I. ARC Ratings’ Analytics in a Nutshell

Most of the risk factors applied in ARC Ratings’ Financial Institutions’ Rating Methodology are endogenous to the firm, i.e. our review remains directly linked to the entity to be rated, including, but not necessarily limited to, market position, strategy, governance, financial risk analysis, funding profile and debt service history. Nevertheless, there is another set of risk-affecting factors that are clearly exogenous to the financial institution (i.e. to a significant degree outside the realm of its influence or control), once again including, but not limited to, systemic risk, overall economic factors, sector and market direction, technological developments, regulatory standards as well as the political environment(s) within which the rated entity operates.

In between the purely endogenous and the entirely exogenous factors affecting an institution’s credit risk, there is a fairly large territory of “interactive” forces that will permanently test the financial entity’s “resilience”. Such resilience is defined as the rated entity’s capacity to protect its market and financial integrity against the centripetal outside forces permanently attempting to constrain the path of the entity’s body. Recognizing the interplay of the financial institution’s own ability to “survive and prosper” in face of the fierceness of opposing forces is actually the main challenge to a rating agency and at the crux of delivering superior quality risk assessments about a financial institution’s prospective debt-paying performance. Equally, such outside forces may also represent unexpected opportunities to the rated entity, which must enter into ARC Ratings’ creditworthiness assessment.

As an analytical framework, each set of influential factors should be identified on its own account, from the purely endogenous to the purely exogenous ones, in order to facilitate a fully-informed debate inside the Rating Panel about the “rate of resilience” that could be expected by each rated entity, notwithstanding any potential credit enhancements. This will provide full transparency about ARC Ratings’ rationale behind a given rating’s decision.

The charts below visualize the territory of ARC Ratings’ financial institutions’ analytics with respect to their resilience. The two triangles depicted in Chart 1 represent some key exogenous factors affecting the financial institution (or firm), namely the macro economy, on one side, and society and politics, on the other. Also, the exogenous elements of sectorial and market risk are represented by the “Financial Services Square” which will normally overlap most of the firm’s own territory of endogenous factors, as shown in Chart 2. In Chart 3 the firm’s circle has a larger area, representing more self-determination potential for the firm than the one described in Chart 2. This differentiation is not necessarily related to the firm’s size in the market. The larger size circle defines the firm’s capacity to resist aggressive outside forces.
Chart 1
Exogenous Factors

Chart 2
Exogenous Factors and the Circle of the Regular-Mode Financial Institution's Endogenous Elements

External Pressure Arrows
“Resilience”, as depicted in Chart 3, is represented by a set of vectors employed by the firm. Such protection forces or barriers, in turn, push back against the centripetal outside forces. Such resilience degree assessment is a very relevant aspect of the financial institutions’ rating analysis. The identification and effectiveness of such protection vectors actually determine the ability of the financial institution to defend itself from most risk elements and, equally, to take advantage of new market opportunities. Some characteristically endogenous factors, namely market position, strategy and governance inform us about the rated entity’s potential resilience adding an invaluable qualitative component to the rating process.

While a conventional-wisdom methodology to rate financial institutions will be largely focused on the firm’s own endogenous risk aspects, such endogenous-based approach fails to recognize the centrality of crucial exogenous risk factors that perpetually attempt to pierce the financial institution’s “body armour”. Thus, testing the entity’s resilience against the pressure of exogenous factors is a distinguishing and intrinsic feature of ARC Ratings’ Financial Institutions’ Rating Methodology. Such approach is fundamental to modern credit rating analytics as a result of the global interconnectedness of local and regional markets/jurisdictions, especially in the financial sector.

Day-to-day a financial institution’s performance is largely driven by endogenous factors, reflected by a series of quantitative projections of risk ratios calculated by ARC Ratings’ analysis on a regular basis. A careful survey of these quantifiable factors often allows for a nuanced distinction between the creditworthiness of one financial institution vis-à-vis another. Exogenous factors, on the other hand, often function as on/off switches that may determine the ultimate (if not “sudden”) success or failure of a financial institution.

In its broadest terms, ARC Ratings’ Financial Institutions’ Rating Methodology thoroughly tests the sustainability of the underlying business model of a financial institution as well as its historical and prospective performance against various
shifts in paradigms. In other words, exogenous factors will be substantially considered within the endogenous context of the rated financial institution. The analysis will develop scenarios of shocks to the presumed strategy of the financial institution, its asset quality, funding availability and profitability. In reviewing the likelihood and severity of such shocks, the analysis will examine the resilience of the rated institution to such shocks and ARC Ratings’ baseline scenarios for the financial services sector, macro economy and social-political aspects in order for the Rating Panel to arrive at the rating.

While the debt maturity profile of any entity may differ from year to year, ARC Ratings assigns medium and long-term ratings by assessing the creditworthiness of financial institutions over a five-year time horizon, or over the maturity of a given rated financial commitment, well aware of the fact that financial institutions generally depend more on short-term financing, such as deposits and interbank lending. If principal and interest payments would appear to be especially onerous during any one year of this period, the related default risk of the financial institution in that year will define the assigned overall rating in the context of all other meaningful considerations summarized above. Likewise, if ARC Ratings’ medium-term assessment of major risk events deriving from exogenous factors projects the occurrence of such an event within the analysed time horizon, the financial institution’s ability to manage the impact of such event on its business will become a key element for the Rating Panel in determining the rating. Cyclical peaks and turnarounds are typical examples of such risk events.

In order to issue an opinion on a financial institution’s ability and willingness to pay, ARC Ratings usually analyses the last five years of audited financial statements. However, financial institutions, which do not meet these criteria, may still apply for a rating.

