



# Risk Rating Methodology for Banks and Financial Institutions

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**CHANGE LOG**

<b>Change Log</b>				
<b>No .</b>	<b>Section and Page Number Modified</b>	<b>Description of Change</b>	<b>Date of Modification</b>	<b>Version No.</b>
1	N/A	Not applicable, as this is the first version of the document	12/04/2017	1
2	Section 2, Scope, p. 4	The scope of the document was updated to take a more general approach	02/12/2026	2

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## **1. OBJECTIVE**

To describe the risk rating methods and criteria for banks and financial institutions used by PCR.

## **2. SCOPE**

This document describes Pacific Credit Rating's (PCR) methodology for rating banks and non-bank financial institutions, focusing on the entity's ability to meet all its obligations. This methodology applies to both international and domestic ratings, whether new or existing. It may also be applied in conjunction with other PCR methodologies depending on analytical needs.

## **3. BASIC RATING CONDITIONS**

PCR's rating approach employs analytical tools that incorporate multiple quantitative and qualitative factors. Our ratings reflect an assessment of the organization's current financial condition, as well as its expected future performance. PCR's quantitative analysis focuses on fundamentals, analyzing an institution's current and historical financial performance and using this as a basis for developing models and estimates that allow us to evaluate expected future financial performance and risk profile, both under normal operating conditions and in adverse situations.

Similarly, our analysis considers the operating environment (which includes economic and industry risks), market position, geographic and product diversification, management experience, as well as risk management policies and procedures to identify additional strengths and weaknesses that could affect the institution's financial performance. While the PCR methodology for rating banks and other financial institutions focuses primarily on evaluating a banking entity's ability to meet all of its general obligations (i.e., deposits and other liabilities) in the same manner, it is also used to rate specific debt issuances, as well as all types of financial entities such as: Non-Bank Financial Companies, Specialized Lenders, Holders of Financial Institutions, etc.

## **4. SPECIFIC CONDITIONS**

### **4.1 Rating Methodology**

While the following guidelines are primarily intended to provide an overview of the methodology PCR applies in analyzing banking institutions, we use this same methodology to rate various types of financial institutions, as the quantitative and qualitative criteria and factors are similar for their analysis. Examples of quantitative factors include asset quality, capitalization, and profitability, while examples of qualitative factors include the assessment of management or parent company support, if any.

PCR's opinions are based on a clear understanding of the fundamentals of the organization to be rated and the sector in which it operates. These methodologies are intentionally broad in scope, recognizing that assigning credit risk ratings is a dynamic process and that each entity possesses its own unique characteristics, and therefore assumes different levels of risk in accordance with its strategy.

The assessment of financial institutions' ratings can be divided into three fundamental elements: (1) the structure of the banking system, the operating environment, and the competitive landscape; (2) the regulatory and supervisory framework; (3) the business and financial foundations of individual banks. The weight of each element varies depending on the economic and market environment in which each institution operates, the degree of stability of the financial system at different times, and the relative importance of the bank under evaluation within the financial system. In general, factor

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(1) determines the upper limit of the bank's credit quality, and when the financial system is in a stable condition, factors (1) and (3) are the focus of the analysis. Essentially, factor (2) is assessed as an element that underpins solvency. However, when the entire financial system is unstable, greater weight must be assigned to these variables in measuring the credit quality of each individual institution.

Bank executives have been making efforts to expand their business lines and revenue streams through various strategies. One of the main trends is that, since some banks' ability to expand their scale is limited, they are increasingly interested in increasing transactions with existing customers (efforts to be used as a "primary bank" and to cross-sell products or services) and improving productivity through means such as business process reengineering (BPR). As they adopt these strategies, there is a clear trend toward their profit structures and risk profiles becoming more diverse than before.

Some key points in assessing the credit quality of banks and financial institutions are: (1) the health of the business portfolio, considering structural changes in the economy and risk profiles; (2) whether appropriate and adequate information management systems are in place to address areas of business expansion and market coverage growth; and (3) whether the bank is capable of ensuring a high level of profitability, comprehensively and accurately recognizing risks while maintaining adequate and conservative capital management.

A meticulous analysis of these details takes on special relevance in the case of acquisitions or mergers between financial institutions, which, while they may initially appear complementary and therefore attractive due to the new markets they can cover, may encounter unexpected elements and surprises that result in unforeseen costs for the surviving institution.

In the United States, during the recent financial crisis (2008–2009), a major bank with a traditional focus on commercial banking (Bank of America) acquired an institution primarily engaged in securities brokerage and investment banking (Merrill Lynch). Within a few months, the bank acknowledged that the losses resulting from these contingencies far exceeded even its most pessimistic estimates, severely affecting its reserves and capitalization levels.

For the purposes of this document, the term "financial institution" includes any institution whose business is related to banking, financial services, or any primarily financial activity. While the basic analytical approach for these financial institutions is generally the same, there are specific factors and differences for each subsector that require further detail. This report covers the broad universe of different products and markets within each sub-sector, specifying in each particular case the important factors and variables considered for the rating.

## 4.2 Analytical Procedures

PCR's analytical process focuses on the following areas:

- Economic Risk
- Industry Risk (including regulatory aspects)
- Value of the business base
- Management assessment—strategies and risk profile
- Corporate Governance
- Financial Information and Accounting Principles

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- Business Profitability Analysis
- Capital Adequacy
- Risk Management
  - Asset Quality and Credit Risk
  - Market Risk
  - Funding and Liquidity Risk
  - Operational Risk
  - Financial Performance and Financial Ratio Analysis

#### **4.2.1 Economic Risk**

Understanding the fundamentals of the environment in which the bank operates is of utmost importance and represents a key element in understanding the operations and future of each institution. History shows us that even the strongest bank in a country can face difficulties if the country in which it operates experiences a severe economic crisis or recession that negatively impacts the financial system. This is even more critical in emerging markets, where the political and economic environment tends to be more volatile.

The analysis begins with a general assessment of the environment in which the bank operates and the overall state of the country's economy and finances, as represented by sovereign debt; a higher rating and outlook for the country will indicate lower risk. PCR focuses on the strengths and weaknesses of the country's economic and political situation, always taking into account the effects this could have on the banking sector as a whole and on each individual rated institution. Basic economic indicators are reviewed, such as the size and composition of the economy, inflation rates, savings and investment levels, GDP growth, unemployment rates, exchange rate volatility, etc.

In general, banks have ties to nearly all sectors of the economy due to the very nature of their activities as they act as intermediaries providing liquidity and funding to various participants; therefore, they are more susceptible to being influenced by the macroeconomic environment than other industries. For example, if the outlook for economic growth is positive, banks will generally be more willing to extend credit to both individuals and businesses; however, if an economic contraction is expected, banks may become much more restrictive in granting loans. Likewise, it is important to understand the banking system's role as a financial intermediary, its participation in capital markets, and its provision of other related services.

The assessment of credit quality includes weighing the opportunities to generate profits against the risks to be assumed based on the economic actors operating in the market area where the bank operates. Banks operating in small areas are more susceptible to the influence of regional economic conditions. Therefore, the risks of regional concentration and geographic imbalance in its business portfolio must be taken into account as factors that limit the rating. On the other hand, geographic diversity in the business portfolio—for example, a broad market area—is a positive factor in the analysis, as the bank has a relatively greater capacity to cope with changes in the economic environment.

For example, a bank such as Banco Regional de Monterrey (Banregio), which has its operations concentrated primarily in the northeastern region of the country (in the states of Nuevo León, Tamaulipas, and Coahuila), would be considered to have greater risk exposure than a bank such as Banco Nacional de México (Banamex), which has a broad presence in all states and extensive

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geographic diversification in its operations. If a situation or event were to negatively affect the Northeast region, Banregio would be more severely impacted since its operations and results depend largely on this region, whereas for Banamex, the negative effect in this area would not be as pronounced because it operates nationwide and the results from this region constitute only a portion of its operations.

To a certain extent, one can also cite the case of Spain, where the current mortgage and financial crisis is proportionally affecting savings banks—which are generally institutions with a more local profile—more than banks with a global presence such as Banco Bilbao Vizcaya Argentaria (BBVA) and Banco Santander.

