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Banco Regional de Desenvolvimento do Extremo Sul (BRDE)

Rating Transparency Presentation

October 2019

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Expertise
A comprehensive view of the global markets through our ratings and research.

Credibility
Over 100 years of experience delivering forward-looking, independent, stable and transparent opinions.

Engagement
Meaningful interactions across multiple channels between our analysts and market participants.

BRDE – Ratings summary

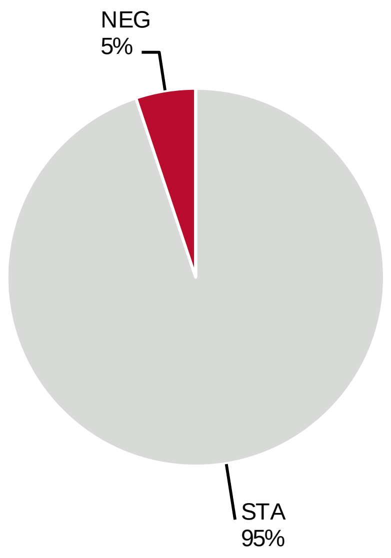
Ratings / Assessments Classes	Rating	Outlook/ Review
Issuer Rating – Domestic	Ba3 / Not Prime	Stable
NSR Issuer Rating – Domestic	A2.br / BR-1	
Counterparty Risk Rating (foreign and domestic currency)	Ba2 / Not Prime	
NSR Counterparty Risk Rating – Domestic	Aa2.br / BR-1	
Counterparty Risk Assessment	Ba2(cr) / Not Prime (cr)	
Adjusted Baseline Credit Assessment	ba3	
Baseline Credit Assessment	ba3	

Source: Moody's Investors Service

Rating Distribution

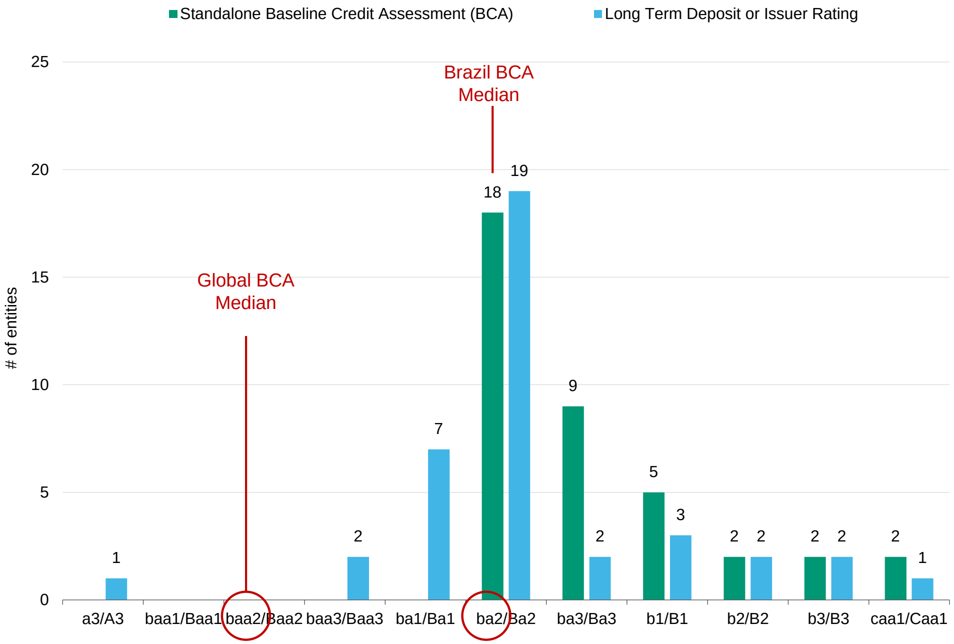
The majority of Brazilian banks carries the same outlook as the sovereign, as we can see below in the Outlook distribution after sovereign actions.

