Methodology

Global Methodology for Rating Banks and Banking Organisations

JUNE 2014
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DBRS is a full-service credit rating agency established in 1976. Privately owned and operated without affiliation to any financial institution, DBRS is respected for its independent, third-party evaluations of corporate and government issues, spanning North America, Europe and Asia. DBRS's extensive coverage of securitizations and structured finance transactions solidifies our standing as a leading provider of comprehensive, in-depth credit analysis. All DBRS ratings and research are available in hard-copy format and electronically on Bloomberg and at DBRS.com, our lead delivery tool for organized, Web-based, up-to-the-minute information. We remain committed to continuously refining our expertise in the analysis of credit quality and are dedicated to maintaining objective and credible opinions within the global financial marketplace.
Global Methodology for Rating Banks and Banking Organisations

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Introduction to DBRS Methodologies

• In general terms, DBRS ratings are opinions that reflect the creditworthiness of an issuer, a security or an obligation. They are opinions based on an analysis of historic trends and forward-looking evaluations that assess an issuer’s ability and willingness to make timely payments on outstanding obligations (whether principal, interest, dividend or distributions) with respect to the terms of an obligation.

• In addition to general business, regulatory and financial risk factors, the DBRS rating methodologies include consideration for many subjective factors, nuances and intangible considerations. As such, the approach in this methodology is not based solely on statistical analysis, but includes a combination of both quantitative and qualitative considerations.

• The considerations outlined in DBRS methodologies are not intended to be exhaustive. In certain cases, a major strength can compensate for a weakness, and, conversely, there are cases where one weakness is so critical that it overrides the fact that the entity may be strong in most other areas.

• DBRS rating methodologies are underpinned by a stable rating philosophy, which effectively minimizes rating movement due primarily to economic changes. DBRS strives to factor the impact of a cyclical economic environment into its rating as applicable. Rating revisions do occur, however, when it is clear that a structural change, either positive or negative, has transpired or appears likely to transpire in the near future.
Global Methodology for Rating Banks - Overview

This methodology principally addresses the determination of a bank’s intrinsic strength, but also includes information on other DBRS criteria covering a wide range of aspects such as, support assessments, floor ratings, holding company ratings and hybrid instrument considerations, all of which can be critical elements in the determination of final ratings for banks (see Section V).

This methodology applies to many diverse types of banks and banking organizations in different countries that are covered by DBRS. It is recognized that the operational structure and legal basis for banking organisations varies both within and across countries. There are individual banks, banking groups, bank holding companies, co-operatives, mutuals, and various other institutional forms. Globally, the most common form of banking organisation is a group, where the lead entity is a bank that owns other subsidiaries, including other banking subsidiaries, both domestic and international. In most instances, the main operating bank is the dominant component of the group and houses most of the group’s assets and earnings. As a legal entity, it may be incorporated or otherwise organised with shares that trade on stock exchanges. There may or may not be an active holding company. For regulatory and tax reasons, the U.S. is exceptional in that bank holding companies are the dominant form of banking organization. Bank holding companies are evident in other countries, but they are less common. Separate DBRS methodologies cover the areas of insurance entities, finance companies and asset managers.

This methodology is organised in the same manner as the analysis:
   I. The Approach
   II. Combining the Building Blocks to Determine the Preliminary Intrinsic Assessment
   III. The Five Building Blocks – Assessing Building Block Strength
   IV. Utilising Peer Groups to Check Preliminary Intrinsic Assessment
   V. Impact of Related Methodologies and Criteria – Final Rating and Ratings for Specific Securities
I. THE APPROACH TO RATING BANKS

DBRS’s framework for analysing a bank’s intrinsic strength utilizes five interlocking building blocks that address the various elements that underpin this strength. By separating the interconnected elements of a bank’s strength, this building block framework facilitates the evaluation of a bank’s overall strength.

These interlocking building blocks, which are discussed in Section II, are

- Franchise Strength
- Earnings Power
- Risk Profile
- Funding and Liquidity
- Capitalisation: Structure and Adequacy

The intrinsic assessment (IA) is the conclusion on a bank’s intrinsic strength that is reached by combining the building blocks. The process of combining the building blocks is not a simple weighting scheme, but rather an assessment of a bank’s integrated strength.

The Analytical Process

The analytical process begins by assessing the strength of each of the building blocks using available information including qualitative and quantitative data. Ranging from “very strong” to weak,” these grades are then combined to reach an opinion on the bank’s preliminary Intrinsic Assessment (IA), expressed as a rating on the DBRS rating scale. Beginning with Franchise Strength, the key building block, this analytical process factors in each of the building blocks. The resulting preliminary IA is then checked through comparisons with peer groups. The finalized IA may be then adjusted to take into account any support from parent or government entities through a support assessment. This process is discussed in Section V, which also identifies related DBRS criteria documents. After incorporating any adjustments, the analysis determines the final rating of the bank. The analytical process is shown in Exhibit 1.
DBRS GLOBAL METHODOLOGY FOR RATING BANKS & BANKING ORGANISATIONS - ILLUSTRATIVE WORKFLOW

FRANCHISE STRENGTH

Grids:
- Market/competitive positions
- Business mix and product range
- Distribution channels
- Management quality & depth
- Regulation & the operating environment

EARNINGS POWER

Grids:
- Revenue Generation
- Expense Control
- Ability to absorb credit and other charges
- Profitability and returns on capital

RISK PROFILE

Grids:
- Credit Risk
- Market Risk
- Operational Risk
- Risk Management

FUNDING & LIQUIDITY

Grids:
- Funding mix
- Alignment of funding sources and their uses
- Ability to withstand a stressed environment

CAPITALISATION

Grids:
- Capital cushion and the ability to absorb losses
- Mix & Quality
- Generation

Assessments:
- Very Strong
- Strong
- Satisfactory
- Passable
- Weak

PHASE 1: EVALUATING THE BUILDING BLOCKS

PHASE 2: COMBINING THE BUILDING BLOCKS WITH THE ASSESSMENTS

PHASE 3: VALIDATE PRELIMINARY INTRINSIC ASSESSMENT USING KEY METRICS AND PEER GROUPS

CHECK: PEER GROUPS

SUPPORT ASSESSMENT

PRELIMINARY INTRINSIC ASSESSMENT RATING

INTRINSIC ASSESSMENT

FINAL RATING

SUB-DEBT, HYBRIDS, PREFS; HOLDING COS, SUBS, ETC.
II. COMBINING THE BUILDING BLOCKS

II.1 Phase 1 - Evaluating a Bank’s Strength in Each Building Block
The first step in the analysis of a bank is to analyse its strength across each of the building blocks. This process considers various aspects of each building block in the context of the overall bank to establish a grade for each building block. These grades range from “very strong” to “weak.” The characteristics and illustrative elements of the building blocks are displayed in Exhibit 2. In Section III, the process for evaluating a bank’s grade for each building block is discussed in more detail.

Exhibit 2

<table>
<thead>
<tr>
<th>Interconnected Building Blocks</th>
<th>Illustrative Elements</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Franchise Strength</td>
<td>Business mix, product range, geographic reach, market positions, competitive position, branch franchise, other distribution channels, product range, technology and operational capabilities, management quality, strategy, culture, ownership structure, governance, regulatory framework and operating environment</td>
</tr>
<tr>
<td>2. Earnings Power</td>
<td>Revenue diversification, loan yields, asset yields, funding costs, net interest margin, fees, commissions, other noninterest income, capacity to sustain revenues in adverse environment, efficiency, ability to sustain positive operating leverage (“jaws”), alignment of expenses with revenues, strength of underlying income or Income before Provisions and Taxes (IBPT), capacity to absorb elevated credit costs and revenue volatility</td>
</tr>
<tr>
<td>3. Risk Profile</td>
<td>Credit, interest rate, market, operational, reputational, legal, and regulatory risk; loan portfolio composition, concentration, diversification and granularity</td>
</tr>
<tr>
<td>4. Funding and Liquidity</td>
<td>Funding profile, composition of deposits, wholesale funding utilisation, maturity profile, securities portfolio characteristics, repo lines, committed secured lines, credit lines, availability of collateral, access to capital markets, access to central banks and other sources of funding, alignment of sources and uses of funding, emergency liquidity plans, liquidity arrangements across organisation and global subsidiaries</td>
</tr>
<tr>
<td>5. Capitalisation</td>
<td>Capital structure, adequacy, levels, mix and generation ability, quality and composition, flexibility, cushion over regulatory requirements, and cushion to absorb losses</td>
</tr>
</tbody>
</table>
II.2 Phase 2 - Process For Combining The Building Blocks

The next step is to combine a bank’s grades for each of the building blocks to reach a preliminary conclusion on a bank’s IA, expressed as a rating on the rating scale. Rather than rely on a simple additive weighting scheme, the analysis evaluates how each building block contributes to the overall strength of the bank. DBRS’s ratings for a bank reflect the interdependent nature of the bank’s ability to meet its obligations in a timely manner. DBRS considers these building blocks to be significantly interrelated and regards each building block as an essential element in the overall assessment. Nevertheless, there is a sequence in the intrinsic assessment that reflects the relative importance and nature of the connections between the building blocks.

In applying Phase 2, DBRS considers a bank’s **franchise strength** as the key starting point in determining the preliminary IA for a bank, as it establishes the inherent ability of the bank to deal with adverse conditions without external support. The stronger and more resilient a bank’s franchise, the higher a bank’s rating is likely to be. Given this key underpinning, it is unusual for a bank to be well-rated if it has a weak franchise. The difference between an AA-rated bank and an A-rated bank typically begins with differences in the strength of their franchises. BBB-rated banks typically have franchises with less diversity, weaker local market positions or weaker competitive positions, including insufficient scale. The regulatory environment is an important consideration, as it can impact the overall position of banks and the prospects for their specific business lines.

**Earnings power**, the second building block, can reinforce the assessment of a bank’s franchise strength if a bank is judged to have strong and resilient earnings capabilities that leverage the strength of the franchise. In some cases, banks with only satisfactory franchises can nevertheless benefit from having strong operating capabilities that enable the bank to generate resilient earnings and sustain earnings growth. Weak operational capabilities, however, can detract from a strong franchise position. The capacity to generate strong earnings from a well-positioned franchise is also essential for the highest rated banks. Exceptionally strong, predictable recurring earnings power can elevate a bank’s IA by compensating for a franchise that is not as strong as some competitors. For example, banks that are highly efficient, generate superior net interest margin and consistently generate high levels of returns may be viewed as compensating for weaker market positions. Weak earnings power is likely to reduce the IAs for banks that have strong franchises.

A strong **funding and liquidity position** is also essential for well rated banks. Banks with strong franchises and healthy earnings power can nevertheless struggle if their funding mix lacks the ability to cope with stressed financial markets. Weakness in this area of a bank can reduce a bank’s IA. Significant weakness could be viewed as representing a serious flaw in how management is operating the bank with negative consequences for the IA. With this perspective, this building block is more likely to detract than add to a bank’s IA.

A bank’s **risk profile** is an important component in the assessment. Highly rated banks with strong franchises are expected to manage risk well and have risk profiles that are commensurate with stability in their earnings. Such a profile can reflect diversity of business lines, geography and effective risk management. In cyclical downturns, these banks fare better than most banks in riding out turmoil in the financial markets and economic distress. Weakness in a bank’s risk management or a riskier profile can drag its IA down. In some cases where there are substantial weaknesses, this weakness can result in a substantially lower IA than would be warranted by the bank’s franchise or earnings power. This weakness exposes the bank to much greater risk than is represented in its strengths. A low risk profile and superlative risk management, however, cannot substantially elevate a bank’s IA above the level that reflects its franchise strength and earnings power.

The assessment of a bank’s **capitalisation** addresses both the bank’s capital strength, including the level and composition of its capital, and the bank’s need for capital, reflecting its risk profile and other characteristics. Highly rated banks generally have strong capitalisation with sizeable cushions above regulatory requirements.
Stronger capital levels may compensate to a certain degree for riskier profiles and less resilient earnings power. Weak capitalization would typically lower a bank’s overall IA to reflect a reduced ability to absorb adverse events.

Phase 2 Illustrated Using the common grading scale as summarized in Exhibit 2, the diagram in Exhibit 3 and the following comments explain how the other building blocks impact the Preliminary IA.

Exhibit 3

As a general principal, it is easier for weakness in a building block to cause a negative impact than it is for a building block’s strength to enhance the IA. The importance of the Franchise Strength building block limits upward movement, and it will often take a combination of strength from different areas to result in a rating increase. Because major weakness in any building block can cause significant challenges for even a strong bank franchise, downside movement is less restricted, the potential impact from the four areas is more similar and each individual area has material capacity to result in downward rating movement.

