JULY 2023

NON-FINANCIAL CORPORATE ENTITIES RATING METHODOLOGY

GLOBAL NON-FINANCIAL CORPORATE ENTITIES RATING METHODOLOGY

This is an update to the methodology previously published in July 2022. There are no material changes and as such no rating impact.

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I. INTRODUCTION

This methodology report sets out ARC Ratings' (ARC) analytical framework for assigning credit ratings to non-financial corporates (NFCs). It is applicable to all NFCs, including industrial, utility and service companies, and it is complemented by sector specific addendum when available. This methodology report provides a high-level description of ARC's historical and forward-looking analytical approach to rating NFCs, applying both quantitative and qualitative analyses. A rating rationale will be detailed in a press release, credit rating report or rating letter.

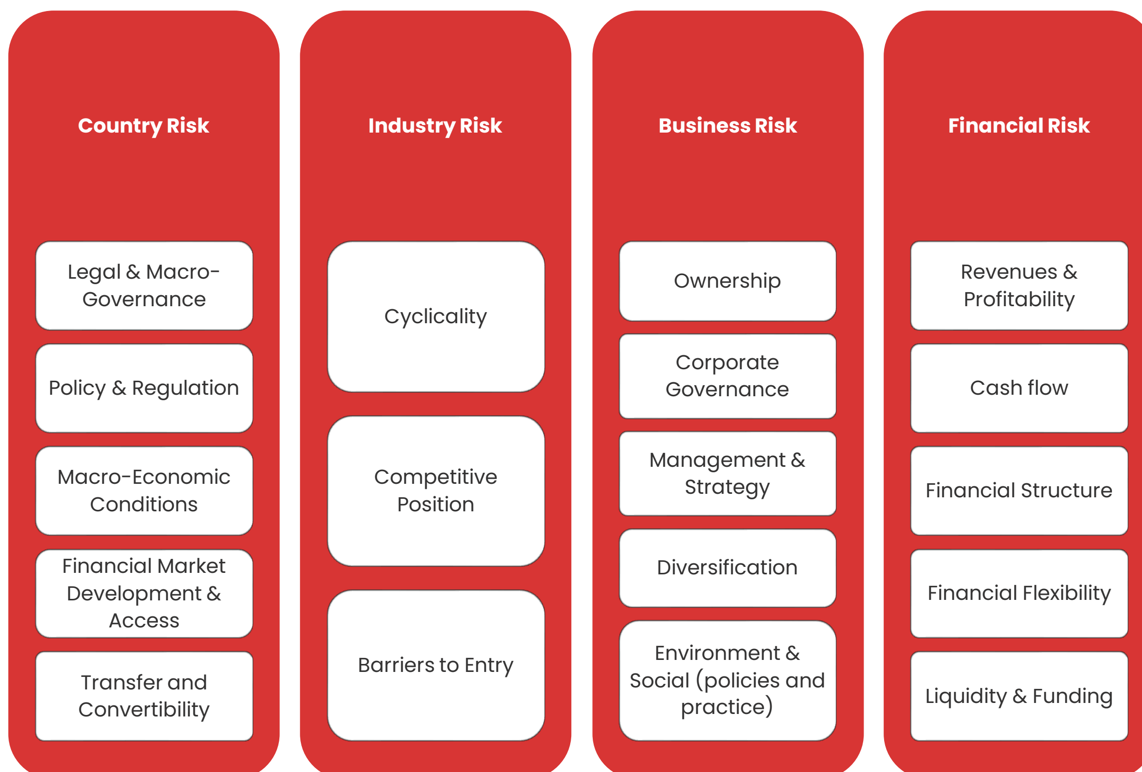
This methodology report should be read in conjunction with ARC's 'Credit Ratings and Other Analytical Products (Definitions & Scales)', available at ARC-Definitions-and-Scales.

II. ANALYTICAL FRAMEWORK

ARC has developed a comprehensive analytical approach to assigning credit ratings to NFCs. The rating process commences with the analysis of the industry sector(s) and market(s) in which the business operates, followed by a historical and forward-looking financial analysis. NFCs include a wide variety of industrial sectors and subsectors, where business and operating fundamentals as well as capital structures can differ significantly. ARC's entity specific analysis will be assessed relative to relevant industry and/or local peers.

III. METHODOLOGY FRAMEWORK

The following table summarises the key risk factors assessed by ARC in its analysis of NFCs.



The combination of the assessment of all factors mentioned above will be translated into a rating equivalent/score to be able to provide a reference for analytical purposes.

COUNTRY RISK

NFCs may operate in one, several, or many countries, and ARC will take account of the specific country risks faced by the rated entity as a result of its activities in its significant territories. Whilst the sovereign rating for a given country may have a significant bearing on ARC's view of operating in that country, the evaluation of country risk as it relates to a NFC is likely to take other considerations into account. A sovereign rating is a relative risk ranking of a sovereign's willingness and ability to pay its financial obligations on a timely basis, and this may differ from a NFC's willingness and ability.