The size of the economy, its composition, and growth prospects are important factors when assessing the direct effects of the economy on the banking sector’s performance. For example, many Central American banks and financial institutions operate only in their home country, which limits their ability to adopt certain technologies that require a larger critical mass, thereby seriously restricting their development. This is particularly significant when considering the rate of monetary and credit growth relative to economic growth, as well as savings and investment trends in the economy. PCR also emphasizes understanding the potential structural problems facing the economy, which could lead to the need for restrictive policies that dampen economic growth (for example, high inflation). These factors determine interest rates and demand for credit, and significantly influence the bank’s operating environment and, consequently, its strategy, growth, liquidity, and profitability.

Additionally, the PCR methodology analyzes the fundamentals of other industrial sectors within the economy, focusing on the structure and financial capacity of the public and private sectors. In this process, sectors most likely to be affected by an adverse economic event are identified, as high exposure to these sectors is considered a high risk that could result in the deterioration of the bank’s asset quality.

Just as geographic diversification in terms of operations is considered beneficial, having a business portfolio with holdings across different industrial sectors is considered lower risk. A high concentration in any particular sector increases the institution’s exposure to any risks that may arise within that sector. For example, if a bank’s loan portfolio consists largely of companies in the automotive industry, the risk of the bank’s portfolio is largely tied to the fortunes of that industry. Should an adverse event occur, the negative effects on the bank’s portfolio could be significant. In some cases, particularly with regional institutions, there is a geographic concentration alongside an industry concentration, as certain regions are dependent on a specific industry.

A few years ago, a credit union in the state of Tamaulipas, headquartered in Ciudad Victoria, decided to focus its lending primarily on the citrus industry, arguing that it offered great potential and that if a borrower could not pay, it would be relatively easy to seize their orchard and sell it at an attractive price, given the high demand for such properties, thereby recovering liquidity relatively quickly. In the late 1990s, the industry cycle reversed; a bumper crop in Florida caused citrus prices to plummet, many borrowers were unable to meet their obligations, the orchards lost their appeal and much of their value, leading to the closure and bankruptcy of the credit union.

Finally, an economic risk sensitivity analysis will be conducted, considering significant changes in the country’s key macroeconomic variables. Using the country’s current situation as the baseline scenario; in the optimistic scenario, economic growth exceeds forecasts and key indicators improve; and in the pessimistic scenario, the country’s growth rate declines and key indicators—such as tax revenue, exports, and investments—deteriorate.

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#### 4.2.2 Industry Risk

To understand and incorporate the risks inherent in the banking industry into its analysis, PCR emphasizes analyzing the basic structure of the banking system (including its relative size, regulatory framework, number and size of participants, as well as its transparency). The aim is to gain a deep and comprehensive understanding of the industry's operating environment, which will enable the analyst to better identify the specific characteristics of each institution, as well as its strengths and weaknesses.

First, we consider the percentage of funds in the economy that flows through the banking system, as well as the relative depth of capital markets. It is of utmost importance to take into account the role of the domestic banking system within the country's economy and financial system. Therefore, the degree of banking intermediation and financial market sophistication is considered relevant; better indicators would suggest lower risk.

The competitive dynamics of the sector are analyzed, including all banking and non-banking financial institutions participating in the market, identifying the key players and the position of the bank under review. Market shares are analyzed both overall and, where available, by business segment, in order to provide a comprehensive overview of the market's structure. In this regard, if the bank has a solid market position or is one of the largest, it is considered lower risk. This factor is important not only because of the advantages of being a major player with a significant market position, but also because the possibility of government support comes into play should the bank face financial difficulties. In this regard, if the government considers the bank to be critically important to the financial system and the country's economy and believes it must not be allowed to fail (commonly known as "too big to fail"), it will likely receive government support to continue operating. Generally, this type of support is implicit, but in some cases where the government might have a stake in the bank, it could be provided explicitly, although this is less common.

Following the collapse of Lehman Brothers and the outbreak of the 2008–2009 financial crisis, the U.S. government provided various forms of support to selected institutions to prevent further financial collapse. Citigroup, Inc. and Bank of America, among others, received support.

Some additional elements that PCR examines include barriers to entry, consolidation trends, the number of banks and bank branches relative to the population, foreign ownership, price sensitivity, and the degree of market concentration and sophistication. Each of these variables has its own specific implications within the industry analysis; for example, the existence of barriers to entry means that the risk of new competitors entering the market is relatively low, so few changes in the competitive environment would be expected, thereby reducing industry risk. Another variable, such as the participation of foreign banks in the country, is a sign that there is a certain level of confidence in the financial system and its regulatory environment, since foreign banks generally seek to participate in markets with clear and fair regulations and a solid and efficient legal system, which is therefore considered a strong position for the industry. The number of banks and bank branches relative to the population gives us an idea of banking penetration in the market, and while low penetration is not considered a positive factor, it is not necessarily a negative one either, since low banking penetration indicates good growth potential that could be developed in the future. What we seek to understand, rather, are the industry's recent developments and trends, in order to determine its outlook; a positive outlook would reduce the industry's risk.

The PCR analysis pays particular attention to the regulatory environment in which the bank operates. In this regard, it examines the quality of the banking supervision framework. In addition to gaining a deep understanding of the legislation governing the industry, PCR studies the tools used by regulators

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to oversee the banking system, including the format and quality of banks' reports to regulatory authorities, as well as the frequency and quality of monitoring conducted by banking supervisory authorities. Likewise, accounting practices and disclosure and reporting requirements are taken into consideration, seeking clarity, transparency, and timeliness in the information disclosed. While PCR does not rate regulators, the fact that the banking industry is properly regulated is positive for the assessment of the rated banks and financial institutions.

PCR reviews matters such as the administrative measures in place to maintain soundness in normal times, as well as preventive measures to avoid an internal crisis. In the event of a crisis, what is the framework of executive actions to be taken to address it? While institutional and financial measures must be in place, these may not be sufficient on their own, making a thorough evaluation essential. This factor takes into account the actions taken in the past in response to adverse events, as well as the results achieved. Additionally, it considers any changes or modifications made to these processes.

The objective of potential public sector support for banks is not to protect individual banks, but to protect depositors and maintain the stability of the financial and payment systems so they continue to function in an orderly manner. Therefore, the impact of potential public sector support on credit quality varies from bank to bank, depending on the magnitude of the negative impact on the financial system that a potential failure of the bank in question would cause. As mentioned previously, if a bank is large enough to negatively affect the economy of a country or region, it will likely receive some form of support from the public sector.

Other factors PCR considers include (1) for large banking groups that have become international financial conglomerates covering broad market sectors and multiple lines of business, any cooperation and support structures they may have with the competent authorities of other countries are viewed positively, (2) whether, when operating as a financial intermediary, the scope of the support plan could include a structure extending to entities without a direct settlement function, including investment banks, brokerage firms, and insurance companies, and (3) trends in public and political opinion regarding bank bailouts.

#### **4.2.3 Value of the Business Base**

The potential value of each bank's business base determines the upper limit of its rating; a high potential value according to the indicators will raise the rating ceiling. Factors PCR considers when evaluating the potential value of a bank's business base include demographic development, wealth accumulation, the number of businesses, and the scale and diversity of economic activities in the market area where it operates. When the value of the business base is not sufficiently attractive, it is difficult to expect a high rating, even if the bank has good financial indicators. Likewise, even if the base has a high-potential business value, it is meaningless if the bank does not utilize and update this value. The updated value is the actual value of the business base, which determines the bank's credit quality rating, including its balance sheet structure and earnings potential.

#### **4.2.4 Management Assessment – Strategies and Risk Profile**

The evaluation of the management team and its corporate strategies is one of the most complex aspects of rating a financial institution, which is why it plays a fundamental role in the PCR analysis. The capability and strength of management are key factors in a company's success. An objective assessment of the quality and strength of management can be obtained by evaluating the following aspects: successes achieved in its core strategies; the rigor of its internal management policies, processes, and practices; management's actions in response to problematic situations; its appetite for growth, whether organic, through adding new segments, or via acquisitions; its ability to integrate

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acquisitions efficiently without disrupting business operations; and its track record in achieving positive financial results. Similarly, retention strategies and succession planning for senior-level positions are also critical considerations.

Since the rating assesses an institution's ability to meet its current and future financial obligations, it is vital to understand senior management's vision for the institution's future. This provides insight into where the institution is headed and how it intends to get there.