Distribution of Issuer Outlooks
(As of September 2019)



Source: Moody's Investors Service

Distribution of BCAs and Deposit Ratings
(As of September 2019)



Source: Moody's Investors Service

Financial Profile

Assigned scores incorporate forward-looking expectations, auxiliary ratios, qualitative aspects and stress scenarios

- The financial profile captures both the bank's operating environment and its financial performance
- The Macro Profile is used to calibrate the financial ratios and condition these by the relative strength or weakness of the bank's operating environment. The result of this adjustment determines the macro adjusted scores

Financial Factors				Assigned Scores and Drivers			
	Scorecard Ratio	Current Ratio	Initial Score* [M-]	Credit Trend	Assigned Score	Key Driver #1	Key Driver #2
Asset Risk (25%) *Problem Loans / Gross Loans*	*1.8%*	1.4%	*baa3*	--	**ba3**	Sector concentration	
Capital (25%) *Tangible Common Equity / RWA*	17.8%	17.8%	baa1	↔	**ba1**	Expected trend	
Profitability (15%) *Net Income / Tangible Assets*	0.8%	1.0%	ba2	↔	**ba3**	Earnings quality	
Combined Solvency Score (65%)			**baa3**		**ba2**		
Funding Structure (20%) *Market Funds / Tangible Banking Assets*	77.2%	77.2%	caa3	↔	**b2**	Extent of market funding reliance	
Liquid Resources (15%) *Liquid Banking Assets / Tangible Banking Assets*	20.0%	20.0%	ba3	↔	**ba3**		
Combined Liquidity Score (35%)			**b3**		**b1**		
Financial Profile					**ba3**		

**The Initial Score is based on the scorecard ratio*

Ratings Summary

Credit Strengths

- Established role as a regional development bank, with steady loan growth and focus on the agricultural industry
- Sufficient capitalization levels
- Limited susceptibility to political influence owing to its three-state ownership

Credit Challenges

- Concentrated funding structure, with high reliance on funds from BNDES
- Downward profitability pressures in light of the low interest rate environment in Brazil, combined with the introduction of BNDES' new lending rate

Ratings Outlook

- The outlook on BRDE's ratings is stable and reflects our expectation that the bank's capitalization will offset potential asset risk and profitability challenges.

What Could Change the Rating?

Factors that Could Lead to an Upgrade

» BRDE's rating could face upward pressure if the bank's asset risk falls significantly and its profitability recovers. Meaningful diversification of the bank's funding sources would also be positive, particularly if this funding is lower cost and stable.

Factors that Could Lead to a Downgrade

» A significant weakening of BRDE's financial fundamentals, resulting from a larger than expected deterioration in the quality of the loan book and an ensuing reduction in capitalization levels, could have a negative effect on the bank's ratings.

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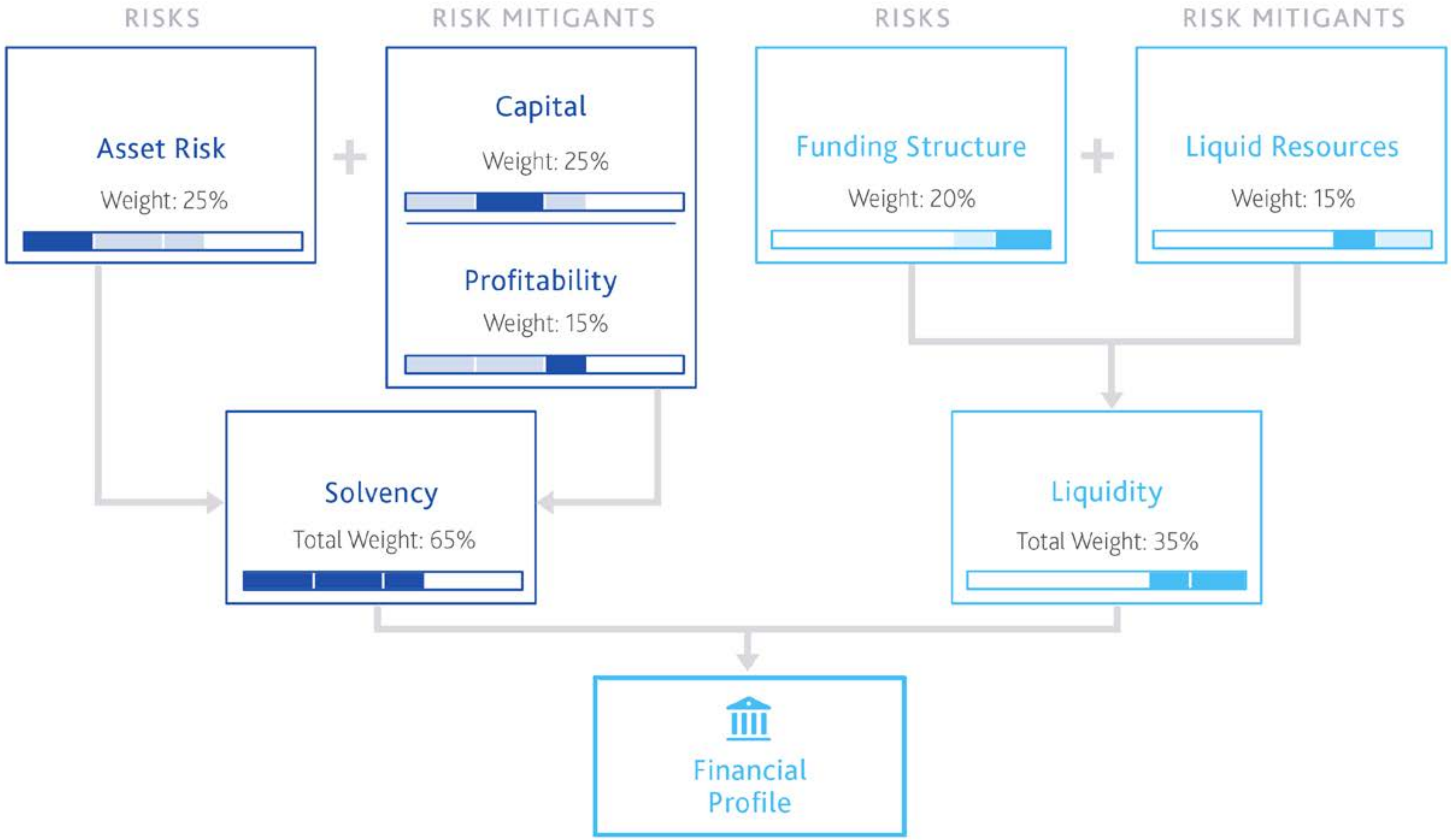
Appendix and Summary