For details about the application of ARC's Sovereign approach, please refer to the document: 'ARC Ratings Approach to Setting Sovereign Ratings and Country Ceilings'.

Legal and Macro-Governance: Effective rule of law and macro-governance at the sovereign level, with a strong and independent judiciary are critical to ensure businesses have the confidence to invest and/or trade in a country. Businesses need to have confidence that laws are going to be consistently applied and enforced to provide certainty and that corruption is not a cause for material concern.

Policy and Regulation: A robust legal and governance environment is likely to afford an investor and business managers confidence that public policy and a given regulatory environment will be consistently applied. Areas of public policy that can materially influence the investment climate include the promotion and facilitation of investment, competition, trade, taxation, corporate governance, finance, infrastructure, environment and human resource development. Regulations are typically put in place to support economic and social development. When assigning a rating to a regulated entity, it is important to understand not only its regulatory policy, but also its governance, including its transparency, implementation and enforcement regime.

Macro-Economic Conditions: The overall macro-economic situation and trends within the markets where a business operates are likely to be material drivers of the performance of the business. ARC will review and monitor trends in the development of key metrics for the NFC sector, including GDP, balance of payments, productivity, inflation, interest rates, and the overall and corporate specific levels of taxation and unemployment.

Financial Market Development and Access: Whilst businesses may typically use private sources to fund start-up share capital and loans, as they grow they will increasingly benefit from regular and stable access to capital markets for share capital or debt issuances, the latter either from banks or the bond markets. The more developed a market's financial infrastructure, for example with the presence of exchanges, clearing institutions, banks and with high level of disclosure requirements, high governance standards and active regulators, the easier it will be for a business to find longer term investors to fund its growth. Public stock markets will typically mandate regular reporting by a traded entity to support investor communication, with debt investors also benefitting from bond issuers having credit ratings. Whilst developed economies will typically have well developed financial markets, in emerging and frontier markets this will often not be the case.

Transfer and Convertibility: When rated entities borrow in foreign currencies, credit ratings may need to take into account the risk of a sovereign restricting entities within its jurisdiction from accessing foreign currency to service and repay their debts. A sovereign borrower facing limited or restricted access to foreign currency itself and implementing transfer and convertibility restrictions may enable it to meet its own debt service obligations more easily. In cases where a sovereign has previously imposed such restrictions or where it is considered that there is a risk of restrictions being imposed in the future, then

this may result in an entity's foreign currency obligations being assigned a rating lower than for its domestic currency borrowing. A rated entity might be perfectly able to meet these obligations on a timely basis but is simply prevented from doing so by government restrictions.

Method of Scoring for Risk Factors included in this Methodology

In the following sections, the tables presented summarise the key qualitative factors and sub-factors taken into account by ARC in its process of assigning ratings to NFCs. ARC will assign a score to each sub factor based on its analytical considerations, which will guide the scoring of all risk factors. Scores are building blocks used to guide the determination of a credit rating. The scoring system uses the same alphabetic nomenclature as the ratings scale, but in a lower-case base to indicate that these scores are not ratings. Based on its analysis, ARC will calculate a weighted score from the scores determined for each sub-factor. These will then be combined to determine a weighted result to guide the credit rating determination, considering also other material aspects set out in this methodology report.

However, it is important to highlight that the rating outcome will not be a straightforward weighted average of the scores, since the rating panel assigning a credit rating will be able to apply greater weights to factors it determines to be of greater importance.

INDUSTRY RISK

Industry Risk	Cyclicality	Competitive Position	Barriers to Entry
aaa	Non-Cyclical	Monopoly	High
aa	Very Limited Cyclicality	Oligopoly	Material
a	Limited Cyclicality	Limited Competition	Some
bbb	Somewhat Cyclical	Competitive	Limited
bb	Very Cyclical	Very Competitive	Negligible
b	Highly Cyclical	Highly Competitive	None
ccc	Extremely Unpredictable or Volatile	Extremely Competitive	None

Cyclicality

The more stable a business's operating profile is, particularly in terms of revenues, profit and operating cash flow generation, the more comfort can be taken in relation to its capacity to service and repay its financial obligations as they fall due, i.e., on a timely basis. Conversely, the more cyclical a business's operating profile is, the less predictable its revenue, profit and cash flow generation becomes. ARC takes a forward-looking view and seeks to assign ratings through the cycle and not to assign ratings to either a cycle's peak or trough of profit and cash flow generation.

ARC monitors and analyses macro-economic indicators and their trends, including GDP, as well as a given industry sector's fundamental growth trend, to evaluate the impact of cyclicality on an entity's profile. Whilst almost all business activity will experience some element of cyclicality, entities whose ratings are likely to be more reflective of this include higher risk cyclical commodity and raw material-based industries such as oil and gas, metals and mining and chemicals, as well as building and construction which have a significant correlation to GDP fluctuations.

Entities operating in more consumer-focussed sectors including healthcare, pharmaceuticals, telecommunications and food processing and food retail, as well as gas and electric utilities, are considered less exposed to cyclicality as demand remains more stable throughout an economic cycle, and consequently having lower risk and less correlation to GDP fluctuations.

