



Rating Methodology for Banks

ICRA Indonesia's rating assesses the credit risk of a bank which is a function of the business and financial risk as well as the likelihood of external support available to the bank in case of any financial stress. The report discusses the key parameters that ICRA Indonesia uses for assessing the business and financial risk of a bank. ICRA Indonesia makes use of publicly available financial data as well as the bank's own statistical information for its credit evaluation. ICRA Indonesia makes appropriate adjustments to the financial data to ensure conformance with the generally accepted accounting principles. The ratings are determined on a "going concern" basis rather than on a mere assessment of the bank's financials as on a particular date.

This note is not an exhaustive discussion on all the aspects that go into rating of a bank, but outlines a broad framework that ICRA Indonesia uses during the rating process. The key factors considered in the rating process are as follows:

Business Risk

- Operating and regulatory environment
- Ownership structure and government support
- Governance structure
- Franchise
- Management, risk positioning, systems and strategy.

Financial Risk

- Asset quality
- Diversity of funding and liquidity
- Profitability
- Capital adequacy.

Operating Environment

The assessment of a bank's operating environment is one of the most important parameters for the credit risk evaluation of a bank, as it could affect growth, asset quality and its earnings. The operating environment of a bank is studied through an analysis of the prevailing economic conditions; growth prospects (GDP growth rate); the likely deposits and credit growth; structural constraints in the economy (such as a large fiscal deficit and the necessity of banks to follow minimum Reserve Requirement [RR] in Bank Indonesia [BI] as the central bank) as well as the impact of economic and regulatory environment on the credit risk profile. ICRA Indonesia also evaluates the likely policy changes to combat these challenges.

Additionally, political risks and the legal system of the country are also evaluated to assess the asset quality of banks as well as their ability to recover from delinquent accounts. An evaluation of the structure of the financial market; stages of development and intensity of competition forms an important part of the evaluation of a bank's operating environment.

Regulatory Environment

A well regulated and supervised system is the backbone for credibility and stability of banks even when the operating environment is unfavourable. ICRA Indonesia's evaluation of the regulatory system involves evaluation of norms related to capital and other countercyclical measures to absorb risk, prevent related party transaction; the extent of regulatory supervision and regulatory changes in the past in response to the macro environment; key norms (such as non-performing loan [NPL] recognition, provisioning, capital adequacy, liquidity, expansion and directed lending) and prospective regulatory changes (driven by financial sector reforms as well as international environment/leanings).

The degree to which the central bank is likely to allow new entrants in banking and to open the banking system to further disintermediation could increase competition from new banks and non-bank lenders. Further development of the capital market could allow potential and existing clientele to access capital markets directly, thus making product innovation an important criterion for future performance. As for the international environment, the global meltdown has triggered several regulatory changes for higher core capital and better liquidity under Basel III. ICRA Indonesia also evaluates the likely impact of these changes on the business plans and performance of banks.

Ownership Structure and Government Support

The Indonesian banking system consists of state owned (public sector) banks, foreign exchange commercial banks, non foreign exchange commercial banks, joint venture banks, regional development banks, foreign owned banks, sharia commercial banks, sharia business unit operations, and rural banks (Bank Perkreditan Rakyat - BPR). While ICRA Indonesia draws comfort from the sovereign ownership of public sector banks, the credit view on some of the private sector banks would depend on the ability of the bank to raise capital from promoters/other key shareholders, as and when required. ICRA Indonesia views positively a public sector bank with government shareholding well in excess of 51%, as it would have greater flexibility to raise capital by diluting government's shareholding.

Apart from ownership, the bank's importance in the domestic financial system has a bearing on the possibility of government support at times of financial duress. Apart from balance sheet size, proxies for a bank's systemic importance could include share of business in region of operation; participation in payment systems and scale of quasi-fiscal responsibilities (such as directed lending) carried out for the government. ICRA Indonesia focuses on the existence of explicit or implicit government guarantees to depositors against default or insolvency.

Governance Structure

ICRA Indonesia factors a bank's governance structure in the rating process by conducting an assessment of the structural and functional aspects of its Board and committees. ICRA Indonesia believes that an appropriate governance structure is important to ensure that banks operate independently, with the interest of deposit holders not being compromised for other stakeholders such as related party lending and lending to vulnerable sections. A good governance structure also ensures that the powers given to line managers at a bank are exercised in accordance with the established procedures and that these procedures conform to the broad policy guidelines and strategic objectives of the bank.

