metrics and considerations that could be meaningful in some cases.

Overall Considerations in Evaluating a Company's Financial Risk Profile

In addition to the information already provided with respect to key financial metrics, the following financial considerations and ratios are typically part of the analysis for the automotive industry. As it is not possible to completely separate business and financial risks, note that many of the following ratios will relate to both areas.

EARNINGS

- DBRS earnings analysis focuses on core earnings or earnings before non-recurring items and in doing so considers issues such as the sources, mix and quality of revenue; the volatility or stability of revenue; the underlying cost base (e.g., the company is a low-cost producer); optimal product pricing; and potential growth opportunities. Accordingly, earnings as presented in the financial statements are often adjusted for non-recurring items or items not considered part of ongoing operations.
- DBRS generally reviews company budgets and forecasts for future periods. Segmented breakdowns by division are also typically part of DBRS analysis. Notwithstanding the focus on core earnings, note that actual net earnings is also a consideration in our analysis given the direct impact that this has on the capital structure.

Typical Earnings Ratios

- EBIT margin.
- EBIT interest coverage.
- EBITDA interest coverage.
- Net margin.
- Return on equity.
- Return on capital.

CASH FLOW AND COVERAGE

- DBRS cash flow analysis focuses on the core ability of the company to generate cash flow to service current debt obligations and other cash requirements as well as on the future direction of cash flow. From a credit analysis perspective, insufficient cash sources can create financial flexibility problems, even though net income metrics may be favourable.
- DBRS evaluates the sustainability and quality of a company's core cash flow by focusing on cash flow from operations and free cash flow before and after working capital changes. Using core or normalized earnings as a base, DBRS adjusts cash flow from operations for as many non-recurring items as relevant. As with earnings, the impact that non-core factors have on cash flow may also be an important reality.
- In terms of outlook, DBRS focuses on the projected direction of free cash flow, the liquidity and coverage ratios and the company's ability to internally versus externally fund debt reduction, future capital expenditures and dividend and/or stock repurchase programs, as applicable.

Typical Cash Flow Ratios

- Cash flow-to-debt.
- Adjusted cash flow-to-adjusted debt.
- Cash flow-to-net debt.
- Adjusted cash flow-to-adjusted net debt.
- Debt-to-EBITDA.



BALANCE-SHEET AND FINANCIAL FLEXIBILITY CONSIDERATIONS

- As part of determining the overall financial risk profile, DBRS evaluates various other factors to measure the strength and quality of the company's assets and its financial flexibility. From a balance-sheet perspective, DBRS focuses on the quality and composition of assets, including goodwill and other intangibles; off-balance-sheet risk; and capital considerations such as the quality of capital, appropriateness of leverage to asset quality and the ability to raise new capital.
- DBRS also reviews the company's strategies for growth, including capital expenditures and plans for maintenance or expansion, and the expected source of funding for these requirements, including bank lines and related covenants. Where the numbers are considered significant and the adjustments would meaningfully affect the credit analysis, DBRS adjusts certain ratios for items such as operating leases, derivatives, securitizations, hybrid issues, off-balance-sheet liabilities and various other accounting issues.

Typical Balance-Sheet Ratios

- Current ratio.
- Non-monetary working capital.
- Inventory turnover (days).
- Debt-to-EBITDA.
- Debt-to-capital.
- Adjusted debt-to-capital.
- Net debt-to-capital.

Stage 3: Rating the Security

With respect to Stage 3, the following comments describe how the issuer rating is used to determine ratings on individual securities:

- DBRS uses a hierarchy in rating long-term debt that affects issuers that have classes of debt that do not rank equally. In most cases, lower-ranking classes would receive a lower DBRS rating. For more detail on this subject, please refer to DBRS rating policy entitled "[Underlying Principles](#)."
- In some cases, issued debt is secured by collateral. This is more typical in the non-investment-grade spectrum. For more detail on this subject, please refer to [DBRS Rating Methodology for Leveraged Finance](#).
- The existence of holding companies can have a meaningful impact on individual security ratings. For more detail on this subject, please refer to the criteria [Rating Parent/Holding Companies and Their Subsidiaries](#).