Competitive Position

ARC's assessment of an entity's industry risk includes a fundamental review and analysis of the profile, structure and trends of the industry in which it operates and the relative competitive position of the rated entity within that industry or industries. ARC will also evaluate the entity's business lines and its product and geographic diversification to further understand its competitive position.

Competitive Position	Industry Structure & Trend	Product/ Market Mix	Operating Efficiency	Growth Trend and Profit(s)/Margin(s)
aaa /aa	Oligopolistic/Enduring robust future	Highly Diversified	Outstanding delivery	Solid to Strong Growth, with a Stable Trend
A	Limited competition / robust future	Diversified	Good Delivery	Solid to Strong Growth/Some Fluctuation
Bbb	Competitive / Mature	Limited Diversification	Satisfactory Delivery	Mature/Cyclical
Bb	Developing / Declining	Focussed	Weak Delivery	Starting to Grow/Decline
B	Nascent / Rapid Decline	Niche	Very Weak Delivery	No Growth/Poor Profits/Losses
Ccc	Speculative / Obsolete	Poor or Obsolete	Extremely Poor	In Decline/Loss Making

Industry Structure: This can have a meaningful bearing on an entity's ability to sell its products and/or services and its potential for profitability. The assessment covers various aspects such as:

- *The level of competition, the relative size and number of competitors and the comparability of products; and the relative position of the rated entity in this context.*
- *The relationship with its suppliers and customers.*
- *The availability of replacement or alternative products.*

Product/Market Mix: The assessment considers the entity's exposure to selling a single product and/or service in a single industry segment and a single geographical market (at one end of the scale) or whether it sells multiple products or services in multiple industry segments and geographical markets.

It also takes into account the characteristics of these markets and the rated entity's relative position within each of those markets.

Operating Efficiency: This is typically defined as the level of output (for example, revenue, quality, or customers) achieved for a given level of input (for example, capital, employees, or time). The more output for a given level of input, the greater the operating efficiency. The higher operating efficiency of the rated entity, when compared with peers, the higher the score.

Growth Trend and Profit(s)/Margin(s): The assessment of the maturity of the product/portfolio of products examines whether demand is growing, stable or in decline. Determining the position of a product/portfolio of products within its life cycle is crucial to understanding its profitability and profit margins.

Barriers to Entry

Barriers to entry	Economies of Scale	Business environment	Access to Markets	Product Differentiation	Capital requirements
aaa	Optimum Scale and Efficiency	Highly Favourable and Supportive Business Environment	Unfettered Access to Multiple Markets for Multiple Products	A Very Strong Portfolio of Well Differentiated Premium Products	Outstanding Access to Funding For Projects Offering Favourable Returns
aa	Highly Competitive Scale and Efficiency	Favourable and Somewhat Supportive Business Environment	Very Good and Stable Access to Markets for Products	A Strong Portfolio of Differentiated Value-Added Products	Very Strong Access to Funding for Projects Offering Favourable Returns
a	Competitive Scale and Efficiency	Favourable Business Environment	Good and Stable Access to Markets for Products	A Meaningful Portfolio of Value-Added Products	Good Access to Funding for Projects Offering Favourable Returns
bbb	Average Economies of Scale	Somewhat Challenging Business Environment	Satisfactory Access to Major Markets for Products	A Meaningful Portfolio of Competitively Priced, but Commoditised Products	Above Average Access to Funding for Projects Offering Satisfactory Returns
bb	Poor Economies of Scale	Highly Challenging Business Environment	Limited Market Access for Products	A Limited Portfolio of Competitively Priced, but Commoditised Products	Satisfactory Access to Funding for Projects Offering a Low Rate of Return
b	Small Scale	Adverse Business Environment	Challenged Access to Markets for Core Product(s)	Single Marginal or Speculative Product	Limited Access to Funding for Projects Offering a Speculative or Marginal Rate of Return
ccc	Uneconomic	Extremely Challenging or Hostile Environment	Little or No Access	Little or No Differentiation	Access to Capital Highly Uncertain

ARC considers that barriers to entry either restrict or prevent business accessing a market and potentially protect any business that is already established in that market. Barriers to entry include:

Economies of Scale, reflects the fact that larger businesses are typically able to produce more efficiently. ARC considers the cost advantages that a business can achieve as it increases its scale and also analyses the potential for excessive scale, which can lead to a phenomenon known as the diseconomies of scale, where further growth leads to a business becoming less efficient.

Business Environment, that may have a material impact on a business's situation and prospects and ARC consider factors such as local laws and regulations, government policy, economic and market development, geography, as well as social and cultural factors in its rating determinations.

Access to Markets, is an important consideration for many businesses and ARC analyses the significance of tariff and non-tariff trade barriers for its growth prospects. Trade barriers can include customs duties, quotas, standards, technical regulations and processes.

Product Differentiation: ARC analyses how a business designs, packages, prices and promotes its products and/or services are likely to be key elements in determining how successful it is in any given market, especially where there is competition.

