Credit Ratings & Research

Version 4

Rating Methodology

Rating Criteria: Financial Institutions

Rating Methodology

Financial Institutions

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Corporate Scorecard
From Equifax

Overview

This document provides an overview of Equifax Credit Ratings & Research's (EACR) criteria for assessing the ratings of financial institutions. The document outlines the process, principles and methodology applied in a rating assignment.

The rating methodology constitutes the framework of analysis and specifies the application of credit risk driver analysis ('risk drivers'). Risk driver analysis captures the key drivers of a financial institution's capacity and capability to meet its financial obligations as and when they fall due.

Contents

Scope

"Equifax Credit Ratings & Research's's approach to credit rating assessment highlights its objective of providing a clear-cut, transparent and empirically supported rational for credit rating

Rating assignments pertain to the standalone ratings of financial institutions. The ratings incorporate limited benefit for external support; which is seen as a pre-2008 Global Financial Crisis (GFC) regulatory approach. The bail-ins of 2010 and post GFC reform proposed by the Basel Committee on Banking Supervision through the voluntary regulatory standard on bank capital adequacy – Basel III – indicate that creditors and large depositors are no-longer insulated from losses associated with bank failure.

Rating models that employ joint default analysis have contributed to rating volatility and have been met with weak market acceptance[1]. Joint default analysis assumes implied sovereign credit support; which results in a reliance on the sovereign's credit profile to prop-up the ratings of domestic financial institutions. Risks to this rating approach include underestimating the implications of off- balance sheet support in the sovereign's rating and overestimating the willingness of the sovereign to spend taxpayer resources to bailout private enterprise against the possible backdrop of a weak economic and political climate. As such the rating approach followed by Equifax Credit Rating & Research is conducted on a standalone basis and does not factor in financial support from the sovereign.

Bail-ins versus Bail-outs

Bail-outs protect bond holders and depositors of a bank from losses associated with bank failure. The Global Financial Crisis of 2008 (GFC) resulted in several, highly publicised, tax-payer funded, bail-outs in the United States and the United Kingdom of multinational banking and financial service providers such as Citigroup Inc., Bank of America, Morgan Stanley, The Goldman Sachs Group Inc., Lloyds Banking Group, Royal Bank of Scotland and Halifax Bank of Scotland. These institutions were bailed out because regulators considered them 'too big to fail' due to the high magnitude of systemic shock associated with their failure.

Bail-ins, such as that of CIT Group in 2009 (Bond holders contributed USD3b to the rescue of this US bank) and Co-operative Bank (UK) transfer the risk of bank failure to all parts of the bank's capital structure – not just equity investors. The financial stress placed on governments – and, ultimately, tax payers – as well as the moral hazard created by bail-outs prompted regulators to formulate a more equitable approach to rescuing failed banks. Bail-ins, a concept incorporated into capital instruments qualifying under Basel III , require bond holders (and, at times, large deposit holders) to contribute to the recapitalisation of a banks thereby exposing bond holders (and some depositors) to losses associated with bank failure.

Equifax Credit Ratings & Research's rating criteria focuses on standalone credit risk for financial institutions due to the convergence of regulatory frameworks and recent market evidence of bank rescue by bail-in whereby little or no financial relief is offered to bond holders.

[1] *'Broken Joints'. Risk.Net Nordic Risk, Spring 2007 (2007): 20 - 22. Web. 17 Feb. 2015.*

"Transparency assists market participants in deconstructing the analysis and assumptions driving the rating to assess its robustness and validity."

Rating Methodology

The assessment of a Financial Institution's credit rating comprises of qualitative and quantitative risk assessments with greater emphasis placed on the quantitative measures but the with the analytical process is led by qualitative assessments.

Why place greater emphasis on the quantitative measures?

Quantitative measures lend themselves to the identification of long-term trends that have utility in testing the efficacy of assumptions that drive forecast performance. Moreover, a weighted assessment of quantitative measures lends itself to greater transparency and empirical support.

Why is the process led by an assessment of qualitative measures?

Qualitative measures serve as a useful contextual backdrop to explain trends identified in quantitative measures. They also help reveal a financial institution's competitive strengths and weaknesses.

