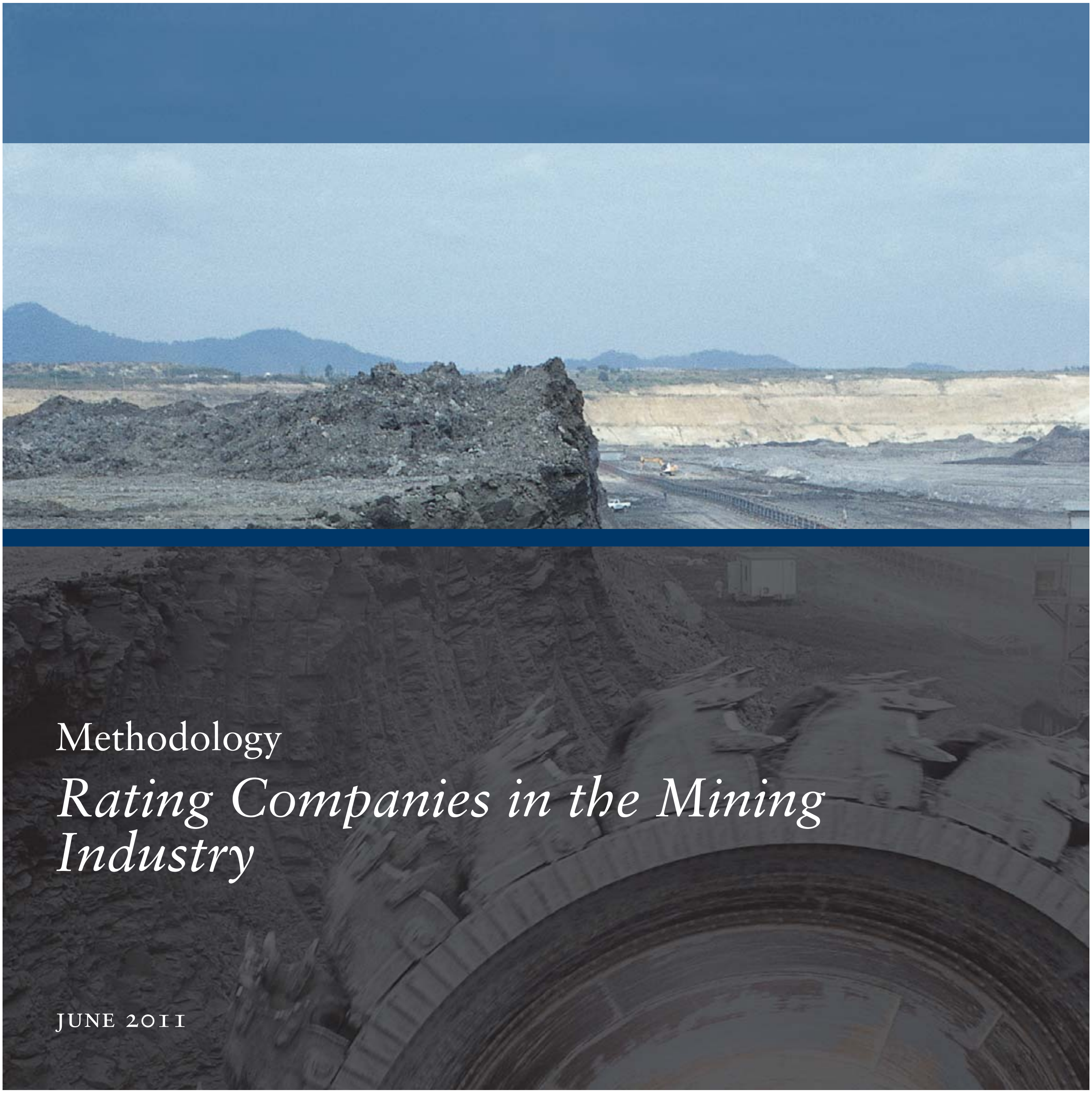

Methodology

Rating Companies in the Mining Industry

JUNE 2011

DBRS

Insight beyond the rating.

