

Methodology  
*Rating Oil and Gas Companies*

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*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.



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# Rating Oil and Gas Companies

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## I. Overview

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DBRS ratings are opinions that reflect the creditworthiness of an issuer, a security, or an obligation. They are opinions based on forward-looking measurements that assess a company's ability and willingness to make timely payments on outstanding obligations (whether principal, interest, or dividend) with respect to the terms of an obligation. Ratings are not buy, hold or sell recommendations and they do not address the market price of a security.

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 that would be more critical for a peer company. 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 methodology is underpinned by a stable rating philosophy, which means that in order to minimize the rating changes due primarily to global economic changes DBRS generally factors the impact of a cyclical economic environment into its rating. Consequently, DBRS takes a longer-term "through the cycle" view of a company and, as such, rating changes are not based solely on normal economic cycles. 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. An equally important aspect of DBRS analysis is its broad industry coverage, which it undertakes in order to understand the major differences and subtle nuances within a particular industry and to form an appropriate rating of a company relative to its competitors.

As a framework, DBRS rating methodologies consist of three components that together form the basis of the rating: an assessment of the company's general business risk profile based on cross-industry and macro business considerations; an assessment of the company's financial risk profile primarily based on quantitative ratio analysis; and consideration of industry-specific factors and measures particularly unique to the company. To some extent, the business risk and financial risk profiles are inter-related. The degree of financial risk considered acceptable for a company depends to a large measure on the business risks it faces.

Critical in the determination of a rating is the application of the analyst's experience and expertise in forming an initial rating opinion and recommendation for the rating committee and the role of the DBRS rating committee as the final decision maker. DBRS rating committees, which are comprised of experienced and knowledgeable DBRS personnel, strive to provide objective and independent rating decisions which are based upon all relevant information and factors, incorporate both global and local considerations, apply DBRS approved methodologies and reflect the opinion of DBRS.

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## II. General Business Risk Profile

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A fundamental component of DBRS analysis is the consideration of macro business factors that apply to most, if not all, industries within the Corporate sector. The general business risk profile is largely a qualitative assessment of the environment a company is affected by and operates in. An assessment of the general business risk profile serves as a backdrop for the analysis of the company's financial risk profile as well as other qualitative and quantitative factors that are particularly unique to the company. Differing business risk profiles impact the assessment of a company's financial risk profile, and thus, it is important to understand the extraneous influences and business factors a company is or could be affected by despite its financial strength.

### KEY CONSIDERATIONS IN EVALUATING A COMPANY'S BUSINESS RISK PROFILE

The following considerations, while not intended to be an exhaustive list, indicate the key areas DBRS considers in evaluating a company's business risk profile:

#### *Economic Environment*

The importance of the industry within the overall economy, in terms of either how it impacts or is impacted by the economy, shapes a company's viability. How the industry is influenced by current economic factors such as inflation or deflation, supply and demand, interest rates, currency swings and demographics.

#### *Legislative and Regulatory Environment*

Whether an industry is regulated The degree of regulation and legislative oversight can severely restrict or assist a company depending on its stage of growth, industry influence and regulatory relations. A regulated industry imposes a certain rigor and governance. It is also important to understand the frequency of change or stability in industry rules and whether regulations may require companies to make costly modifications to their infrastructure.

#### *Competitive Environment*

The nature of the market structure (e.g. monopoly versus oligopoly) determines the extent of competitiveness and the barriers to entry a company may face. Many industries are undergoing significant structural changes such as consolidation or deconsolidation, excess capacity, or competitive threats from new capacity in "low-cost" countries such as China, Brazil, and Russia in both domestic and international markets. Even small changes in the competitive environment can have a profound impact on a company.

#### *Country Risk*

Governments often intervene in their economies and occasionally make substantial changes in policy regarding competition, ownership, wage and price controls, restrictions on foreign currency, capital and imports/exports, among other things. Such policy changes can significantly affect a company, and 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. The assessment of country risk is not limited to direct government actions to interfere with the private sector, but also encompasses the full range of financial and economic events that can spill across a country, causing widespread defaults in otherwise healthy corporate credits. As such, country risk can have considerable implications for corporate ratings. A country ceiling is assigned to corporate foreign currency ratings based on the country's susceptibility to systemic shocks and the private sector's ability to maintain its foreign currency debt payments when shocks occur.