Entities, including financial institutions, are subject to a constantly changing environment and in many instances to growing complexity that may test their resilience in previously unforeseen ways. Therefore, modern credit ratings must place special emphasis on continuous monitoring not only of the rated entity itself, but also the exogenous factors that may impact the entity’s creditworthiness.

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1 In assessing exogenous risk events, ARC will consider both the “likelihood” and “severity” of such event.
II. Key Rating Determinants

**External**
- Economic and Financial Assessment
- Society/Politics/Systemic and Sovereign Risk

**Financial Stability**
- Economic Performance
- Competitive Landscape
- Resilience
- Legal/Regulatory

**Financial Institution**
- Market Position
- Strategy
- Governance
- Transparency
- Financial Performance
- Asset/Liability Management
- Funding Profile
- Capital Adequacy
- Resilience

a. Systemic Risk

The rating of a financial institution is to be assessed within the broader context of overall systemic risk in an interconnected environment of markets, asset classes, debtors and creditors.

ARC Ratings will undertake a semi-annual review of systemic risk. The underlying analysis will result in a three-tier Systemic Risk Rating of:

- High;
- Medium; or
- Low

Such systemic risk rating is designed to give investors an understanding of potential overall rating stability. In times of high systemic risk, shocks may reverberate across markets, asset classes, regions and countries in unpredictable ways. At the same time, the particular issues that may have been identified by ARC Ratings in its systemic risk assessment may especially apply to some financial institutions when compared to others.

b. Sovereign Risk

Political stability and macroeconomic conditions in the country where the financial institution is headquartered may greatly influence the creditworthiness of such financial institution. An unstable political environment may create great uncertainty about government intervention, especially in such crucial sectors as financial services, either directly or, for example, through credit policy. By the same token, vigorous economic growth in a given jurisdiction may offer opportunities and bear some risks for financial institutions headquartered therein. In assessing this risk, ARC Ratings will largely draw on its sovereign risk analysis for the jurisdiction in which the rated entity is headquartered. For transnational financial institutions this may require the review and incorporation of several sovereign risk analyses.

It is important to understand that the profitability of a financial entity may be highly correlated to global economic growth, while others have an inverse relationship. Given increased interconnectedness, economic and industry analysis extends beyond country or regional borders to global trends, which could reasonably impact the creditworthiness of the rated financial institution. This is especially relevant with regard to assigning ratings as financial institutions often depend on funding from global markets and are hence vulnerable to the condition of such markets, even when they are unrelated to the actual credit quality of the rated entity.
c. Financial Stability Risk

ARC Ratings will assign a financial stability rating to each jurisdiction for which it carries ratings. The rating will be mapped along the entire rating scale adopted by ARC Ratings.

The stability of the financial system of a country is primarily linked to the aggregate health of the individual financial institutions headquartered in that country. Therefore, ARC Ratings will analogously apply quantitative indicators, on an aggregate basis, determining the financial stability rating of a country as developed in ARC Ratings’ Financial Institutions’ Methodology. In addition, there are factors that may strengthen or weaken the stability of a financial system, including but not necessarily limited to those captured below.

Factors that ARC Ratings will take into consideration for rating the financial stability of a country include, but are not limited to, the makeup of the sector (formal-informal; banks/nonbank-banks; proliferation of financial structures and their complexity; correlation and interconnectedness risk), as well as the size of the financial system in comparison to the GDP of the country where it is headquartered.

The regulatory/supervisory environment and quality is another important factor to evaluate when assessing financial stability. In this context, ARC Ratings will first of all maintain a continuous and comprehensive understanding of the evolution and direction of the global regulatory environment, including rules developed under Basel II and Basel III, CPSS/IOSCO as well as all other internationally applicable rules. These rules are intended to increase the safety and soundness of the global financial system. However, they may – on occasion – create unintended consequences. Sometimes these consequences may be systemic, while on other occasions they may particularly affect a certain type of entities. For example, they may be administratively more burdensome and costly to smaller than larger institutions.

At the national level of regulators and supervisors (jointly referred to as “overseers”), ARC Ratings focuses – among other things – on underlying rules and regulations, including such as requirements for capital and liquidity. It also is important to understand, how national overseers coordinate their rules and supervisions with international standards. Frequency of visits onsite and offsite, reporting requirements, number of inspectors to number of banks and branches, and judicial follow-through on detected violations are other important factors taken into consideration. Finally, the anti-money laundering and anti-terrorist financing (collectively "AML") framework (including sanctions programs, if any) are to be reviewed, as well as the frequency and scope of the examination process by the local supervisor over the banks with regard to AML compliance.

In combination, the global and national regulatory framework set the stage for the stringency with which a rated financial institution is guided to maintain sound and safe policies and processes. For transnational financial institutions, the regulatory environment and quality of the jurisdiction, where the financial institution is headquartered will be decisive in reviewing the entity. At the same time, certain aspects of the financial institution’s activities may be overseen outside of such jurisdiction. ARC Ratings will carefully review the type and nature of cooperative oversight, where applicable.
Key Quantitative Indicators:

- Assets in the financial system/Gross Domestic Product (GDP);
- Assets held by banks vis-à-vis assets held by non-bank banks;
- Derivatives held by the financial system vis-à-vis total assets of the financial system;
- Frequency of planned and unplanned, offsite and onsite examinations/number of institutions;
- Number of overseers to banks/branches/total assets of the financial system; and
- Number and severity of violations and other findings by regulators.

d. Inside the Rated Entity: Market Position, Strategy, Governance and Transparency

ARC Ratings will undertake a thorough review of the current and prospective market position of the rated financial institution within its own borders and internationally, where applicable. This also entails an assessment of current and future competitors, which may threaten a financial institution’s core business or a distinguishing niche business that could be crucial to the future outlook for the rated entity.