CONTACT INFORMATION

Peter Schroeder
Managing Director, Corporate
Research & Analysis
+1 416 597 7579
ps@dbrs.com

Kent Wideman
Chief Credit Officer
+1 416 597 7535
kwideman@dbrs.com

DBRS is a full-service credit rating agency established in 1976. Privately owned and operated without affiliation to any financial institution, DBRS is respected for its independent, third-party evaluations of corporate and government issues, spanning North America, Europe and Asia. DBRS's extensive coverage of securitizations and structured finance transactions solidifies our standing as a leading provider of comprehensive, in-depth credit analysis.

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 Mining 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

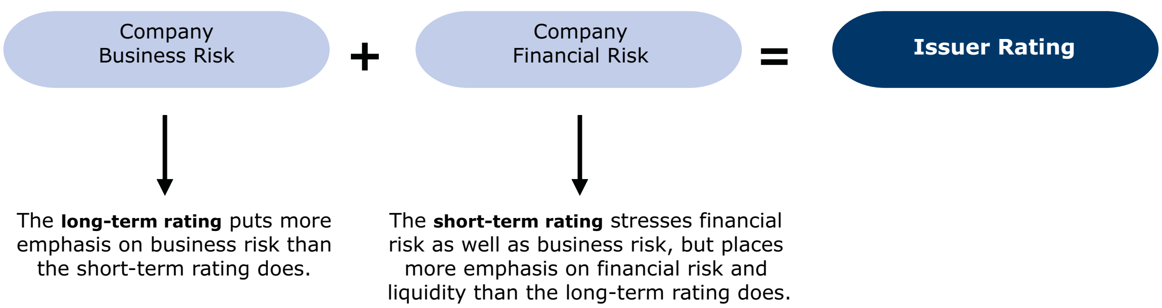
- On a high-level macro basis, DBRS has a consistent approach to determining the issuer rating of an entity that is common across many industries. (See the appendix for the definition of "issuer rating.") Our high-level approach can be broken into three stages, as shown on the opposite page.
- Where 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.

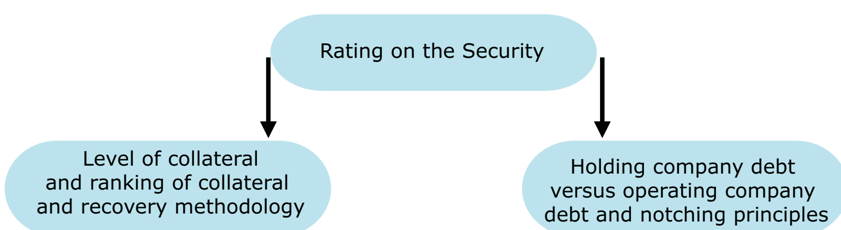
Three Stages of DBRS Rating Analysis

Stage 1: Industry Business Risk Rating
Consider the overall business risk rating (BRR) for the industry.

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.



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 Mining Industry

DEFINITION OF THE INDUSTRY

- The mining industry encompasses a wide range of companies involved in the exploration, development, extraction, processing, refining and sale of minerals plus coal.
- This methodology does not apply to exploration-focused mining companies that do not have a near-term prospect of production.

Recognizing a wide range of business traits affecting mining, the business risk rating of the mining industry is BBB (low), which is based upon the following characteristics :

- Higher-than-average industry profitability related to the need to provide adequate returns on large upfront investments.
- A competitive landscape about equal to other industries, based on multiple producers and buyers of non-branded products (commodities).
- A lack of earnings and cash flow stability due to volatile product pricing and responsiveness to economic cycles.
- Higher-than-average and increasing industry regulation.
- Higher-than-average political risks due to the need to operate where mineral resources are found, including in unstable countries.
- Lower-than-average technology risks due to the basic nature of the materials produced and the history of sharing (licensing) production technologies in the industry.
- Higher-than-average supply-chain disruption and foreign-exchange volatility risks.