Franchise

The franchise strength of a bank determines its capacity to grow while maintaining reasonable risk adjusted returns and resilience of earnings. ICRA Indonesia evaluates the franchise strength of a bank in terms of scale of operations and market share for various activities at the national level or business niche; performance and strengths relative to competition; complexity of key segments and special government support or privileges relative to other banks. ICRA Indonesia also takes into account the brand recognition, history and background of banks under its franchise strength analysis.

Management, Risk Positioning, Systems and Strategy

ICRA Indonesia lays special emphasis on governance issues; quality of management; systems and policies; shareholder expectations; the strategy followed to manage these expectations and accounting quality, as these aspects form the foundation of a bank's credit risk profile. The importance of these factors is even higher for a new bank or one with a shorter track record. Usually, a detailed discussion is held with the bank's management to understand its business objectives, plans and strategies, views on past performance and outlook on the industry. ICRA Indonesia also assesses the shareholders' expectations and their impact on the credit profile of a bank. Some of the other points assessed are:

- Experience and commitment of the promoter/management to the line of business concerned
- Attitude of the management to risk taking and containment
- The bank's risk management policies (credit risk, market and operational risk)
- The ability and willingness of the promoters to support the bank through measures such as capital infusion, if required.

In addition, ICRA Indonesia also evaluates the quality, depth, timeliness and relevance of information available to the bank's management. Our analysis of system adequacy encompasses the quality of the communications network; levels of computerisation and integration within the bank; systems for accounting control; management information for monitoring performance; business development and statutory reporting. ICRA Indonesia lays considerable emphasis on the effectiveness of the bank's risk management systems and systems for strategic planning. For accounting control aspects such as accounting quality, balancing of books, inter-branch and inter-bank reconciliation, ICRA Indonesia draws on sources such as the long-form Audit Report and the BI Inspection Report apart from reviewing the bank's internal reports and controls.

Risk Management

A careful evaluation of the risk management policies of the bank is conducted, as it provides an important guidance for the future liquidity, profitability, asset quality and capitalisation of the bank concerned. The risk management of the bank is evaluated for the following:

- Credit risk: The risk of loss resulting from the failure of a client or counterparty to meet its contractual obligations; this risk could arise from the credit book as well as the investment book
- Market risk: the risk of loss resulting from changes in market variables, mostly emanating from investment portfolio, although credit book could also contribute to it

- Operational risk: the risk of loss resulting from inadequate or failed internal processes, people and systems, or from external causes.

The evaluation of a bank's risk management focuses on its ability to assess, control/mitigate and disclose the aforesaid risks. This is done by evaluation of norms and tolerance limits, roles and responsibilities, relative importance and independence of risk function as compared to operating lines and systems to implement the risk management framework.

Financial Performance

Financial performance analysis is one of the key parameters used to compare a bank's performance over a period of time and across its peer group. ICRA Indonesia conducts a detailed financial analysis of the banks being rated. The key parameters that ICRA Indonesia focuses on include:

- Asset quality
- Diversity of funding and liquidity
- Profitability
- Capital adequacy

Asset Quality

The asset quality of a bank is a reflection of its risk appetite; depth of its franchise and effectiveness of its management, strategy, systems and processes. Asset quality holds the potential to affect earnings (higher NPL could dilute the yields and necessitate higher credit provisions) and capital (lower earnings could slow down the internal capital generation or in extreme situations [loss] could weaken the capital). The asset quality evaluation includes the loan book as well as the non-RR portfolio of a bank. The key aspects of asset quality evaluation are discussed below:

- ICRA Indonesia assesses the quality of a bank's credit appraisal process and lending/investment norms; the riskiness of its loan mix; the availability of data to facilitate credit decision-making and its track record in managing its loan book through lifecycles. Further, the extent of diversification is also an important indicator of a bank's asset quality. In assessing diversification, the common factors include loan mix, portfolio granularity, geographical diversification and borrower profile. Segmental and regional NPL analysis is performed to gauge the extent of the bank's credit concentration to a single company, group, industry or region. High levels of diversification can shield a bank from the impact of downturn in any one segment. At the same time, diversification into riskier segments may not improve resilience and, therefore, may not translate into superior ratings. However, a bank's ability to manage diversification, especially in multiple businesses and/or new geographies is as important an issue as management depth and ability to adopt the skills and techniques needed to run different businesses.
- ICRA Indonesia also assesses the quality of credit administration as reflected in design and implementation of appraisal and loan pricing methodologies and adherence to periodic review.
- ICRA Indonesia assesses the risk of devolvement of obligations onto a bank from its underperforming subsidiaries. The devolvement may arise legally or due to the publicly perceived moral obligation of a parent to support a subsidiary organisation.
- ICRA Indonesia also studies the distribution of credit across various rating categories for corporate credit to judge the likelihood of future NPL generation.
- Asset classification: The advances are classified into standard and NPL. NPLs are further classified into substandard, doubtful and loss loans, depending on the time period for which a loan has been an NPL. ICRA Indonesia examines the provisioning requirements (according to the BI guidelines) versus provisions made by the bank as well as the expected quantum and time frame of recovery. The accent is on estimating prospects of recovery, or further deterioration, that eventually affects the bottom line and financial position of the bank. Key asset quality indicators for a bank are its Fresh NPL generation rate, Gross NPL percentage, Net NPL percentage and Net NPL in relation to its net worth.

