#### What we will cover

We strive for transparency around the rating process. However, it is critical to realize--and it should be apparent--that the ratings process couldn't be reduced to a cookbook approach: Ratings incorporate many subjective judgments, and remain as much an art as well as a science. Our analytical methodology organizes the analytical process according to a common framework, and it divides the task into several categories so that all salient issues are considered. Credit ratings often are identified with financial analysis--especially ratios.

Benchmark of ratios varies both for sectors and individual companies. But ratings analysis starts with the assessment of the business and competitive profile of the company. Two companies with identical financial metrics are rated very differently, to the extent that their business challenges and prospects differ.

MIRA has developed single rating methodology for different sectors. However, there is a set of common credit considerations underlying the wide range of rating outcomes. We have distilled these considerations into eight (8) key rating factors.

## **Measurement of Key Rating Factors**

We next explain the metrics or "sub-factors" we use to define each of the eight rating factors cited. These employ a combination of historical financial information with other measurements.

We note MIRA's ratings are forward looking and incorporate our expectations of future financial and operating performance. The rating process makes use of both historical and projected financial results. Historical results of operations help us understand the pattern of a company's performance and how it compares to its peers. Historical data help us to, among other things, look through the earnings volatility associated with the business cycle and evaluate whether projected future results are realistic. The rating process makes use of both historical and projected financial results.

#### Factor 1: Macroeconomics

Macroeconomics plays a significant role in the credit rating process as it helps to assess the creditworthiness of a borrower or an issuer. Macroeconomic factors refer to the overall state of the economy, including GDP growth, inflation, interest rates, unemployment, and other economic indicators that impact the creditworthiness of a borrower.

We use macroeconomic data to evaluate the financial health of a borrower or issuer and make informed decisions about their creditworthiness. For example, if the economy is growing, it may indicate that borrowers are more likely to be able to repay their debts, leading to a higher credit rating. On the other hand, if the economy is in a recession, borrowers may struggle to repay their debts, leading to a lower credit rating. Also, macroeconomic factors such as interest rates can impact the cost of borrowing for issuers, which affects their creditworthiness. If interest rates are high, it may indicate that the cost of borrowing is expensive, leading to a lower credit rating for the borrower.

## Factor 2: Sector analysis

# 1. Industry Risk

All rating analyses incorporate an assessment of the company's business environment. The degree of operating risk facing a company always depends on the dynamics of the industry in which it participates. Our industry analysis focuses on the strength of industry prospects and the competitive factors affecting them.

Many factors assessed include industry prospects for growth, stability, or decline, and the pattern of business cycles. It is critical, for example, to determine vulnerability to technological change, labor unrest, regulatory interference, or changes in the supply/demand balance. Our knowledge of the investment plans of the major players in each industry offers a unique vantage point with respect to the industry's future profile.

The industry risk assessment sets the stage for analyzing specific company risk factors/keys to success and establishing the priority of these factors in the overall evaluation. For example, if technology is a critical competitive factor, research, and development (R&D) prowess is stressed. If the industry produces a commodity, the cost of production is of major importance.

# 2. Competitive Position

Competitive positioning is the cornerstone of business risk analysis. While the industry environment, whether favorable or unfavorable, will strongly influence the business risk, differences in competitive positioning can justify substantial differences in credit standing among industry players. A strong business profile score can only be achieved through an extremely competitive position. Such status supports revenue and cash flow stability--and goes in tandem with superior profitability measures. A comparatively weak competitive position--even in the most favorable industry environment-is unlikely to result in a solid credit standing.

#### 3. Regulatory and Political Framework

Regulation impacts ratings primarily because it can help or hinder the ability of a company to predictably grow its return on investment. Because viability of a corporate depends not only its own performance but also other factors which is beyond the control of the corporate, i.e., income tax, vat, stamp duty, custom and excise duty, utility bills, import duty, export duty etc. Political stability is also a critical factor for any economy to grow as a whole. We also consider how the regulatory environment will handle the industry's convergence, and whether regulations tend to favour the incumbents or the competitors. The predictability of the regulatory environment is a key issue, and the uncertainty created by its absence will weight on all players in the market.