Capital Requirements: ARC considers the intensity of capital required and the entity's access to it for the development, production, promotion and distribution of products and their sale, with some products and services being more capital intensive than others.

BUSINESS RISK

Score	Ownership	Management & Strategy
aaa	Fully Transparent and Unquestioned Support	Outstanding Quality and Undoubted Track Record
aa	Very Good Transparency and Highly Supportive	Very High Quality and Excellent Track Record
a	Good Transparency and Support	High Quality with a Strong Track Record
bbb	Transparent and Supportive	Good with Successful Track Record
bb	Reasonably Transparent and Supportive	Mixed Quality and Track Record
B	Somewhat Transparent and Supportive	Poor with Limited Track Record of Success
ccc	Opaque and Unsupportive	Very Poor with no Track Record of Success

Ownership

Understanding the nature and structure of a company's ownership is an important qualitative element of a rating analysis, as the structure of control and owner aspirations can have a profound impact on the strategy, operations, capital structure and financial performance of a company or group of companies.

Ownership can vary from the widely diversified shareholder base of a large publicly listed company, private ownership and/or control, to ownership under institutional investors, such as hedge funds. Subject to legal and any regulatory requirements, ownership can have a significant impact on the governance of a company.

ARC's analysis will take into account how supportive the owner(s) are of the business, both strategically and operationally. In addition, how likely it is that shareholders will engage in meaningful efforts to raise

additional capital and funding as sought or required by the rated entity. Such support might, inter alia, include the provision of guarantees or other collateral arrangements to ensure the business can access any required funding.

Management & Strategy

A board of directors determines the strategy and policies of the company to set up the aims of the business and to guide its activities. ARC will evaluate the mix and quality of a board, senior management team and the defined strategy to understand the business risk profile in terms of its achievability and execution.

Corporate Governance

Corporate governance involves the relationship and interactions between a rated entity's shareholders, board of directors, management, employees and customers, that are regulated through a series of policies and procedures to direct and control the business's activities. ARC will review an entity's board composition, committee structures (e.g. audit and remuneration committees), as well as its transparency and compliance with established governance structures, policies and procedures to investors and other stakeholders. ARC's analytical focus will be on the impact of the entity's effective governance standards and practices on its credit risk profile.

Within the overall factor score for Governance, this may result in the final rating being constrained by up to three notches.

ARC's review of an entity's own definitions, procedures, internal policies and business practices is crucial to understand and identify potential risks from any lack of governance or perceived management vulnerability. In its review of corporate governance ARC will address a list of themes and topics, including for example:

- Composition of the Board of Directors/Supervisory Board, their background and apparent independence.
- Concentration of power of decision-making processes.
- Related party transactions.
- How are strategy and objectives communicated within the organisation and if those are aligned within the organisational structure.
- Risk management function well structured and managed.
- Experience of the senior management.
- Are internal procedures and practices clearly defined, communicated and applied?
- Evidence of complexity of the ownership structure.
- Structure of the management compensation packages. Are the incentives for management compensation aligned with a sustainable long-term perspective of the institution?
- Evidence of moral hazard risks.

- Quality of reporting, controls and monitoring of the Board to management level.
- Evidence of any legal or regulatory disputes that can affect the reputation of the entity.
- Any compliance breach, exception or fine from a regulatory institution.
- Other relevant aspects.

The notching definitions used to assess governance are detailed below. It should be noted that good governance is expected as best practice, therefore the only notching applied is downwards:

Governance	Definition
Neutral	Satisfactory governance with an existing framework and full application across the organisational structure, management follows best practices, no evidence of key man risks, no accounting challenges, full transparency on financial information and excellent relation with stakeholders.
-1 notch	Relatively weak governance with an existing framework that is in the process to be updated or improving, application across the organisational structure is in place but still does not fully cover all functions, management is aiming to follow best practices across all functions, limited potential of key man risks and accounting challenges, adequate transparency on financial information and fair relation with stakeholders.
-2 notches	Weak governance with an existing framework that requires to be updated or improved, application across the organisational structure is limited, management following a process to implement best practices across all functions, existing key man risks and accounting challenges, limited transparency on financial information and weak relation with stakeholders.
-3 notches	Very weak governance with existing framework that requires significant update or improvements, very limited application across the organisational structure, evidence of high key man risks and accounting challenges, poor transparency on financial information and very weak relations with stakeholders.

Diversification

ARC will evaluate the strategic, operational and financial strength of the material (or relevant) business units of any rated entity. When a rated entity chooses to invest in the diversification of its business, the management typically aims to apply the existing business's skills, knowledge and competences to a new business with the objective of maintaining or accelerating growth. Diversification is usually sought and undertaken by relatively large and mature businesses. Such diversification activities are increasingly focussed on related business segments, where a company can efficiently, profitably and successfully deploy its existing competences.

Diversification can be achieved through the use of own capital or through a merger or acquisition. When funded through equity, the analysis will focus on the strategic and operational merits of any merger or acquisition. Where an acquisition is wholly or partially funded with new debt, ARC will undertake an in-depth financial and liquidity analysis as any increase in debt and leverage is likely to have an impact on a rated entity's financial risk.