Diversity of Funding and Liquidity

ICRA Indonesia conducts a study of the funding profile of the bank in terms of the sources and mix of funds as well as the cost of funds to the bank, along the following lines:

- Classification of deposits that is wholesale or retail: Certificate of Deposits (CDs) and bulk deposits from the corporate and institutional depositors are typically more volatile than retail and household deposits. In its rating process, ICRA Indonesia views positively a higher proportion of retail deposits in the total mix.
- Demographic classification of deposits that is a proportion of rural, urban and metropolitan deposits. Typically, rural deposits display lower fluctuation than urban and metropolitan deposits, thus reflecting the lower availability of investment options as compared to the options available in urban and metropolitan areas.
- Cost of funds: The cost of funds is determined by the mix of deposits (current, savings and time deposits), the tenure of deposits and the bank's market standing that influences its interest rate structure. Other factors include the bank's reliance on money market funding (from call money markets, CDs, refinance lines and the like), and the money market conditions prevalent and foreseen in future.
- Payment services: The near-monopoly in operating the payment systems provides banks a stable and low-cost base of settlement balances. ICRA Indonesia assesses the bank's ability to offer value-added payment services (often driven by technology), which will hold the key to a bank retaining the benefits from this natural service.

ICRA Indonesia attempts to capture the liquidity of a bank by analysing the following qualitative and quantitative parameters:

- Market perceptions of the bank: Perceptions affect a bank's ability to access funds during a crisis. An indicator of such perceptions could be relative cost of funds for a bank in the inter-bank market.
- The degree of the bank's reliance on volatile funds in relation to total assets: Some short-term funding sources are more sensitive than others to adverse developments. ICRA Indonesia views inter-bank funding by domestic banks and domestic deposits by non-bank depositors in descending order of confidence.
- Bank's liquidity position: ICRA Indonesia studies factors such as the overall match between the maturity profile of its assets and liabilities; the level of readily saleable securities and securities against which repo facilities are available.
- Committed lines of liquidity available that include revolving lines of credit and refinance facilities.
- ICRA Indonesia analyses the possibility of stakeholder support in case of a crisis. ICRA Indonesia places considerable emphasis on the implicit backing arising from the significant shareholding of a strong entity in the bank. This benefit naturally accrues to all nationalised banks, as the government has demonstrated its support over the years by infusion of equity or directed measures to bail out banks.

Profitability - Earning Stability and Prospects

A bank's ability to generate adequate returns is important from the perspective of its shareholders as well as debt holders. The purpose of ICRA Indonesia's evaluation here is to assess the level of future earnings and quality of earnings of the Bank concerned by analysing its interest spreads, fee income, operating expenses and credit costs.

The profitability of a bank is evaluated by analysing its interest spreads (yields minus cost of funds) and the likely trajectory of the same in the light of the changes in its operating environment, its liquidity position and its overall strategy. ICRA Indonesia also assesses the ability of the bank to complement its interest income with fee income. A large fee income allows greater diversification, which in turn can improve a bank's resilience of earnings and earning profile. The trading income of the bank is also evaluated to assess the sustained level of income/losses under an adverse interest rate scenario. After assessing the income stream, ICRA Indonesia evaluates the bank's operating

efficiency (operating expenses in relation to total assets and cost-to-income ratio) and compares the same with that of its peers. Finally, the credit costs are estimated on the basis of the bank's asset quality profile and the profitability indicators compared across peers. Importantly, a very high return on equity may not necessarily translate into a high credit rating, given that the underlying risk could be very high or leveraging could be excessive as well; and being so, it could be more volatile or difficult to predict.