- **Qualitative Measures**
  - Industry Risk
  - Structural Risk
  - Business Risk

- **Quantitative Measures**
  - Profitability
  - Capitalisation
  - Asset Quality
  - Funding

Each of these risk assessment stages involves an examination of various risk drivers that impact the credit rating. Equifax Credit Rating & Research examines the:

- Level of exposure to each driver
- Risk driver interdependencies as they apply to operations
- The level of managerial control exerted over these drivers
- Factors that mitigate the impact and likelihood of risk drivers
- Central estimate and the probability distribution of these impacts on immediate and sustainable cash flows

In making these estimates Equifax Credit Rating & Research relies on internally developed financial models that are informed by inputs and forecast estimates provided by the institution.

Risk drivers are subdivided into qualitative and quantitative measures and evaluated concurrently to arrive at the financial institution's credit rating.

Forward-Looking, Quantitative Assessments – What does that mean?

New Adventures Bank has a strong history of profitability but, recently, management have announced an expansion of products and services outside the bank's present scope of expertise. New Adventures is expected to allocate a material portion of its high quality capital base to funding projects in jurisdictions that are well-known for having legislation that is not creditor friendly. In this instance analysts would stress forecast earnings to sufficiently reflect the house view of risks associated with the new jurisdiction of operation. These stressed estimates, not management's base case, will serve as the rating case that drives Equifax Credit Rating & Research's credit rating of New Adventures Bank.

Discounts applied to key cash flow drivers of management forecasts as well as supporting rational are published as part of the rating commentary to aid with the transparency of the rating assignment process. Transparency assists market participants in deconstructing the analysis and assumptions driving the rating to assess its robustness and validity.

The risk score is then benchmarked against the institution's industry and rating peers. The benchmarking process may result in the modification of the rating. This layer of the rating process ensures the consistent of application of Equifax Credit Rating & Research rating criteria and therefore the comparability of Equifax Credit Ratings & Research.

Industry Risk

Industry Risk Drivers

Risk Driver	Risk increases when risk driver is:
Systematic Risk	Higher
Regulation	Lower
Macro Economy	Lower
Competition	Higher

The purpose of this analytical category is to identify risks associated within the system that the institution operates in. More generally, industry risk drivers emanate from: changes to legislation and regulation; catalysts that accelerate the progression of an industry through its life-cycle; the business cycle; product obsolescence; changes in consumer preferences; technology shifts; changes to entry barriers; industry capacity utilisation and capacity constraints; and changes in the competitive landscape and market dynamics that alter the balance of power between industry stakeholders.

Industry Risks for financial institutions are subdivided into the following categories:

- Sources of Systemic Risk
- Regulation - Prudential Framework
- Macro-economy
- Competition

The introduction of Basel III recommendations by ***Australia's*** *prudential regulatory authority (APRA) is phased over the three years to 2016 to mitigate any shocks to the financial system from the adoption of this new framework.*

The Prudential Regulatory authority in ***New Zealand****, the Reserve Bank of New Zealand, implemented Basel III reform in January2013.*
It introduced a new counter-cyclical capital

Transition to Basel III

The Basel III capital reforms build on the Basel II risk based capital framework. It introduces several prudential tools to reduce the frequency and magnitude of systemic shocks emanating from the financial sector. Here are some of the key changes to the prudential framework proposed under Basel III.

The minimum Tier 1 capital requirement has been increased from 4% to 6% of risk-weighted assets. This tier of a bank's capital is designed to protect a bank from insolvency.

A new common equity Tier 1 requirement has been introduced which required banks to hold 4.5% of risk weighted assets in common equity.

Non viability triggers have to be included in qualifying capital instruments. These triggers allow for note conversion to common equity or to be written off absorbing large losses that threaten the viability of the bank.

A leverage ratio has been introduced. The leverage ratio measures the bank's gearing level without risk weighting assets.

Two new capital buffers have been introduced. The Capital Conservation buffer (2.5% of risk weighted assets) will provide banks with additional capital during times of stress. The buffer comprises of common equity. As such, the minimum CET1 capital requirement plus the buffer will be 7% of risk weighted assets. If CET1 falls below 7% the supervisory authority may step into constrain capital distributions.