Identifying and understanding the capabilities, performance, and stance of senior management is essential to the rating process. PCR places importance on interviews with senior management to gain a deep understanding of their strategies and risk appetite. Direct discussion and consultation with senior management regarding management policies and strategies developed in response to changes in the environment, as well as the measures being taken to achieve their objectives, is very useful in determining the management team's approach. Typically, when initiating an assessment, interviews are conducted with senior management to gain insight into management policies and other key issues.

The meeting with management is used to understand the financial and management philosophy, risk management culture, medium- and long-term strategic plans, as well as measures adopted to address challenges or problematic issues. Likewise, during the meeting, additional information (growth plans and potential new business opportunities, investment plans, projected financial statements, and other materials) is reviewed and compared with management's descriptions to determine how feasible it is for the company to meet its plans and objectives. The existence of policies, manuals, and plans that are in place will be verified; if they are in place, this will be considered a positive factor.

Some specific points on which the management analysis focuses are as follows:

### **1) Strategic vision**

The institution's investment criteria, perceived risks and opportunities in its businesses, growth potential, desired mix of revenue and profit generation by region and by business, as well as its philosophy, are evaluated. Additionally, the level of independence of the bank's management, the influence of shareholders or the government on its strategic decisions, and the quality of the planning process are considered. We analyze management's acquisition strategy, which is a unique and important variable that helps reveal management's risk profile. While it is true that all acquisitions carry risks, if they are well-executed, make strategic sense, and are properly valued, they can serve to mitigate some of the company's long-term risks. Growth and acquisition strategies can give us a good idea of management's risk profile. We have cases of institutions like Banregio, where virtually all of its development has been through organic growth. When entering new regions or product lines, they typically do so on their own; their progress is relatively slower, but the potential for losses is limited. Other institutions, notably global banks such as BBVA, HSBC, Santander, etc., typically enter new countries or regions through acquisitions. What is interesting here is to assess the size of these acquisitions and the conditions under which they took place. Actinver is also a good example of a relatively recently established local financial group that, through acquisitions of complementary business lines, has been developing successfully to date. In practice, if we have two institutions with relatively equal financial positions at a given point in time, and in one of them the management has an aggressive risk profile, while the management of the other company prefers to take more measured

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and moderate risks, the rating analysis will consider it a negative factor that one institution's strategies may expose it to greater risks, and thus a distinction is made between the more aggressive and the more conservative. Similarly, through discussions with senior management, we seek to understand the strategic direction the company plans to take moving forward. For example, if a bank has three business lines, it is important to know whether it plans to maintain the current mix of revenue and profits, or whether it intends to focus on developing and growing a specific product line or business segment, as it sees greater potential there. Whether it plans to remain in the same territories or expand into new markets.

## **2) Capitalization Strategy**

The objective is to understand management's philosophy regarding its financing strategy, including factors such as the desired capital structure, what levels of leverage they consider appropriate, preference for on- or off-balance-sheet debt, use of hybrid capital instruments, relationship and proximity to the market and the various available funding sources, desired mix of funding sources (deposits vs. other types of debt), preferences for funding acquisitions (debt or equity), etc. PCR evaluates financial policies regarding their aggressiveness/conservatism, sophistication, and consistency with management's objectives. We place great importance on management philosophies and policies regarding financial risk, such as financing terms, currency types, use of derivative instruments, etc. Accounting practices, levels of capital investment, debt tolerance, and merger, acquisition, and divestiture activities are considered part of the management's financial policies. Potential support from strategic partners is also taken into account.

## **3) Track Record**

At this stage, PCR analyzes the management's past performance in key or challenging situations, as well as its performance across different phases of economic cycles. It also assesses whether previously discussed projections and plans have been met. A management team that consistently meets its financial and operational objectives, as well as its strategic plans, builds greater credibility when analyzing the likelihood of achieving its goals and objectives.

For example, if an institution's financial results show a deterioration in a particular year caused by a widespread adverse macroeconomic situation in the country, a downward adjustment to its rating would typically be sought. However, if, upon discussion with management, they provide a detailed description of their strategy to improve the bank's financial situation—including the measures and steps to be taken to achieve this—the rating may not necessarily be adjusted. In this case, the first step is to assess how feasible it is for these plans to be successfully executed given the current environment. Subsequently, the likelihood that management will fulfill the discussed plans is determined. As part of the evaluation of this factor, management's track record regarding meeting its projections and plans is examined. If management has previously met established plans and projections, it will have greater credibility, and it will be considered more likely that it can meet its objectives. However, if management has previously failed to achieve its goals, the projections and plans presented by the company will not be considered as relevant in the rating analysis, as there is no certainty that management will meet them.

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It is important to observe the company's performance in the face of adverse situations such as economic crises or problematic events to assess whether management was able to adapt and adjust its operations to mitigate the negative effects of such adverse events. When facing these types of events, we gain insight into management's responsiveness to changes in the operating environment. If, in past situations, management has been able to successfully adapt to fundamental negative changes in its sector, this likely means that if a similar situation arises in the future, it will be able to adapt its operations and adjust to the new environment.

Similarly, other factors are analyzed, such as the control systems in place, succession planning and employee retention, and the relationship—if applicable—between the subsidiary and the parent company, etc.

Additionally, the company's ownership structure is analyzed, identifying the company's major shareholders and the group or individuals that maintain control. This is important because it allows us to see whether the shareholders are involved in other businesses or industries, the relationship they may have with the company, and the shareholders' track record in this and other businesses. The track record of the shareholders is considered an important factor; for example, if at any time this company or any of its other companies has experienced a financial default or taken actions detrimental to creditors or minority shareholders, this would be considered a negative factor for the rating, as it implies greater risk. If deemed sufficiently significant, it would be reflected in a lower rating. Having shareholders with an outstanding track record, a conservative profile, and a history of consistently fulfilling their obligations is a positive factor for the rating.

Similarly, if the institution is owned by or is a subsidiary of a foreign bank or financial institution, the support and support structures between the subsidiary and the parent company are considered, as well as its relative importance within the group; the existence of such support is viewed positively for the rating. For example, in the case of the Mexican subsidiaries of global banks such as Citigroup, BBVA, or Santander, where Mexican operations represent a significant portion of their operations and profits, it is likely that these subsidiaries will receive support from the parent company if needed. Conversely, however, if the subsidiary does not represent a significant portion of operations and is not considered strategically important to the bank, it may not receive support in difficult circumstances. Such was the case with Scotiabank's subsidiary in Argentina, which, when the crisis struck that country, decided to close its operations and leave the country in 2002 rather than support it with additional resources.

In general, the market areas where many banks operate stem from their history and background, so business portfolios and risk profiles do not vary significantly depending on management. However, large banks and some regional banks are actively expanding their business lines and market areas in response to market dynamics, driven by decisions from senior management. Consequently, their business portfolios and risk profiles undergo changes during these processes.

During the rating analysis, PCR places great importance on interviews with the bank's senior management to gain a deep understanding of its strategies and risk appetite. Another important point to examine is whether there is an adequate information management system in place to support management in making timely decisions to address the bank's market expansion and business lines.

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#### **4.2.5 Corporate Governance**

A review of a financial institution's corporate governance structure involves analyzing internal regulations, disclosure policies, and the relationships among governing bodies (Audit, Corporate Governance, and Finance Committees), including the Board of Directors, the General Shareholders' Meeting, and management meetings. The quality and timeliness of disclosed information are also evaluated, along with the procedures governing its preparation and the firm's relationship with its financial resource providers. PCR's analysis focuses on evaluating the functionality and composition of the Board of Directors and governing bodies. The structure of controls established to ensure that policies and procedures are appropriate. The presence of independent directors and the degree of their independence. The compensation and incentives for management and senior executives, as well as policies regarding transactions with related parties. In addition, the integrity of accounting and auditing is examined, including the degree of disclosure of financial and non-financial information (including the aggressiveness of accounting practices and potential control weaknesses). The share ownership structure (including that of directors) and shareholder rights are reviewed.

When adequate or strong corporate governance is in place, it typically has little or no impact on the issuer's credit ratings. A sound corporate governance structure is generally not considered a credit strength in itself, but rather is viewed as an indispensable element for the institution's healthy long-term development. However, if any deficiencies are observed that could potentially diminish the protection of bondholders or any holders of debt securities, this may have a negative impact on the assigned rating. In summary, a solid corporate governance structure will not positively affect the rating, as this is expected of a well-managed company; however, if weaknesses are found in its corporate governance, they could have a negative impact on the rating.