## **Factor 3: Corporate governance**

Our evaluation of governance as part of credit analysis is not focused on misappropriation of funds, or other misdeeds. Rather, it covers a broad array of topics relating to how a company is managed; its relationship with shareholders, creditors, and others; and how its internal procedures, policies, and practices can create or mitigate risk.

Indeed, strong corporate governance—in the conventional sense, demonstrated in part by the presence of an active, independent board that participates in determining and monitoring the control environment—does not by itself provide enhancement to creditworthiness. Governance qualities cannot overcome a weak business or financial risk profile, although they might contribute to protecting an already strong business.

## Factor 4: Strategy

We compare management's future plans and assumptions with those of peer companies and with our own estimates. Implausible or overly optimistic projections can indicate poor internal planning capabilities or an insufficient grasp of the challenges (or opportunities) facing that company--especially if management fails to consider factors that peer competitors are focusing on. Indeed, one benefit of our access to management as part of the rating process is the opportunity to compare perspectives of various participants in an industry.

How strategy, plans, and policies are implemented helps determine our view of management consistency and credibility. In that exercise, determining why results fail to meet expectations is important. For example, meeting or exceeding projections could be the result of unanticipated good fortune, rather than a reflection of management's capabilities.

## **Factor 5: Business operation**

Although we have no minimum size criterion for any given rating level, size and ratings do end up being correlated, given that size often provides a measure of diversification, and/or affects competitive positioning.

It is relative-not absolute--size that is crucial in determining market position, extent of diversification, and financial flexibility. Small companies also can enjoy the competitive advantages that accompany a dominant market position, although such a situation is not common. In this sense, sheer mass is not important; demonstrable market advantage is.

Accordingly, we pay much attention to management's plans for achieving earnings growth. Can existing businesses provide satisfactory growth, especially in a low-inflation environment, and to what extent are acquisitions or divestitures necessary to achieve corporate goals? At first glance, a mature, cash-generating company offers a great deal of bondholder protection; but we presume a company's central focus is to increase shareholder value over the long run. In this context, a lack of indicated earnings growth potential is considered a weakness.

#### Factor 6: Risk management

Management's approach to managing risks – be they credit, market, trading, reputation, or operational, to cite a few – are key ingredients underpinning their strategic decisions and the chance of such decisions succeeding. We look to see to what extent risk discipline is aligned with the company's strategy. Our view is that the more integrated risk management is with the company's overall operating philosophy, the more likely it is that different operating units will make the discipline an integral part of how operations are managed.

In our analytical approach, our starting premise is that a framework that relies on a combination of qualitative and quantitative assessments can provide great insights about a company's risk management discipline and ultimate effectiveness

#### 1. Credit risk

Credit risk refers to the potential loss that a lender or investor may face due to the borrower's inability to repay the debt or fulfill its financial obligations. It is the risk that a borrower will default on its loan or bond payments, resulting in financial losses for the lender or investor.

Credit risk is an essential consideration for lenders and investors when assessing the risk-return tradeoff of a particular investment. Lenders and investors may use credit ratings, financial analysis, and other tools to evaluate the credit risk associated with a particular borrower or investment. These assessments help lenders and investors determine the appropriate interest rates, loan terms, and risk management strategies to mitigate potential losses.

#### 2. Market risk

Market risk is the risk of financial loss arising from adverse movements in the market value of financial instruments, such as stocks, bonds, currencies, and commodities. It is the possibility of loss due to changes in market prices or market conditions, which may be caused by factors such as changes in interest rates, exchange rates, or the price of commodities.

Market risk is an inherent part of investing and trading, and it cannot be completely eliminated. However, investors and traders can manage market risk through various strategies such as diversification, hedging, and risk management techniques such as value-at-risk (VaR) and stress testing.

Market risk is a critical consideration for financial institutions, such as banks and investment firms, as well as individual investors who seek to manage their investment risk exposure. Understanding market risk is essential to making informed investment decisions and managing financial portfolios effectively.