On the upside, the Earnings Power building block has the largest potential, which recognizes that stronger earnings are one of the most effective means for a bank to cope with periods of stress. Conversely, there is modest upside from Funding & Liquidity, as there is limited benefit in a bank having liquidity strength over and above the level that allows it to operate through stressful environments.

The magnitude of the four building blocks needed to impact the IA in combination depends on the relative strength of each block versus the Franchise Strength (see Exhibit 3). The final conclusion is not a simple additive exercise. Consideration would be given for factors such as the bank’s grade by building block, the interlocking play within the building blocks and the relative strength of each component within the blocks. Where banks are concentrated in particular business lines, such as investment banking, the assessment can factor in how this concentration affects the importance of and interaction among the blocks. While the diagram denotes “notches” to add clarity to the magnitude of the underlying process, the actual assessment process is more complicated, and notching must also often contend with a limited number of appropriate rating categories.
III. ASSESSING STRENGTH BY BUILDING BLOCK

III.1 Building Block 1: Evaluating Franchise Strength

A.1 Important Elements
A banking organisation’s franchise reflects the overall banking organisation, its nature, legal basis, business purpose, ownership, management, strategy, business mix, product range, and geographic reach. Franchise strength is about a bank’s ability to generate earnings, which provide returns to shareholders/stakeholders and the basis for future earnings growth through expansion, while also providing the strength and resiliency to enable the bank to have the earnings capacity to withstand adverse events, especially in market/economic downturns.

Franchise strength is important for a bank’s intrinsic strength and ultimately its rating for a variety of reasons. A bank’s franchise is important because a strong franchise helps a bank:

- Consistently deliver earnings
- Provides basis for growth
- Adjust more easily to changing circumstances (technology, regulation, product innovation etc.)
- Compete more effectively and handle competition better
- Create new products and services
- Enhance distribution and delivery
- Understand and meet the needs of clients
- Generate reliable sources of funding and demand for banking products from customer segments
- Manage risk.

Weaker franchises tend to weaken a bank for the opposite reasons.

Among the elements of franchise strength and position by business line that may be investigated are:

- Bank’s positioning and geographic reach by business line
- Strength of a bank’s customer bases, reputation, quality of services, distribution networks (branches, electronic), product range
- Breadth and position of the bank’s branch and office networks in retail banking
- Extent of success with different delivery channels
- Skills, product capabilities, and technology that facilitate its businesses
- Evaluation of product range and record of innovation or ability to adapt to changing market needs
- Considerations of any threats to the bank’s position and business strength from competitors
- Contribution of risk-management systems
- Impact of regulatory environment
- Management operating abilities, track record, strategy and governance
- Response to changing regulation or market developments.

Regulatory and Legal Foundations The franchise assessment incorporates any specific features of the institution that reflect its legal foundations, regulatory constraints on its business and any advantages from its position.

Business Mix The defining characteristic of a bank’s franchise is its business mix. There are a wide range of financial products and services, utilized by businesses, individuals and other customer segments that make up a bank’s business mix. Typically, these can be grouped together in terms of businesses, such as retail banking, wholesale banking, capital markets, trust and securities services, private banking and wealth management, asset management and insurance. For each major business line, the analysis looks at the bank’s strengths in the business to the extent data are available.
**Customer Relationships** The analysis considers customer segments and strength, or “stickiness,” of customer relationships. Banks benefit from stronger customer relationships, because these customers tend to be more profitable and more likely to keep their business and deposits with the bank during a period of stress. Where data are available, products per customer and length of customer relationships are useful indicators of the relative strength of relationships.

**Market Position** The strength of a bank’s market presence in its key product lines directly impacts its capacity to retain customers, attract new business and compete effectively.

- Market penetration is a key consideration, as measured by the size and breadth of the branch network, deposit market shares in various markets, where data are available, and the scale of a bank’s businesses. A stronger market position also supports more stability in revenues.
- Scale of a bank’s operations in particular business lines may be considered. Scale can be particularly relevant in providing commoditised services profitably, such as custody and other fiduciary services, which spread the typically high overhead cost associated with these businesses over a larger revenue stream.
- The evaluation also considers a bank’s strategies, as well as its competitive strengths and weaknesses that may include specific products, skills or technology advantages. Given the competitive environment, the ability of a business to adapt to changing competitive forces can be an important indication of strength.

**Evaluation of Overall Organisation** The analysis considers the overall franchise and its integration across businesses and client segments. Consideration may be given to various factors, such as the bank’s ability to leverage its franchise across its businesses and client segments, its operational capabilities across geographies, and its systems and technology capabilities, as well as the culture of the institution and how this culture supports and enhances the franchise. Consideration can also be given to the impact of a banking organization’s concentration in certain business lines in assessing the overall organisation.

**Perspective on Asset Size** DBRS views size as important for ratings because it is an indicator of a number of important attributes for a bank’s franchise, earnings power and risk profile. In general, bigger banks tend to be higher rated, but any particular big bank may not be highly rated. Size, alone, is not a determining factor for ratings. To the extent that a smaller institution has a strong, well-managed and defensible franchise that generates resilient earnings with an appropriate risk profile, the rating will reflect these strengths while taking into consideration the challenges for a bank due to its smaller scale. Relative size, however, is often a useful proxy for a successful franchise. Size also indicates advantages that scale can provide. From the customers’ perspective, size may also reinforce confidence that a bank has the resources to meet their needs and will be there when needed.

**Importance of Retail Banking** Considerable attention is devoted to retail banking as it is the predominant banking activity for most banks. In Europe, retail banking as a business line generally includes both consumers and small and medium-sized enterprises (SMEs). The SME customer segment can be especially important for many banks, as meeting the needs of SMEs leverages the unique combination of deposits, transaction services, cash management and provision of credit that is at the centre of banking. Elsewhere, retail banking is primarily focused on consumers, although many banks also serve their small business customer segment through their retail operations. The analysis seeks to understand a bank’s product range, delivery capabilities and ability to meet the needs of its customers. Where data are available, trends in the number and mix of products can provide insights into the strength of a bank’s retail franchise.

**Branch-based Franchise Strength** DBRS considers the strength of a bank’s branch-based franchise as an important factor in its ratings. Branch-based banking competition is mostly local in nature. Franchise strength is an
important element of any financial institution’s ratings, and branch networks remain a critical component of the overall franchise of most banks. DBRS’s fundamental premise is that banks with larger market shares at the local level generally have better market positions and stronger franchises.

- Higher market shares mean greater convenience for retail and business customers with a lower attrition rate when customers move residences or jobs.
- Cost efficiencies can be achieved in marketing, advertising, infrastructure and technology.
- Potential for revenue growth increases with the ability to provide a broader range of products, offer access to specialists, customise products to the local market and increase visibility and acceptance among customers. Internal float increases.
- Importantly, the ability to withstand competition improves with greater market share, as the potential impact of competitors opening new branches is reduced.
- These benefits may be partially offset by diseconomies of scale, such as the added cost of controlling a larger organisation, and by the difficulty larger banks tend to have in being responsive to local customers.

Where applicable, DBRS also looks at other aspects of a bank’s retail franchise, such as non-branch distribution channels, including consumer finance offices, mortgage banking and retail brokerages. Despite the growth in online banking and other alternatives, branches remain the key channel for banks to serve their retail, small business and many middle-market commercial customers, making a strong branch network a key part of a bank’s overall franchise. Few banks have succeeded with a purely on-line banking franchise, and these are usually linked either to a well-known franchise with a strong brand or to a retail brokerage company.

**Evaluating Branch Positions in Local Markets** In evaluating the strength of a bank’s branch banking franchise, DBRS evaluates market shares at the most local level that is feasible and appropriate, given a bank’s business profile and data availability. This provides a better perspective on a bank’s overall market position than national market shares, particularly for banks that are strong in one or more regions of a country, but not in others. This analysis can also show markets where banks have yet to achieve a sustainable, defensible market share.

This analysis is most developed for the U.S., where the number of competitors, regional markets, and geographic scale require this level of analysis in determining branch banking positions for banks that range from small local banks to large national banks. The publicly available data in the U.S. facilitate this analysis.

Based on DBRS’s conversations with banks and other industry participants in the U.S. and elsewhere, a branch share of at least 20% is considered to represent a dominant position, as this means the bank reaches at least one in five customers, which provides substantial visibility and allows for the capture of scale advantages. In other countries, with fewer competitors, higher shares would be required to be considered dominant. A branch share of at least 10% is considered robust, as a bank can leverage some scale advantages and withstand competitive pressure from rivals by reaching one in ten customers. A branch share of at least 5% is necessary to be well-established in DBRS’s analysis, as many banks view this threshold as critical to be able to operate efficiently, gain recognition and achieve revenue opportunities in a local market. These assessments also take into account the bank’s competitive position in relation to the position of major competitors in their markets.

**Importance of Other Retail Products and Services** The analysis may also factor in a bank’s success with the provision of nonbanking products and services through its retail franchise. To make more effective use of their retail banking franchises, some banks offer a range of products including asset management, private banking and wealth management, retail brokerage and insurance.

**Wholesale Banking and Capital Markets Businesses**

The analysis focuses on a bank having the necessary skills and achieving the appropriate scale and geographic reach. These businesses include a wide range of activities serving diverse customer segments. Activities include
corporate lending, structured finance, cash management, investment banking, trading, advisory, and other financial markets activities. Key ingredients for a successful wholesale banking franchise are client relationships, a wide range of products, systems, controls and human talent. This evaluation considers a bank’s capabilities, track record and market position across the various business segments to the extent information is available.

**Wholesale Banking** Most large banks participate to varying degrees in providing wholesale banking services to large businesses, corporates, financial institutions and other participants in wholesale markets. This business mix covers a wide range of activities including loans of various types, liquidity lines, treasury services, cash management and trade services, as well as supporting clients’ risk management in areas such as interest rate risk. Many of these activities are inherently part of banking, such as lending, treasury services and cash management. The key issues for the analysis are a bank’s strengths in its client relationships, product capabilities, risk management and critical scale.

**Capital Markets Activity** In evaluating a bank’s participation in the capital markets, DBRS perceives a demarcation between the wholesale banking activities that most large banks are engaged in and those activities that require a banks’ more extensive involvement in capital markets, such that a bank is an active participant in making markets and generating transactions. For many banks, providing their clients with access to capital markets products primarily involves acting as an intermediary, rather than an active market maker, for example in such areas as interest rate products.

To the extent that a bank extends its product range to include more active participation, the analysis evaluates these businesses as capital markets businesses. Success with capital markets businesses is more likely when a bank extends its reach into these businesses to take advantage of its overall franchise and when it has the necessary capabilities. The extent of such capital markets participation also reflects the position of large banks within their own countries. Those banks that have leading positions as commercial banks are also more likely to be active participants in their national capital markets, even if their role is more limited in capital markets in other countries. Where relevant and depending on the markets where the bank is competing, the analysis evaluates a bank’s position in key activities, such as investment banking, including advisory activities and equity and debt underwriting, as well as its positions in various trading businesses, principal investing and other capital markets activities.

**Trading Businesses** Within trading businesses, the product range extends across equities, fixed income and commodities. Investment banking has extensive participation as many large banks engage in underwriting, but this business segment is dominated by relatively few participants. While there are many niche players, there are a relatively small number of institutions with significant coverage across all these areas. In assessing these businesses and the contribution to the bank’s overall franchise, the analysis seeks to establish the bank’s position and the sustainability of its businesses. DBRS views trading as an activity, not a business. While trading is the principal activity in a wide range of businesses, these businesses are broadly diversified, comprising different product mixes, geographic markets and customer segments. The analysis seeks to understand the composition of a bank’s trading businesses and where is has competitive strength. The analysis also devotes considerable attention to a bank’s ability to manage risk, a critical component for success in these businesses.

**Geographic Reach** In assessing a bank’s strength in these businesses, the analysis seeks to evaluate various aspects of a bank’s geographic reach and its operational capabilities to the extent that data are available. Scope and critical mass are key elements for success. Scale is important, but niche players with strengths derived from specialising in certain business areas in focused markets are often important competitors. Geographic reach across the major financial markets globally is also increasingly important for success for the largest participants in the global capital markets, but the number of such global competitors remains limited by the level of expertise, range of capabilities, and market reach required. While a subjective consideration that cannot always be supported by specific data,
the analysis seeks to determine the effectiveness of a bank's business practices, controls and risk management processes across international operations.