The BBB (low) BRR for the mining industry relates to companies that do not have major weaknesses in terms of scale, diversification, cost competiveness and operating and financial track records. Many entities in the industry are considered quite strong in these and other key considerations and, as such, it is not uncommon for individual company ratings to be well above BBB (low).

INDUSTRY PROFITABILITY AND CASH FLOW

- On average, mining industry operating margins are higher than average due to high capital intensity, the need for large upfront investments and higher-than-average investment risk, leading to a high cost of capital. A high cost of capital demands higher average returns over the long run.
- The distribution of profitability through the supply chain can vary (e.g., the currently low margins in refining certain minerals).
- Earnings volatility is high and periods of low or high profitability can persist for many years as production surpluses and/or shortages are brought into balance.

INDUSTRY COMPETITIVE LANDSCAPE

- The competitive landscape in the mining industry is about equal to other industries.
- Mining largely produces commodities; therefore, producers are price takers.
- The industry has significant barriers to entry, including resource discovery, long lead times for development, high capital costs, often remote developments bereft of infrastructure, high regulation, political and social instability issues and, increasingly, the need to maintain a solid public reputation as an industrial operator with a "social licence" to mine.
- Regional markets may develop in response to the high proportion of transportation costs in the cost structure of certain bulk minerals.

INDUSTRY STABILITY

- The stability of earnings and cash flow of mining companies is significantly less than the average of other industries.
- The high cash margins needed to earn an adequate return, combined with long lead times to bring on new production, lead to sometimes extended periods of surplus or insufficient supply and high commodity price volatility in the industry.
- The high cost of mothballing a mining operation and the future costs of re-opening it can encourage a producer to keep operating for a short period even if its variable costs are not being covered.
- The persistent growth of world populations, the increasing industrialization and urbanization of developing countries and economic growth all provide stimulus to ongoing long-term commodity demand, which can serve to rectify supply/demand imbalances in the industry over time.
- Some individual commodity components of the mining sector are sufficiently concentrated and disciplined that a swing-producer mentality develops, where a leading producer will voluntarily absorb the bulk of demand changes through voluntary production cuts in order to maintain price stability (e.g., potash, diamonds or platinum group metals).

INDUSTRY REGULATION

- Mining encounters higher-than-average and increasing industry regulation.
- With operations physically confined to political jurisdictions, changes in regulations or taxation provisions can lead to sudden and volatile changes in earnings and cash flow.
- Governments generally do not protect markets for miners.
- Mining has higher safety, health and environment compliance costs when operating and faces severe restrictions in gaining permission to build mines, leading to high upfront costs and longer lead times.
- Mine decommissioning is subject to often costly closure and reclamation requirements.
- Mining often disturbs a significant land area, leading to restrictions related to multiple-use of land (for parks, urban or recreational development, oil and gas activities, agriculture, forestry, etc.), which can increase costs or prohibit mining outright.
- Mining companies have seldom been held liable for the impact of their products in normal use (asbestos is a potential example), but this may increase. For example, the search for greenhouse gas mitigation by governments may lead to significant increases in costs for coal producers.

OTHER INHERENT INDUSTRY CONSIDERATIONS

- On balance, other inherent industry characteristics lead to a risk profile for the mining industry about equal to other industries.
- Technology risk is lower than average and seldom changes the competitive landscape of the industry.
  - The industry has a history of licensing key technologies among participants.
- Political risks are higher in the mining industry since minerals are mined where they are found.
  - Many new mine developments are found in unstable political jurisdictions with ill-defined legal and regulatory systems.
  - The often high profitability of the mining sector provides a potential source of income to governments in need of revenue.
  - The ownership of mineral resources and the potential impact on domestic economies often lead countries to impose sub-economic actions on companies exploiting resources such as mandating in-country processing requirements, etc.
- The threat of obsolescence of any particular commodity is low and if usage drops, it is generally over an extended period of time.
- The mining industry is of international scale, with mining companies often having operations in several political jurisdictions, resulting in long supply chains for input materials and to reach customers, leading to the following:
  - Volatility in earnings due to foreign exchange movements across jurisdictions.
  - The potential for added costs or even supply interruption due to political disputes or adverse domestic policy developments along the supply chain.