The other new capital buffer is the Counter Cyclical Capital buffer. This buffer may be raised to 2.5% of risk weighted assets may be imposed by the relevant reserve banking authority to mitigate an increase in systemic risk

Leverage to Macro-economic fundamentals

Equifax Credit Rating & Research monitors several indicators of macro-economic performance to identify changes to the industry risk profile because weakness in the general economy, the formation of asset bubbles, fluctuations in capital flows, trends in lending practices are all drivers of risk for the banking sector.

These indicators include: system lending growth rates and mix; consumer confidence; household borrowing and gearing levels; terms of trade and asset prices (commodity prices, house prices, equity prices, bond yields).

Equifax Credit Rating & Research examines the linkages between the health and rate of growth of the economy and that of the institution being rated. Excessive asset class concentrations or portfolio expansion that outpaces system lending growth are potential leading indicators of poor credit quality.

Sensitivity to Market Risk

This factor relates to the risks to bank capital that emanate from general market volatility. It is measured by indices such as the Chicago Board of Options Exchange Volatility Index which reflects market expectations for volatility based on the weighted average implied volatilities of a range of options traded on the exchange.

Investment banks that have proprietary trading business lines profit from trading on volatility and are, by design, exposed to material ongoing exposure to market risk. Retail banks may have indirect exposure to market risk through intermediation activities. These indirect exposures become direct exposures when the bank's counterparties – either their hedge provider or their retail or commercial banking customer defaults on their obligations.

Equifax Credit Rating & Research evaluates an institution's market risk exposure in concert with the quality of its risk management expertise and controls. An institution's credit rating is constrained where this is a higher risk appetite not supported by demonstrated management expertise in market risk management.

Level of Competition

The stability of profits is mainly a factor of market concentration as well as the cyclicality of the industry. Industry concentration is mainly a result of entry barriers and the size of the market. Typically, a tightly regulated, small market will tend to exhibit more concentration and profit stability than a less regulated and large market.

The level of concentration in an industry is mainly evidenced in the historical and forecast margins of the typical competitor. Equifax Credit Rating & Research reviews the trend and composition of margins – looking for sources of sustainable profits and their underlying causes.

Structural Risk

The purpose of this analytical category is to identify risks resulting from the legal form, or constitution, of the financial institution or banking group.

Legal structure can affect institution risk by adding opacity, complexity and leverage. Equifax Credit Rating & Research examines the following factors of group structure:

- Opacity
- Double Leverage
- Structural Subordination
- Cash Traps

Opacity

Structural complexity adds an element of opacity to elements such as asset ownership, sources of cash generation, tax liability, contingent liability and legal recourse. Where the structural complexity of a financial institution reduces its transparency and impedes the testing of forecast assumptions rating computations will reflect the uncertainty associated with that opacity.

Double Leverage

An institution's group structure may involve two levels of debt. Debt in the capital structure of a parent entity may support the equity capital of an operating entity. This structural influence may be of little consequence when assessing the rating of the consolidated group. However, when assessing the rating of a standalone operating entity – debt funded equity is viewed as a weaker source of capital than vanilla equity because debt funded equity is, normally, associated with a less flexible dividend stream that is used by the parent to service debt.

Structural Subordination

Structural subordination arises when the entity being rated is a holding company whose primary source of cash flow is dividends received from entities operating upstream. Creditors of the operating entity rank higher in the cash flow waterfall of the operating entity than creditors of the holding company. This differential in creditor priority arising from the structure of the group is referred to as structural subordination.

Cash Traps

Cash traps are restrictions which can be: contractual, such as dividend stopers; regulatory – where a local regulator does not permit unilateral cash payments overseas; and convertibility – where the exchange rate of the functional currencies of major operating entities is volatile. These restrictions may impede a group from being able to readily provide internal support to weaker or vulnerable group members, and thereby reduce the structural integrity of the group.

Business Risk

The purpose of this analytical category is to identify risks, also known as idiosyncratic risks, associated - specifically - with the institution's business activities. These risks may be structural or cyclical in nature and are usually within the scope of management's control. Management influence business risk through the formulation and implementation of their strategic vision for the company.

Segment Risks

Risk Level	Segment
Low	Wealth Management, Retail Banking Private Banking
Moderate	Insurance, Commercial Banking
High	Investment Banking

Scale and Diversification: Diversity of operations across product and geographic segments may provide strong - intrinsic - cyclical loss mitigation. Universal banks with global foot prints rate well in this category.