Trust, Custody and Other Securities Services

Fiduciary services, such as trust administration, securities servicing and custody services, tend to produce relatively stable fees and commissions. That has made these activities and businesses attractive to banks. Some of these activities are generic to most banks; others require specialised skills. It should be noted that some of these business lines also attract stable deposits given the nature of their activities. Achieving sufficient scale to be competitive is an important characteristic for some of these business lines. The analysis seeks to understand the strength of a bank’s capabilities in those business lines where it is operating and to assess its ability to compete successfully. Certain banks have become more specialised in these business lines, which can provide useful benchmarks. Given the extensive operational and reputational risks in these businesses, evaluating a bank’s controls and risk management processes are an important element in the evaluation.

Other Business Segments – Private Banking/Wealth Management, Asset Management, Insurance

There are also businesses through which a bank can take advantage of its franchise, customer base, distribution channels or financial strength. If managed successfully, these businesses can broaden the range of products that a bank can offer and enhance its franchise strength. These businesses are quite diverse, ranging across private banking, wealth management including retail brokerage, asset management and insurance. Some banks have substantial involvement in these activities through their own operations. Private banking and some form of wealth management are fairly common activities for banks. In asset management and insurance, however, many banks are distributors of products that are produced by others, such as major insurance companies. For the latter banks, where these activities are significant, the analysis may evaluate a bank’s success in generating revenues from this additional product set, as well as its skill in managing third party arrangements and the related reputational risk. When these business lines are reported as separate segments, additional insight is provided into the nature and stability of this source of earnings.

For banks that have their own operations, the analysis can be more involved, especially where these businesses are important components of the franchise. In business lines dominated by large participants with scale and scope, such as asset management, the analysis seeks to understand a bank’s competitive position and its financial performance. Indicative of the challenges facing banks in asset management, a number of large banks have chosen to exit this business or combine their operations with other asset managers to gain scale and broader product capabilities.

Management Contribution, Ownership Motivation, and Governance

In evaluating a financial institution’s franchise strength, one important element is the role and contribution of management, including the oversight of its board or other governing body. In assessing management, DBRS may look at characteristics such as experience, competence and stability for signs of strength or weakness. Good management supports and develops a bank’s franchise. It contributes to enhancing and sustaining a bank’s culture. Poor management, however, can weaken a bank’s franchise. Management’s role is evaluated in the context of the ownership structure and legal foundation of the bank, as well as regulatory requirements. An important aspect is how well management governs and controls the institution. Acquisitions, disposals and other actions often provide insights into management’s capabilities and contribution to franchise development.1

Management’s relationships with its various regulators and supervisory authorities are also important. In evaluating these relationships, the analysis can consider a bank’s track record in dealing with regulators, addressing regulatory changes, responding to any regulatory demands and dealing with any specific regulatory issues. For

1 DBRS’s approach to governance is discussed in “DBRS Criteria: Evaluating Corporate Governance.”
more international banks, this analysis may also need to consider these relationships in different countries and regulatory jurisdictions.

Disclosure and Transparency One measure of management’s performance is how well it understands its own operations and financial position. Better management teams are more adept at evaluating and communicating their institution’s position. Given the importance of retaining the market’s confidence, these skills have become even more important after the recent crisis. Market pressure combined with changing demands of regulators and evolving accounting rules have resulted in more public disclosure by publicly traded banks, providing more opportunity to assess management’s abilities. Privately held banks are subject to fewer disclosure requirements, but fixed income markets have become more demanding for transparency from these institutions.

Management Strategy Understanding and assessing management’s strategy is often an important area for the analysis. It provides insights into the prospects for a bank’s franchise, earnings and ability to adapt to the changing environment. This area of the analysis also provides insights into management’s capabilities. The focus is typically on a banking organisation’s current position, the opportunities laid out in its strategy and the likelihood of success. There is greater risk in strategies that seek to expand a bank’s franchise into new business sectors or geographic markets. Successful implementation is important. A good plan that is poorly implemented can negatively impact a bank’s performance and prospects.

Impact of Mergers and Acquisitions Mergers, acquisitions and other corporate actions offer opportunities to re-evaluate various aspects of a bank’s fundamentals. When a bank undertakes such actions, the analysis seeks to understand the impact on the bank’s franchise, earnings prospects, risk profile and capitalisation. Undertaking mergers and acquisitions can be an important component in the process of franchise development. Success involves not just acquiring businesses and successfully integrating them, but also requires exiting business lines that cease to be part of the bank’s strategy, or are not performing up to its targets.

Ownership and Governance The ownership structure of financial institutions can have an important impact on how the institution operates and how it is governed. The analysis seeks to understand how this structure can impact a bank’s operations, objectives, strategies and governance. There are a wide range of ownership structures around the world. In regions where DBRS is focused, most rated banks are those with listed shares. Investors in listed institutions benefit from increased disclosures and the additional scrutiny of the markets that reflects ownership of the bank’s securities. Some financial institutions are privately-owned or controlled by a family or an individual.

In many countries, important segments of the financial services sector are organised under co-operative or mutual arrangements that affects how the analysis considers the role of management and other issues, such as access to capital. Often these institutions are numerous and may be allied together under mutual protection arrangements. These groupings typically involve structures and constraints that also play a role in determining how these mutualistic institutions function. In addition, there are public-sector-owned banks, where owners are typically central government entities, but can also be regional, state or local governments. Depending on the nature of these institutions and the availability of information, the analysis typically considers the objectives and structures governing these institutions and seeks to factor into the analysis the particular advantages and disadvantages of these institutions in determining franchise strength. This can extend to considering differences in regulation and the effectiveness of supervision.

Governance For listed companies, as well as other types of ownership governed by a board of directors, the independence, experience and diversity of the Board members are generally important considerations for the quality of governance. For public sector banks and mutualistic institutions, the knowledge base of their boards can be important, as well as the weight of board members coming from a non-financial environment. Given that such organisations typically have specific missions, the analysis is concerned with identifying the mission and the
organisation’s adherence to these goals versus straying from the mission. The risk is that support for the organisation could wane if it is no longer seen to be fulfilling its mission.

**METHODOLOGY GRID: FRANCHISE STRENGTH**

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Very Strong</th>
<th>Strong</th>
<th>Satisfactory</th>
<th>Passable</th>
<th>Weak</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Market/competitive positions</strong></td>
<td>Top tier positions in most or nearly all markets in major business lines with strong brand presence</td>
<td>Top or second-tier, but defendable positions, in the majority of markets and in a number of business lines with a solid brand presence</td>
<td>Mid-tier presence in some markets and business lines with a material brand presence</td>
<td>Moderate presence in some markets and business lines with a material brand presence</td>
<td>Limited presence in a few markets and business lines with little brand presence</td>
</tr>
<tr>
<td><strong>Business mix and product range</strong></td>
<td>Complete or nearly complete product set for major business lines for the specific model the bank pursues across its operating geography</td>
<td>Robust product set for a number of business lines for the specific model the bank pursues across its operating geography</td>
<td>Solid product set in some business lines for the specific model the bank pursues across its operating geography</td>
<td>Moderate product set in some business lines for the specific model the bank pursues across its operating geography</td>
<td>Limited product set in a few business lines for the specific model the bank pursues across its operating geography</td>
</tr>
<tr>
<td><strong>Distribution channels</strong></td>
<td>Wide or nearly complete distribution network comprising the majority of branches, electronic/online, store, mail, telephone and ATM distribution</td>
<td>Robust distribution network comprising the majority of branches, electronic/online, store, mail, telephone and ATM distribution</td>
<td>Solid distribution network comprising the majority of branches, electronic/online, store, mail, telephone and ATM distribution</td>
<td>Moderate distribution network comprising the majority of branches, electronic/online, store, mail, telephone and ATM distribution</td>
<td>Limited distribution network comprising the majority of branches, electronic/online, store, mail, telephone and ATM distribution</td>
</tr>
<tr>
<td><strong>Management quality &amp; depth</strong></td>
<td>Well articulated and consistent strategy; high degree of management stability and experience; credible succession plan; clear and appropriately organized reporting lines, and an effective Board of Directors</td>
<td>More average performance or Minor weakness in one or more of the following: articulation and consistency of strategy; management stability and experience; succession plan; reporting lines, and Board of Directors</td>
<td>Some level of weakness in one or more of the following: articulation and consistency of strategy; management stability and experience; succession plan; reporting lines, and Board of Directors</td>
<td>Higher level of weakness in several of the following: articulation and consistency of strategy; management stability and experience; succession plan; reporting lines, and Board of Directors</td>
<td>Poorly articulated and inconsistent strategy; high management turnover and relative inexperience; lack of a succession plan; unclear and inappropriately organized reporting lines, and an ineffective Board of Directors</td>
</tr>
<tr>
<td><strong>Regulation and the operating environment</strong></td>
<td>Strong ability to cope with and adapt to changes in the environment or regulatory areas</td>
<td>Well positioned to cope with possible future environmental or regulatory changes</td>
<td>Has the capacity to handle change but major changes could be challenging</td>
<td>Limited capacity to handle change and major changes could be materially challenging</td>
<td>Not well positioned for any major changes in the operating environment or regulation</td>
</tr>
</tbody>
</table>
III.2 Building Block 2: Determining Earnings Power

Important Components
To assess the strength and resiliency of a bank’s earnings power, the analysis looks at:

- The components underlying a bank’s earnings and their ability to withstand stress
- Ways through which the business mix and the franchise contribute to earnings resiliency and growth
- How effectively a banking organisation utilises its franchise to generate earnings
- What trends reveal about the bank’s prospects
- What peer comparisons show about the bank’s relative performance.

The analysis is forward looking, although it utilises historical financials and other information as the foundation of the analysis. In a period when an institution is under stress and earnings are reduced, the analysis seeks to establish the extent to which the bank can sustain its underlying revenues, control costs and generate the earnings to cope with the elevated provisions, write-offs and other charges arising from the stress. Earnings power is evaluated in absolute terms regarding its scale, sustainability, diversity, and underlying factors.

Earnings are important as the first line of defence to absorb adverse events, such as credit losses or asset write-downs. A key earnings measure is income before provisions and taxes (IBPT), which provides insight into a bank’s ability to absorb credit losses. Banks that have a riskier business mix or a more aggressive risk appetite need to generate earnings that can absorb their higher cost of credit and other risks, as well as the potential for more elevated levels of credit costs in a more stressed environment.

Revenue Generation
To understand the strength, resiliency and reliability of revenues and the potential for growth, the revenue analysis examines the contribution of various components. The analysis looks at the diversity of the business mix in terms of customers, products and geography, as well as the diversity of fee-based products and their relative contribution to net revenues. The broader this diversity, the more resistant revenues are generally to economic dislocations in a specific market or industry.

Net Interest Income
A major focus of the analysis of earnings power is on the generation of net interest income, which for most banks is the major component of revenues. Given their substantial balance sheets, banks have the advantage that they can generate significant revenues from the spread between their asset yields and their funding costs, even when the pace of financial activity slows.

The spread between asset yields and funding costs is a critical driver of net interest income.

- The level and stability of loan yields and returns on securities holdings are important components of interest earnings.
- The analysis also looks at deposit rates and other components of interest expense, as data permit.
- Net interest margin is one common metric. Another metric is net interest income/risk weighted assets.

Asset Yields
Given that an important driver for net interest income is the yield on a bank’s loan portfolio and the strength of its various lending businesses, the analysis seeks to understand the sources and characteristics of this yield:

- Loan yield reflects business mix, customer segments, loan types and the risks inherent in loan portfolios.
- Where data are available, the analysis considers the loan mix and the underlying yields and their sustainability, when this is warranted.
- A lower-than-peer group average yield on loans can be mitigated by a lower risk profile in a bank’s loan portfolios that can reflect more conservative underwriting or a lower risk loan mix.
While yields on securities play a more modest role than loans in overall yields on earning assets for most banks, the scope of these revenues can vary depending on the size of the securities portfolios and the mix of investments. While many institutions hold these securities for liquidity, the pressure for revenues has also driven some institutions to increase the size and scope of their securities portfolios. The analysis therefore generally addresses the nature of the earnings from these portfolios, as well as their risk profile.

**Cost of Funding**
The cost of funding liabilities is a critical component of earnings power. Depending on the availability of information, the analysis of funding costs considers the sources, maturity profile and types of funding, in combination with the mix of funding.