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.

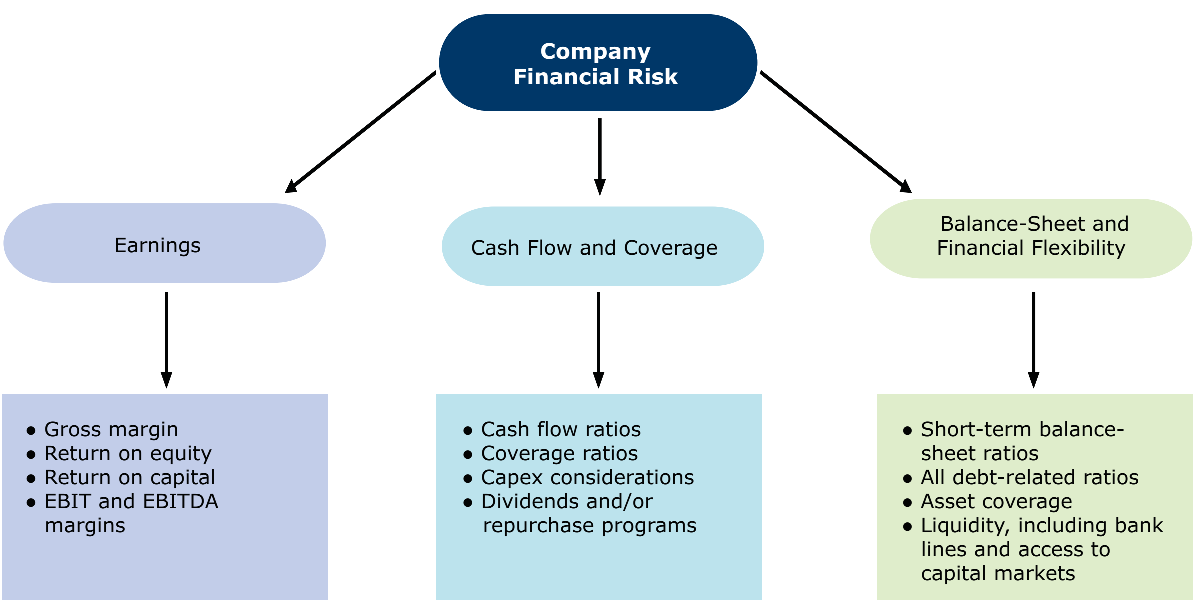
BUSINESS RISK PROFILE

- 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 mining industry would be better, worse or the same as the mining 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	**AA**	**A**	**BBB**	**BB**	**B**
Business Strength	**Exceptional**	**Superior**	**Adequate**	**Weak**	**Poor**
Reserves of Core Operations	• Very long reserve life at existing production rates for key products.	• Well above average reserve life at existing production rates for key products.	• Reserve life at existing production rates for key products would range from average to above average.	• Relatively short reserve life at existing production rates for key products.	• Short reserve life at existing production rates for key products.
Cost Competitiveness	• Most operations are very low-cost (first-quartile cost on industry cost curve).	• Operations are a combination of first- or second-quartile cost.	• Average operation is second-quartile cost.	• Most operations are third- or fourth- quartile cost.	• Most operations are very high cost (fourth-quartile on industry cost curve).
Diversification	• Very well diversified by product, production location, political jurisdiction and pricing format.	• Good diversification by product, production location, political jurisdiction and pricing format.	• Several products and/or several production locations, plus multiple political jurisdictions.	• Few products and/or few production locations.	• Reliance on single commodity or single production location.
Political Risk	• Almost all production from countries considered stable/friendly to mining.	• Most of production from countries considered stable/friendly to mining.	• Majority of production from countries considered stable/friendly to mining.	• Most of production from countries not considered stable/friendly to mining.	• Heavily reliant on production from countries not considered stable/friendly to mining.
Size and Critical Mass	• Very large size able to withstand multiple project development risks and able to access people, resources and technologies.	• Large size able to withstand large project development risks and able to access people, resources and technologies.	• Mid size able to withstand moderate scale project development risks and able to access most people, resources and technologies.	• Moderate size able to withstand smaller project development risks and with potential challenges in accessing people, resources or technologies.	• Small size with concerns over ability to withstand development project risks and with potential challenges in accessing people, resources or technologies.