ARC Ratings will look at the institution’s strategic plans to either strengthen or expand its current market position and evaluate the ability to execute such plans. Past performance in meeting strategic goals will be important.

ARC Ratings also assesses the ownership and corporate structure of a rated entity as both reveal the decision-making process within the rated entity and any potential conflict-of-interest. A holding company structure and the jurisdiction of its legal incorporation are part of such assessment. This structural review also includes the number of employees, branches, subsidiaries (foreign and domestic) an entity may have.

ARC Ratings also carefully reviews the complexity of the rated financial institution. Managing a highly complex financial institution may be difficult even for the most skilful Chief Executive Officer (CEO), not to speak of the challenge that such complexity presents to overseers and rating agencies. For those institutions, which have been designated by their overseers as systemically important financial institutions (“SIFIs”) or something akin to such designation, it is now increasingly required that such institutions develop a living will in order to plan for their orderly resolution should they become insolvent. Where required and available, ARC Ratings will review such living wills as they will provide indispensable insight in the corporate structure. ARC Ratings will also use such living wills in its quantitative assessments of the financial institution’s credit quality.

Governance covers a broad space, be it the frequency of shareholder meetings, the organizational structure or reporting lines as well as practices. The relationship between the board and management is important. It is also relevant

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2 As available, as in all other “Key Quantitative Indicators” mentioned throughout the text.
to review, what type of board committees have been established and their mandate. In more general terms, the professional resume of management and members of the board, the composition of executive vis-à-vis non-executive board member, and the delegation of power and internal controls are other crucial aspects in reviewing governance.

A review of a financial institution’s ability to retain and attract top talent is another factor. In this context, it is also important to understand the company’s remuneration policies and how they compare to industry standards.

Transparency of the decision-making process is also important as is the effectiveness with which senior management communicates corporate goals to its business segments and their staff both hierarchically as well as geographically, where applicable. Generally speaking, a well-founded, documented analytical process that leads to management investment decisions will be reflective of strong governance. However, corporate culture is an important fact to enter into the review. Well established processes alone may not lead to optimal outcomes, if opposing views during the decision-making process are drowned out by corporate groupthink.

This is especially important with regard to the risk management culture at a financial institution. The quality of risk management permeates all of the rating determinants that follow. They include credit risk, market risk, operational risk and liquidity risk management. The relevance of each area for ARC Ratings’ ratings is highlighted below. However, the practice of risk management in a financial institution and its quality is highly dependent upon the internal culture that supports effective risk management. Part of that culture is how prudent risk management is effectively rewarded, be it via compensation, promotion or other means.

**Key Quantitative Indicators:**

- Frequency and coverage period of strategic plans;
- Number of strategic goals and historical performance against those goals;
- Number of employees, branches and subsidiaries;
- Frequency of shareholder meetings;
- Numbers of board members;
- Executive/non-executive members;
- Frequency of board meetings;
- Number of board committees; and
- Frequency of committee meetings.
2. IT Systems, Operational Risk and Internal Audit

Technology is at the centre of almost all activities undertaken today by financial institutions. Transactions between the financial institution and its customers, interbank relationships as well as the clearing and settling of transactions are almost exclusively undertaken and recorded electronically. Therefore, nearly any financial institution must have a resilient Information Technology (IT) platform. Such platform, of course, depends on the needs, the size and the interaction of the institution. In any case, it must be fit-for-purpose.

It is also important to understand how the rated institution’s IT system interconnects with its counterparties and payment systems, otherwise known as straight through processing. In terms of IT, a rated financial institution is only as strong as its weakest link. A breakdown of the IT system can lead to a crisis of creditworthiness at the financial institution, because market participants cannot decisively distinguish whether the failure of an institution to meet certain obligations is IT or credit related. ARC Ratings does not undertake an audit of the IT system of rated institutions, but it will review – at a high level – the resilience of such system(s), for example, in looking at failure rates, business continuity plans and back-up data centres, where applicable. Given the heightened risk of environmental hazards as well as cyber-attacks, it is important to get an understanding of system recovery in such events (including downtime, reactivation and maximum data loss).

Operational risk management is dedicated to many of these issues, but beyond that evaluates internal processes in general. Operational risk has been broadly defined by Basel II as the risk of loss resulting from inadequate or failed internal processes, people and systems, or from external events. In many instances, the various departments of financial institutions self-assess themselves against such risks and review their self-assessment with the operational risk department. At the end of such process, operational risk is often defined by a rating for likelihood and severity of a risk, should it materialize. It is important to review the thoroughness of this process in a rated entity, because globalization and technological advancement have blurred the lines between pure credit risk and market, liquidity, operational, IT and systemic risk. A review of past losses due to operational risk may give an insight in the way in which a rated institution has managed this risk.

While it is the role of the operational risk unit of a financial entity to identify such risks jointly with the respective departments to assess their likelihood and severity, as well as to determine whether controls are in place to mitigate such risks, it is one of the key functions of the internal audit function of a financial institution to evaluate whether such controls are in fact applied and effective. An annual audit plan is key to the functioning of this department and the role that it plays. Its record of historical audit findings and its oversight over remediating failed or inadequate processes is central to understanding how a financial institution is prepared to avoid large losses that could impair its creditworthiness.

Key Quantitative Indicators:

- Number of annual IT failures over a three year period;
- Frequency of planned data centre failovers/year;
- Annual operational loss over a five-year period;
- Entity-wide number of identified risks (trend);
- Number of risk with/without controls (trend);
- Number of annual audits;
- Number of audit findings (broken down by categories of materiality, as appropriate);
- Average time of remediation of findings; and
- Number of outstanding audit findings over a twelve month period (broken down by categories of materiality, as appropriate).