- Generally, a greater share of core deposits drives lower deposit costs.
- While non-interest-bearing accounts typically have lower interest costs, they also generate non-interest expenses that can be taken into account in evaluating the overall cost to the bank of this funding.
- A greater reliance on wholesale funding often leads to above-average funding costs relative to deposit funding, but this cost is also impacted by the maturity profile of the wholesale funding.
- When wholesale borrowing is concentrated in the short-end of the rate curve, the cost can be much lower, but may also increase interest rate risk and liquidity needs.
- An undue utilisation of wholesale funding may make an institution more susceptible to market-funding disruption and difficulties in rolling its funding.
- Higher aggregate funding costs can be mitigated by minimal reliance on less stable funding sources.

**Spreads and Net Interest Margin**
An important measure is net interest margin (NIM), which is net interest income relative to earning assets. This commonly used measure, which reflects the spread between asset yields and funding costs, provides a useful standard for comparing a bank with its peers and over time. Another measure that adjusts for risk in a bank’s asset mix is net interest income relative to risk weighted assets. High spreads can reflect high loan yields and a well-managed funding base, or moderate yields combined with low funding costs that reflect a well-established customer deposit franchise.

In evaluating spreads, the analysis may take into account differences across countries, as well as among institutions within countries depending on lending types, business mix and funding sources. Specific elements of the environment can play an important role in each country. For banks with similar mixes of business in the same country, a higher level of NIM is likely to indicate stronger earnings capacity. However, any comparisons need to take into consideration the underlying factors, such as the inherent risk in loan portfolios.

**Asset-Liability Management and Net Interest Income Generation**
The analysis seeks to evaluate the effectiveness of a bank’s asset-liability management (ALM) in managing the pricing of loans and deposits, and the integration of its funding processes with the operation of its businesses. One of the goals of ALM is to stabilise net interest income and avoid excessive exposure to interest rate movements. Better run banks tend to be more successful in leveraging the strength of their customer franchises to generate funding with characteristics that can be aligned with their lending and funding needs.

**Non-Interest Income**
Banks generate substantial revenues from non-interest income. These revenues cover a wide range of activities from fees on deposits to net income in capital markets businesses to asset management fees. A range of sources is perceived to enhance the diversity of a bank’s revenue stream and reduce the risk of an abrupt decline in revenues, thereby contributing to resiliency of earnings power. For a bank, many of these activities are essential adjuncts to its role as a financial intermediary, particularly in providing a means of payment and access to liquidity. These activities are also important for leveraging the bank’s franchise, reputation and brand.
Inherently, more non-interest income is positive if it adds to stability and earnings growth, but some sources can be relatively less stable and more cyclical, adding volatility to revenues. Brokerage commissions, investment banking fees, trading revenues and residential mortgage-related fees are more heavily influenced by market conditions and changes in interest rates and, therefore, tend to be more volatile than deposit fees, for example. Nevertheless, to the extent that this cyclicality adds diversity, these revenue sources are still beneficial. Many of these activities involve limited exposure to credit and interest rate risk, adding diversity to a bank’s risk profile. The analysis seeks to understand the nature of these revenues, their stability, diversification and overall contribution to earnings resiliency.

The analysis of non-interest income has been complicated by the growth of banks’ participation in capital markets activities. While subject to market driven fluctuations, trading business revenues, especially when driven by customer activity, can show more stability through diversification across these businesses for major participants. Trading business revenues can be broadly diversified across products (equities, interest rates, currencies and commodities), customer segments and major markets. For larger participants with extensively diversified global trading businesses and effective risk management, trading revenues can be more stable. Smaller players may be more concentrated in fewer businesses and experience more volatility. While some capital markets businesses have significant fee income, including advisory and underwriting fees in investment banking, trading income is a major component of revenues.

**Expenses, Cost Control and Efficiency**

The analysis evaluates a bank’s ability to control its operating expenses, while delivering revenue growth. Banks need to invest in their businesses and franchises, typically accomplished by utilising current resources. This implies that banks have to find and deliver substantial cost savings to reduce their expense ratios at the same time that they are utilising some of these savings to invest for the future. To the extent feasible and depending on available information, the analysis considers the alignment of expenses with revenues and the extent to which a bank is being operated optimally. Various measures can be used, including the cost/income ratio, the levels of pre-tax margins, and operating leverage (often called “jaws” or revenue growth minus expense growth), and the ratio of expense growth to revenue growth.

*Cost/Income, Expenses/Revenues, “Efficiency Ratio”* One useful measure is the ratio of operating expenses to operating revenues, which is used to show performance over time and relative to peers with similar business mixes. While expense ratios can indicate differences in efficiency, especially over time, the analysis needs to take into account the differences across banks in their business mix. Typically, fee-based businesses have higher expense ratios than lending businesses that also have to absorb the cost of credit out of net interest income.

Where data are available, one avenue is to compare performance between banks by business line, although this analysis has to recognise that reported numbers may reflect different approaches to reporting by businesses among banks. Across countries, there is also considerable variation in cost ratios and progress towards reducing these ratios. The analysis takes into account the local environment in assessing performance and prospects.

*Operating Leverage, “Jaws”* Another measure of expense control is operating leverage expressed as either the difference between the growth in revenues and the growth in expenses or as the ratio of the increase in expenses/increase in revenues. Sustained positive operating leverage can indicate a bank’s success in controlling expenses and aligning expense growth with its revenue trajectory.

**Underlying Earnings – Income Before Provisions and Taxes (IBPT)**

This component of the analysis brings together the drivers of earnings to establish the underlying earnings generation capabilities of the bank. A central measure of earnings in the analysis is income before provisions and
taxes (IBPT). This measure gauges a bank’s ability to generate enough earnings to absorb the cost of credit and still be able to sustain growth by building capital and paying dividends. This measure provides an indication of the bank’s ability to absorb the impact of deteriorating loan portfolios and other adverse events out of current earnings and avoid invading capital. Greater resiliency in these underlying earnings and a greater cushion over potential losses are important underpinnings for higher ratings.

An important aspect of the analysis is determining a normalised run rate for the bank’s earnings versus the current pace of earnings. The objective is to understand a bank’s ability to grow underlying earnings and sustain these earnings during periods of stress. Where feasible, this involves adjusting for one-time items or other extraordinary events, such as mergers and acquisitions, mark-to-market adjustments on the bank’s own debt, extreme trading volatility, other corporate actions and non-recurring expenses. They can also include gains and losses on securities or in trading businesses that are associated with events that are not anticipated to recur going forward. Accounting changes are also taken into account.

**Factoring in the Cost of Credit**

The analysis seeks to adjust earnings for the normalised cost of credit, which is discussed in more detail below. In some businesses, the cost of credit is low in most years, but can rise quite significantly in down cycles, such as with real estate lending. Supported by generally high net interest margins, credit cards and other unsecured consumer lending, however, tend to have much higher costs of credit as a run rate, but rise proportionately less in downturns. To the extent that data are available, the mix of a bank’s business is taken into account in developing a perspective on the potential paths for the cost of credit. In establishing a view on the ability of a bank to withstand an elevated cost of credit in a downturn, the analysis may also consider the level of stressed provisioning relative to IBPT.

**Taxation**

Taxes are an important factor in deriving earnings available for capital accumulation and dividends. The analysis seeks to understand normal tax rates and the drivers of any changes in tax rates. Tax rates for banks with international businesses can vary over time, as the business mix and earnings change by country. Differences in tax policy by country mean that care is taken in comparing after-tax earnings of banks across countries. Where appropriate, deferred tax assets and the likelihood that they can be realized are evaluated.

**Evaluating Profitability**

Various measures are used to evaluate a bank’s profitability and its returns to capital. Where data are available, these measures may include pre- and post-provision earnings capacity ratios, pre-tax return on Tier 1 capital, return on equity (ROE) and return on assets (ROA). Reported ROE can be distorted by non-recurring elements. Where appropriate and feasible, the analysis may adjust for non-recurring elements to obtain a better perspective on underlying trends. After-tax ROE also takes into account tax rates, which can vary substantially. ROA can be less meaningful for banks that generate substantial income from off-balance-sheet activities and also from fees related to financial services (such as asset management). Adjustments can be made by looking at managed assets, which can include certain off-balance sheet exposures, such as credit card securitisations or unused loan commitments. Besides the standard measures, such as ROA and ROE, the analysis also considers IBPT to risk-weighted assets (RWA), which is the regulatory measure of risk-adjusted assets.
### METHODOLOGY GRID: EARNINGS POWER

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Very Strong</th>
<th>Strong</th>
<th>Satisfactory</th>
<th>Passable</th>
<th>Weak</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenue generation</strong></td>
<td>Powerful and resilient revenue mix across business lines and/or geographic regions</td>
<td>Largely resilient revenue generation; well-balanced levels of net interest income and non-interest income across business lines and/or geographic regions</td>
<td>Some level of weakness in one or more of the following: revenue generation, the balance of net interest income and non-interest income, diversification across business lines or geographic regions</td>
<td>Higher level of weakness in one or more of the following: revenue generation, the balance of net interest income and non-interest income, diversification across business lines or geographic regions</td>
<td>Weak and unstable revenue generation illustrated by overdependence on net interest income; limited diversification across business lines and/or geographic regions</td>
</tr>
<tr>
<td><strong>Expense control</strong></td>
<td>Well-established cost control culture with demonstrated ability to manage costs over time; consistent positive operating leverage that benefits from significant economies of scale</td>
<td>Robust cost control culture with strong ability to manage costs over time; consistent positive operating leverage that benefits from economies of scale</td>
<td>Sound cost control culture with satisfactory ability to manage costs over time; consistent positive operating leverage that benefits from some economies of scale</td>
<td>Adequate cost control culture with acceptable ability to manage costs over time; less predictable operating leverage that benefits from limited economies of scale</td>
<td>Weak, inflexible cost control culture impacted by numerous one-off events and consistently weak operating leverage that benefits from little to none economies of scale</td>
</tr>
<tr>
<td><strong>Ability to absorb credit and other charges</strong></td>
<td>A proven capacity to generate earnings/IBPT to consistently absorb credit costs with little or no history of capital invasion while considering the bank's risk profile</td>
<td>A robust ability to generate earnings/IBPT to absorb credit costs with limited history of capital invasion while considering the bank's risk profile</td>
<td>A solid ability to generate earnings/IBPT to absorb credit costs with some history of capital invasion while considering the bank's risk profile</td>
<td>An adequate ability to generate earnings/IBPT to absorb credit costs with some history of capital invasion while considering the bank's risk profile</td>
<td>Credit costs challenge earnings/IBPT's ability to absorb them with frequent historical episodes of capital invasion while accounting for the nature of the bank's exposures</td>
</tr>
<tr>
<td><strong>Profitability and returns on capital</strong></td>
<td>Top tier of peer group for most key earnings power illustrative metrics</td>
<td>Upper to mid tier of peer group for several key earnings power illustrative metrics</td>
<td>Mid tier of peer group for most key earnings power illustrative metrics</td>
<td>Mid to lower tier of peer group for most key earnings power illustrative metrics</td>
<td>Lower end of peer group for key earnings power illustrative metrics</td>
</tr>
</tbody>
</table>
III.3 Building Block 3: Risk Profile

Overview
Taking risks is an inherent function of banks as financial intermediaries. A critical element of the rating process is evaluating and quantifying the nature and extent of the risks that a bank faces and how well the bank manages these risks. In this building block, the ratings process seeks to evaluate a bank’s risk exposures and its processes for managing various types of risk in assessing the risks inherent in the bank’s activities. A bank’s track record in managing risk through economic cycles and its capacity to sustain a sound credit profile in the intermediate future are key rating considerations. The analytical framework starts with assessing a bank’s risk governance and how risk is managed. It then focuses on assessing the bank’s profile across the major categories of risk – credit risk, market risk, including interest rate risk and ALM, and operational risk.

Assessing Management of Credit Risk
In assessing the management of credit risk, DBRS considers how well a bank’s risk management processes evaluate and control its various risk exposures. Good risk management is about understanding, measuring, controlling and taking risks. Having the systems and processes to accomplish this measurement and having the ability to manage this risk well are important advantages, especially for larger, more complex and more global banking organisations. Credit risk is managed with various tools, including exposure limits based upon internal credit ratings of counterparties and concentration limits, as well as various mitigants such as collateral and guarantees.

Various elements may be considered when assessing a bank’s credit processes where appropriate. Credit approval processes are often important, including the level of authority delegated to credit risk management to ensure adequate controls, the robustness of the internal rating scale to properly identify riskier loans, and house exposure limits that constrain bulky relationship exposures. Another area that can be reviewed is a bank’s underwriting standards for different types of loans, as well as its policies for avoiding excessive risk concentrations.