PRIMARY FACTORS

Reserves of Core Operations

- Primary consideration is given to the quantity of proven and probable reserves, which are the source of earnings and cash flow.
- Long reserve lives (often defined as reserve quantity divided by recent annual production volume or existing processing capacity) reflect the sustainability of operations.
- Reserves of core producing operations are given most consideration as they are the key to meeting near- to medium-term financial obligations and reserves without production facilities have less significance.
- Resources in proximity to producing reserves can add to the sustainability of earnings and cash flow from a producing site.
- Undeveloped reserves and resources reflect the potential for organic growth.

Cost Competitiveness

- Miners are largely price takers; therefore, low-cost producers (below the 50th percentile on the cost curve) can almost be assured of generating positive cash flow from sales in the long run.
- Cost competitiveness can depend on many factors, including the following:
  - Reserve grade, including the presence of co-product minerals.
  - Capital costs to put into production.
  - Mining methods required (open pit or underground, etc.).
  - Ability to extract minerals from ore (metallurgy).
  - Infrastructure availability.
  - Mining, processing and distribution costs, including reclamation costs, mineral taxes and royalty burdens.
- Low-cost producers can be expected to garner maximum cash flows from their production.
- Vertical integration may help a company control cost variability along its supply chain, allowing it to maximize profitability.

Diversification

- Diversification by commodity produced reduces market risks.
- Diversification by production location reduces the risk of production interruption from strikes, supply chain interruptions, technical issues, etc.
- Diversification by political jurisdiction reduces overall country risk and related royalty rates and taxation policies.
- Diversification by pricing format, with longer-term contract pricing reducing price variability.

Political Risk

- Mining operations have large exposure to political and social instability in the countries in which they operate.
- Even in the most stable jurisdictions, taxation and royalty structures can change quickly and social opposition to mining can restrict operations and impair profitability.
- Often, recourse to resist undesirable changes through an existing legal framework becomes unworkable or ineffective.

Size and Critical Mass

- Companies with sufficient size or critical mass, have the following:
  - Better access to capital at a lower cost.
  - Better diversification potential.
  - Higher risk tolerance, allowing acquisition of undeveloped resources in more remote and politically risky jurisdictions.
  - Better access to human and technical resources for mine development and operation.
  - More opportunities for efficiencies because of vertical integration.
  - Less chance of the failure of any one project impairing the ability to repay its financial obligations.

ADDITIONAL FACTORS

Growth Strategy

- Growth by acquisition is considered more risky than growth through the development of internally held properties (organic growth).
- Appropriate valuation of acquired assets is difficult and acquisitions may be the result of bidding wars.
- Integration of operations and business cultures is difficult and expected synergy may not be realized.

Management of Controllable Risks

- Hedging of future product prices can reduce risks, particularly for new operations that are built based on economics with a specified revenue base.
- Hedging the future cost of key input materials through upstream integration or financial instruments reduces earnings volatility.
- Hedging foreign exchange and interest rate risks reduces earnings volatility.
- Providing insurance programs to mitigate the impact of the potential destruction of key assets or the cost of unforeseen business interruption can reduce earnings volatility.

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

- As detailed in "Political Risk" under "Primary Factors" in the Company-Specific Business Risk Factors section, governments often intervene in their economies and occasionally make changes that can significantly affect a company's ability to meet its financial obligations.
- 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 mining 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.