Capital Adequacy

Capital provides the second level of protection to debt holders (earnings being the first) and, therefore, its quality and adequacy (in relation to the embedded credit, market, and operational risk) is an important consideration for ratings. In evaluating the bank's true capital in relation to the risks in its business, ICRA Indonesia focuses on the following aspects:

- Regulatory capital, risk-based approach and conformance with prescribed norms: As per BI guidelines, banks are required to achieve and maintain the ratio of total capital funds to risk weighted assets (both on and off balance sheet) at 8%. Regulatory adequacy apart, the adequacy of capital is also assessed from other standpoints such as present and prospective asset quality, risk rating of the portfolio, risk strategy or risk appetite of the bank and interest rate sensitivity of the balance sheet. With the implementation of Basel II in Indonesia, the gap between risk-based capital and regulatory capital is expected to be reduced.
- Quality of capital and ability to raise capital: A higher percentage of core Tier I capital is viewed more favourably, given its greater permanence, followed by hybrids and subordinated bonds. In addition to these, ICRA Indonesia evaluated the internal capital generation capacity of the bank and the leeway available to augment capital to support growth or withstand the stress.

Conclusion

The credit ratings assigned by ICRA Indonesia are a symbolic representation of its current opinion on the relative credit risk associated with the instruments rated. ICRA Indonesia arrives at this opinion by conducting a detailed evaluation of the bank's business and financial risks and using such an evaluation to project its future financial performance in various likely scenarios. While several parameters are used to assess the risk profile of a bank, the relative importance of each of these qualitative and quantitative parameters can vary across banks, depending on its potential to change the overall risk profile of the bank concerned.

Key Ratios used for Bank Analysis

Bank Profile

Total asset base	: Scale of operations
Net worth	: Net worth as reported by the bank
Net income	: Net income as reported by the bank
Age of the bank	: Number of years the bank has been in operation

Capital Adequacy

Net worth as a percentage of assets	: The period-end balances of equity and reserves as a percentage of the period-end balance of total assets
Capital formation rate	: Net income less cash dividends declared as a percentage of net worth at the beginning of the year

Resources

Deposit growth rate	: Increase in deposits as a percentage to previous period end balance
Composition of deposits	: Mix of deposits like term, savings and current
Demographic profile of deposits	: Mix of deposits according to branch classification

Asset Quality

NPL as a percentage of credit	: Total non-performing loans as a percentage of period end credit
Gross NPL generation rate	: Fresh non-performing loans added as a percentage of opening stock of performing loans
Net NPL generation rate	: Fresh non-performing loans less recoveries, upgrades and write-offs as a percentage of the opening stock of performing loans
Provisions as a percentage of NPL	: The period-end balance of the provision for credit losses as a percentage of total non-performing loans
Net NPL/tangible net worth	: Total non-performing loans less period end balance of provisions for NPLs as a percentage of net worth of the bank adjusted for revaluation reserves, accumulated losses and other deferred expenses
Gross NPL slippage ratio	: Increase in total doubtful and loss loans as a percentage of opening substandard assets
Loan growth	: The annualised change in period-end total loans as a percentage of the previous year-end balance

Profitability

Return on assets	: Income before extraordinary items as a percentage of the average assets
Return on net worth	: Income before extraordinary items as a percentage of the average balances of equity and reserves
Yield on earning assets	: Interest income as a percentage of average interest-earning assets
Cost of interest bearing liabilities	: Interest expense as a percentage of average interest-bearing liabilities
Gross interest spread	: Yield on earning assets less cost of interest-bearing liabilities
Net interest margins	: Interest income, less interest expense, as a percentage of average total assets
Non-interest revenue/ATA	: Year-to-date total of income from fees, commissions, gains or losses from foreign exchange trading and other non-interest income, as a percentage of average assets

Non-interest expense/ATA	: Year-to-date total of personnel, administrative, and other miscellaneous non-interest expenses, as a percentage of average assets
Operating profits/ATA	: Income net of interest expenses and operating expenses as a percentage of average total assets
Dividend payout	: Total dividends on equity share capital as a percentage of net profit
Liquidity	
Liquid assets/deposits	: Non-interest bearing and interest bearing deposits with bank plus other cash assets and marketable securities as a percentage of deposits
CDs to deposit	: Certificate of deposits as a percentage of deposits
CD ratio	: Credit as a percentage of deposits.

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* Adopted and modified from ICRA Ltd.'s Credit Rating Methodology for Banks.