Risk in Lending Portfolios
The analysis evaluates the characteristics of a bank’s various loan portfolios and past performance to determine their quality and potential performance depending on available information. This evaluation can involve analysis of the loan mix and loan characteristics by customer type, industry and geographic location, including granularity and concentrations.

Collateral, LTVs and other terms
Where appropriate, the type of collateral held against various loans and recourse to third parties may also be considered. Also evaluated to the extent that data are available are concentrations in potentially higher-risk industries or loan types, such as commercial real estate or certain residential mortgages, along with any factors that tend to mitigate these risks. For instance, an elevated portfolio concentration in commercial real estate could be mitigated by the combination of conservative loan-to-value (LTV) ratios and debt service capacity requirements, a highly granular and diversified portfolio, and a strong track record in safely managing this business through various real estate and interest rate cycles.

Portfolio granularity and concentrations
Portfolio granularity is important for reducing the potential for severe losses from a few large exposures. Loan diversification typically reduces risk, but the extent of this reduction depends on the correlations across the different portfolios. At the other extreme, heavy concentration in one sector or type of lending clearly exposes a bank to more credit risk, even if it has better credit skills. One example is the sequence of difficulties that banks have faced when they have had loan portfolios that are concentrated in commercial real estate and construction. Given that credit performance is typically correlated with economic cycles, some correlation is almost always present within a country. For banks with international operations, the analysis also typically considers whether a bank’s risk profile benefits from its international diversification.
Contingent Exposures
An important source of exposure can be the extension of lines of credit, loan commitments or other forms of potential exposure, including financial, performance and trade letters of credit. The likelihood of draws needs to be factored into the exposure assessment, as well as the extent to which unused credit lines can be constrained or withdrawn if the borrower’s credit quality weakens.

Retail Lending
In retail lending, the evaluation typically looks at the bank’s processes, experience and track record in managing retail credit. Depending on the level of available data, the various loan portfolios are reviewed in areas such as vintage analysis, target markets and product mix. Where information is available, the review may also consider the customer segment risk profiles in terms of such parameters as loan to value ratios, credit scores, and other credit measures. The evaluation also looks at the bank’s skills in being able to manage businesses such as credit cards or automobile leasing that require specialised skills. Compliance with internal policies and external regulatory requirements is also a consideration.

Counterparty risk
The analysis may also investigate a bank’s exposure to counterparty risk, i.e., the risk that a counterparty does not perform as agreed upon on their financial contracts, where this risk is significant. Derivatives, options, forwards and other market contracts can be a major source of this risk, but there are other contingent exposures. The scale of this risk is much more significant for banks that are active in the financial markets and those with substantial capital markets businesses. But, even banks with limited exposure have this risk, for example, via interest rate swaps. Where relevant, the analysis seeks to understand a bank’s capabilities in assessing and managing this risk.

Assessing Loan Performance, Handling Impaired Loans, Loan Loss Provisioning
Assessing Loan Performance
Asset quality performance is reviewed and the prevailing trends are analysed to assess how portfolios may perform in the future. Depending on the availability of data, this process involves the consideration of various types of information including, loan performance, trends in customer creditworthiness, trends in collateral coverage and peer group comparisons. Where appropriate for poorly performing portfolios, delinquency trends are reviewed, including rollover rates across delinquency buckets. The processes for recognising loan problems and identifying nonperforming loans are also reviewed. Where problems have occurred in specific loan portfolios, these instances provide a useful opportunity to understand what went wrong and how management addressed the problems.

The analysis uses a variety of ratios and measures to track credit quality trajectories, where data are available and at a level of detail that is appropriate for the bank’s business mix.

- One useful ratio is the level of impaired loans as a proportion of total loans. This ratio can be misleadingly low for banks with fast-growing loan portfolios. The ratio could look high for banks operating in jurisdictions where the process for resolving impaired loans is lengthy. Adjustments can be made to take these leads and lags into account.
- Wherever possible, the analysis also looks at asset-quality indicators by business segment, which usually gives a better perspective on levels of impaired loans and loan loss reserve coverage.
- Policies on recognising losses and writing down nonperforming loans are also evaluated at a level of detail that reflects the bank’s business mix, where possible. This evaluation takes into account variations across countries in regulatory requirements, accounting treatment and banking practices
- Loss severity is an important component in this process, especially for loans with collateral, such as residential mortgages and commercial real estate.
- The next step is to understand how a bank translates its expected losses into maintaining an appropriate level of loan loss reserves. In some countries, nonperforming loans are written down and reserves are established against further write-downs. In other countries, reserves are established against the full
amount of the exposure, with write-downs occurring when the exposure is fully reserved or when the exposure is resolved.

- Reserves are needed not only for the expected losses on nonperforming loans, but also on the projected deterioration of loans that are currently performing. As credit performance deteriorates and delinquency rollovers increase, these projected losses on the “good” segments of loan portfolios can be expected to rise in a weakening economy.

- The analysis also seeks to understand a bank’s processes for recognising potential losses, projecting future loan performance and determining the appropriate level of reserves. Where possible, this evaluation is conducted at the level of lending types and business segments.

Provisioning
A final step is to understand a bank’s provisioning for loan losses and appropriateness of its loan loss reserves. Management’s ability and confidence in its projections and provisioning levels can also provide insight into the effectiveness of risk management, especially in a difficult environment.

Evaluation of trends in credit quality and provisioning for a bank’s peers within a country provides a useful context for evaluating the bank’s performance. The analysis would generally view banks that are showing better results than their local peers as having stronger credit performance, although this assessment would take into consideration any differences in the mix of a bank’s credit portfolio.

Market Risk
The analysis evaluates the extent of a bank’s exposure to market risk in various forms and how well these risks are managed. Banks are exposed to a range of market risks from interest rate movements, fluctuations in values of securities portfolios, trading books and exposures to counterparties.

- The principal exposure to market fluctuations for many banks is driven by interest rate movements. Banks have developed increasingly extensive approaches to managing interest rate risk that are typically incorporated into their ALM framework.

- For banks that are active in the capital markets, management of market risk is important in these businesses. Where relevant, the analysis seeks to understand how a bank is exposed to market risk, how well it manages this risk and the potential stress that this exposure could place on the bank.

- DBRS views market risk as a bank’s exposure to changes in the values of its positions due to movements in prices or other market indicators. Sound management of market risk is seen as a combination of accurate risk measurement, insightful risk assessment, effective control processes, and cohesive decision making that combines these capabilities effectively. Sound management results in an appropriate balancing of risk taking with the earnings being generated.

Interest Rate Risk and Asset Liability Management
Given the importance of this risk for banks, the analysis seeks to understand how a bank manages its interest rate risk and how these processes are integrated into the bank’s overall risk management processes.

- Attention is paid to evaluating the extent of a bank’s interest rate risk and how well it is managed. This process is complex, as it combines an evaluation of the impact on earnings and equity of rate changes with the management of both sides of the bank’s balance sheet in terms of funding and assets over a given time frame.

- This process is typically linked together through the bank’s ALM processes. Given that a significant portion of a bank’s revenues come from net interest income, a key goal of the ALM process is to limit the bank’s exposure to interest rate changes. The analysis seeks to understand the extent of a bank’s interest rate risk and how the bank goes about achieving its goals.

- In its simplest form, the process is about the alignment of the maturities of liabilities and assets that is accomplished with maturity gap or duration analysis. With limited product sets and business lines, smaller
banks are likely to employ this approach. More complicated ALM processes seek to project out the potential flows, stocks and rates to determine funding needs.

The analysis evaluates the effectiveness of these processes and the implications for liquidity and funding from any significant mismatches.

Exposure to Changes in Interest Rates In managing interest rate risk, banks typically establish limits on their interest rate risk exposure. One form of assessing the overall risk to the institution is to measure the impact on net interest income of a parallel shift in the interest rate yield curve. Additional scenarios involve twists and other variations in the movement of the yield curve. Another measure is to determine the impact on the bank’s economic value resulting from such a shift, which provides a measure somewhat similar to value-at-risk (VaR). Through variations in scenarios and stress testing, a bank can develop its perspective on its risk profile and potential actions to constrain the risk within its limits. In assessing a bank’s exposure to interest rates, such processes can provide useful insights for the analysis and illuminate the extent of any exposures relative to the bank’s overall profile and trends in this risk over time.

Market Risk Management in Capital Markets Businesses

For banks that have significant capital markets businesses, considerable attention is paid to the scope and management of market risk, given their importance for the success of these businesses. If successful and well controlled, these businesses can be important contributors to a bank’s strength. By their nature, however, these businesses, if poorly run with inadequate risk management, can detract from a bank’s strengths and constrain its ratings. The analysis evaluates a bank’s risk management processes for their effectiveness in measuring, controlling and managing market risk in its trading businesses.

Market Risk Measures One commonly used measure of market risk is VaR, which is a measure of the potential loss in value of trading positions that a bank could experience due to adverse market movements over a defined time horizon with a specified confidence level. VaR is more effective in measuring market risk from a relatively narrow perspective, such as positions on trading desks, rather than in measuring aggregate market risk. To aggregate across desks, a wide range of products, diverse businesses and different markets globally require the development of a broad based system that can handle the complexity of individual products and positions. For an individual bank, trends in VaR over time can provide a perspective on its market risk. Due to differences in assumptions, models and input data, however, VaR data are not directly comparable between banks.

A bank’s trading performance also provides insights into its market risk profile, where data are available. In normal times, the number of negative trading days can be indicative of a bank’s risk appetite. The dispersion of daily trading results can also indicate the bank’s ability to generate significant gains, as well as the willingness of management to tolerate losses.

Overlap of Credit Risk and Market Risk In addition to counterparty risk, the analysis also evaluates a bank’s exposure to areas where credit and market risk overlap. Contingent credit risk can arise in the provision of liquidity arrangements that can involve market risk if liquidity has to be extended due a decline in market values. A bank’s securities portfolios can reflect an overlap of credit risk and market risk. In managing their securities portfolios, the analysis considers how banks evaluate the market risk in these portfolios and take into account their exposure to credit problems that could be correlated with their lending and credit activities.

Operational Risk

Given the complexity of banks, operational risk is an important consideration in evaluating a bank’s soundness and the potential for charges. These risks include diverse elements ranging from human error, to failures in
operating systems, to the inability to meet regulatory requirements. While there are commonalities in the analysis of operational risk, these can vary even for similar banks due to differences in areas such as product lines, footprints, systems, planning and procedures, expertise, senior management involvement and strategy. As such, DBRS approaches this area by seeking to understand the answer to broader operational risk questions such as “what could go wrong for this bank?” and “what support and planning is in place to provide comfort should such an event occur?”

The analysis evaluates a bank’s track record both with respect to its experience of operational risks and the success of its responses. Also considered are the risk of loss from inadequate or failed internal processes, people and systems, or from external events. Under current regulatory capital requirements, operational risk is captured through an addition to a bank’s risk weighted assets. Legal risk is included, but not strategic or reputational risk.
## METHODOLOGY GRID: RISK PROFILE