#### **4.2.6 Financial Information and Accounting Principles**

At the outset of this section, PCR considers the composition and quality of the accounting. Since the rating process explicitly excludes any form of audit, the quality of financial information is assessed by examining accounting policies, such as: consistency in criteria, consolidation principles, valuation policies, transactions involving derivatives or structured instruments, the treatment of goodwill and off-balance-sheet items, depreciation methods, revenue recognition, and reserve policies, provisions for potential losses, pension provisions, changes in the group's structure, etc.

For financial analysis, audited financial statements prepared in accordance with accounting principles authorized by the CNBV and generally accepted in each country for this type of institution are generally used. PCR Costa Rica considers it ideal for financial statements to be audited by an independent and reputable accounting firm. Additionally, our analysts use the data provided by the rated institution, as well as any other publicly available information that complements the analysis, provided that the source is reliable, the information is of high quality, and the level of disclosure is sufficient. Since financial information forms the basis of credit analysis, if there are reasonable doubts regarding the accuracy or quality of the information, the rating process is suspended. If a current rating exists and the information required to conduct an adequate and formal follow-up on the rating is not obtained, the rating may be withdrawn due to lack of information.

#### **4.2.7 Analysis of Business Profits**

An institution's ability to generate profits is a key factor in its long-term success or failure. Profits, in accounting terms, are the first area to absorb a loss when it is recognized; therefore, they will typically remain the primary source of capital for the bank's future growth. For this reason, profits are considered a factor of similar importance to capital adequacy in the credit assessment. Similarly,

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the PCR analysis takes into account profit volatility and seeks to incorporate profit performance relative to the balance sheet and other risks present.

Since the primary source of revenue generally comes from the portfolio, the assessment of potential earnings begins with an understanding of the characteristics of the bank's business portfolio and its risk profile. It is important to have a detailed understanding of these factors, as they form the fundamental basis of the business and will be decisive in generating future earnings. Furthermore, studying them helps us determine whether the business's current position aligns with the business strategy outlined by management. For example, if a bank is more focused on personal and consumer banking, we can get a good idea of the overall risk profile of its business portfolio based on the policies and systems in place. Next, the bank's credit evaluation process is examined to determine how sophisticated, selective, and consistent the institution is in its operations.

Likewise, it is important to determine whether the bank offers competitive services and whether it is capable of generating stable returns commensurate with the risks involved. To be more specific, the levels, stability, and trends of earnings after financial costs and their profitability are evaluated in each of the main business lines, divisions, and regions. We typically examine the institution's historical trends and performance in generating profits, the stability and quality of those profits, as well as its ability to generate them. Additionally, we evaluate projected profits using budgets and estimates provided by the institution, making adjustments based on our own estimates where deemed prudent.

Other points to review include the composition of revenues, their degree of diversification, fluctuations, and efforts to improve productivity; including actions aimed at improving the cost structure and increasing efficiency in its commercial operations.

The degree of diversification in revenue and profit generation is a fundamental component for PCR in the process of rating a financial institution. This includes an analysis of revenue and profit generation by business line or product, with the aim of determining whether there is any significant concentration in a particular line or whether there is a more balanced mix. Normally, greater diversification implies more dispersed risk and is considered positive, although this is not always the case. Let's take an example of a bank that has historically focused on commercial banking, specializing in consumer credit and loans to individuals, but which, in its quest for growth, expands and begins to explore new business lines. The bank's specialty—where it possesses the knowledge, competitive advantages, and best returns on capital—lies in its traditional business. However, in seeking growth, it allocates funds to new business lines without achieving the expected returns and may even incur losses, given its limited experience. In such cases, diversification would not yield the desired benefits and could become a negative factor for the bank's rating.

Likewise, PCR considers the ability to generate profits to be an important indicator reflecting an institution's level of competitiveness and its resilience to adverse economic conditions. Maintaining adequate profit margins and a solid profit level will lead to stability in cash flow generation. While a high capacity to generate revenue is important, the stability of that revenue is particularly crucial.

Some key elements and indicators that PCR considers in its analysis of Business Profitability are as follows:

- Risk profile, asset composition, and asset and liability structure;
- Profit composition, dispersion, and diversification; profit fluctuations;

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- Earnings generated by core operations before depreciation, excluding temporary factors (profit level and margin);
- Ratio of interest income to non-interest income, stability of non-interest income;
- Expenses/net income from regular operations;
- Net interest margin after credit costs;
- Profit after credit costs (profit level and margin);
- ROE (return on equity) for each business line, division, and region.

#### 4.2.8 Capital Adequacy

The analysis conducted by PCR in this area focuses on capital and the bank's ability to build a solid capital base through retained earnings. The level of capital relative to the risk of the loan portfolio is a fundamental factor in determining credit risk, not only because a higher proportion of capital allows for the absorption of greater losses on assets, but also because it enables institutions to be more flexible and take advantage of attractive opportunities when they arise. When capital levels are low, the institution's room for maneuver is much more restricted.

When analyzing a bank's capital adequacy (defined as the amount of capital relative to existing risks), PCR does not limit itself to examining only the bank's capital level or regulatory capital ratio requirements; rather, it also conducts an assessment from the perspective of economic capital, comparing it to the various risks the bank faces, as described below, and taking into account the results of different stress scenarios applied.

The quality of common equity is also a key aspect of the assessment. The components and quality of capital are examined to determine the extent to which it possesses characteristics attributable to common equity, including: (1) having no maturity or repayment obligation, (2) having no obligation to pay dividends, and (3) in the event of insolvency, being subordinate to creditors. For example, a bank's capital structure may include different levels such as pure common equity, preferred equity, convertible debt, subordinated debt, minority interest, etc. Capital components that lack sufficient characteristics to be classified as pure common equity are considered closer to debt and are therefore fully or partially deducted from common equity. Furthermore, the greater the loss-absorption capacity of a capital component, the closer it is considered to be to equity.

The capital adequacy assessment criteria established by regulatory and supervisory authorities are not necessarily identical to those adopted by PCR. However, compliance with capital adequacy standards is a fundamental prerequisite for all banks wishing to continue operating in the future, so such regulations will have a significant influence on management's behavior and strategy. Therefore, from this perspective, PCR places great importance on the bank's ability to consistently maintain its capital adequacy ratio above a certain level in terms of assessing its credit quality.

No realistic level of capital can prevent the collapse of a poorly managed institution. However, a solid capital base provides management with the financial means to make prudent decisions regarding the diversification of funding sources, provisions for losses, dividend policies, the establishment of reserves, and shareholder contributions, among other matters. Assuming an institution has a strong standing in the other rating variables or factors and capital represents a significant element within the rating, strong capitalization will typically result in a good rating, and conversely, weak capitalization will lead to a lower rating. However, if an institution has a strong capitalization position but is exposed to weaknesses in other areas—such as expected losses resulting from low asset quality

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or poor performance of the asset portfolio—the strong capital position may not be sufficient to maintain a high rating.

In its capital analysis, PCR uses indicators based on the concepts of core capital and eligible capital. Core capital is defined as shareholders' equity—which includes loss-absorbing minority interest—minus any instruments not classified as pure capital that are included in this figure. Typically, reported capital consists of common and ordinary shares, retained earnings to date, capital premiums, reserves, and minority interest with loss-absorbing capacity, from which goodwill, deferred taxes, and deductions for revaluation reserves are subtracted. Eligible capital is calculated by taking core capital and adding capital instruments not considered core capital but deemed to have sufficient characteristics to qualify as capital, such as preferred shares or convertible debt.