Diversification	Strategic Fit	Relevant Product Knowledge	Relevant Market Knowledge	Competitive Position	Quality of Management
aaa	Outstanding	Outstanding	Outstanding	Outstanding	Outstanding
aa	High Performance	High Performance	High Performance	High Performance	High Performance
a	Very Good	Very Good	Very Good	Very Good	Very Good

bbb	Good	Good	Good	Good	Good
bb	Competent	Competent	Competent	Competent	Competent
b	Weak	Weak	Weak	Weak	Weak
ccc	Extremely Weak	Extremely Weak	Extremely Weak	Extremely Weak	Extremely Weak

Environment and Social

Dependent on the industry in which the rated entity operates, environmental and social (E&S) factors can influence ARC's ratings of NFCs in different ways and to differing degrees. ARC will undertake an evaluation of each of the E&S sub factors, taking account of the aspects of E&S that the agency considers credit rating relevant, before coming to an overall E&S credit risk impact evaluation. ARC's qualitative assessments will score a rated entity's performance for each of these aspects on a scale from outstanding to extremely poor. The impact of the analysis on the final rating is applied using notching adjustments and disclosed accordingly.

E&S	Environmental	Social
aaa	Outstanding	Outstanding
aa	Good	Good
a	Above Average	Above Average
bbb	Average	Average
bb	Below Average	Below Average
b	Poor	Poor
ccc	Extremely Poor	Extremely Poor

ARC always takes the most forward-looking perspective that current knowledge about these risks permits, acknowledging that in the case of some E&S factors their credit impact will only be known over a longer time horizon than the one considered for the rating analysis, making an accurate quantification of its potential impact subjective. Therefore, ARC tries to incorporate ESG factors into its ratings mostly through qualitative analysis. ARC assesses the ability of the entity to address E&S factors not only as part of potential risks to the business but also as part of the strategy to engage in a more sustainable business model. Where ESG factors are a key driver of the assignment or change of a credit rating or rating outlook the ESG factor that was considered a key driver will be clearly identified and its materiality explained in the accompanying press release and/or report.

We assess both the consequences (existing or potential) from the E&S factors, as well as the impact of regulatory or policy initiatives aimed at minimising or preventing risks arising from these factors.

Environmental

ARC assesses a rated entity's exposure to relevant environmental factors and how these factors may impact a NFC credit rating. A business's environmental interactions and impacts can have both short-and long-term effects on the evolution of its credit profile. Social and political concerns about factors such as global warming, deforestation, depletion of the oceans' fish stocks, pollution and sustainability are acting as strong drivers for businesses to analyse and manage the environmental

impacts of their operating models and processes, covering topics such as design, purchasing, production, logistics and waste management, as well as any environmental impacts of product use considering both short-and long-term costs and benefits.

ARC considers the following environmental factors as important risks:

- Climate change
- Biodiversity loss
- Air pollution
- Water management and pollution
- Resources depletion
- Energy management

Social

ARC reviews social risk factors that may have a financial impact on a rated entity as a result of current or prospective developments on the business's employees, counterparties, assets, or the communities it serves. The nature of social factors can be extremely diverse and will include inter alia social diversity, equality and inclusion, human rights, investment in human capital, as well as factors such as health, corruption, politics, land use and demographics. ARC will analyse a rated entity through the prism of social risk factors to determine its overall quality and how this may influence its credit rating profile.

ARC considers the following social factors as important risks:

- Consumer protection, including privacy and data security
- Labour relations and practices
- Integration in the community and affordability
- Stakeholders' opposition

FINANCIAL RISK

As part of its financial risk assessment, ARC will typically review at least three years of historical audited IFRS/GAAP financial statements. ARC's NFC ratings reflect a forward-looking view so, in addition to the analysis of historical financial information, it will base its rating decisions on financial forecasts for the NFC, which will be subjected to robust sensitivity analysis.

ARC will normally expect that an entity provides financial statements audited by an internationally recognised firm of auditors. In cases where there has been a qualification, ARC will undertake a review of the grounds for the qualification and whether the company has addressed the grounds for the qualified opinion adequately, to assess whether ARC is in a position to assign or maintain a credit rating based on that information. In certain cases, ARC may rate a NFC based on financial statements prepared in accordance with acceptable local GAAP. Also, in certain limited cases, such as mergers and acquisitions or corporate reconstructions, ARC may be prepared to rate a NFC based on detailed financial information prepared or reviewed by an internationally recognised firm of auditors.