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Very Strong</th>
<th>Strong</th>
<th>Satisfactory</th>
<th>Passable</th>
<th>Weak</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Retail Credit Risk</strong></td>
<td>Low loss history, well-diversified portfolio mix by geography, sectors &amp; product. Portfolios have characteristics such as: small proportion of loans originated in footprint, high proportion of secured loans v. unsecured loans; generally less LTV loans; owner-occupied; high level of priority lien position; strong borrower characteristics; self/co-owned, full recourse to borrower/guarantor.</td>
<td>An FI with a strong retail credit risk profile is typically characterized by many of the attributes of the very strong risk profile with limited attributes of a weak risk profile.</td>
<td>Satisfactory retail credit risk profile F1 is typically characterized by attributes of the very strong risk profile balanced by some attributes of the weak risk profile.</td>
<td>Passable retail credit risk profile F1, characterized by some attributes of the very strong risk profile with limited attributes of the weak risk profile.</td>
<td>Material loss history, concentrated portfolio by geography, sectors &amp; product. Portfolios have characteristics such as: non-granular/large single-name concentrations, low quality of collateral/security, high LTV loans, a high level of non-owner occupied loans, high level of subordinated positions, weak borrower characteristics, limited recourse to borrower/guarantor.</td>
</tr>
<tr>
<td><strong>Wholesale Credit Risk</strong></td>
<td>Low loss history, well-diversified portfolio mix by geography, sectors &amp; product. Portfolios have characteristics such as: granularity, high quality of collateral/secured loans, limited high LTV loans; a high level of owner-occupied loans, low level of subordinated positions, strong borrower characteristics, self/co-owned, full recourse to borrower/guarantor.</td>
<td>Strong risk profile F1 is typically characterized by the attributes of the very strong risk profile with limited attributes of the weak risk profile.</td>
<td>Satisfactory risk profile F1 is typically characterized by attributes of the very strong risk profile balanced by some attributes of the weak risk profile.</td>
<td>Passable risk profile F1, characterized by some attributes of the weak risk profile with limited attributes of the very strong risk profile.</td>
<td>Material loss history, concentrated portfolio by geography, sectors &amp; product. Portfolios have characteristics such as: non-granular/large single-name concentrations, low quality of collateral/security, high LTV loans, a high level of non-owner occupied loans, high level of subordinated positions, weak borrower characteristics, limited recourse to borrower/guarantor.</td>
</tr>
<tr>
<td><strong>Market Risk</strong></td>
<td>Very low risk reflects either limited trading activities along with very well hedged interest rate risk, very highly rated securities portfolio, and low FX risk; OR, very well managed market risk, which typically consists of: well diversified trading businesses, low VaR, few negative trading days; appropriate MTM requirements relative to balance sheet (incl. insurance), very well hedged interest rate risk, very highly rated securities portfolio, and low FX risk.</td>
<td>Strong risk profile typically characterized by market risk with many of the attributes of the very strong risk profile and few attributes of the weak risk profile.</td>
<td>Satisfactory risk profile typically characterized by market risk with attributes of the very strong risk profile, balanced by some attributes of the weak risk profile.</td>
<td>Passable risk profile typically characterized by market risk with some attributes of the weak risk profile with a few attributes of the very strong profile.</td>
<td>High risk reflects either sizeable trading activities along with ineffectively hedged interest rate risk, poorly rated securities portfolio, and high FX risk; OR, poorly managed market risk, which typically consists of: poorly diversified trading businesses, high VaR, numerous negative trading days, sizeable MTM requirements relative to balance sheet (incl. insurance), ineffectively hedged interest rate risk, poorly rated securities portfolio, and high FX risk.</td>
</tr>
<tr>
<td><strong>Operational Risk</strong></td>
<td>Very strong operational capabilities and track record across organisation, immaterial regulatory issues and significant adaptability, successful history of managing reputational and legal risks, effective/harmonized technology and infrastructure.</td>
<td>Strong operational risk profile typically characterized by attributes of the very strong risk profile with limited attributes of the weak risk profile.</td>
<td>Satisfactory operational risk profile typically balanced by some attributes of the very strong profile.</td>
<td>Passable operational risk profile typically characterized by some attributes of the weak risk profile with a few attributes of the very strong profile.</td>
<td>Weak operational capabilities and track record, especially if operating in numerous jurisdictions, material regulatory issues and weak adaptability, poor history of managing reputational risk and legal risks, poor technology and infrastructure.</td>
</tr>
<tr>
<td><strong>Risk Management</strong></td>
<td>Highly effective and established policies and processes; appropriate reporting lines, strong underwriting, proven loan loss reserve management, effective counterparty risk management, and sound remedial credit management.</td>
<td>Strong risk management F1, characterized by many of the attributes of the very strong risk profile with limited attributes of the weak risk profile.</td>
<td>Satisfactory risk management F1, typically characterized by attributes of the very strong risk profile balanced by some attributes of the weak risk profile.</td>
<td>Passable risk management F1, characterized by some attributes of the weak risk profile with limited attributes of the very strong profile.</td>
<td>Ineffective and poorly defined policies and processes, inappropriate reporting lines, weak underwriting, unproven loan loss reserve management, ineffective counterparty risk management and weak remedial credit management.</td>
</tr>
</tbody>
</table>
Building Blocks 4 & 5: Balance Sheet

Building blocks 4 and 5 are related in that both deal with aspects of a bank’s balance sheet strength. For clarity and to better discuss the unique aspects of each area, they are treated as two separate building blocks in this methodology.

III.4 Building Block 4: Assessing Funding and Liquidity

Approach

Funding and liquidity are linked together. The funding analysis focuses on a bank’s mix of funding and how well the bank aligns the characteristics of its funding with the characteristics of its asset mix. A bank’s liquidity reflects both its funding mix and its asset profile, including lending, securities, and investments. Typically, it is the unexpected withdrawal of funding or a bank’s inability to roll over its liabilities that initiates liquidity crises and can lead to extreme stress or failure, even for large financial institutions. The analysis seeks to understand a bank’s liquidity position, considering both the potential cash needs and the sources and ability of the bank to meet these demands even under a stressed environment.

Funding and liquidity are connected to the prior building blocks. For example, they are connected to the bank’s franchise strength, particularly its deposit franchise, through the nature of the liabilities that banks provide to its customers that meet their needs, ranging from demand or sight deposits to long-term bonds. Stickiness is a key concern. They are also connected to the cost of funding and the opportunity cost of holding liquid assets. One issue is how a bank balances the benefit of having more liquidity with the cost of holding liquid assets that usually yield less than other assets, such as loans, that have additional risk and are less easy to sell at face value.

Critical Role of Banks in Providing Liquidity

As financial intermediaries, banks and other financial institutions play a critical role in offering various forms of deposits, securities and other liabilities that facilitate the financial activity of individuals, businesses and institutions. Banks are important in intermediating maturity. Banks are especially important in providing customers with means of payment, stores of value and sources of liquidity. As depository institutions, banks have an inherent advantage in generating funding from deposits that are both a means of payment and a liquid store of value. The liquid nature of deposits, however, also means that banks have to maintain sufficient liquid resources to meet likely customer demands for repayment.

Evaluating Funding

The analysis of funding is concerned with the mix and stability of funding and how funding is managed. Besides deposits, banks also utilise a range of other types of funding, predominantly from wholesale financial markets, but also from retail customers, specialised intermediaries and government or public institutions. These forms of funding range from secured borrowings to unsecured debt.

Retail and Deposit Funding

- Banks that are able to fund more of their assets with deposits are typically better positioned to achieve lower funding costs and withstand liquidity crises.
- Core deposits are the most attractive because they tend to be both relatively stable and generally “sticky” when markets are stressed and typically lower cost than wholesale funding, where core deposits are broadly defined as customer deposits driven by customer relationships.
- Insured deposits are considered the most stable, although insured deposits raised primarily by paying high rates are generally viewed as less stable. Some forms of customer funds, such as short-term notes and other securities, can also be relatively stable, but are generally not as sticky as deposits.
Wholesale Funding
- To the extent that banks use wholesale funding, the assessment focuses on the alignment of this funding with the characteristics of the assets being funded and the bank’s liquidity profile. Covered bonds are one example of such alignment.
- Reliance on wholesale funding is usually measured by the proportion of a bank’s liabilities that come from wholesale funds broadly defined as market and interbank funds including central bank borrowings.
- Excessive reliance on wholesale funding weakens a bank when this funding is not aligned with the characteristics of the assets being funded, such as their liquidity or maturity. A low reliance on wholesale funding is generally viewed positively, especially for smaller banks that have less access to the capital markets and alternative sources of funding.
- While longer term unsecured funding is generally viewed more positively than short-term funding, in a crisis, the need to fund maturing long term debt can quickly mount up if new long-term debt issuance is deferred, especially when the typical maturity is two to five years.
- To the extent that a bank’s business model is more focused on capital markets activities, a greater reliance on wholesale funding is to be expected. Then, the assessment considers the nature and mix of this funding, including secured borrowing and repos, and the extent to which it is appropriately aligned with the bank’s wholesale businesses and their assets.

Managing Funding
- Particularly for wholesale funding, the analysis seeks to understand and evaluate a bank’s management approach to its funding mix and funding costs. This evaluation also typically considers the processes used to manage funding including ALM processes and the management of interest rate risks.
- An essential component is a bank’s ability to reliably source and manage its funding. To the extent that information is available, the analysis considers the diversity of sources of funding by instrument type, maturity, counterparty, investor and market.
- While some level of reliance on medium term notes and other longer dated funding is to be expected as banks fund longer dated loans and assets, utilisation of such funding to support securities portfolios to generate net interest income generally adds funding risk, but does not enhance customer relationships or benefit the franchise.
- While longer term funding brings the benefit of better matching of maturities and reduced annual rollovers versus short-term funding, there is some maturation in the short-term that has to be managed.

Liquidity
The analysis considers the resources available to meet maturing obligations, withdrawals and calls on commitments, and to address maturing funding that cannot be rolled. To the extent that information is available, assessing a bank’s preparedness for a liquidity crisis includes consideration of liquidity contingency plans, the processes in place to meet unexpected needs for cash and contingency liquidity resources. Market perceptions of weak liquidity can result in elevated funding costs for a bank. Even when it does not cause severe funding problems, the perception of illiquidity can impact a bank through a loss of market confidence. A bank can suffer losses if forced to sell marketable assets at a discount. Its access to funding and its cost of funding may deteriorate if it faces a rising risk premium for its interbank funding.

Liquidity Assessment - Analytical Steps
The liquidity assessment may involve various steps to the extent information is available and the analysis is warranted, including:
- **Measurement and management indicators:** Assess the liquidity gaps, cumulative cash flows, funding concentrations, internal pricing for liquidity, and other measures that a bank utilises to manage its funding.
- **Characteristics of key asset and liability classes:** Evaluate stickiness of deposits, nature of wholesale funds, likely calls on loan commitments and other potential calls on liquidity.
• **Available liquid resources:** Assess resources available to meet potential calls for cash or collateral, as well as a bank’s access to a variety of liquidity sources beyond internal resources, such as central banks.

• **Evaluation of funding risk and liquidity governance:** Evaluate the “chain of command” for liquidity management and the processes in place to address events that stress a bank’s liquidity.

• **Limit setting:** Evaluate a bank’s approach to establishing and observing liquidity policies.

• **Scenario analysis and stress-testing:** Understand the manner in which a bank manages its funding and liquidity, as well as its management of interest rate risk, including risks of major negative events such as rating downgrades, deposit withdrawals, and an inability to roll over short-term funds.

• **Business continuity plans:** Evaluate the bank’s preparedness to fund itself in case of a breakdown in financial markets due to systems or infrastructure failure, or events such as extreme weather or terrorist attacks.

• **Regulatory requirements:** Review adherence to any regulatory requirements for liquidity and funding, including meeting requirements to access lenders of last resort and other public sources. These requirements have become more demanding with liquidity requirements being phased in by Basel III.

**More Complex Banking Organizations**

For more complex banking organisations, the analysis may also consider other factors:

• Intercompany funding and contingency funding arrangements within the organisation may be evaluated, including access to local sources of liquidity for international banks, the liquidity positions of subsidiaries and the potential for liquidity to be trapped in subsidiaries.

• For organisations operating in different countries, liquidity management can be significantly more complex, involving access to local currency funding and foreign exchange risk. As appropriate, the analysis seeks to understand how the organisation manages its liquidity across its operations.