Some key elements and indicators that PCR considers in its Capital Adequacy analysis are as follows:

Common equity management policies;

Composition of common equity and capital characteristics that comply with regulatory requirements;

- Expected capital accumulation based on internal reserves;
- Policies regarding returns to investors;
- Ability to increase common equity;
- Tier-1 Capital Ratio – Calculated by dividing Tier-1 capital by total risk-weighted assets. This indicator allows us to assess the Tier-1 capital's ability to absorb losses arising from total risk-weighted assets. A strong capital ratio provides the institution with greater sustainability and allows for greater flexibility to pursue new attractive growth opportunities. A weak indicator means a balance sheet that is less prepared for expansion and more exposed to adverse economic and financial events;
- Total Capitalization Ratio – Similar to the core capitalization ratio but including total capital in the calculation;
- Eligible Capitalization Ratio – Similar to the core capitalization ratio but including eligible capital considered under PCR criteria;
- Reported Capital to Total Assets;
- Reported Capital to Net Loans;
- Dividends Paid to Net Income.
- Equity Commitment. Determines what percentage of non-redeemable equity covers losses not protected by accounting estimates. (Normal: when the indicator result is < 0%; Level 1: when it is < 10% but > 0%; Level 2: when it is < 20% but > 10%; Level 3: when it is > 20%.)
- Capital Adequacy - Minimum Capital Requirement, according to SUGEF Agreement 3-06 (The level of capital that allows the bank to address risks arising from its operations: Normal, when the indicator result is  $\geq 10\%$ ; Grade 1, when the result is < 9% but > 10%; Grade 2, when the result is < 8% but > 9%; Grade 3, when the result is < 8%.)

#### **4.2.9 Risk Management**

As financial intermediaries, taking on risk is one of the inherent functions of banks and financial institutions; therefore, having robust risk management is considered an essential characteristic for

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them. A fundamental element of the rating process is the assessment of the nature and scope of the risks a bank faces and how well it manages and controls these risks. At this stage of the analysis, PCR assesses the bank's risk exposures and its processes for managing the various types of risk it faces. Credit risk has typically received the most attention, but given the events of the recent financial crisis, other risks such as market risk, operational risk, and liquidity risk have gained greater prominence.

Banks primarily cover their expected losses with loan loss reserves and interest margins, while unexpected losses are generally covered by capital. Assessments of market risk and other types of risk faced by the bank, along with risk management, form the core of the credit quality analysis. Previously, the risk management approach was prescribed by the authorities. However, under the Basel framework (new capital adequacy regulations established by the Basel Committee on Banking Supervision), the emphasis is on risk management under the bank's own responsibility, while the authorities and the market oversee the review of the risk management system and management processes.

When evaluating this point, PCR first reviews how the bank itself measures, recognizes, and allocates economic capital, ensuring it has the necessary reports, policies, and committees in place. During this process, PCR examines whether the bank is capable of identifying risks accurately and comprehensively. It is important for the bank to constantly monitor business risks that could have a significant impact on its operations, using the insights gained through its commercial activities, and establishing the necessary measures in advance when a risk looms. To fulfill this purpose, a robust administrative and systems infrastructure is required. PCR determines whether the bank has the correct and adequate systems in place to address the expansion of its business lines and market coverage. Likewise, the position of Chief Risk Officer (CRO) and risk manager within the bank, along with their opinions, are important factors to consider. These points are particularly important for the evaluation of banking groups that have evolved into financial conglomerates spanning diverse business lines and broad market sectors.

Based on the results of this analysis, PCR assesses the bank's risk tolerance capacity (capital adequacy in terms of economic capital), taking into account factors such as stress test results. Essentially, the criteria for each rating zone—established based on the cumulative default rate—are used as the standard for the assessment. Furthermore, if it is determined that the bank has a high capacity to continue adequately managing its risk profiles in the future through the establishment, structure, and operation of its economic capital management, this will contribute positively to the assessment of its credit quality.

In addition, the bank's track record in risk management across different economic cycles and its ability to maintain a solid credit profile over the medium and long term are taken into account. In this regard, it is important to assess the comprehensiveness and robustness of the bank's policies and procedures, as well as the experience and strength of its management team, in order to evaluate its overall risk appetite and approach to risk management.

This is done first by taking a broad view of the systems and policies implemented to manage risks. The analysis then focuses on the main risk areas or categories: Credit, Market, and Operational. The analysis process also includes a review of Liquidity Risk and Funding Risk. In the following sections, we will address each of these categories.

Given the nature of banks, all these risks are interrelated. It is likely that any deficiency in a particular area will spill over into other areas. The current crisis has reaffirmed this concern regarding the interdependence of an institution's risks. For example, if a bank encounters problems managing its

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credit risk, depositors may become concerned about the bank's viability, leading to a run on the bank and triggering a liquidity crisis.

Some elements that PCR considers in its overall analysis of risk management include the risk management and capital allocation framework, the degree of sophistication and effectiveness of risk management information systems, and the position of the CRO and risk manager within the bank and their views.

Within the overall risk management framework, PCR analyzes a wide range of factors, the most important of which are discussed in detail below:

### **1) Credit Risk and Asset Quality**

PCR's approach to credit risk analysis considers risks arising from on-balance-sheet activities, such as loans or interbank activities, as well as those arising from off-balance-sheet activities. Special attention is paid to examining the institutional design of the credit risk management operation and whether it functions effectively.

The primary source of variability in a financial institution's solvency is the quality and composition of its assets. PCR carefully assesses asset quality based on the characteristics of the loan portfolio, historical patterns of bad debt costs and past-due or non-performing loans, as well as appropriate reviews of the creditworthiness of the largest borrowers. A key element of the analysis is the assessment of the institution's credit portfolio's potential performance under adverse economic conditions, such as a high-interest-rate environment or an economic recession. It is to be expected that in such challenging situations, the institution's loan portfolio will be negatively affected; however, the extent of the deterioration in asset quality will depend primarily on the institution's approach to and attitude toward risk, including its lending policies and internal controls. For example, suppose we have two banks: one with strict policies and requirements regarding the granting of mortgage loans, and another that, in response to the growth of the mortgage market, adopted more liberal credit policies. An economic crisis strikes, and in this situation, both loan portfolios will be negatively affected; however, the degree of deterioration will likely be greater at the bank that was more aggressive and less strict in its lending policies.

Given this, one of the fundamental aspects of PCR's credit risk analysis is reviewing the institution's balance sheet structure, especially when dealing with banks. Generally, loans constitute the most significant portion of a bank's assets, so a comprehensive review of these is necessary. The analysis process includes requesting a breakdown of loans by loan type, size, currency, maturity, geographic location, economic sector, and industry. In this regard, the loan portfolio is analyzed to determine whether there is any significant concentration of credit risk in a particular borrower, as well as in a specific region or industry, and to assess the measures in place to mitigate concentration risk.

Excessive credit risk concentration in a region or industry could have a negative impact on asset quality. For example, a bank in the United States that was concentrated in the construction sector in the Florida region would have suffered greatly from the recent 2008 crisis, as we are talking about one of the sectors and one of the regions that were most affected by this crisis. PCR considers it positive for an institution to have good diversification across different industrial sectors and geographic regions, as this allows the financial institution to weather periods of crisis without significantly damaging its

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asset quality. Financial institution analysts may consult with their counterparts in other departments to resolve questions and concerns regarding a specific sector or company and gain a better understanding of its environment and situation.

Likewise, the goal is to identify whether there is any significant concentration in individual borrowers, in order to determine the risks associated with the institution's most significant concentrations. Occasionally, an institution may have a significant portion of its loan portfolio concentrated in one or several large individual borrowers. In these cases, a high degree of concentration risk is considered to exist, since if one or more of these borrowers were to face financial problems, it would jeopardize the quality of the portfolio. Generally, such concentrations are more common in small or regional institutions or those specializing in certain sectors, and are therefore typically considered higher risk.

Similarly, the analysis of the loan portfolio takes into account its growth and development to determine whether there are any new risks or factors that could represent significant exposure in the future. If there is an area or sector experiencing growth that exceeds that of the market in which it operates, further information is sought regarding the reasons for the growth, the strategy, and future expectations in that particular area. Similarly, if there is an expansion of lending into new sectors, regions, or to new customers, greater attention must be paid to the matter, and more detailed information must be obtained. Rapid growth in business lines or in new geographic regions represents greater exposures, as the institution may lack sufficient experience to operate in some of these new sectors.

On the qualitative side, the criteria for assigning internal ratings, self-assessments, policies regarding portfolio write-offs and recovery, the establishment of reserves, types of reserves, and the institution's general policies regarding the constitution of reserves and collateral quality assessments are examined. Subsequently, credit costs are calculated based on the expected evolution of the economy and asset prices. Regarding past-due or non-performing loans, PCR requires that they be analyzed in greater detail, taking into account the quality of the collateral held and the adequacy of the loan loss reserves, as well as historical performance and credit losses.