Banking is mostly a scalable industry with access to capital, talent and customers closely correlated with size. Bigger balance sheets are also able to absorb larger system related (undiversifiable) losses making these institutions more resilient to financial crises.

Brand and Reputation: A financial institution's brand and reputation are manifest in its market share and scale. An institution with a track record of robust earnings, innovation, risk-management, technological leadership, demonstrated responsiveness to the needs and trends in its competitive arenas and which possesses a diversified service offering, cost advantages and pricing power will be assessed as having a strong brand and reputation.

Management Quality and Strategic Vision: Management qualifications, track record and board meeting attendance are scrutinised for their impact on the rating. Moreover, Equifax Credit Rating & Research looks for a clearly articulated strategic vision and evidence of management alignment with that strategy. Such a strategic definition assists in formulating risk assessments and potential management responses to industry and market challenges.

Opportunities and Execution: Balance-sheet expansion or contraction is compared against underlying economic growth or contraction, and peer, sector and industry averages to identify any outliers and assess the build-up of potential risks. Rapid loan growth can also obscure financial analysis, for example making it difficult to form a view of true asset quality because loan portfolios have not had time to mature, and may be indicative of a lowering of underwriting standards.

Service Proposition: Banking services may be segmented into the following broad categories investment banking (including proprietary trading, debt and equity underwriting, assuming unhedged market risk), private banking, commercial banking (trade related), retail banking, wealth management and insurance. The magnitude and volatility of loss vary across segments (tabulated in the left margin on the previous page).

Underwriting Standards and Portfolio Quality: Equifax Credit Rating & Research assesses an institution's risk appetite and the quality of its loan book. Elements of criteria that are scrutinized include loan-to-value ratios for secured lending products, the level of unsecured lending, the individual and sector portfolio limits and the stratification of approval delegation.

Funding Profile: The strength of an institution's liquidity is governed by its ability to access a deep pool of deposits. Such access is dependent on its cost competitiveness. Having a competitive cost position permits an institution to attract deposits with higher interest rates without compromising overall profitability. When considering the funding profile Equifax Credit Rating & Research examines its: term debt funding burden and assess the level of laddering of that debt; asset-liability mismatch both on a market value and on a cash flow basis; wholesale to retail funding mix as well as the currency mix of its borrowings.

Risk Controls: A financial institution requires strong and effective risk management tools to adhere to its stated risk appetite and underwriting standards. These controls include; the reporting and monitoring of limits pertaining to product or credit concentrations, geography, market risks; policies for escalating breaches to controls; operational controls (e.g. separation of duties and consistency in the alignment of employee incentive structures) They may also include tools such as custom scorecards, internal ratings or third-party data sources such as national credit bureaus.

Quantitative Measures

Equifax Credit Rating & Research uses quantitative measures to benchmark and measure the financial risk profile of financial institutions. These measures are grouped into four main categories profitability, capitalization, and asset quality and funding. They are tabulated below.

Profitability:

Ratio	Risk Increases	Calculation	Description
Return On Assets	Lower	$\frac{Net\ Profit\ After\ Tax}{Average\ Assets}$	This indicator reflects management's ability to generate sufficient return for all capital providers.
Return on Risk Weighted Assets	Lower	$\frac{Net\ Profit\ After\ Tax}{Risk\ Weighted\ Assets}$	This indicator reflects management's ability to generate sufficient return for all capital providers on a risk adjusted basis. The risk adjustement accounts for the level of capital at risk taking into account the expected loss associated with the bank's loans and investments.
Return On Equity	Lower	$\frac{Net\ Profit\ After\ Tax}{Average\ Equity}$	This indicator reflects management's ability to generate sufficient return for the bank's shareholders.
Loans to Assets	Lower	$\frac{Loans}{Assets}$	This indicator measures the relevance of the bank's lending operation to its overall profitability.
Net Interest Margin	Lower	$\frac{Interest\ Income}{Loans\ - Special\ Provision} - \frac{Interest\ Expense}{Deposits}$	This indicator reflects the profitability of the Bank's core lending operation.
Efficiency Ratio	Lower	$\frac{Non\ Interst\ Expense}{Operating\ Income}$	This indicator reflects the cost efficiency of the Bank.