• The stand-alone liquidity position of the holding company, if the organization has one, is typically evaluated to determine its liquidity position. One consideration is how long the holding company can meet its operating expenses and debt service obligations from its own resources without relying on dividends from regulated bank subsidiaries.
<table>
<thead>
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<th>Satisfactory</th>
<th>Passable</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Funding mix</td>
<td>Exceptionally strong and resilient funding profile typically underpinned by a stable deposit franchise that comprises a majority of its overall funding, supported by well diversified and reliable wholesale funding sources</td>
<td>Solid funding profile typically underpinned by a stable deposit franchise that comprises a large portion of its overall funding, supported by well diversified and relatively reliable wholesale funding sources</td>
<td>Less robust funding profile typically underpinned by a deposit franchise that comprises a smaller portion of its overall funding, supported by fairly well diversified and relatively reliable wholesale funding sources</td>
<td>Less robust funding profile typically underpinned by a deposit franchise that comprises a smaller portion of its overall funding, supported by less well diversified and relatively less reliable wholesale funding sources</td>
<td>Weak funding profile typically underpinned by a deposit franchise that comprises a small, less sticky, portion of its overall funding, supported by poorly diversified and relatively less reliable wholesale funding sources</td>
</tr>
<tr>
<td>Alignment of funding sources and their uses</td>
<td>Funding profile is appropriately aligned with the nature, scale and maturity of the assets being funded</td>
<td>Funding profile is broadly aligned with the nature, scale and maturity of the assets being funded</td>
<td>Generally well aligned funding profile with some mismatches in the nature, scale and maturity of the assets being funded</td>
<td>Generally aligned funding profile with some sizeable mismatches in the nature, scale and maturity of the assets being funded</td>
<td>Overly reliant on limited funding sources; significant mismatches in the nature, scale and maturity of the assets being funded</td>
</tr>
<tr>
<td>Ability to withstand a stressed environment</td>
<td>A high level of unencumbered assets relative to potential liquidity needs supported by a readily accessible liquidity buffer and reliable emergency liquidity sources</td>
<td>A solid level of unencumbered assets relative to potential liquidity needs supported by an accessible liquidity buffer and relatively reliable emergency liquidity sources</td>
<td>A lower level of unencumbered assets relative to potential liquidity needs supported by an accessible liquidity buffer and relatively reliable emergency liquidity sources</td>
<td>Limited unencumbered assets and/or a high level of encumbered assets relative to potential liquidity needs supported by a modest liquidity buffer and less reliable emergency liquidity sources</td>
<td>Very limited unencumbered assets and/or a high level of encumbered assets relative to potential liquidity needs with a limited liquidity buffer, and unreliable emergency liquidity sources</td>
</tr>
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III.5 Building Block 5: Capitalisation: Structure and Adequacy

Approach to Bank Capitalisation
The fundamental purpose of a bank’s capital is to provide a buffer to protect a bank’s liability holders from loss. Strong capitalisation is important for retaining the confidence of investors and counterparties. A simple measure of capital is the difference between a bank’s assets and liabilities. A larger difference makes it more likely that liability holders would be paid in full if the bank were to be wound up. In practice, a bank’s capitalisation is more complicated. Adjustments to capital are necessary because this difference may not reflect the resources that would be available. Capital may have to be adjusted for potential calls on capital that are not reflected in the bank’s assets. As banks are highly levered (or geared) the level of capital can vary substantially with only modest changes in the values of assets or liabilities.

Links to Other Building Blocks
Strong earnings power with resilient underlying earnings provides the best protection for bondholders, as these resources can absorb the impact of adverse events without invading capital. An important consideration in assessing the need for capital is the scale of losses that a bank could absorb out of income before provisions and taxes on a current basis, as well as in a stressed environment. Also considered is the ability of the bank to generate capital from operations to sustain balance sheet growth, make strategic acquisitions and accommodate required capital expenditures, as well as management’s practice in prioritising capital adequacy relative to meeting shareholder expectations regarding return on equity. Besides these connections to the other building blocks, the ability of a bank to raise new capital is also likely to reflect the strength of its franchise. Strong capital also bolsters the confidence of depositors, counterparties and investors helping strengthen funding stability and reducing the risk of increased liquidity pressure. Strong capital enables a bank to remain solvent despite losses, continue to operate, and return to profitability.

The analysis of a bank’s capitalization generally considers:
- The scale and structure of a bank’s capital and its ability to protect the bank and its liability holders.
- The adequacy of this capital in light of the bank’s risk profile and earnings power.
- A bank’s management of its capitalisation, assessment of its risk profile, need for capital, evaluation of its businesses risk and allocation of capital to ensure appropriate management of business risk
- Capital flexibility including the bank’s capacity to generate capital, policies on dividends and share buybacks.
- Given the importance of the regulators in determining the adequacy of a bank’s regulatory capital, the analysis also considers regulatory requirements and how well a bank meets these requirements.
- Determining size of its capital cushion above required levels, whether internal, regulatory or DBRS’s.

Measuring a Bank’s Capital and its Structure
*Equity Capital* The primary component of a bank’s capital is its book equity, which is the difference between its reported assets and liabilities. This capital generally equates to common equity and preferred shares.
*Common Equity* DBRS views common equity as the best protection for depositors, bondholders and other obligors, as a bank can readily absorb losses through common equity and continue to function.
*Preferred Shares* Preferred shares as equity also provide protection for liability holders, but they cannot readily absorb losses. A bank’s quality of capital is viewed as weaker the more it relies on preferred shares.
*Hybrid Securities* Hybrid securities are instruments that have characteristics that are between preferred shares and subordinated debt instruments with mandatory payments and fixed maturity. The principal driver for the use of certain hybrids is their acceptance for regulatory calculations of Tier 1 capital and the analysis views them positively in so far as they contribute to a bank meeting the regulators requirements Hybrids that are largely equivalent to preferred shares are viewed more favourably, but DBRS does not give equity credit to hybrid instruments.
Contingent Convertible Instruments These instruments, commonly called CoCos, have various triggers that result in the conversion of the instrument. Most of the conversions are to common shares based on specified exchange ratios subject to floor prices. However, some conversion terms have a specific recovery rate that can be as low as zero, and some conversions are reversible. The underlying instrument is generally preferred shares or subordinated debt, but it can be senior debt. Thus, CoCos are different from most of the existing hybrids, although some hybrids did contain contingent conversion features. Depending on their specifications, CoCos may count towards Tier 1 capital regulatory requirements, but not all CoCos meet the necessary specifications and may only count towards Tier 2 capital.

We view banks that rely less on hybrids and preferreds, and more on common equity, in reaching their regulatory ratio targets, as having higher quality capital, making them better positioned to ride out an adverse environment. The regulators have also moved away from hybrids towards common Tier1 that excludes hybrids. Most future hybrid instruments are likely to have contingent capital characteristics. These characteristics make it more likely that these instruments can contribute to a bank’s common equity and its ability to absorb losses during a period of stress, while still a going concern. DBRS views such characteristics as adding to the contribution of hybrids to a bank’s capital, but would still not consider them as equivalent to common equity.

Adjusting Bank Capital for Selected Asset Valuations
Certain adjustments to capital may be made to provide a better assessment of the resources that would be available to protect depositors and other counterparties in a deteriorating environment. Where feasible and appropriate, adjustments are made for selected assets whose values are likely to deteriorate.

Adjustment for Intangibles Reducing the value of intangibles is the prime example of this form of adjustment. Tangible common equity assumes that goodwill and certain other intangibles have little or no value under the rationale that the additional value ascribed to goodwill is likely to be dissipated by a bank’s deterioration. Regulatory capital rules also ascribe no value to goodwill and certain other intangibles. Deferred tax assets are another area where adjustments may be made if analysis indicates difficulty in realization in a stressed scenario.

Volatility from Mark to Market Accounting Another challenge in assessing the adequacy of a bank’s capital is the increasing volatility that may result from accounting rules that are expanding the extent to which bank balance sheets are marked to market. Currently, accumulated other comprehensive income (AOCI) impacts common equity, but only flows through income if it is determined to be “other than temporarily impaired” (OTTI). Illiquid assets are another area that could result in adjustment of capital for potential valuation reductions. Certain liabilities are also being marked to market. The potential for procyclical adjustments can be a concern in the analysis. Depending on the composition of a bank’s businesses and balance sheet, DBRS may incorporate the additional risk from future valuation changes in components of the bank’s balance sheet.

Capital Ratios and the Adequacy of a Bank’s Capitalisation
No single measure captures the strength of a bank’s capitalisation, so a variety of measures are used. The complexity of measuring capital and assessing a bank’s risk profile limits each measure. To illuminate different perspectives on a bank’s capital position, the analysis employs a matrix approach using various measures to help establish how well a bank is capitalised.

Total Equity/ Total Assets The simplest capital ratio is the ratio of total equity to assets, which indicates how well a bank is protected from insolvency due to a decline in the value of its assets on a book value basis, where total equity includes both common and preferred equity.

Common Equity/ Total Assets Another simple ratio that stresses the amount of common equity a bank could use to absorb losses when experiencing a significant decline in the value of its assets on a book value basis.
**Tangible Common Equity / Tangible Assets (TCE/TA)** This ratio deducts goodwill from common equity as well as from total assets to provide a better measure of the adequacy of capital adjusted for the potential that goodwill and other intangibles are written down in a stressed environment.

**Regulatory Capital Ratios**

Regulatory capital ratios reflect two types of adjustment:

- Adjustments to book capital to provide a better measure of capital in protecting a bank’s liability holders
- Using the risk weighting of assets to provide better measures of the risks that capital must protect against.

The resulting risk weighted assets (RWA) is a better measure of a bank’s risk profile than simple assets that include allocations for risks that are not “on-balance sheet,” such as commitments, market risk and operational risk.

**Tier 1 Ratio (Tier 1 Capital/RWA)**

Tier 1 regulatory capital excludes most intangibles and AOCI; this AOCI exclusion is changing under Basel III and other regulatory changes. However, Tier 1 capital includes qualifying hybrids, subject to certain limits.

For a bank’s RWA, credit risk is calculated by utilising weights by asset type based on credit risk. Average risk assets get 100% weighting. Low risk assets get weightings below 100%, while high risk assets get percentages above 100%. RWA equivalents are assigned for off-balance sheet exposures, such as commitments. RWA equivalents are generated for market risk and most elements of operational risk, but not strategic or reputational risks. This process continues to be refined over time, evolving from the relatively simple process under Basel I, to the more complex and more inclusive processes under Basel II, and more refinement under Basel III.

**Core or Common Tier 1 Ratio (Common Tier 1 Capital/RWA)**

This ratio only includes common equity components of Tier1 capital to focus on the loss absorbing capabilities of capital for banks as going concerns.

**Tier 1 Leverage (Tier 1 Capital/Exposure Measure)**

This ratio assesses leverage against exposure that is not risk-adjusted. It has historically been used in the U.S., where the exposure measure has been tangible assets. With more concern about leverage, a form of this ratio is now being implemented under Basel III. It is generally more constraining than the other Basel capital ratios, as assets are not risk-adjusted. Currently, this leverage ratio is defined as the ratio of Tier 1 capital divided by a non-risk based measure of total exposure. The current regulatory minimum is established at 3%. The exposure measure includes more than just total assets, for example, it also includes off-balance sheet exposures such as commitments. It also permits limited netting of derivative exposure with the same counterparty. The specifics for the Basel III leverage ratio continue to evolve. While full implementation is still some years away under Basel III, some countries are implementing more quickly with their own variations on the specifications.

**Tangible Common Equity/RWA**

Taking advantage of the regulatory risk weightings, DBRS considers the ratio of tangible common equity to RWA. Reflecting DBRS’s preference for equity over hybrids as a cushion for bondholders and other senior creditors, this ratio excludes the hybrid securities that are given full weight by the regulators, up to certain limits, but incorporates AOCI, which reduces capital if it is negative.

**Cushion over Regulatory Requirements**

A useful yardstick for capital adequacy is the scale of a bank's cushion above regulatory requirements. With increased concerns about the adequacy of banks’ capitalisation at a time of uncertainty about asset values and future credit costs, regulators have elevated their requirements for banks to maintain higher capital ratios than they have in the past and have built in capital cushions to help banks cope with stressed environments. Systemically important banks also face capital add-ons to ensure that their regulatory capitalization reduces the systemic risk that they pose. Increased use of stress testing by regulators has added the
potential for regulators to require increased capital for banks to cope with the stressed scenarios. Thus, banks generally are being required to be better capitalised. The analysis evaluates the capital requirements for a bank that take into account its particular characteristics and the regulatory requirements as warranted, as well as considering the potential impact or results of any stress tests.