In addition to their loan exposures, financial institutions have credit risk exposures through various channels, such as fixed-income and equity investment portfolios, interbank exposures, and other off-balance-sheet obligations. The PCR analysis assesses how exposed the institution is to these types of risks and how well they are managed and understood. The process includes a review of the quality of investment portfolios, in terms of the quality of the instruments, their liquidity, time horizons, concentrations, and valuation methods. Interbank exposures are also analyzed, representing the institution's exposure to other financial institutions through loans and deposits. Here, the size of the exposure, maturity dates, credit quality of counterparties, exposure limits, and concentrations are considered.

The analysis of off-balance-sheet obligations is a key component of the rating process. Here, the various types of obligations that may exist are evaluated, such as guarantees and letters of credit, derivatives, and securitized assets held in special purpose vehicles (SPVs).

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Some key elements and indicators that PCR considers in its analysis of Asset Quality and Credit Risk are as follows:

- Characteristics of the loan portfolio;
- How adequate and conservative the internal rating and self-assessment systems are;
- How adequate and conservative the portfolio write-off and reserve policies are;
- How adequate and conservative the accounts receivable management and retention policies are;
- Concentration risk (by region, industry, economic sector, or specific group);
- Policies for negotiating with large problem debtors;
- Reserves Created Relative to Average Loans;
- Reserves created against pre-tax income and reserves;
- Preventive reserves for total receivables;
- Preventive reserves for past-due loans;
- Non-performing loans as a percentage of total loans;
- Net Past Due Portfolio to Capital;
- Write-offs to Average Total Loans

## 2) Market and Liquidity Risk

Market risk in financial institutions has generally been associated with their trading activities, but it is important to note that there are also significant elements of market risk in other banking activities, such as loans and investment portfolios. While it is true that most financial institutions are exposed to market risks, the degree and significance of this exposure vary significantly depending on the institution and the different businesses in which it participates. Some of these risks include exposure to interest rates, exchange rates, and counterparty risk, among others.

PCR's market risk analysis covers the institution's structural (such as interest rate risk management) and trading exposures and begins by understanding the institution's risk profile by examining the characteristics of the structure and management of its assets and liabilities; for example, among the various types of market risk, which types of risk are balanced. Following this, through discussions with senior management and the risk management team, PCR determines whether the revenue targets set for the division are reasonable and whether the established risk tolerance, risk limits, and loss limits are reasonable in comparison to the bank's equity capital and risk management capacity. Similarly, the systems and tools implemented for the assessment and monitoring of market risk are reviewed.

Institutions with higher market risk generally have large trading portfolios that entail additional risks. In these cases, PCR conducts a more detailed analysis of market risk. This involves evaluating the institution's trading strategy; its positions, including a breakdown of the trading portfolio by type and product; revenue broken down by

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market; the mix of trading activities between proprietary positions and those conducted on behalf of clients; and the contribution of trading activities to the institution's profits and overall profitability.

With the growing importance of market risk in financial institutions, various metrics have been developed to measure this risk. PCR takes into account market risk measurement tools such as Value at Risk (VaR) in its analysis, recognizing that these have their limitations. VaR is one of the measures commonly used by institutions; it measures the potential loss of value that the institution may experience due to its trading positions resulting from adverse market movements over a defined time horizon at a specified confidence level. PCR considers VaR to be a useful tool that has its limitations. It is based on parametric models that rely heavily on past price movements, price distributions, and correlations between products, markets, etc., to project what may happen to the prices and values of positions in the future. Since each model can be adjusted to desired parameters, depending on expectations and perceptions of future conditions, VaR figures are not directly comparable across different institutions. It is generally used to assess the historical trend in an institution's VaR and to observe how it might behave in the future. Tail events are not typically well predicted using models such as VaR.

Some key elements and indicators that PCR considers in its analysis of Market Risk are as follows:

- Asset and liability structure and management;
- Asset and liability management policies;
- Market VaR, stress tests, and sensitivity analysis, which will be compared to the Bank's equity; in an adverse scenario, the expected loss will exceed 10% of the value, and in an optimistic scenario, the expected loss will be 1% of the value;
- The adequacy of the rules and management of position limits, risk limits, and loss limits;
- Existence of market liquidity risk, position limits, and market valuation process;

### **3) Funding and liquidity risk**

The assessment of funding and liquidity risk is one of the fundamental elements in the PCR's financial institution rating process. A lack of liquidity can become a determining factor in a bank or financial institution's failure to meet its financial obligations. The PCR analysis seeks to understand how well-prepared the institution is to meet all its liquidity requirements. It takes into account both the bank's financial position and its processes for managing its liquidity position. It is important for an institution to be well-prepared and able to meet all its obligations both in normal times and during difficult situations. The recent 2008 crisis highlighted the importance of liquidity for a financial institution and has made it necessary to place greater emphasis on evaluating their funding and liquidity management, including ensuring that the institution's funding is well-aligned with the composition of its assets.

The analysis of liquidity risk begins with a review of the balance sheet, focusing on the institution's asset and liability structure. The analysis focuses on the institution's funding

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mix and how it aligns funding with its asset mix and liquidity needs. Essentially, the goal is for the bank's assets to be aligned with its funding sources, with no significant gaps between them that could pose a risk. For example, it is considered positive for a bank to fund its long-term assets or those considered illiquid with funding sources that are generally stable (such as deposits or long-term debt) rather than with sources that are more variable and considered unstable (such as commercial paper or interbank credit lines). This is primarily because if there are frequent maturities on some of these funding instruments and an unexpected negative event occurs, these sources may no longer be available for renewal or rollover, and the bank would have to resort to alternative sources that will likely have more costly and restrictive terms. Liquidity risk increases as a larger portion of assets considered "illiquid" is funded with more unstable and environment-sensitive funding sources (funding through capital markets or interbank markets).

Similarly, PCR analyzes the institution's liquidity sources, both internal (easily realizable financial instruments and maturing loans) and external funding sources (available interbank financing lines, access to capital markets, etc.). These are compared with the institution's short-term obligations to determine how well-covered and prepared it is to meet these obligations should they need to be settled. PCR assesses the actual liquidity of the instruments in portfolios classified as "liquid assets" and determines whether these could be liquidated in the event of a crisis.

Likewise, PCR takes into account the structure and diversification of the funding base. It is important to assess whether there are significant concentrations of funding in certain years or periods to determine if there is any potential liquidity risk that could arise. Special attention should be paid to whether the institution has a high proportion of short-term debt maturities, and if so, to determine whether these are aligned with the assets on the balance sheet and how these maturities will be settled. A financial institution with a high percentage of short-term debt is more exposed to liquidity risk, especially if there are concentrations of maturities in specific periods. In general, a staggered maturity profile is considered more favorable, as it is easier to renew or refinance when maturity amounts are small rather than when they are large.

Likewise, it is preferable for an institution to have diverse funding sources and to avoid significant concentrations that result in high dependence on certain markets or institutions. For example, an institution that funds 80% of its needs in the capital markets with debt and the remainder through other diverse sources faces greater funding risk than one that funds 20% in the capital markets, 30% through interbank financing with various banks, and 50% through deposits. If capital markets are unavailable at maturity, an institution with funding concentrated in these markets will face greater difficulty in refinancing its maturities, as the amount to be refinanced is higher and it has fewer options available to obtain the necessary funds. PCR views it as positive for a bank to have a stable and well-diversified funding base and to have a broad range of providers for each funding source or option. Likewise, it is important to analyze a breakdown of debt by cost, focusing on debt by institution, size, maturity date, cost, and currency type. Among the various funding sources, traditional deposits are the most attractive to institutions, as they tend to be relatively stable and typically less costly than other types of funding.

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Among the key factors in assessing funding and liquidity risk are the stability of funding inflows and alternative methods to ensure liquidity in the event of difficulties. The key point is to maintain a good balance between fund management and fundraising.

The raising of alternative funds, primarily through means other than commercial deposits, such as external market debt, may eventually be a significant factor limiting the rating due to the higher funding risk in stress scenarios. However, if the institution has demonstrated in the past that it has access to a wide range of funding sources and maintains a diverse mix, this would be considered a positive factor.