# 3. Operation risk

Operational risk is the risk of loss resulting from inadequate or failed internal processes, people, and systems, or from external events. It is the risk that an organization may incur financial losses or damage to its reputation due to operational failures, errors, or fraud.

Operational risk management involves identifying, assessing, and mitigating operational risks. Effective operational risk management strategies may include implementing robust internal controls, developing and implementing effective business continuity plans, establishing an effective risk management framework, and providing ongoing training to employees to ensure that they understand the risks and how to mitigate them.

# 4. Liquidity risk

Liquidity risk is the risk of financial loss resulting from a company's inability to meet its obligations as they come due, or to convert assets into cash quickly and at a reasonable price. It is the risk that a company may face when it is unable to raise sufficient funds to meet its financial obligations or operational needs.

Managing liquidity risk involves maintaining adequate levels of liquid assets, such as cash or cash equivalents, and having access to additional sources of funding if needed. Companies may also use financial instruments such as lines of credit, commercial paper, or short-term loans to manage their liquidity risk.

Liquidity risk is a critical consideration for all types of organizations, particularly those that rely on short-term funding sources or have significant short-term obligations. Failure to manage liquidity risk effectively can lead to financial distress, loss of market confidence, and ultimately, insolvency. Therefore, managing liquidity risk is a critical component of any comprehensive risk management strategy.

## Factor 7: Financial analysis

## 1. Financial information quality

Financial statements and related disclosures serve as our primary source of information regarding the financial condition and financial performance of industrial and utility companies. The analysis of financial statements begins with a review of accounting characteristics. The purpose is to determine whether ratios and statistics derived from the statements can be used appropriately to measure a company's performance and position relative to both its direct peer group and the larger universe of corporate issuers. The rating process is, in part, one of comparisons, so it is important to have a common frame of reference.

Analytical adjustments are made to better portray reality and to level the differences among companies--although it rarely is possible to completely recast a company's financial statements. Even where the ability to adjust is limited, it is important to at least have some notion of the extent to which different financial measures are overstated or understated.

Apart from their importance to the quantitative aspects of the analysis, conclusions regarding accounting characteristics and financial transparency can also influence qualitative aspects of the analysis, such as the assessment of management.

### 2. Liquidity

Cash flow analysis focuses on understanding and forecasting how cash is generated and spent by a business. It incorporates identifying a company's cash flows, determining trends and sustainability, distinguishing operating from investing and financing flows, and understanding potential sources of distortion and future volatility.

All this must be considered in the context of a company's individual characteristics, such as. where it is in its life cycle. The ability to generate cash is determined by a company's business prospects--competitiveness, market dynamics, economic environment, etc., while its need for cash is a consequence of the balance sheet structure, management's financial strategy, and strategic needs.

An enterprise's capacity to pay debts or any other obligation, the core-underlying concept of a credit rating, is determined by the ability to generate cash-not earnings, which is an accounting concept. Although there is generally a strong correlation between operating cash flow and profitability in the long run, many transactions and accounting entries may affect one and not the other during a specific period. Aggressive accounting policies, for example, regarding revenue and expense recognition, asset write-downs, or adjustments to depreciation schedules, can have a material impact on earnings and none whatsoever on actual cash generation.

Liquidity pressures can arise even when a company reports robust earnings-e.g., when gains not realizable in cash for a lengthy period comprise a significant component of earnings or where the enterprise faces large capital expenditure requirements. Accordingly, cash flow adequacy is typically the single most critical aspect of credit rating analysis.

# 3. Earnings

The long-term development of a company is largely determined by its earnings, which is comprehensive indication of its business operations and risk control. The analysis of earnings depends on two critical factors: earnings quality and sustainability. The quality of earnings reflects the competitive position and stability of the company, while the sustainability of earnings is an important indicator of its creditworthiness, reflecting the ability to withstand the ups and downs of the business cycle.