Appendix

INDUSTRY BUSINESS RISK RATINGS

- DBRS uses the concept of business risk ratings (BRRs) as a tool in assessing the business strength of both industries and individual companies within many methodologies across the corporate finance area. (DBRS does not typically use this approach for most financial, government and public finance sectors, where the industry is more challenging to define and this approach is not as useful.)
- The BRR is assessed independently of financial risk, although in some cases there are subtle but important links. As an example, the very low business risk profile of many regulated utilities has historically allowed this sector to operate with debt levels that would not be acceptable for most other industry sectors. Given this reality, it is difficult to consider the utility industry's BRR without acknowledging to some degree that the industry operates with sizable debt levels. This type of relationship exists with many industries, although typically to a much lesser degree.
- When a BRR is applied to an industry, there is an acknowledgment that this is a general assessment and there may in fact be a wide disbursement in the business strength of individual entities within the industry. Nonetheless, this assessment is beneficial to enabling DBRS to clearly delineate our industry opinion and is a useful tool when comparing different industries. An industry BRR is defined as being representative of those entities that the market would consider as "established," meaning that the group of companies being considered would have at least reasonable critical mass and track records. As such, the BRR for an industry does not consider very small players, start-up operations or entities that have unusual strengths or weaknesses relative to the base industry.
- DBRS methodologies note whether they apply to global industries or more specific countries or regions. When analyzing individual credits, DBRS considers the degree to which regional considerations may differ from the geographic area applicable within the industry methodology. Many entities have business units that transcend industries and in these cases, more than one BRR would be considered, including the possible benefits or challenges that may exist when all businesses are analyzed as part of a combined group.
- The BRR is a tool that provides additional clarity regarding the business risk of the industry overall, but it should be viewed as just one aspect in the complex analysis of setting ratings and should by no means be seen as either a floor or ceiling for issuers within a given industry. Although DBRS does not anticipate volatility in an industry's BRR, changes are possible over time if there are meaningful structural developments in the industry. When such a change does occur, DBRS will make this clear and note any impact on related individual ratings within the industry as applicable.
- DBRS assesses five areas to establish the overall BRR for an industry. Although there is an overlap in some instances (to some degree, in the long term, all five factors tend to relate to profitability and stability), DBRS has found that considering these five measures in a separate fashion is a useful way of approaching its analysis. In all cases, DBRS uses historic performance and our experience to determine an opinion on the future, which is the primary focus.

Industry Profitability and Cash Flow

- When ratios such as return on equity, return on capital and a variety of cash flow metrics are considered, some industries are simply more profitable than others. While standard economics would suggest a reversion to the mean through new competitors, this often occurs at a very slow pace over a long time horizon and in some cases may not occur at all because of barriers to entry.
- The benefits from above-average profits and/or cash flow are substantial and include internal capital growth, easier access to external capital and an additional buffer to unexpected adversity from both liquidity and capital perspectives.
- Some industries and their participants have challenges or strengths in areas such as research and development (R&D), brand recognition, marketing, distribution, cost levels and a potentially wide variety of other tangibles and intangibles that affect their ability in the area of profitability.

Industry Competitive Landscape

- The competitive landscape provides information regarding future profitability for the industry and thus somewhat crosses over into the profitability and cash flow assessment, but competition is deemed worthy of separate consideration because of its critical nature.
- Participants in industries that lack discipline, produce commodity-like products or services, have low barriers to entry and exhibit ongoing pricing war strategies generally have difficulty attaining high profitability levels in the longer term. Certain industries benefit from a monopoly or oligopoly situation, which may relate to regulation.

Industry Stability

- This factor relates primarily to the degree of stability in cash flow and earnings, measuring the degree to which the industry and its participants are affected by economic or industry cycles. Stability is considered critical as industries with high peaks and troughs have to deal with higher risk at the bottom of a cycle. As such, to some degree, industries with lower but stable profitability are considered more highly than industries with higher average profitability that is more cyclical.
- Some of the key factors in considering stability include the nature of the cost structure (fixed or variable), diversification that provides counter-cyclical and the degree to which the industry interrelates with the overall economy. Depending on the industry, economic factors could include inflation or deflation, supply and demand, interest rates, currency swings and future demographics.

Industry Regulation

- Where applicable, regulation can provide support through stability and a barrier to entry, but it can also cause challenges and change the risk profile of an industry and its participants in a negative way, including the reality of additional costs and complications in enacting new strategies or other changes.
- As part of its analysis of regulation, DBRS also considers the likelihood of deregulation for a regulated industry, noting the many examples where this transition has proven to be a major challenge in the past.

Other Inherent Industry Considerations

- Each industry has its own set of unique potential risks that, even if managed well, cannot be totally eliminated. Specific risks, the ability to manage them and the range of potential outcomes vary industry by industry. Two of the most common risks are changing technology and operational risks.
- Some of the other more common risks are in the areas of legal, product tampering, weather, natural disasters, labour relations, currency, energy prices, emerging markets and pensions.



INDUSTRY BUSINESS RISK RATING DEFINITIONS

DBRS specifies the BRR for an industry in terms of our **Long-Term Obligations** rating scale. When discussing industry BRRs for an industry, DBRS typically provides either one specific rating or a limited range (such as BBB (high)/BBB). Using a range recognizes the fact that, by their nature, industry BRRs are less precise than a specific corporate or security rating as they represent an overall industry. In addition to relating to the industry level, these definitions also apply to the business risk of individual companies, which will fall more often in the very high and low categories (AA/AAA and B) than would be the case for an entire industry.