### 3. Financial Analysis

#### a. General Considerations

Among the various components that encompass the analysis underlying a rating determination, this component is the most data driven or ratio-based.

The quality of financial statements submitted to ARC Ratings by the rated financial institution and the quality of the external audit of such statements are key to the analysis. Contrary to what some investors may assume, a rating agency, and ARC Ratings in particular, does not undertake independent audits of financial statements, but ARC Ratings will only issue a rating if, in its opinion, the rated financial institution’s information, especially the financial statements, achieves a minimum level of quality sufficient to support a rating determination. To assess the quality of the external audit to the financial statements ARC Ratings will review the way in which rated financial institutions have chosen external auditors, how often they have changed such auditors over time and why, as well as whether, external auditors have over time issued any findings regarding the quality of the financial statements. If so, it will be important to review any corrective action the financial institution has taken to address such findings.

Furthermore, ARC Ratings will adjust the entity’s financial statements for analytical purposes whenever necessary, namely to reflect any relevant off-balance sheet activity. Another crucially important point is that data comparability across the universe of financial institutions rated by ARC Ratings is optimized.

Finally, it is important to understand, how a bank holding company with several subsidiaries manages its financial accounts. In order to get a good understanding of the financial standing of such bank holding company, it is important that ARC Ratings be provided with a disaggregated view of its subsidiaries. Some accounting standards do not require more than consolidated financial statements. Yet, well-run financial institutions use internal financial statements to remain well-informed on the respective financial performance of their subsidiaries.
Key Quantitative Indicators:

- Frequency of change of external auditors; and
- Number of findings by external auditors on unaudited financial statements.

b. Assets and Liabilities

Assets

In reviewing the asset side of a financial institution’s balance sheet, it is important to define the space within which the rated entity operates. Broadly speaking, a commercial bank will have assets largely composed of loans, an investment bank will hold publicly or privately issued debt, equity, derivatives, hybrids or other instruments, while a universal bank may combine both. In all cases, diversification is one of the major factors ARC Ratings will review, whether within one asset class (loans) or across several asset classes. ARC Ratings’ analyses will carefully stress-test asset quality against such correlation risk. More importantly, ARC Ratings will design scenarios wherein seemingly uncorrelated assets or asset classes may suddenly become correlated. Wrong-way risk plays a major role in this context.

Beyond the numbers of measuring impaired assets/total assets, the assessment of asset quality has to encompass many other factors. A simple ratio, such as non-performing loans (NPLs)/total outstanding loans may be very misleading, as this ratio may fall even if NPLs nominally rise as long as credit is extended at a faster clip. Such development may not bode well for the financial institution’s future credit outlook.

Therefore, it is important to understand the institution’s credit culture. How loans or investments are made and underwritten, what approval processes exist and how they are complied with. The appraisal process, legal documentation and disbursement of funds are part of the broader transaction management. Portfolio management, including workout procedures, is also important as is the way in which a financial institution classifies its assets.

In some instances, lending to related parties or lending to high net-worth individuals may bear specific risks. Of course, the lever of loan loss reserves, provisioning and write-off procedures are important as are reschedulings, their terms and frequency.

For securities in a financial institution’s portfolio, it is important to understand the composition. A large portion of government securities held by a financial institution may be a “safe” investment, but also impede its ability to lend to other sectors and enhance its profitability.

Market risk is an important aspect in reviewing the securities portfolio. Depending on regulatory provisions, an institution may have to mark-to-market certain securities in its portfolio. Depending on the weight that such securities have in the overall portfolio this may significantly impact day-to-day valuation of its assets and may cause credit impairment. Value at Risk (VaR) is applied by financial institutions to give them a snapshot of their trading portfolio. As many quantitative measures, it is constrained by lack of assessing future risks. Such mathematical factors as confidence levels and standard deviations with which VaR is calculated will influence its meaning to the rated institution and to
ARC Ratings.

**Key Quantitative Indicators:**

- Non-Performing Assets (NPAs), net and gross;
- NPAs/total assets;
- Five-year annual growth of NPAs and total assets;
- Sectorial, product and currency composition of assets;
- Securitized assets/total assets;
- Concentration of assets;
- Securities/total assets;
- Government securities/total assets; and
- VaR.

**Liabilities**

The balance sheet of the financial institution also provides insights into the composition of the institution’s borrowing portfolio. Much as on the asset side, diversification of funding types and sources is an important indicator. This includes the access of the financial institution to interbank lending, short as well as medium and long-term financing.

Generally, ARC Ratings focuses on various aspects of potential concentration versus diversification. For example, a concentration by funding source is generally an unfavourable aspect of the rated financial institution’s funding profile, because such source may be temporarily or permanently unavailable for refunding purposes. A diversified portfolio of funding sources, including access to equity markets, is generally more sustainable. It should be noted, in that context, that financial institutions due to the nature of their service often have greater exposure to short-term funding than non-financial corporations.

**Key Quantitative Indicators:**

- Funding liabilities sourced from each significant counterparty/total liabilities (Basel III);
- Funding liabilities sourced from each significant product or instrument/total liabilities (Basel III); and
- Short-term liabilities/total liabilities.

**Asset/Liability Management**

In isolation, a review of assets and liabilities, however, remain fairly meaningless. It is far more important how these asset and liabilities are viewed and managed by the financial institution. It is obvious that long-term assets financed largely by short-term liabilities (including deposits) have the risk that liabilities have to be repeatedly rolled-over throughout the lifetime of the matching assets. As a result, the financial institution may be exposed to sudden liquidity
shocks. Such shocks may simply be the result of its own deteriorating credit quality, for example, because non-performing assets suddenly spike. But there are also liquidity shocks related to market events. Even a bank in good standing, might not be able to roll over certain short-term funding, which exposes such institution to heightened default risk.