To assess earnings quality, it is essential to evaluate the company's cost control by examining its profitability of assets. The level of cost control reflects the degree of controllability and fluctuating costs in the production cycle, which can significantly impact profitability. Typically, a company's cost of business includes business and management fees, with employee compensation being the most significant component of these cost. An integrated credit rating primarily evaluates the level of cost control by examining key indicators such as the wage-toincome ratio, operating expense ratio, and operating profit margin. Comprehensive indicators of a securities company's profitability include average return on equity and average return on net assets. The higher these indicators, the higher the company's profitability.

Conversely, the stability of revenues and profits can be assessed by evaluating a company's operating income, sources, and structure of profits. An integrated credit rating makes it possible to evaluate the stability of earnings by studying the volatility of profits. If a company is unable to maintain stable profitability during cyclical fluctuations, this indicates insufficient risk tolerance, which may lead to significant performance losses during market downturns, affecting the company's solvency and credit rating

## 4. Capital adequacy

Capital Adequacy Assessment is an important aspect of credit rating analysis that evaluates the financial stability of a company by measuring its ability to absorb losses and maintain adequate capital levels to support its operations. This assessment is particularly relevant for those companies, which are required by regulatory bodies to maintain a minimum level of capitalization.

The assessment generally involves the analysis of several indicators related to the company's capital structure and financial performance, including owner's equity scale and change trends, equity capital structure stability, net capital scale and change trends, and risk coverage. The analysis seeks to determine the amount of capital that the company has available to cover potential losses, and the quality of that capital (i.e., whether it is Tier 1 or Tier 2 capital, which are different types of capital with different levels of risk and priority).

In addition to the quantitative metrics, we also consider qualitative factors such as the company's business model, market position, management team, and overall risk profile.

## 5. Leverage

The level of leverage is a key indicator to measure the capital utilization of companies. The extent of leverage impacts the risk profile of such companies, and a high level of leverage indicates greater risk, while a low level of leverage suggests that capital utilization may be suboptimal, hindering effective expansion of business operations. Consequently, a high level of leverage implies that a company's equity and debt are more extensively employed to conduct business activities, which increases the potential for financial stress and direct risk to creditors.

To evaluate leverage levels, analysts typically use the total debt to total debt plus equity ratio as the main metric. However, accurately determining what constitutes "debt" and "equity" for the purpose of calculating this ratio requires extensive analytical input. In some cases, supplemental ratios that incorporate the market value of equity are used to assess leverage levels, especially when comparing companies with significant intangible assets. The significance of traditional measures focusing on long-term debt has declined, as companies increasingly rely on short-term borrowings.

#### 6. Contingent claims and other risk

The impact of adversities on a company can be exacerbated by the activation of contingent provisions contained in credit lines, bond indentures, counterparty agreements, or operating agreements. Such triggers can escalate minor adversities into a major crisis for the company, and thus, therefore we consider the contingent claims in our credit rating analysis. These provisions take various forms and may be triggered by downgrades, breaches of financial benchmarks or ratio levels, "material adverse changes" (as interpreted by the creditor), share price declines, or ownership changes, among others.

## **Factor 8: External support**

We assess the external support into our ratings of companies. The approach incorporates noncontractual external support that is determined through judgement, not through models. Each support provider is assessed for its capacity and willingness to support the financial company. The first is based on the company's own rating, the second is based on Mira's opinion of the probability that support will be forthcoming when needed.

## THE OVERVIEW OF THE KEY RATING FACTORS

Broad rating factors	Rating sub factor
MACROECONOMICS	
	INDUSTRY RISK
SECTOR ANALYSIS	COMPETITIVE POSITION
	REGULATORY AND POLITICAL FRAMEWORK
CORPORATE GOVERNANCE AND ITS RELATIONSHIP TO CREDIT ANALYSIS	
STRATEGY	
BUSINESS OPERATION	
	Credit risk
RISK MANAGEMENT	Market risk
	Operation risk
	Liquidity risk
	Financial information quality
	Liquidity
FINANCIAL ANALYSIS	Earnings
	Capital adequacy
	Leverage
	Contingent claims and other risk
EXTERNAL SUPPORT	