Mining Industry Financial Metrics

Ratio	AA	A	BBB	BB	B
Per cent debt in the capital structure	< 20%	20% to 30%	30% to 45%	45% to 60%	> 60%
EBIT-to-interest	> 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%

- The above standards are forward looking for typical companies in the mining industry, operating at average levels through the business cycle (cyclically normalized).
- Top-of-the-cycle ratios or bottom-of-the-cycle ratios are not used directly to establish ratings in the mining industry. It is the nature of this industry that the top-of-cycle company financial metrics will often appear exceptionally strong, while the opposite occurs at the bottom of the cycle. In addition, cycles in mining can be very long term. In using financial metrics, DBRS stresses future expectations of long-term, through-the-cycle ratios and, as such, ratings may not directly reflect financial metrics that are considered to be top- or bottom-of-the-cycle at a particular point in time. Accordingly, DBRS considers that the business risk considerations for this industry have a higher relative weighting on the final rating than is the case for most industries.
- Many subjective factors go into a rating, which can override the above standards to establish the final rating.
- 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.
- Mining companies vary widely in their financing strategies. Conservative financing strategy maintains high liquidity and moderate debt levels and conservative companies make acquisitions with equity or term out acquisition debt quickly. Beyond ratio analysis, qualitative metrics such as financing strategy may affect ratings.
- DBRS ratings are based on historic and future performance expectations, but while past metrics are useful measures, any final rating will incorporate DBRS's opinion on future metrics, a subjective but critical consideration.

- 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 currently based on Canadian Generally Accepted Accounting Principles (GAAP) and U.S. GAAP, for the most part. Canadian-based companies are converting to IFRS accounting beginning in 2011 and a number of international companies already report in IFRS or country-specific GAAP. When company financial statements are based on GAAP of 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

EARNINGS

DBRS's earnings analysis focuses on core earnings adjusted for items considered non-recurring and in doing so considers issues such as the sources and mix of revenue; the volatility or stability of revenue; the underlying cost base (e.g., is the company a low-cost producer?); and potential growth opportunities.

- Physical quantities produced and sold are monitored as indicators of earnings potential.
- Reported earnings are adjusted for material non-recurring items or items not considered part of ongoing operations.
- Company budgets and forecasts for future periods are often reviewed.
- Financial analysis focuses on the trends and/or outlook for key performance indicators, including financial data, operational data and ratios of financial data.

Time Series (Trend Analysis)

- EBITDA or operating income.
- Production or sales volumes.
- Product prices.

Typical Earnings Ratios

- Gross margin.
- EBITDA margin or operating margin.
- Return on equity.
- Return on capital.

CASH FLOW AND COVERAGE

DBRS's cash flow analysis is focused on the core ability of the company to generate cash flow to service debt obligations and other cash requirements as well as the future direction of operating cash flow, capex, dividend, working capital and other needs. From a credit analysis perspective, insufficient cash sources can create financial problems even though net income metrics may be favourable.

- Sustainability of a company's core cash flow is evaluated by focusing on cash flow from operations and free cash flow before and after working capital changes.
- Cash flow from operations is adjusted to remove as much as possible cash flow that is anticipated to be non-recurring.
- The company's strategies for growth, including capital expenditures for maintenance or expansion of production, and the expected source for funding these requirements are reviewed.
- Cash flow analysis is forward looking.

Time Series (Trend Analysis)

- Cash from operations.
- Gross free cash flow.
- Net free cash flow.

Typical Cash Flow Ratios

- EBITDA interest coverage.
- EBIT interest coverage.
- Debt-to-EBITDA.
- Cash flow-to-total debt.

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 strength, including the nature (equity, debt, preferred shares, hybrids, etc.) of capital, appropriateness of leverage to asset quality and the ability to raise new capital.

Time Series (Trend Analysis)

- Working capital.
- Total debt.
- Shareholder's equity.

Typical Balance-Sheet Ratios

- Working capital ratio – current assets-to-current liabilities.
- Per cent debt in the capital structure.
- Per cent net debt in the capital structure.

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-cyclicality 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 cyclicality, 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 cyclicality, 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 mining 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*.

Insight beyond the rating.

www.dbrs.com

Corporate Headquarters

DBRS Tower
181 University Avenue
Suite 700
Toronto, ON M5H 3M7
TEL +1 416 593 5577