Capitalisation:

Ratio	Risk Increases	Calculation	Description
Tier 1 Ratio	Lower	$\frac{Tier\ 1\ Capital}{Risk\ Weighted\ Assets}$	This indicator measures the regulatory Tier 1 capital buffer of the Bank.
Total Capital Ratio	Lower	$Tier\ 1\ Ratio + Tier\ 2\ Ratio$	This indicator measures the total regulatory capital buffer of the Bank.
Common Equity Tier 1 ('CET')	Lower	$\frac{Common\ Equity}{Risk\ Weighted\ Assets}$	This indicator measures the regulatory CET1 capital buffer of the Bank.
Leverage	Higher	$\frac{Total\ Assets}{Common\ Equity}$	This indicator measures the risk associated with the gearing of a bank's equity capital. Unlike other measure of regulatory capital headroom, it does not factor in the quality and risk of individual assets and asset class exposures.
Prudential Buffers	Lower	$Capital\ Conservative\ Buffer + Countercyclical\ Capital\ Buffer$	This indicator reflects the level of additional capital set asside by the bank to meet shocks to capital from major losses and stress in the financial system.

Asset Quality:

Ratio	Risk Increases	Calculation	Description
Charge-offs	Higher	$\frac{Loans\ written\ off}{Gross\ Loans}$	This indicator reflects the quality of the bank's loan assets. It measures the level of loans deemed unrecoverable.
Loans accruing but past due	Higher	$\frac{Accruing\ loans\ past\ due\ 90\ days\ o}{Gross\ Loans}$	This is an indicator of loans that are past due (over 90 days but less than 180 days) but, generaly, not covered by an individual provision. However, once a loan is over 180 days past due most regulators would require the bank to deem the loan impaired and provide for potential losses relating to that exposure.
Impaired Loans	Higher	$\frac{Impaired\ Loans}{Gross\ Loans}$	This indicator measures the quality of the loan book by examining the proportion of a bank's loans deemed impaired. A loan is deemed impaired where doubt exists as to whether the full contractual amount will be received in a timely manner, or where concessional terms have been provided because of the financial difficulties of the customer.
Individual Loan Provisioning	Higher	$\frac{Individual\ Loan\ Prov}{Impaired\ Loans}$	This indicator measures the total provisioning associated with impaired loans.
Asset Impairment Provisioning	Higher	$\frac{Individual\ Loan\ Provision + Collective\ Provisio}{Gross\ Loans}$	This indicator measures the total provisioning associated with impaired assets (including loans to customers). Financial assets are impaired if there is objective evidence of impairment as a result of a loss event that occurred prior to the reporting date, and that loss event has had an impact, which can be reliably estimated, on the expected future cash flows of the individual asset or portfolio of assets.
Total Provisioning	Higher	$\frac{Individual\ Asset\ Impairment\ Provision}{Impaired\ Assets}$	This indicator measures the level of losses expected on the loan portfolio as a result of idiosyncratic and macro economic factors.

Funding:

Ratio	Risk Increases	Calculation	Description
Liquidity Coverage	Lower	$\frac{High\ Quality\ Assets}{30\ day\ net\ cash\ outflo}$	This indicator measures the level of cover provided by high quality liquid assets (e.g. government debt securities) to cover the bank's liquidity needs over a 30 day period of financial system stress.
Net Stable Funding Ratio	Lower	$\frac{Stable\ Funding\ Awaila}{Regulatory\ Stable\ Funding\ Re}$	This indicator measures the level of stable funding access that a bank has over and above that required by its regulator.
Loans to Deposites	Lower	$\frac{Loans}{Deposites}$	This indicator measures the level of loand funded by bank deposites. Other funding sources such as wholesale funding are normaly less economical and collectily less flexible that deposites.
Liquid Assets	Lower	$\frac{Liquid\ Assets}{Asssets}$	This indicator is a measure of the liquidity of the bank's asset base,

These measures are evaluated in accordance with Equifax Credit Ratings & Research's guidelines and weighted in order to assist in the credit assessment process.

For further details please contact your account executive, or refer to our website at https://www.equifax.com.au/business-enterprise/products/credit-ratings.