Liquidity risk may also be a local problem, for example if there is no effective intra-day liquidity market within a certain jurisdiction. In many such cases as well as for other reasons of liquidity shortfalls, central banks may provide such liquidity. The practice of a central bank in that regard and the access of the rated institution to such liquidity are important factors to ARC Ratings.

The currency mix of funding vis-à-vis asset composition in that regard is also examined. If a financial institution has large obligations in currencies other than the currency of the jurisdiction where it is headquartered, such obligations generally should be hedged either naturally through assets in such currency or through swaps and other financial tools in order to avoid exchange rate risk. In that context, ARC Ratings will also draw on its sovereign analysis to determine the risk that the rated financial institution may be affected by sudden currency exchange restrictions either by the jurisdiction, where it is headquartered, or by the jurisdiction, where it has borrowed funds or maintains financial assets.

There are numerous other issues that need to be considered for asset/liability management, such as interest rate mismatches (often comingled with currency mismatches). Finally, asset/liability management of off-balance sheet items may be critical to the solvency and, hence, creditworthiness of a financial institution.

Key Quantitative indicators:

- High-Quality Liquid Assets ("HQLA")/Total Net Cash Outflows Over 30-Day Stress Period (Basel III);
- List of asset and liability amounts by significant currency (Basel III);
- Assets by significant currency/liabilities by significant currencies;
- Assets with floating rates/liabilities with floating rates;
- Total short-term assets/total short-term liabilities; and
- Net stable funding rate (stable funding/weighted long-term assets; Basel III).

### c. Profitability

In evaluating the profitability of a financial institution, ARC Ratings looks beyond the numbers and through business cycles. There are a number of exogenous factors that influence the profitability of a financial institution, such as regulatory burden and constraints, technological change and competition. In a highly protected banking system, each financial institution has to be assessed against the risks of financial liberalization and a rise of competition after such change.
The aspects of profitability, which are endogenous to each financial institution, may broadly be broken down into factors on the income side and on the expenditure side. On the revenue side, it is important to get a good understanding of the stability of the institution’s receipts from the various services it provides. Trends and dependency on either income from interest payments or fee income are relevant factors. On the expenditure side, profitability is primarily affected by operating efficiency and funding costs.

At the same time and in keeping with the forward-looking nature of ARC Ratings’ ratings, the analysis will identify the underpinning drivers for revenue and operating trends in order to assess the rated financial institution’s ability to generate profits in the future as well as to withstand downturns. A series of scenario analyses are undertaken to stress such forward-looking ratios. There is an accelerating rate of technological innovation. Such novel applications may abruptly change customers’ preferences. This ultra-contemporary aspect of applied technologies will be always be carefully assessed by ARC Ratings in all its analyses.

The dividend policy of the financial institution is also reviewed as are technical or accounting aspects, such as whether accrued, but not collected income is reported, the definition of collateral and any issues specific to the jurisdiction that may lead to an over/under-reporting of revenues or expenditures.

In complex institutions, it is key to understand the profitability of each major business line and their income correlation or lack thereof to each other. In such cases, ARC Ratings will request that the rated financial institution provide as detailed as possible a disaggregated breakdown of its earnings structure by business line/subsidiary/currency, even if such disaggregation is not publicly audited. In addition, any off-balance sheet vehicles will also be reviewed with regard to their profitability and, in particular, with regard to their loss potential as such vehicles may impair the overall creditworthiness of the financial institution.

**Key Quantitative Indicators:**

- Net interest income/gross interest income;
- Net interest income/total interest earning assets (net interest margin);
- Non-interest income/total operating income;
- Total operating expenses/total operating income;
- Loan provisioning/total operating income;
- Return on average equity ("ROaE"); and
- Return on average assets ("ROaA").

**d. Capital Adequacy**

For financial institutions, the entire financial analysis leads to the major pillar of the safety and soundness of a financial institution and the financial system as a whole, capital adequacy. Capital is viewed as a buffer for absorbing losses
inherent in the normal conduct of a financial institution’s business as well as under stressed circumstances. Following the 2008 financial crisis, the Basel Committee on Banking Supervision developed a set of new prudential requirements for financial institutions referred to as Basel III. As such, the need for strong Tier 1 capital has been increasingly emphasized, especially by re-defining the components of Tier 1 capital, in order to improve upon the quality of capital. Moreover, capital adequacy is not only to be viewed in terms of on-balance sheet asset deterioration, but also in the context of off-balance sheet exposure, exposure to derivatives, exchange contracts and counterparty risk.

While these requirements are still under consideration and discussion by global regulators and while there has been some loosening of more stringent criteria, ARC Ratings will review the capital adequacy of a financial institution against both the requirements of Basel II and expected requirements under Basel III. Implementation of Basel III is a medium-term project, yet ARC Ratings will consider any progress made by rated financial institutions against the general goals of Basel III as a rating enhancement.

Basel III did not fundamentally change the choice for financial institutions to either use external ratings or an internal ratings-based approach for the purpose of risk-weighting of their assets. Yet, some changes were proposed with regard to the requirements for the underlying calculation of internal risk ratings. It needs to be emphasized that ARC Ratings is keenly aware of model and correlation risks with regard to any rating-based approach to risk-weighting assets, whether an institution uses internal or external ratings. Yet, ARC Ratings will rely on national regulators’ review of the resilience of internal ratings-based approaches adopted by rated financial institutions. At the same time, ARC Ratings will develop a comparative approach to the way in which different regulators will implement their oversight over such resilience and, where apparent, allow any differences to enter into the rating deliberations of specific institutions.