Whilst revenue and margin levels can vary materially between industries, ARC will evaluate and monitor key financial performance metrics drawn from an entity's audited IFRS/GAAP financial statements and defined in this methodology report, including:

Metric	Purpose
EBITDA	To measure a rated entity's profit from its operating activities
EBITDAR	To measure a rated entity's profit from its operating activities before deduction of rents payable
EBIT	To measure a rated entity's profit after depreciation, amortisation charges and impairments. The difference between EBITDA and EBIT serves as an indicator of a business' capital intensity
FFO	A cashflow measure of a rated entity's profit from its operating activities after the deduction of cash interest and cash taxes paid
CFO	A cashflow measure of a rated entity's profit from its operating activities after the deduction of cash interest and cash taxes paid, as well as working capital movements
FCF	A cashflow measure of the cash generated and retainable by the business after deducting Working Capital Movements, Capital Expenditure and Dividends Paid from FFO. This is the cash available to repay debt or reinvest

The following calculations and financial metrics are used by ARC to obtain the core coverage and leverage metrics used in the credit rating process for NFCs. Where ARC is unable to calculate these specific metrics, it will substitute them with proxies making it clear in its press release, credit rating report or rating letter.

Financial Analysis Definitions

Metric	Definition
EBIT	Earnings before Interest and Tax
EBITDA	Earnings before Interest, Tax, Depreciation and Amortisations
EBITDAR	Earnings before Interest, Tax, Depreciation and Amortisations plus Rents
FFO	Funds from Operations, defined as EBITDA minus cash interest and cash tax
CFO	FFO after Working Capital movements
FCF	CFO minus Capital Expenditure
Operating Margins	
EBIT Margin (%)	EBIT expressed as a percentage of Revenue
EBITDA Margin (%)	EBITDA expressed as a percentage of Revenue
EBITDAR Margin (%)	EBITDAR expressed as a percentage of Revenue
Cash Flow Margins	
FFO Margin (%)	FFO expressed as a percentage of Revenue
FCF Margin (%)	FCF expressed as a percentage of Revenue

Coverage Ratios	
EBITDA /Interest	EBITDA / Interest Expense
EBITDAR / Interest + Rents	EBITDAR / (Interest Expense+ Rents)
FFO Interest Cover	(FFO + Net Interest Paid + Preferred Dividends paid)/ (Interest Paid + Preferred Dividends paid)
FFO Fixed Charge Cover	(FFO + Net Interest Paid + Preferred Dividends paid + Rent) / (Interest Paid + Preferred Dividends paid + Rent)
Leverage Ratios	
Total Debt /EBITDA	(Total Financial Debt – Equity Credit on Hybrids + Other Debt) / EBITDA
Net Debt / EBITDA	(Net Financial Debt (i.e. Total Debt minus cash) – Equity Credit on Hybrids + Other Debt) / EBITDA
Total Debt /EBITDAR	(Total Financial Debt – Equity Credit on Hybrids + Other Debt) / EBITDAR
Net Debt / EBITDAR	(Net Financial Debt – Equity Credit on Hybrids + Other Debt) / EBITDAR
FFO Gross Leverage	(Total Financial Debt – Equity Credit on Hybrids + Other Debt) / (FFO + Net Interest Paid + Preferred Dividends paid + Rent)
FFO Net Leverage	(Net Financial Debt – Equity Credit on Hybrids + Other Debt) / (FFO + Net Interest Paid + Preferred Dividends paid + Rent)

If ARC considers relevant and material, it will produce supplementary metrics to reflect the impact of for example, financial commitments related to unfunded pensions, operating leases, factoring, as well as any material off-balance sheet commitments.

Revenues & Profitability

Whilst not a core metric for determining a credit rating, ARC considers a positive trend in revenue generation to be an important indicator of a business's performance. Cash revenues generated by the business must cover the costs incurred in generating those revenues, including production costs, distribution and sales expenses, as well as any financing expenses and taxes. Additionally, the business should generate surpluses to cover any investment requirements and dividend distribution.

ARC assesses a business's fundamental profitability by monitoring the margins achieved. Whilst the level of margins is important, ARC will also consider the stability and predictability of these margins and compare them to its industry peers. ARC uses the EBITDA margins to measure profitability. EBITDA is a reasonable proxy used to indicate the level of cash a business is generating from its operations, before deduction of depreciation and amortisations, whereas EBIT is a good measure for the business' profitability before the impact of its capital structure on profits, given that interest is typically a pre-tax financing expense.

Cash Flow

Cash flow analysis is a core element of ARC's NFC rating methodology and a thorough understanding of a business's cash sources and uses is central to the assignment of any credit rating. The key historic, current and forecast cash flow metrics monitored by ARC are Funds from Operations (FFO), Cash from Operations (CFO) and Free Cash Flow (FCF). FFO is a measure of the cash flow generated by the business after cash interest and taxes, but before working capital movements, whereas CFO is measured after working capital movements. Working capital movements mainly but not exclusively

comprise inventories, trade receivables and trade payables. FCF is a measure of the cash generated by the business after deducting capital expenditure and shareholder distributions from CFO. The FCF measure is therefore an indicator of the cash the company has available to repay its outstanding debt.

Financial Structure

The level of financial debt a business carries relative to its earnings and cash flow generation is also a core element of ARC's credit rating analysis. A higher level of debt carried by a business relative to its sustainable EBITDA generation typically points to a lower credit rating than a lower relative level of debt. ARC will assess the level, stability, and sustainability of any debt burden both for the analysed entity and relative to peers. As part of this analysis ARC will also consider the significance of the currency and interest rate mix (including any associated hedging), lender concentration, and maturity profile of the entity's debt. Also critical to an analysis of an entity's financial structure is an assessment of its corporate organisational chart and where debt sits relative to where the business generates its cash flow, and whether any of the debt is secured through the provision of collateral or is afforded structural preference.