Industry Business Risk Ratings (BRRs)

Rating	Business Strength	Comment
AA/AAA	Exceptional	An industry BRR of AA/AAA is considered unusually strong, with no meaningful weakness in any individual area. It may include pure monopolies that are deemed essential (the primary case being regulated utilities, where the risk of deregulation is believed to be very low). Common attributes include product differentiation, high barriers to entry and meaningful cost advantages over other industries or entities. These and other strengths provide exceptional stability and high profitability. It would be quite rare for an industry to have a BRR in this category.
A	Superior	Industry BRRs at the "A" level are considered well above average in terms of stability and profitability and typically have some barriers to entry related to capital, technology or scale. Industries that have, by their nature, inherent challenges in terms of cyclicity, a high degree of competition and technology risks would be unlikely to attain this rating category.
BBB	Adequate	Industry BRRs at the BBB level include many cyclical industries where other positive considerations are somewhat offset by challenges related to areas such as commodity products, labour issues, low barriers to entry, high fixed costs and exposure to energy costs. This rating category is considered average and many industries fall within it, with key considerations such as overall profitability and stability typically considered as neither above or below average.
BB	Weak	An industry at the BB level has some meaningful challenges. In addition to high cyclicity, challenges could include the existence of high technology or other risks. Long-standing industries that may have lost their key strengths through factors such as new competition, obsolescence or the inability to meet changing purchaser demands may fit here. The culmination of such factors results in an industry that does not generally score well in terms of stability and profitability. For an entire industry, this is typically the lowest BRR level.
B	Poor	While not common, there are cases where an industry can have a BRR of B. Such industries would typically be characterized by below-average strength in all or virtually all major areas.



INTERRELATIONSHIP BETWEEN FINANCIAL AND BUSINESS RISK

Having in mind the prior discussion on the typical importance that DBRS places on certain financial metrics and business strengths for the automotive industry, we provide some guiding principles pertaining to the application of DBRS methodologies, the first one being that, in most cases, an entity's business risk will carry more weight in the final rating than its financial risk.

Based on this underlying concept, we provide the additional guidance for individual companies with varying business risks:

- **For an Entity with a Business Risk of AA (Exceptional):** A company with a business risk of AA will almost always be able to obtain an investment-grade issuer rating. When financial metrics are in the BBB range, an entity with a business risk of AA would typically be able to attain an "A"-range issuer rating.
- **For an Entity with a Business Risk of "A" (Superior):** Unless financial strength fails to exceed the B range, superior business strength will typically allow the final issuer rating to be investment grade. Very conservative financial risk may in some cases allow the final issuer rating to be within the AA range, but this should not be considered the norm.
- **For an Entity with a Business Risk of BBB (Adequate):** At this average level of business risk, the level of financial risk typically has the ability to result in a final issuer rating from as high as "A" to as low as B.
- **For an Entity with a Business Risk of BB (Weak):** At this weak level of business risk, conservative financial risk can, in some cases, take the final issuer rating into the BBB investment-grade range.
- **For an Entity with a Business Risk of B (Poor):** It is not typically possible for a company with a business risk of B to achieve a final investment-grade issuer rating.

DEFINITION OF ISSUER RATING

- DBRS Corporate rating analysis begins with an evaluation of the fundamental creditworthiness of the issuer, which is reflected in an "issuer rating". Issuer ratings address the overall credit strength of the issuer. Unlike ratings on individual securities or classes of securities, issuer ratings are based on the entity itself and do not include consideration for security or ranking. Ratings that apply to actual securities (secured or unsecured) may be higher, lower or equal to the issuer rating for a given entity.
- Given the lack of impact from security or ranking considerations, issuer ratings generally provide an opinion of default risk for all industry sectors. As such, issuer ratings in the banking sector relate to the final credit opinion on a bank that incorporates both the intrinsic rating and support considerations, if any.
- DBRS typically assigns issuer ratings on a long-term basis using its **Long Term Obligations** Rating Scale; however, on occasion, DBRS may assign a "short-term issuer rating" using its **Commercial Paper and Short Term Debt** Rating Scale to reflect the issuer's overall creditworthiness over a short-term time horizon.

SHORT-TERM AND LONG-TERM RATINGS

- For a discussion on the relationship between short- and long-term ratings and more detail on liquidity factors, please refer to the DBRS policy entitled "**Short-Term and Long-Term Rating Relationships**" and the criteria *DBRS Commercial Paper Liquidity Support Criteria for Corporate Non-Bank Issuers*.

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