Global regulators are also attempting to address negative feedback loops of additional capital requirements during times of crisis by promoting countercyclical capital buffers. ARC Ratings will closely follow how this recommendation is likely to be adopted, while considering that it may lead to inefficient allocation of resources during times of growth, while admittedly dampening the need for additional capital during downturns. In both instances, the action may be countercyclical, but also counter-intuitive and during a systemic shock such capital buffers may not be sufficient, potentially enhancing market volatility and creating new and different types of negative feedback loops.

**Key Quantitative Indicators:**

- Internal rate of capital generation;
- Earnings retention ratio;
- Total capital/risk-weighted assets;
- Total capital/total assets;
- Tier 1 capital/risk-weighted assets;
- Tier 2 capital/risk-weighted assets;
- Tier 1 capital/balance sheet + certain off-balance sheet exposures (leverage ratio; Basel III);
- Tier 1 capital composition;
- Tier 2 capital composition; and
- Capital conservation buffer (Basel III).

4. Other Considerations

Traditionally, rating agency incumbents have looked at the creditworthiness of a financial institution on a standalone basis, as well as by incorporating possible government support. Indeed during the recent financial crisis, governments have actively intervened in the banking sector effectively injecting capital in failing institutions and, hence, protecting their creditors from experiencing default.

However, such intervention has been far from predictable. In some cases, banking systems had far outgrown the size of a country’s economy. As a consequence, governments in such jurisdictions were unable to recapitalize individual institutions resulting in massive defaults. In other countries, government intervention was so enormous that the required resources materially impaired the creditworthiness of the supporting sovereigns. In a third category of countries, markets were unclear over which financial institutions might be considered by the government as “too big to fail”.

Finally, following the financial crisis there has been further consolidation/concentration in the financial sector creating even larger institutions, many of which, even in the more prosperous countries, may now be considered to be “too big to save”.

It is, therefore, that ARC Ratings has introduced a Financial Stability Rating for each jurisdiction, where it assigns ratings. This rating may, depending upon the circumstances, serve as a ceiling to all ratings, including the ARC Ratings rating for the sovereign within that jurisdiction. Consequently and in view of uncertainties about forthcoming government support for ailing financial institutions in any jurisdiction, ARC Ratings’ ratings for financial institutions are to be viewed on a standalone basis only.

Finally, this methodology for rating financial institutions covers a wide range of such entities. This is appropriate because most institutions which will seek ratings will likely fit the model of an institution with a fairly broad range of product offerings. However, there are specialized entities, such as savings banks, mortgage banks or non-bank banks, which may also seek ARC Ratings ratings. In their cases, some of the key rating determinants of this methodology may be of lesser importance, while others may need greater focus on the specialized balance sheets of these entities. Nevertheless, this methodology remains applicable to such specialized financial institutions as the core rating determinants are relevant and the catalogue of analytical issues raised in this methodology are not considered as an exhaustive list, but will be adjusted for all rated institutions depending on their own idiosyncrasies as well as a dynamically changing environment.
**Rating Definitions**

ARC Ratings’ financial institutions’ credit ratings use the same rating scales and similar definitions that are applied to ARC Ratings’ ratings of other debt issuers.

## Short-Term Issuers

<table>
<thead>
<tr>
<th>Rating</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A-1</strong></td>
<td>An obligor rated “A-1” shows a strong capacity to meet its financial commitments. It is rated in the highest category by ARC Ratings. Within this category, certain obligors are designated with a plus sign (+). This indicates that the obligor’s capacity to meet its financial commitments is very strong.</td>
</tr>
<tr>
<td><strong>A-2</strong></td>
<td>An obligor rated “A-2”, although pertaining to the strong debt-paying capacity level, may be somewhat more susceptible to certain adverse effects from changes in the expected economic conditions. However, the obligor’s capacity to meet its financial commitments is considered to remain very satisfactory.</td>
</tr>
<tr>
<td><strong>A-3</strong></td>
<td>An obligor rated “A-3” exhibits adequate endogenous capacity to meet its financial commitments. However, adverse economic conditions or changing circumstances are more likely to lead to a weakened capacity of the obligor to meet its financial commitments. Outside conditions thus become a relevant issue here.</td>
</tr>
<tr>
<td><strong>B</strong></td>
<td>An obligor rated “B” is regarded as having significant vulnerabilities to a changing environment. Notwithstanding the obligor’s current capacity to meet its financial commitments, the timely and full payment thereof faces major on-going uncertainties.</td>
</tr>
<tr>
<td><strong>C</strong></td>
<td>An obligor rated “C” is currently more likely than not to under-perform and thus remains very dependent upon favourable business, financial and economic conditions to fully meet its financial commitments.</td>
</tr>
<tr>
<td><strong>D</strong></td>
<td>An obligor rated “D” has failed or is about to fail to pay one or more of its financial commitments (rated or unrated) when it/they came due.</td>
</tr>
</tbody>
</table>
### Short-Term Issues