### *Industry Cyclicalities*

Cyclicalities is influenced by factors such as levels of consumer spending, consumer confidence, and the strength of the economy. The degree of cyclicalities is influenced by the market segment in which a company specializes. Non-cyclical industries are better able to withstand dramatic economic changes as are companies with more predictable cycles than those with significant peaks and troughs. It is important to examine a company's strategies and performance over the longer term and understand them in cyclical highs and lows.

### *Management*

The capability and strength of management is a pivotal factor to company success. An objective profile of management can be obtained by assessing the following: the appropriateness of core strategies; rigor of key policies, processes and practices; management's reaction to problem situations; its 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 are also critical considerations.

### *Corporate Governance*

Effective corporate governance requires a healthy tension between management, the board of directors, and the public. There is no one "right" approach for all companies. A good board can have a profound impact on growing companies, those in fragile financial states, or those undergoing significant change. Beyond a review of management, assessment should focus on the appropriateness of board composition and structure (including the independence and expertise of the audit committee) to approve executive compensation and corporate strategy, and to oversee execution and opportunities for management self-interest. Other important areas include the extent of disclosure of financial and non-financial information (including aggressiveness of accounting practices and control weaknesses), share ownership (including director's) and shareholder rights.

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### III. General Financial Risk Profile

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The financial risk profile is largely a quantitative assessment of the company's financial strength and an estimation of its future performance and financial profile. DBRS reviews three key areas: earnings, cash flow, and additional measures for balance sheet and financial flexibility. Within each area, DBRS focuses on key metrics and considerations which are assessed over time noting that the trend in the ratios is also important to the rating. However, ratios alone cannot be used as an absolute test of financial strength. With a focus on future expectations, the primary goal of financial risk assessment is to understand the inter-relationship between the numbers, interpret what they mean, and determine what they indicate about the company's ability to service and repay debt on a timely basis given the industry background.

#### KEY CONSIDERATIONS IN EVALUATING A COMPANY'S FINANCIAL RISK PROFILE

The following financial considerations and ratios tend to be analyzed for the majority of industries in the Corporate sector. There may be additional quantitative factors and ratios that are considered on an industry-specific basis which are noted under Section IV - Industry Specific-Factors.

Also refer to the *Corporate Sector – Glossary of Ratio Definitions*.

##### ***A. Earnings***

DBRS earnings analysis focuses on core or normalized earnings 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. 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's analysis.

Typical earnings ratios include:

- Gross margin
- Return on common equity
- Return on capital
- EBIT margin and EBITDA margin

##### ***B. Cash Flow/Coverage***

DBRS cash flow analysis focuses on the core cash flow generating ability of the company to service current debt obligations and other cash requirements as well as 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 much non-recurring items as possible. 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 and future capital expenditure and dividend/stock repurchase programs, as applicable.



Typical cash flow ratios include:

- EBIT interest coverage and EBITDA interest coverage
- EBIT fixed charges coverage
- Cash flow/total debt and Cash flow/adjusted total debt
- Cash flow/capital expenditures
- Capital expenditures/depreciation
- Debt/EBITDA
- Dividend payout ratio

### *C. 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 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, plans for maintenance or expansion, and the expected source for funding these requirements. Where the numbers are considered significant and the adjustments would meaningfully impact 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 include:

- Current ratio
- Turnover – Receivables and inventory
- Asset coverage (times)
- Per cent total debt to capital and per cent adjusted total debt to capital
- Per cent adjusted net debt to capital

The following factors focus on the company's liquidity:

- Maintaining sufficient bank-lines or cash balances;
- Prudent use of cash balances for dividends or stock repurchases;
- Terms and conditions of credit facilities including unique terms and/or financial covenants;
- Debt management approach including dependence on short-term versus long-term debt, fixed versus variable rate debt, and debt maturity schedule;
- Interest rate and/or foreign exchange exposure;
- Relationship and strength or weakness of a parent holding company or associated companies, if applicable.