**METHODOLOGY GRID: CAPITALISATION**

<table>
<thead>
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<th>Weak</th>
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<tbody>
<tr>
<td><strong>Capital cushion and the ability to absorb losses</strong></td>
<td>Capital levels and ratios far exceed regulatory minimums and provide a solid buffer to absorb losses with top tier risk-adjusted capital levels and ratios, and below peer group leverage</td>
<td>Capital levels and ratios easily exceed regulatory minimums and provide an ample buffer to absorb losses with mid-to-top tier risk-adjusted capital levels and ratios, and low to mid leverage relative to peers</td>
<td>Capital levels and ratios exceed regulatory minimums and provide a limited buffer to absorb losses with mid tier risk-adjusted capital levels and ratios, and mid to high leverage relative to peers</td>
<td>Capital levels and ratios are closer to regulatory minimums and provide a limited buffer to absorb losses with mid-to-lower tier risk-adjusted capital levels and ratios, and elevated leverage relative to peers</td>
<td>Capital levels and ratios are at or approaching regulatory minimums and offer minimal protection against losses with poor risk-adjusted capital levels and ratios, and very high leverage relative to peers</td>
</tr>
<tr>
<td><strong>Mix &amp; Quality</strong></td>
<td>Capital is almost completely comprised of tangible common equity</td>
<td>Capital is comprised largely of tangible common equity, with small levels of non-core equity elements, such as intangibles, hybrids and preferreds</td>
<td>Capital contains a moderate level of non-core equity elements, such as intangibles, hybrids and preferreds</td>
<td>Capital contains a material level of non-core equity elements, such as intangibles, hybrids and preferreds</td>
<td>Capital contains a sizeable level of non-core equity elements, such as intangibles, hybrids and preferreds</td>
</tr>
<tr>
<td><strong>Generation and Flexibility</strong></td>
<td>Powerful and consistent internal capital generation ability and/or appropriate dividend/share repurchase policy provides flexibility with given business and capital requirements</td>
<td>Solid and consistent internal capital generation ability and/or an appropriate dividend/share repurchase policy given business and capital requirements</td>
<td>Adequate internal capital generation ability and an appropriate dividend/share repurchase policy</td>
<td>Limited and less consistent internal capital generation ability and/or a more aggressive dividend/share repurchase policy</td>
<td>Weak and inconsistent internal capital generation ability and/or an inappropriate dividend/share repurchase policy</td>
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</tbody>
</table>
IV. USING PEER GROUPS AS CHECK ON PRELIMINARY INTRINSIC ASSESSMENT

A. Utilizing Peer Groups to Check Consistency of Preliminary IA
To check the consistency of the preliminary IA, the bank is compared to peer groups that have certain similar characteristics. One set of peers are those banks that have similar ratings. Depending on the bank, these comparisons may take into account the country where the bank is domiciled. Another set of peer groups focuses on banks with similar characteristics, such as a similar business mix. Comparisons are typically made with various measures for the peer group, such as medians and averages, as well as for individual members of the peer group. These include both qualitative and quantitative measures. If significant differences are revealed, an evaluation is made as to the basis for the divergence and the need to modify the preliminary IA.

Specifying Peer Groups
Peer groups are selected to provide sets of banks with which meaningful comparisons can be made to ensure that the preliminary IA is appropriate. One set of peers are banks that are similarly rated by DBRS. In determining additional appropriate peers, DBRS chooses sets of banks that are of similar size, business model and operating footprint, where this is feasible.

Generic Peer Groups
DBRS has certain peer groups of banks that provide valuable tools for identifying relative strength and understanding trends over time for sets of banks. While there are many variations in business mix across banks, DBRS has developed some broad categories of banking organisations. Through this process it is possible to compare banking organisations with similar profiles to determine performance and understand competitive forces. It is an important part of the process of establishing peer groups.

Ratios and other measures provide useful standards and facilitate comparative analysis with peers. Where reliable data are available, trends over time offer a useful perspective on whether a bank is gaining or losing strength. Trends over time combined with metrics and stress tests can also be used to help identify strengths and weaknesses.

Four Categories of Banking Organisation
From a functional perspective, DBRS distinguishes four broad categories of banking institutions. The following groupings are quite general and illustrate how DBRS approaches the task of selecting “similar” banks. In practice, banks are seldom exactly similar and there is typically a need to understand and allow for differences as required in the analysis:

- Universal banking groups
- Large, predominantly (commercial) retail banks largely domestically focused
- Regional and local retail banks
- Specialised institutions.

(1) Universal Banks
These banks have a wide range of business lines and often, leading positions in their domestic markets in wholesale and retail banking, but with varying strength in international franchises. All are engaged in capital markets businesses, but some have more involvement than others. Some are much more extensively engaged in other business lines, such as asset management, insurance or wealth management. Some banks have considerable international operations, while others are more domestically focused. Where relevant, the analysis takes the differences in these characteristics into account in evaluating the building blocks.
(2) Large, Predominantly (Commercial) Retail Banks Largely Domestically Focused
These banks are primarily domestically focused, with large, sometimes dominant, footprints in their countries’ retail market, which includes both consumers and SMEs. Their business mix is focused on deposit products, lending and other related banking services. With their substantial branch networks and other distribution channels, these banks often provide other financial products to their customers including investment and insurance products. These products are often sourced from third parties or through joint ventures. Client mix can also include local governments and municipalities. Given their scale, however, these banks can also cater to larger businesses, as well as the broad SME segment. Capital markets activities tend to be limited to serving the needs of their clients rather than involving extensive participation.

(3) Regional and Local Retail Banks
These are often the most numerous segments among a country’s banking and credit institutions. It includes diverse institutions, such as small commercial banks, savings banks, co-operative banks, thrifts, credit unions and building societies. These banks serve primarily consumers and businesses in local or regional markets. Their business mix is primarily composed of deposit products, lending and related banking services. Their client mix often includes local governments and municipalities. Even if they lack the scale to produce certain products in-house like their larger competitors, these banks can also leverage their distribution reach and customer base to provide their clients with other products and services sourced from third parties or associations or mutual organisations to which they belong.

(4) Specialized Institutions
There are numerous financial institutions that specialize in particular segments of banking related financial services. Two broad classifications reflect the customer focus of these organisations:

- **Consumer Customer Focused:**
  Mortgage financing entities, consumer finance companies, direct banks utilizing internet and phone access rather than branch presence, retail brokerage, credit card banks

- **Commercial and Institutional Customer Focused:**
  Equipment leasing, boutique investment banks, commercial real estate/property lenders, public finance, export-finance, development banks, government sponsored entities
V. IMPACT OF RELATED METHODOLOGIES AND CRITERIA – FINAL RATING AND RATINGS FOR SPECIFIC SECURITIES

Once DBRS has determined the IA of the bank, several other methodologies and criteria are employed to determine the final Issuer Rating and ratings for specific classes of securities from senior debt to preferred shares. As discussed in these methodologies, the final rating for bank securities will consider aspects such as the support assessment (or pressure) of applicable sovereign governments; a floor rating (where relevant) and appropriate notching for the holding company, ranking and contingent risk considerations.

These criteria are as follows:

Factoring Support Assessment into the Final Rating
This Criteria addresses how DBRS incorporates internal and external support that can elevate or detract from a bank’s IA to derive its final rating. External support comes from governments and other official sources. Internal support typically comes from within a banking organisation. Internal support can also arise because a bank or similar financial institution belongs to an association of financial institutions that provides support in various forms.

For additional information, see:

DBRS Criteria: Support Assessments for Banks and Banking Organizations. (January 2014)

Rating Specific Classes of Bank Securities
This Criteria addresses the steps taken to rate specific classes of instrument, where these securities are notched from the bank’s ratings. For some instruments, this is the final rating; for others it is the bank’s IA.

For additional information, see:


Rating Bank Holding Companies
This Criteria addresses the issues involved in rating holding companies that is applicable to rating bank holding companies. The application of this criteria means that most bank holding companies are rated one notch below the rating of the operating bank.

For additional information, see:

DBRS Criteria; Rating Holding Companies and Their Subsidiaries, (January 2014)

Impact of Sovereign Ratings
This commentary addresses how sovereign risk can constrain bank ratings.

For additional information, see DBRS commentary:

“Sovereign Ratings Provide a Benchmark for other DBRS Credit Ratings,” (March 2011).
Appendix 1: Characterisation by Rating Category

Investment Grade Ratings

AAA-Rated Banks
A banking entity rated AAA would either be government owned and located in an AAA sovereign, or would display exceptional, sustainable franchise strength, leading to the generation of strong, resilient earnings power. The business model usually has unique features that support its earnings resiliency and provide competitive advantages. Often, such entities would also display a robust funding and liquidity profile that has demonstrated consistent health throughout severely stressed market conditions, with management being committed to maintaining superior funding and liquidity positions. Very effective risk management will be commensurate with a consistently low risk profile, which should result in consistently stable and superior asset quality indicators. Management’s commitment to maintaining a superior risk profile through the medium term is key to achieving a premium AAA rating. In many instances, the banking entity’s charter, legal foundation or government ownership constrain its business mix and limit its risk profile. In some cases, the franchise’s success depends on maintaining its high rating, which constrains its appetite for taking risks. Capitalisation metrics will generally be superior, although government support typically plays an important role for entities that have close ties to the government.

AA-Rated Banks
Banks rated AA typically have strong sustainable franchises, resilient earnings, solid funding and sound liquidity with well balanced risk profiles, very effective risk management and strong capitalisation. Banks towards the lower end of this category are more likely to reveal some minor weakness in one or more of the building blocks. The bank’s franchise would typically have strong market positions and broad diversity across its business lines enabling it to readily adapt to shifting competitive forces and market changes. With a sound strategy for growth, the bank is likely to demonstrate success in advancing this franchise through organic growth and/or acquisitions, as well as cope with regulatory or other changes in its environment. For more complex banking organisations, strong operational capabilities and effective controls are important features.

Resilient earnings generally reflect strong customer relationships and well positioned businesses that support higher net interest margins, strong noninterest income streams and consistent expense management. Typically, a well-balanced funding mix is combined with appropriate liquid resources and access to contingency funding to ensure that the bank achieves superior funding costs and can ride out liquidity crises. In some cases, the bank’s low risk profile reflects the nature of its franchise and its exposures. In other cases, a higher risk profile reflects effective management of risk taking that generates higher returns, but also constrains risk taking to limit the excess that is not rewarded with returns. AA banks are generally more willing and less constrained than AAA banks to take on risk to grow their businesses and expand their franchises given the right opportunities. Capitalisation generally shows significant strength, especially for AA-banks with higher risk profiles.

A-Rated Banks
Banks in the ‘A’ category will have generally solid franchises and earnings, but will either display an area of notable weakness in one of the five building blocks, or will display some weaknesses in several of the five building blocks. In some cases, A-rated banks have franchises with less business diversity or weaker market positions that make them susceptible to competitive dynamics and changes in the external environment, such as regulation or market cycles. In some business lines, the bank can lack the scale or ability to compete effectively. Generally earnings are strong, but less resilient than AA-rated banks with weaker net interest margin and fewer sources of noninterest
income that may be very evident in some major business lines. For some A-rated banks, the weakness is visible in a greater reliance on wholesale funding, higher funding costs or more exposure to liquidity pressures. Some A-rated banks have much higher risk profiles or have weaker risk management processes. In some cases, a bank may have very strong fundamentals, but its business profile involves higher levels of risk taking and greater exposure to market disruption. Banks in this rating category have solid capitalisation, but typically lack well fortified balance sheets with ample high quality capital.

**BBB-Rated Banks**

BBB rated banks are typically smaller with less diversity in their franchises and generally display weakness in multiple building blocks, or a significant weakness in one building block. While many of these banks benefit from strong positions in their core markets, they often lack the scope and breadth in their franchises that would provide more resilient earnings. They are more exposed to shifts in competitive forces and changes in the external environment. Financial results tend to be less predictable and display greater volatility. Usually much more dependent on deposit funding, they are in a much weaker position to the extent that they rely on market funding. Often risk profiles are weakened by a lack of portfolio diversity and excessive exposure to single names or concentrated exposure in certain types of lending. While risk management can be sound, weakness in controlling risk can be evident in outsized exposure to key risks. In some cases, banks in this category have solid franchises that generate strong earnings, but their business mix results in a higher risk profile and greater reliance on wholesale funding. Capitalisation can vary significantly, but weaker banks tend to reveal adequate rather than strong capitalisation.

**Non-Investment Grade Ratings**

**BB-Rated Banks**

Given the importance of confidence of depositors and other creditors for a bank’s survival, it is difficult for banks to thrive when they are non-investment grade and their debt is speculative. Non-investment grade banks can usually be characterised as one of three types. One type comprises up and coming banks that show weakness in many of the building blocks, but are on the rise as indicated by advancing franchises, strengthening earnings and improving risk profiles. The second type comprises banks whose ratings have declined from investment grade. Typically, these “fallen angels” face increasing stress as they are revealing increasing weakness across the building blocks. Regulatory pressure to raise capital and take other actions is likely to increase the stress. The third type are banks that have a specialised niche business that typically generates strong earnings, but is associated with a significantly higher risk profile than would be required to be investment grade. These banks are typically very reliant on wholesale funding that is often collateralized. BB-banks typically have viable franchises, but also have risk profiles that elevate the potential for significant problems to arise either in credit or in funding. Capitalisation is generally inadequate to offset the enhanced risk.

**B-Rated Banks**

Banks rated at this level are usually fallen angels that are experiencing significant weakening across the five building blocks. Franchise deterioration, earnings collapse and loss of access to funding are usually combined with increased write-downs and elevated provisioning. Portfolio deterioration and declining asset values combined with weakening capitalisation indicate a significant deterioration in the bank’s financial position. Few resources are unencumbered. Regulatory actions put further pressure on the institutions. Absent capital infusions and other fixes, there is an elevated risk that the bank deteriorates further as its franchise erodes.

**CCC-Rated Banks**

Banking organisations in this category are facing a very elevated level of stress. The bank’s survival is very much in doubt.