Additionally, the liquidity analysis incorporates a review of the institution's significant credit agreements, taking into account any financial covenants, guarantees, or collateral requirements that could interfere with the institution's operations and liquidity.

Some key elements and indicators that PCR considers in its analysis of Funding and Liquidity Risk are as follows:

- Asset and liability structure, duration;
- Loan-to-deposit ratio, securities-to-deposit ratio;
- Ratio of market debt to total debt;
- Liquidity sensitivity analysis, stress tests;
- Liquid assets to total assets;
- Liquid assets to traditional funding;
- Net loans to traditional deposits.

#### **4) Operational risk**

Operational risk can be defined as any risk other than credit, market, or liquidity risk. Given the complexity of financial institutions, operational risk is an important consideration in assessing a financial institution's soundness and the potential for losses that could affect earnings and capital. Operational risk covers a wide range of risks that go beyond mere operations. These risks include a diverse array of factors such as human error, operational system failures, or the inability to comply with regulatory requirements.

The analysis evaluates the institution's track record in managing operational risk. While bankers have always paid attention to operational risks, Basel II gave a significant boost to the management and measurement of operational risk, requiring an allocation of regulatory capital to cover operational risk. Basel II includes in operational risk the risk of loss due to inadequate or failed internal processes, people, and systems, or due to external events. This has been a positive factor, as our assessment has benefited from the increased attention paid to these risks, and banks have enhanced their analysis and reporting related to this type of risk.

An important component of the assessment focuses on the bank's approach to control and compliance measures. We also consider the processes through which the institution improves its operations and the incentives in place for its business units to optimize performance. Examining the institution's internal audit and business risk review processes provides us with valuable insight into how this type of risk is managed and

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allows us to determine whether sources of this risk were identified. Allocating capital to invest in systems and tools that are in some way related to improving and reducing operational risk is a good sign that management considers it important to keep this risk under control. The institution's organizational culture can also provide insight into potential operational risk issues that may exist.

Although financial institutions have been improving their understanding and control of operational risk, this type of risk is likely to continue increasing in the future. The growing reliance on technology and on information and management systems has led to greater efficiency, but it also adds a new and significant level of operational risk related to the functionality and reliability of these systems. The significant growth of online banking also adds to operational risk, so it must be well understood and monitored. Similarly, the trend toward greater reliance on new techniques and processes to reduce credit and market risk (such as derivatives or securitization) generates additional operational risks.

In terms of credit quality assessment, PCR focuses on the existence of risk, the adequate recognition of risk, and the effectiveness of risk mitigation measures according to the scale and degree of complexity of operations.

Some key elements and indicators that PCR considers in its analysis of Operational Risk:

- Characteristics of frequency of occurrence and amounts;
- Risk mitigation measures;
- Status of implementation and self-assessment of risk control management.
- Comprehensive Risk Management Manual. (Ensure that the entity maintains a level of capital adequacy commensurate with its risk profile, risk control and mitigation actions and plans, and tolerance limits for each relevant risk)
- Framework for comprehensive risk management. (Members of the Risk Committee and their quarterly report)
- Review the audit report on the entity's Comprehensive Risk Management process to address its weaknesses.

#### **4.2.10 Risk Management**

The review of the company's financial situation includes a careful interpretation of the financial statements reported over the last five years or more, along with a projection of its probable cash flow generation and other figures related to the servicing of its debt and liabilities over a three- to five-year horizon.

Previous sections have addressed topics related to financial performance analysis (Profit Analysis, Capital). In addition to what has already been discussed, the PCR analysis covers factors such as revenue growth and composition, cost structure, expenses and provisions, profitability, and the structure of assets, liabilities, and capital, among others.

One of the key factors in assessing the long-term viability of any organization is profitability. The first step is to examine the breakdown between interest income and income from other sources, as well as the bank's relative dependence on certain types of income. At this point, the PCR analyzes how effective the bank's results have been in optimizing the risk-return ratio in each of its business lines.

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Each line item on the income statement is examined in detail to determine the year-over-year changes in the different types of revenue and expenses.

When measuring the bank's relative profitability, some of the most important financial ratios considered are:

- The net interest margin (net interest income as a percentage of gross interest income), which measures profitability relative to interest earned and interest paid (i.e., funding costs);
- Net interest margin (net interest income as a percentage of total earning assets), which measures interest earned relative to the size of assets;
- Other income as a percentage of total operating income;
- Expense ratio (total operating expenses as a percentage of total operating income), which measures the bank's cost efficiency;
- Non-performing loan ratio as a percentage of total operating revenue;
- Return on average equity ("ROAE") and return on average assets ("ROAA"), which assess the overall level of profitability.

The bank's profitability levels and efficiency ratios largely determine the institution's long-term outlook. Likewise, comparing historical financial results with original budgets helps us better determine future results.

In addition to the aforementioned, PCR uses a mix of various indicators of earnings, leverage, and hedging to evaluate and complement its credit risk analysis. We must take into account that there is no predetermined level or mix of indicators to achieve a certain rating level. The company's track record, the sector in which it operates, the country, and other factors—such as the quantity and quality of information, and management's perception of higher or lower financial risk—are factors that influence and complement the potential rating conclusion.

Notwithstanding the above, PCR conducts a comparative analysis of the financial ratios of institutions, comparing different indicators of the entities, each of which is evaluated against other participants in the same business segment and the financial system, to establish the risk level. This comparative exercise allows us to assess the company's positioning within its industry at the national level. If, when evaluating the rating to be assigned to a company, we conduct the comparison and find that the company is less efficient than other market participants, that its revenue is significantly smaller, and that it has higher leverage levels than the industry average, we would be unlikely to assign it a higher rating than that of the other participants.

Similarly, comparing the company against other issuers in the local market allows the analyst to gain an understanding of the coverage and leverage levels associated with certain rating levels, always taking into account the other qualitative and quantitative variables that must be included in the analysis. Generally, companies grouped within certain rating levels share similar characteristics.

### **4.3 Projection**

While analyzing historical and current data gives us a good picture of what the institution has done and where it stands, we must also consider where the company is headed. For this purpose, PCR uses financial projection analysis to evaluate the entity's future performance. By developing projections under various stress scenarios, we can determine whether a company will be able to

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generate sufficient resources to meet its debt service obligations, whether it will face refinancing risk in any given year, or whether it will have sufficient liquidity.

To analyze financial institutions' projections, we examine the projections estimated by the company, evaluating the different assumptions, criteria, and variables used in their development to assess how feasible and realistic they are. When evaluating the projections, we take into account discussions with the institution's senior management to determine whether they incorporate the plans and strategies discussed in those meetings. The analyst's judgment regarding management's track record becomes relevant; if management has met its projections in the past, it lends greater credibility to its estimated figures. If deemed necessary, the analyst will make adjustments to certain variables in the projections so that they incorporate assumptions and estimates that better reflect PCR's perspective.

In constructing scenarios, we will start from the Bank's current situation, which we will consider the Base Scenario. From this base scenario, we will create a pessimistic scenario, where we will stress the following variables: financial margins, reduction in margins per business unit; increase in operating expenses; liquidity, reduction in funding sources; capital adequacy, stricter regulatory requirements; deterioration of the loan portfolio. In the optimistic scenario, we will consider the Bank's favorable projections.

Additionally, if the analyst or the rating committee believes that one or more additional scenarios reflecting different situations should be developed, further cases may be analyzed to gain a clearer picture of the estimates.

#### **4.4 Tracking and Monitoring of Ratings**

Ratings assigned to financial institutions by PCR are monitored on an ongoing, day-to-day basis. Analysts in the financial institutions sector may initiate a review process as soon as they become aware of any financial, operational, or business information regarding an issuer that leads them to believe such information could reasonably warrant a rating action consistent with PCR's methodologies. That is, a major acquisition, the sale of a strategic asset, a merger, etc. In general, whenever a sufficiently relevant event capable of affecting the current rating level comes to light, the analyst must undertake to review the available information or attempt to gather further information, either directly from the issuer or through third parties, to assess the potential impact on the rating. If deemed prudent, the analyst may request, in accordance with internal procedures, that a meeting of the Rating Committee be held to present their considerations, and if necessary, the Committee may make the corresponding adjustments to the issued rating.