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## IV. Industry-Specific Factors

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Each industry within the Corporate sector has unique features that cannot be broadly applied across all industries. For example, capital spending is a key area in the utilities industry, reserves are particular to the mining industry, adequate R&D is critical for the pharmaceutical industry, and seasonality significantly impacts merchandisers. Against the backdrop of the general business and financial risk profiles, a company's unique strengths, weaknesses and industry-specific issues need to be factored into the credit analysis to form an appropriate rating. These particular business and financial issues and measures also help to shape the company's status relative to its peers.

### KEY CONSIDERATIONS IN EVALUATING COMPANIES IN THE OIL AND GAS SECTOR

The following considerations more specifically characterize the Oil and Gas group and supplement the macro business and financial considerations, respectively, in Sections II and III of DBRS's methodology. All three sections, Sections II, III and IV, should be considered together.

A company with upstream operations may also operate in other segments of the oil and gas industry and/or other related industries (e.g., refining, marketing, transportation and petrochemicals) and DBRS evaluates each of these business segments individually, as well as in the context of business risk of the integrated company.

The upstream sector of the oil and gas industry is characterized by substantial volatility in the ultimate prices realized, the significant costs involved in finding, developing and producing reserves, and the often uncertain estimates of recoverable resources. The resource base, by its nature, is depleting, and participants in the industry must continually reinvest into the business to find new reserves in order to replace and grow production and maintain viability. Conventional reserves are also becoming scarcer and discovered in smaller reservoirs. The industry, however, continues to benefit from technological advances to improve recovery, while helping to make more difficult, unconventional reserves, notably oil sands, shale plays and tight gas in North America, economic. Typically, companies that explore offshore regions entail greater risk, as more capital must be spent on each individual well. In contrast, oil sands operators incur minimal or no exploration risk, as the resource is well defined and long lived. The evolution of tax-advantaged capital structures, such as income trusts in Canada, presents additional issues that DBRS considers in its analysis of upstream operators.

### PRIMARY FACTORS

#### *Price and Cost Relationship*

The realized commodity prices and the underlying production and operating costs are key factors affecting an oil and gas company's operating results, or netbacks. A sustained period of low commodity prices could adversely affect performance of industry participants.

EBITDA netback represents cash operating income per barrel of oil equivalent (boe) from producing operations, which is a significant determinant of profitability and an important rating driver. Low-cost producers that consistently generate high netbacks are viewed most favourably by DBRS. Given the inherent volatility of commodity prices, DBRS uses various price assumptions to test the sensitivity of an oil and gas company's key credit metrics and operating statistics to changes in price.



### **Price Sensitivity**

The price realization of the commodity is highly dependent on the quality of the product (e.g., sweet versus sour crude, wet versus dry gas, heavy oil versus light oil), given that most upstream production must be processed to varying degrees before consumption. The location of the reserves is another key factor (e.g., natural gas from the Rocky Mountains versus Equatorial Guinea). As such, upstream companies often operate in countries where significant geopolitical challenges exist.

### **Reserves**

A company's production and growth profile is largely dependent on the quality of its reserve base and whether the proved and probable reserves are in sufficient quantities and commercially accessible for future developments. Upgrading of a company's portfolio of reserves can be achieved through selective purchases and disposals as well as technological enhancement.

### **Supply/Demand**

Reserves, production and consumption are significant factors that affect price realizations on a global basis in the case of crude oil, and generally on a regional basis for natural gas, which is also affected by storage levels. Refining capacity is an important determinant in the pricing of refined products. Given the substantial number and size of industry participants, individual companies are typically price-takers in a very competitive market. It is noteworthy that the Organization of Petroleum Exporting Countries (OPEC), through the cooperative effort of its member states, could affect crude oil prices by setting production quotas and offering fairly substantial spare capacity through Saudi Arabia.