<table>
<thead>
<tr>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-1</td>
<td>A short-term obligation rated “A-1” is rated in the highest category by ARC Ratings. The obligor’s capacity and willingness to meet its financial commitments is strong. Within this category, certain obligations are designated with a plus sign (+). This indicates that the obligor’s capacity to meet its financial commitments on these obligations is very strong.</td>
</tr>
<tr>
<td>A-2</td>
<td>A short-term obligation rated “A-2”, although pertaining to the strong debt-paying capacity level, may be somewhat susceptible to certain adverse effects from changes in the expected economic conditions. However, the obligor’s capacity to meet its financial commitments on such obligation is considered to remain very satisfactory.</td>
</tr>
<tr>
<td>A-3</td>
<td>A short-term obligation rated “A-3” exhibits adequate endogenous protection parameters. However, adverse economic conditions or changing circumstances are more likely to lead to a weakened capacity of the obligor to meet its financial commitments on the obligation. Outside conditions thus become a relevant issue here.</td>
</tr>
<tr>
<td>B</td>
<td>A short-term obligation rated “B” is regarded as having significant vulnerabilities to a changing environment. Notwithstanding the obligor’s current capacity to meet its financial commitments, the timely and full payment thereof faces major on-going uncertainties.</td>
</tr>
<tr>
<td>C</td>
<td>A short-term obligation rated “C” is currently more likely than not to under-perform and thus remains very dependent upon favourable business, financial, and economic conditions for the obligor to fully meet its financial commitments on the obligation.</td>
</tr>
<tr>
<td>D</td>
<td>A short-term obligation rated “D” is or is likely to enter into default at maturity.</td>
</tr>
</tbody>
</table>
# Short-Term Financial Stability

<table>
<thead>
<tr>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-1</td>
<td>A financial system rated “A-1” shows strong signs of stability. It is rated in the highest category by ARC Ratings. Within this category, certain systems are designated with a plus sign (+). This indicates that the financial system’s stability is very strong.</td>
</tr>
<tr>
<td>A-2</td>
<td>A financial system rated “A-2” is stable, but may be somewhat more susceptible to certain adverse effects from changes in the expected economic conditions. However, the jurisdiction’s financial stability is considered to remain very satisfactory.</td>
</tr>
<tr>
<td>A-3</td>
<td>A financial system rated “A-3” exhibits adequate stability. However, adverse economic conditions or changing circumstances are more likely to lead to a weakened financial stability of the jurisdiction. External conditions may have increased relevance.</td>
</tr>
<tr>
<td>B</td>
<td>A financial system rated “B” is regarded as having significant vulnerabilities to a changing environment. Notwithstanding the jurisdiction’s current financial stability, it faces major on-going uncertainties which could significantly undermine that stability.</td>
</tr>
<tr>
<td>C</td>
<td>A financial system rated “C” is fragile, dependent upon favourable business, financial and economic conditions. Regulatory framework may be evolving. Potential contingent liabilities to the government may adversely affect the sovereign’s creditworthiness.</td>
</tr>
<tr>
<td>D</td>
<td>A financial system rated “D” is highly unstable. It is displaying material risks of systemic breakdown with potentially large contingent liabilities for the government.</td>
</tr>
</tbody>
</table>
# Medium and Long-Term Issuers

## Low Risk Range

<table>
<thead>
<tr>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AAA</strong></td>
<td>An obligor rated “AAA” has the highest possible Issuer’s Credit Rating assigned by ARC Ratings. It has not only the ability to show an extremely strong capacity to meet its financial commitments but also benefits from a full set of circumstances that actually turn the possibility of credit default into a strictly remote event.</td>
</tr>
<tr>
<td><strong>AA</strong></td>
<td>An obligor rated “AA” also has very strong capacity to meet its financial commitments. It differs from the highest rated obligors by only a very small degree.</td>
</tr>
<tr>
<td><strong>A</strong></td>
<td>An obligor rated “A” has a quite strong capacity to meet its financial commitments but is somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions when compared to obligors in highest-rated categories.</td>
</tr>
</tbody>
</table>

## Moderate Risk Range

<table>
<thead>
<tr>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BBB</strong></td>
<td>An obligor rated “BBB” exhibits an adequate capacity to meet its financial commitments. However, adverse economic conditions or suddenly changing circumstances are more likely to lead to a weakened capacity to the obligor to meet its financial commitments.</td>
</tr>
<tr>
<td><strong>BB</strong></td>
<td>An obligor rated “BB” exhibits a fair capacity to meet its financial obligations. However, it faces major on-going uncertainties or exposure to adverse business, financial or economic conditions, which could lead to an unforeseen deterioration of the obligor’s capacity to meet its financial commitments.</td>
</tr>
</tbody>
</table>

## High Risk Range

<table>
<thead>
<tr>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>B</strong></td>
<td>An obligor rated “B” is more vulnerable than the obligors rated “BB”, in the sense that its capacity to meet its financial commitments may, under adverse business, financial or economic conditions very likely impair such capacity or even the willingness to service its debts.</td>
</tr>
<tr>
<td><strong>CCC</strong></td>
<td>An obligor rated “CCC” is currently very vulnerable, and is thus strictly dependent upon favourable business, financial and economic conditions to meet its financial commitments.</td>
</tr>
</tbody>
</table>

## Imminent or Actual Default

<table>
<thead>
<tr>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CC</strong></td>
<td>An obligor rated “CC” is highly vulnerable to not being able to meet future obligations, although not showing payment delays at present.</td>
</tr>
<tr>
<td><strong>C</strong></td>
<td>Default would appear to be imminent. A debt restructuring procedure may be under way either by creditors’ own initiative or through a judicial ordinance.</td>
</tr>
<tr>
<td><strong>D</strong></td>
<td>A “D” rating is assigned when the obligor is currently in default.</td>
</tr>
</tbody>
</table>

The ratings from “AA” to “CCC” may be modified by the addition of “+” or “-” to show their relative standing within their own rating categories. The rating outlook (positive, stable, negative or developing) highlights the potential direction of a rating during the following year. An outlook is not necessarily a precursor of a rating change or future follow-up ahead of schedule.
# Medium and Long-Term Issues