Core to its NFC's credit rating analysis, and in order to understand the strength of an entity's financial structure, ARC will calculate and monitor historic, current and forecast total and net (adjusted) debt to EBITDA and FFO ratios.

The following table illustrates the indicative ranges and equivalent scores for financial metrics used by ARC in its Financial Structure Assessment, but this can vary from sector to sector:

Score	Net Debt/ EBITDA	EBITDA / Interest	EBITDA %	Free cash flow %
Aaa	<0.5x	>20x	>28%	>18%
Aa	<1x	>15x	>24%	>14%
A	<2x	>10x	>21%	>8%
Bbb	<3x	>6x	>18%	>3%
Bb	<4x	>3x	>15%	>1%
B	<6x	>2x	>12%	0%
Ccc	>6x	<2x	<12%	<0%

Financial Flexibility

In addition to securing capital, funding and cash flow to cover operating, investing and financing activities, a business must also have access to sufficient funds to address reasonable trends and unforeseen events in its business or industry. These unforeseen events can either be threats to or opportunities for the business. Management can take certain measures such as maintaining a conservative financial structure driven by policies that ensure strong liquidity and the availability of standby credit lines.

Liquidity & Funding

ARC will review an entity's sources and uses of cash to understand its liquidity requirements, taking account of its access to free cash flow, balance sheet liquidity and access to other diversified sources including committed bank lines and funding through access to the capital markets for additional debt or equity. In reviewing liquidity sources, it is important to review and understand any existing restrictive covenants in credit documentation which might limit a borrower's ability to access funds.

ARC will monitor covenant compliance and where covenant breaches seem likely, or actual breaches occur, it may take a rating action, pending a satisfactory resolution of the breach or in more pressing and challenging cases consider immediately a rating downgrade, possibly by multiple notches.

IV. PEER GROUP ANALYSIS

ARC will undertake a peer group analysis with other NFCs with similar risk profiles as part of its credit rating review process, incorporating an evaluation of the elements and relevant factors of its NFC rating methodology as set out in this report in respect of material rated and/or unrated peers, covering country risk, industry risk, business risk and financial risk. ARC will review established key performance indicators (KPIs), as well as comparing the relevant coverage and leverage credit metrics to determine the correct credit rating category for the analysed entity.

V. EVALUATING CREDIT LINKAGE BETWEEN A PARENT COMPANY AND ITS SUBSIDIARIES

A parent company is the controlling body for a consolidated group of companies, and, in most cases, ARC will assign a credit rating to the consolidated financial position of the group of companies, reflecting the fact that the parent entity will have control and full access to group cash flows and may operate a centralised treasury function. In certain cases where ARC believes that the rated entity does not have effective control of a consolidated entity, it may choose to deconsolidate it for the purposes of determining a credit rating.

ARC will review any legal, regulatory or contractual provisions that may impact credit rating linkage between a parent entity and its subsidiaries, including the provision of shareholders' agreements, guarantees, cross-default provisions, and regulatory restrictions. ARC may also take an entity's established policies and practices into account in determining linkage.

In cases where material debt exits within subsidiaries of the group, then the relative stand-alone credit profiles of certain entities within the group may dictate the analytical approach to be adopted in assigning credit ratings. ARC will articulate the approach adopted in its press release, credit rating report and/or rating letter.

Financial institutions (FI) income statements and balance sheets are fundamentally different in nature from those of NFCs. When rating a NFC with a FI falling within its consolidated group, ARC will typically aim to deconsolidate the FI business in order to achieve meaningful 'corporate' ratios for the purposes of its credit rating analysis. ARC will however take a view on the likelihood of the NFC's willingness and

ability to provide support to the FI in case of need on a timely basis and where possible include any stream of dividend income received from the FI.

VI. RATING STATE OWNED NFC

ARC applies its NFC rating methodology to state-owned NFCs (SONFC). Where a corporate is fully state-owned and considered strategic, ARC will typically link its credit rating of the SONFC to that of the sovereign. Whilst the SONFC may be rated up to the level of the sovereign, the SONFC may need to be notched down from the sovereign rating level based on the agency's assessment of the propensity and willingness of the sovereign to provide financial support and on the SONFC's stand-alone position. If, in ARC's assessment, the analysed NFC is not strategic but only a financial investment, irrespective of full or partial majority ownership, the analysis will then be carried out on a stand-alone basis.

VII. NFC ISSUER CREDIT RATING (ICR), SOVEREIGN RATINGS AND COUNTRY CEILINGS

NFC ICR AND SOVEREIGN RATINGS

Sovereign ratings reflect an evaluation of the willingness and ability of a sovereign to meet its debt obligations on a timely basis. They do not directly impact the willingness and ability of a non-financial corporate domiciled in that country to service its debt on a timely basis. As such, sovereign ratings do not constrain the ratings of NFCs. However, ARC will undertake a qualitative assessment of a country's governance environment, macro-economic performance and public finance position in order to evaluate the impact on a corporate of the sovereign environment in which the rated entity operates.