### **Pipeline Availability/Constraints**

DBRS examines the transportation system required to meet the logistical requirements of the industry. Since energy production tends to be remote from the product's ultimate end-users, pipeline availability is a significant determinant of producer netbacks. This is especially true for natural gas, for which the transportation cost relative to its realized selling price is much higher than for crude oil.

### **Other Issues**

Other factors include prices for condensate (which is required to transport heavy oil through a pipeline), drilling rig availability/pricing, and weather conditions (e.g., some regions are accessible only in winter, while demand for natural gas is tied to the summer air conditioning and winter heating seasons). Arbitrage opportunities ensure that pricing efficiencies are closely maintained between competing markets.

### **Market Volatility**

DBRS rates oil and gas companies through a cycle, taking into consideration the inherent volatility of commodity prices, high capital reinvestment risk, cost structure and operating efficiency. Cash flow is the most important measure of performance, and DBRS focuses on the sustainability and adequacy of cash flow support for debt protection, funding of capital spending and dividends, and generation of free cash flow. Oil and gas ratings focus on assessing the downside risks to cash flow and incorporate forward-looking DBRS expectations of operating performance and credit quality. Operating performance for individual oil and gas companies is consistently monitored in the context of peer group comparative analysis.

### **Business Mix and Diversification**

There are three broad categories of petroleum companies, as outlined below, each with its own specific risk characteristics and credit profiles. Generally, companies with more integrated and diverse operations, with the benefit of economy of scale, are viewed more favourably, and could receive higher credit ratings

### **Independent Exploration and Production (E&P) Companies**

These companies can experience significant volatility in earnings and cash flow due to their exposure to commodity price swings and large investments to replace reserves.



### **Independent Refiners/Marketers**

These companies are subject to general economic conditions that determine demand for refined products. Refiners in particular benefit from larger differentials between crude oil feedstock prices and price realizations of refined products. In this respect, refiners in North America are generally focusing on expanding and upgrading their refining capacities to handle heavier crude oil, especially from the Canadian oil sands.

### **Integrateds**

DBRS views the integrated oil and gas companies (Integrateds) as the most stable and highly rated of the petroleum companies, with more diversified cash flow and often countercyclical upstream and downstream operations. Integrateds are typically engaged in all phases of the business, from oil & gas exploration and production through marketing and refining and even petrochemical and/or oil sands operations. These companies typically have greater capacity to internally fund capital spending than pure E&P companies.

### ***Cash Flow***

The oil and gas industry reports high levels of depreciation, depletion and amortization and relatively high levels of deferred taxes, which are all non-cash items. For this reason, DBRS believes that cash flow, which is primarily used to fund capital spending, is a more appropriate measure for assessing an oil and gas company's financial performance than is net income. Crude oil and natural gas prices can fluctuate widely, depending on factors such as supply and demand fundamentals, inventory levels, weather conditions and seasonal factors. This makes the cash flow of oil and gas companies inherently volatile. Among the mitigants to this volatility are hedging arrangements, which, applied on a consistent basis, could provide a certain measure of cash flow stability for the near term. In addition, a production profile that is balanced between crude oil and natural gas can provide an element of stability relatively to companies that have a significant weighting to one commodity.

### ***Liquidity***

Liquidity analysis assesses a company's corporate philosophy as well as its ability to meet its capital programs, debt and other obligations. Consideration is given to the adequacy of bank credit lines, cash balances and other readily accessible sources of liquidity. Other factors include counterparty credit, cash collateral requirements, debt financings and other general liquidity demands. Any sharp drop in commodity prices coupled with continuing turmoil in the credit and capital markets could heighten the challenges faced by industry participants in maintaining adequate liquidity to fund existing and future obligations.