## Low Risk Range

<table>
<thead>
<tr>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAA</td>
<td>An obligation rated “AAA” has the highest possible rating assigned by ARC Ratings. The obligor’s future cash flow capacity to meet its financial commitments on the obligation is gauged as extremely strong. A timely and full payment of principal and interest thereof is only remotely subject to adverse influence of an outside force or future event.</td>
</tr>
<tr>
<td>AA</td>
<td>An obligation rated “AA” differs from the highest rated obligations only in a very small degree. The obligor’s capacity to meet its financial commitments on the obligation remains very strong.</td>
</tr>
<tr>
<td>A</td>
<td>An obligation rated “A” is somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions when compared to obligations in highest categories. However, the obligor’s capacity to meet its financial commitments on the obligation remains quite strong.</td>
</tr>
</tbody>
</table>

## Moderate Risk Range

<table>
<thead>
<tr>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BBB</td>
<td>An obligation rated “BBB” always exhibits an adequate set of protection parameters. However, adverse economic conditions or suddenly changing circumstances are more likely to lead to a weakened capacity of the obligor to meet its financial commitments on the obligation.</td>
</tr>
<tr>
<td>BB</td>
<td>An obligation rated “BB” exhibits a fair set of financial protection parameters. However, the obligor may face a future deterioration of its payment capacity due to adverse business, financial or economic conditions, which could lead to an unforeseen deterioration of the chances of a timely and full debt servicing.</td>
</tr>
</tbody>
</table>

## High Risk Range

<table>
<thead>
<tr>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>An obligation rated “B” is more vulnerable than obligations rated “BB”, in the sense that its obligor, while currently showing a limited capacity to meet its financial commitments on the obligation, may under adversely changing business, financial or economic conditions very likely impair such capacity or even the willingness to service its debt.</td>
</tr>
<tr>
<td>CCC</td>
<td>An obligation rated “CCC” is currently very vulnerable, and is thus strictly dependent upon favourable business, financial, and economic conditions facing the obligor to meet its financial commitment. Upon the event of adverse business, financial or economic conditions, the obligor will most likely not have the capacity to meet its financial commitments on the obligation.</td>
</tr>
</tbody>
</table>

## Imminent or Actual Default

<table>
<thead>
<tr>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CC</td>
<td>An obligation rated “CC” is highly vulnerable to payment delays and/or partial default although not showing payment delays at present, due to its own endogenous limitations, notwithstanding the outside conditions facing the obligor.</td>
</tr>
<tr>
<td>C</td>
<td>An obligation rated “C” faces an imminent default. The “C” rating may be used to cover a situation where a bankruptcy petition has been filed or similar action taken, but payments on this obligation have not yet been discontinued.</td>
</tr>
<tr>
<td>D</td>
<td>An obligation rated “D” is currently under payments default.</td>
</tr>
</tbody>
</table>

The ratings from “AA” to “CCC” may be modified by the addition of “+” or “-” to show their relative standing within their own rating categories. The rating outlook (positive, stable, negative or developing) highlights the potential direction of a rating during the following year. An outlook is not necessarily a precursor of a rating change or future follow-up ahead of schedule.
# Medium and Long-Term Financial Stability

## Low Risk Range

<table>
<thead>
<tr>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAA</td>
<td>A financial system rated “AAA” has the highest possible Financial Stability Rating assigned by ARC Ratings. The financial sector is well capitalized, diversified and displays strong management. The regulatory framework is proactive. Financial instability is a strictly remote event.</td>
</tr>
<tr>
<td>AA</td>
<td>A financial system rated “AA” also has very strong fundamentals. It differs from the highest rated jurisdiction only by a very small degree.</td>
</tr>
<tr>
<td>A</td>
<td>A financial system rated “A” is stable, but is somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions when compared to financial systems in the highest-rated categories.</td>
</tr>
</tbody>
</table>

## Moderate Risk Range

<table>
<thead>
<tr>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BBB</td>
<td>A financial system rated “BBB” exhibits adequate stability. However, adverse economic conditions or suddenly changing circumstances are more likely to lead to worsening fundamentals throughout the financial system. Regulatory framework may be evolving.</td>
</tr>
<tr>
<td>BB</td>
<td>A financial system rated “BB” exhibits a fair level of stability. However, it faces major on-going uncertainties or exposure to adverse business, financial or economic conditions, which could undermine financial stability. Regulatory oversight might be more reactive.</td>
</tr>
</tbody>
</table>

## High Risk Range

<table>
<thead>
<tr>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>A financial system rated “B” may become unstable under adverse business, financial or economic conditions. Regulatory oversight might need strengthening.</td>
</tr>
<tr>
<td>CCC</td>
<td>A financial system rated “CCC” is currently very vulnerable, and is thus strictly dependent upon favourable business, financial and economic conditions to maintain its financial stability.</td>
</tr>
</tbody>
</table>

## Imminent or Actual Lost of Financial Stability

<table>
<thead>
<tr>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CC</td>
<td>A financial system rated “CC” is currently highly vulnerable to not being able to maintain future stability. Its core ratios are sharply deteriorating. The need for government intervention is becoming increasingly likely with potentially meaningful consequences to the sovereign’s own creditworthiness.</td>
</tr>
<tr>
<td>C</td>
<td>Loss of financial stability would appear to be imminent. Bailout costs may exceed government capacity.</td>
</tr>
<tr>
<td>D</td>
<td>A “D” rating is assigned when the financial system has stopped operating by failing to meet its financial intermediation function. Government intervention has occurred, but may not be sufficient to control a systemic shock to the real economy and the sovereign’s own creditworthiness may be severely impaired.</td>
</tr>
</tbody>
</table>

The ratings from “AA” to “CCC” may be modified by the addition of “+” or “-” to show their relative standing within their own rating categories. The rating outlook (positive, stable, negative or developing) highlights the potential direction of a rating during the following year. An outlook is not necessarily a precursor of a rating change or future follow-up ahead of schedule.
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