Likewise, PCR's formal rating monitoring policies require quarterly reviews and, at a minimum, a comprehensive review of the institution's rating once a year. This review includes an update meeting with the organization's executives to discuss recent relevant issues, operating and financial results from the past year, general business outlook, and the bank's updated projections. Additionally, the annual review includes a presentation to the PCR Rating Committee by the lead analyst, covering the rationale and all relevant aspects of the rating to determine whether it is at the appropriate level.

In addition to this, the analyst conducts periodic monitoring of the company's rating using the financial information reported at the end of each quarter. Some of the minimum periodic information required by PCR Costa Rica for monitoring includes: Financial Statements; Balance Sheet, Income Statement, Cash Flow Statement, and Statement of Changes in Equity. Likewise, PCR may require any other information—whether operational, financial, and/or corporate—that, due to its importance, could influence the institution's performance.

In exceptional cases, ratings may be issued at a specific point in time without subsequent monitoring. Such ratings are relatively rare, and in such instances, this fact will be clearly stated in the announcement and the respective rating.

#### 4.5 Conclusion

While in-depth quantitative analysis is important, the qualitative aspects of PCR analysis should not be underestimated. It is extremely important to look “beyond the numbers” and evaluate an entity’s qualitative strengths and weaknesses, as well as its intangible assets. Understanding an organization’s strategic characteristics and the quality of its management are fundamental to PCR analysis. Our emphasis is on determining how these aspects affect the organization’s strategic flexibility and ability to overcome adverse market conditions.

#### 4.6 Rating Categories

##### 1) Short-Term (ST) Issues

Level		Details
High	1+	Securities with the highest certainty of timely payment. The issuer has excellent short-term liquidity, protective factors, and access to alternative sources of funding.
	1	Securities with very high certainty of timely payment. The debtor’s liquidity and protection factors are very good. Risks are negligible.
	1-	Securities with high certainty of timely payment. The debtor’s liquidity is good and is supported by strong protective factors. Risks are low.
Good	2	Securities with certainty of timely payment. The debtor’s liquidity and other aspects are solid; however, ongoing funding needs may increase total financing requirements.
Satisfactory	3	Satisfactory liquidity and other protective factors make the security an acceptable investment. Timely payment is expected; however, risk factors are higher and subject to variation.
Not an investment grade	4	Securities with speculative investment characteristics. Liquidity is insufficient to guarantee debt service. Protective factors are subject to a high degree of variation.
Default	5	Securities where payment terms have been breached.
No Information	E	Refers to securities for which there is insufficient information or the information is not representative. This scale does not allow for an opinion to be issued regarding their risk.

These categories may be supplemented, if applicable, with the symbols (+/-) to improve or downgrade, respectively, the rating achieved within categories 2 through 3 inclusive. Additionally, local scales will be identified by adding a prefix in accordance with the identification assigned to each market<sup>1</sup>.

##### 2) Medium- and long-term issues and preferred stock (LP)

<sup>1</sup> The nomenclature used corresponds to the international coding system based on ISO 3166-1 alpha-2, a two-letter code system.

Level		Details
<b>Outstanding</b>	<b>AAA</b>	Issues with the highest credit quality. Risk factors are virtually nonexistent.
<b>High</b>	<b>AA</b>	Issues with high credit quality. Protective factors are strong. Risk is modest and may vary occasionally due to economic conditions.
<b>Good</b>	<b>A</b>	Issues with good credit quality. Protective factors are adequate; however, during periods of economic downturn, risks are higher and more variable.
<b>Satisfactory</b>	<b>BBB</b>	Risk protection factors are reasonable, sufficient for an acceptable investment. There is considerable variability in risk across economic cycles, which could lead to fluctuations in its rating.
<b>Not investment grade</b>	<b>BB</b>	Issues rated below investment grade. It is estimated that their financial flexibility could limit their ability to meet obligations at maturity. The quality of these issues can fluctuate frequently, so they are considered speculative.
	<b>B</b>	Issues rated below investment grade. There is a higher risk of default. Financial protection factors fluctuate widely across economic cycles, industry conditions, and the company's management's ability to navigate them.
	<b>CCC</b>	Issues rated well below investment grade. They are characterized by a high risk of timely payment. Protective factors are scarce, and the risk can be substantial in adverse industry and company conditions.
<b>Default</b>	<b>DD</b>	Issues where interest and/or principal payments have been missed, or where the issuer has incurred other causes of default.
	<b>DP</b>	Preferred shares with overdue preferred dividends.
<b>No information</b>	<b>E</b>	Refers to those shares for which there is insufficient information or the information is not representative, making it impossible to issue an opinion on their risk.

These categories may be supplemented, if applicable, with the symbols (+/-) to improve or downgrade, respectively, the rating achieved within the categories AA through B inclusive. Additionally, local scales will be identified by adding a prefix according to the identification assigned to each market<sup>2</sup>.

### 3) Common Shares (AC)

Level		Details
<b>First Class</b>	<b>Level 1</b>	Stocks classified in this category are likely the safest, most stable, and least risky on the market. They demonstrate strong profit-generating capacity and liquidity in the market.
	<b>Level 2</b>	Stocks rated in this category are likely safer and less risky than most stocks on the market. They demonstrate good earnings potential and market liquidity.
	<b>Level 3</b>	Stocks classified in this category likely present a level of risk similar to the market average. The combination of profit-generating capacity and market liquidity is acceptable.

<sup>2</sup> Based on ISO 3166-1 alpha-2, a two-letter code system.

Level		Details
	<b>Level 4</b>	Stocks classified in this category are likely riskier and less secure than the market average. The combination of earnings potential and market liquidity is weak.
<b>Second Class</b>	<b>Level 5</b>	Stocks classified in this category are likely the riskiest and least secure.

These classifications are not supplemented by the (+/-) signs. Additionally, local scales will be identified by adding a prefix according to the identification assigned to each market <sup>(3)</sup>.

#### 4) Financial Strength of Financial Institutions and Insurance Companies (FF)

5) Level	Details
<b>AAA</b>	Corresponds to those entities with the highest capacity to pay their obligations under the agreed terms and deadlines, which would not be affected by potential changes in the entity, the industry to which it belongs, or the economy. Risk factors are negligible.
<b>AA</b>	This rating applies to entities with a very high capacity to meet their obligations under the agreed terms and deadlines, which would not be affected by potential changes within the entity, its industry, or the economy. Protective factors are strong, and risk is modest.
<b>A</b>	This rating applies to entities that have a good ability to meet their obligations on the agreed terms and deadlines, but this ability is susceptible to slight deterioration due to potential changes in the entity, the industry to which it belongs, or the economy. Protective factors are satisfactory.
<b>BBB</b>	Refers to entities that have sufficient capacity to meet their obligations under the agreed terms and deadlines, but this capacity is susceptible to weakening in the event of potential changes within the entity, its industry, or the economy. Protective factors are sufficient.
<b>BB</b>	This category applies to entities that have the capacity to meet their obligations under the agreed terms and deadlines, but this capacity is variable and susceptible to deterioration due to potential changes within the entity, in the industry to which it belongs, or in the economy, which could result in delays in meeting their obligations. Protective factors vary widely depending on economic conditions and/or the terms of new obligations.
<b>B</b>	This category applies to entities that have the minimum capacity to pay their obligations under the agreed terms and deadlines, but this capacity is highly variable and susceptible to deterioration due to potential changes within the entity, in the industry to which it belongs, or in the economy, potentially resulting in a loss of their obligations. Protective factors vary widely depending on economic conditions.

<sup>3</sup> Based on ISO 3166-1 alpha-2, a two-letter code system.

5) Level	Details
C	This category applies to entities that do not have sufficient capacity to pay their obligations under the agreed terms and deadlines, with a high risk of loss. There is a substantial risk that contractual obligations will not be paid on time.
D	This category applies to entities that lack the capacity to pay their obligations under the agreed terms and deadlines, and that are in actual default on these obligations, or are subject to ongoing dissolution, liquidation, or bankruptcy proceedings.
E	This category applies to entities for which there is insufficient information or the information is not representative, making it impossible to issue an opinion on their risk.

These categories may be supplemented, if applicable, with the symbols (+/-) to improve or downgrade, respectively, the rating achieved within the categories AA through B inclusive. Additionally, local scales will be identified by adding a prefix according to the identification assigned to each market<sup>4</sup>.

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<sup>4</sup> Based on ISO 3166-1 alpha-2, a two-letter code system.