NFC ICR AND COUNTRY CEILINGS

ARC's country ceilings assessment captures transfer and convertibility (T&C) risk. Country ceilings typically constrain the foreign currency ratings of all entities domiciled in the relevant jurisdiction. However, a country ceiling does not constrain the local currency rating of a rated NFC.

The availability of material offshore profits and cashflows, international investments or offshore assets, or the benefit of foreign ownership may, in limited circumstances, allow a NFC's foreign currency credit rating to exceed a country ceiling.

FOREIGN AND LOCAL CURRENCY RATINGS

ARCs long-term local currency rating assigned to a NFC, which is the rating of debt obligations denominated in its domestic currency, is the anchor for all NFCs' ratings. For example, the US dollar and Japanese Yen are the respective local currencies in the USA and Japan. The reason for this is that, in an insolvency, all creditor claims, whether denominated in domestic or foreign currency, may end up being settled in the local currency. Subject to any country ceiling constraint, long-term foreign currency ratings are typically aligned with the long-term local currency level. ARC may assign either a long-term foreign currency or local currency rating, or both, as required, in accordance with its approach to

sovereign ratings and country ceilings set out in 'ARC Ratings Approach to Setting Sovereign Ratings and Country Ceilings'.

VIII. INSTRUMENT RATING

Typically, a long-term NFC credit rating assigned by ARC will reflect the position of a rated entity's senior unsecured creditor. Senior unsecured debt obligations are senior to subordinated debt obligations and ordinary or preferred shareholder claims, but junior in the waterfall of claims to creditors preferred by law, contractually, possibly through an intercreditor agreement, or through the provision of security. ARC will normally rate secured obligations one notch higher than senior unsecured claims, and subordinated claims one notch below senior unsecured claims. Where further notching is applied, ARC will set out the specific rationale in its press release, credit rating report or credit rating letter.

HYBRID, CONVERTIBLE DEBT OBLIGATIONS

To evaluate the scope of debt- or equity-like character of any hybrid issuance, ARC focuses on the timing and cumulative versus non-cumulative character of coupon suspension, the structural ranking of the hybrid security and its maturity. The proportion of equity versus debt recognised by ARC within an issuer's capital structure is assessed on a case-by-case basis, depending on the structure of the specific security and it is evaluated for stress test purposes only.

In general, high equity proportion is recognised for deeply subordinated hybrid securities that represent the most junior instrument in the issuer's capital structure, including strongly protective and non-cumulative coupon suspension conditions, 'cannot default' or cross default of/with relation to other outstanding debt, and long (if any) maturity. Hybrid securities with weak loss absorption features, higher priority of claim in liquidation or short maturity (generally less than 30 years) would be treated as debt-like instruments with low or no equity content assigned.

ARC might, however, limit the equity content of hybrid securities to the overall capital structure in cases when the equity proportion represents a larger share of the overall issuer's equity. Therefore, ratings of any hybrid security are assessed on a case-by-case basis and, in general, notched down from the credit rating assigned to the NFC. Securities with high equity component tend to be subject to higher notching difference, compared to high debt-component like cases.

IX. SHORT TERM CREDIT RATINGS

ARC publishes a guidance chart with indicative correspondence between long-term and short-term credit ratings, although assigned ratings may differ from it, dependent on the decision of the rating panel. ARC's short-term rating analysis focusses on an entity's available cash to meet on a timely basis its short-term financial obligations, that is typically those with a maturity of up to 12 months. For the assignment of short-term credit ratings to NFCs ARC typically considers FFO generation, cash and other liquid assets and the availability of committed undrawn credit lines from banks and other acceptable providers with a maturity of over 12 months. ARC would expect the total of these available sources to exceed the total of its short-term financial obligations, and would expect also greater coverage the higher up the short-term credit rating scale.

X. SECTOR SPECIFIC CREDIT RATING FACTORS

From time to time, and in order to provide greater transparency on its analytical approach to rating NFCs in specific industrial/service sectors, ARC will publish Sector Specific Methodology Addenda which should be read in conjunction with this master Non-Financial Corporate Entities Rating Methodology.

DISCLAIMERS

ARC Ratings, S.A. is registered as a Credit Rating Agency with the European Securities and Markets Authority (ESMA), within the scope of the Regulation (EC) Nº 1060/2009 of the European Parliament and of the Council, of 16 September, and recognised as External Credit Assessment Institution (ECAI).

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Ratings do not constitute a recommendation or offer or solicitation to buy, sell or hold any investments that may be mentioned, and are only one of the factors that investors may wish to consider. The use of any rating is entirely at the user's own risk.

In the rating process, ARC Ratings adopts procedures and methodologies aimed at ensuring transparency, credibility and independence, and also that rating classifications are not influenced by conflicts of interest.

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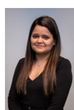

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