### ***Capital Spending***

Capital spending analysis provides an understanding of a company's operating strategies, growth plans and areas under investment and divestment. Analysis of capital spending begins with an examination of a company's capital needs. Cash flow adequacy is viewed from the standpoint of a company's ability to finance capital maintenance requirements internally, as well as its ability to finance capital additions. An important dimension of capital spending is the extent of a company's flexibility to alter the timing of projects without permanent impairment of its operations. In the case of oil sands projects, special attention is focused on the substantial front-end capital and the relatively inflexible timeline for developments, particularly for mining projects with upgrading operations.



### *Capital Structure*

When assessing an oil and gas company's balance sheet and capital structure, DBRS considers a variety of factors, including the use of leverage, interest coverage and fixed-charge coverage ratios, debt maturity and refinancing risk, fixed-rate versus floating-rate debt, average coupon interest costs and cash balances, as well as other potential sources of liquidity. Although DBRS recognizes the importance of traditional debt-to-capital ratios as an indicator of financial leverage, the capitalized value of property, plant and equipment and book equity values may not be reflective of the true underlying value of oil and gas reserves in the ground. As a result, DBRS tends to place greater emphasis on debt-to-cash flow, interest and fixed-charge coverage ratios as measures of balance sheet strength. Off-balance sheet liabilities such as operating leases, which are most commonly found among oil and gas companies, are also factored into the leverage analysis. DBRS typically treats these leases as a use of debt capacity.

## **SECONDARY FACTORS**

### *Political Risks*

Companies in the oil and gas industry are often confronted with significant political challenges. While these risks can be quantified to some degree using various metrics or tools (e.g., percentage of production from OECD countries, credit ratings of host countries, concentration of production and reserves), forecasting the actual impact on a company's cash flows over time can be considerably less precise. Included in these risks are unilateral changes in royalties, production sharing contracts as well as indignant matters.

### *Regulatory/Environmental Factors*

DBRS assesses the extent to which oil and gas companies face government laws and regulations, which can have an impact on a company's business and prospects. Among the more stringent laws are allowable limits of emissions. Industry participants, whether conventional or unconventional, including oil sands operators, are among the major contributors to greenhouse emissions (GHG), principally as a result of carbon dioxide generated through hydrocarbon production. In light of the global push towards lower GHG through regulatory requirements, including the Kyoto Protocol, DBRS views this risk and its associated cost as growing over time. Integrations also face environmental risks from their downstream operations, especially in refining. DBRS also examines the impact of site reclamation and asset retirement obligations.

## **QUALITATIVE AND QUANTITATIVE FACTORS**

### *Qualitative Factors*

There are many qualitative factors that DBRS considers in evaluating quantitative findings and in assessing the company's current and future production and cash flow prospects. These include: (1) scale of operations, (2) production profile and product mix, (3) company expertise, (4) reserves profile, quality and booking practices, (5) geographic location, infrastructure and market access, and (6) integration.

To reflect more accurately the ongoing earnings power and comparability of peer group companies, DBRS also takes into consideration the potential impact of accounting variations, and non-recurring events, which include: (1) full cost vs. successful efforts accounting, (2) inventory accounting (FIFO versus LIFO), (3) tax issues, (4) non-recurring charges/gains, and (5) ceiling test and asset impairment writedowns.



## *Quantitative Factors*

### **Selected Key Operating Statistics**

Total production  
% Oil, condensate & NGL to total/% oil sands to total  
EBITDA/EBIT netback  
Production and operating costs  
Proved reserves  
% Oil, condensate & NGL to total  
Proved undeveloped reserves/Total proved reserves  
Annual production replaced  
Proved reserve life index  
Operating success and cost efficiencies  
Reserves replaced internally  
Finding & development (F&D) cost  
Reserve replacement cost  
Reserve recycle ratio

### **Downstream Selected Key Operating Statistics**

Refined product sales  
Refined throughput  
Refined capacity utilized  
Refining/marketing margins

### **Selected Key Ratios**

Debt-to-total capital  
Debt-to-cash flow  
Gross interest coverage  
EBITDA/EBIT interest coverage  
Fixed charges coverage  
(Cash flow – dividends)/net capex  
Operating margin  
Return on equity  
Return on capital  
Segment earnings

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*Insight beyond the rating.*

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