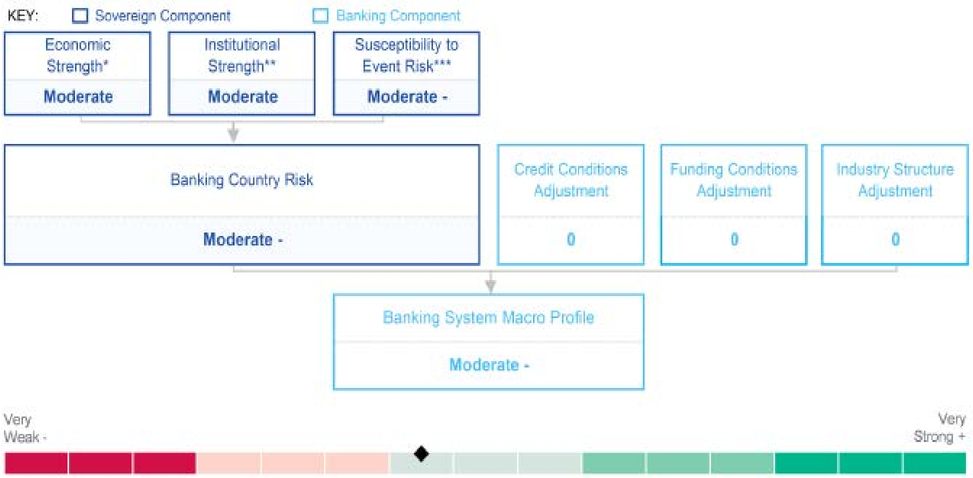
Financial Factors

Our assessment of a bank's financial profile is structured around key risks and their



Macro Profile

The Macro Profile builds on three components from our sovereign scorecard, and three banking components, since strong sovereigns may have weak banking systems.



CREDIT CONDITIONS: We do not make any adjustment to credit conditions given that risk appetite at banks remains conservative following the recent recession

FUNDING CONDITIONS: Brazilian banks have a stable domestic retail deposit base, which accounted for about 66% of total funding in March 2018. Banks in Brazil have low exposure to international capital market conditions, and consequently to refinancing risks in times of volatility

INDUSTRY STRUCTURE: The three large government-owned banks account for nearly 50% of total system loans in June 2018, while the four largest private banks held another 35%, making Brazil a concentrated banking system. We expect public banks to continue to grow at a slower pace than private sector banks over the next 12-18 months, which will gradually reduce their market share.

BANKING COUNTRY RISK

» **Moderate Economic Strength** Brazil's 'Moderate' score for economic strength balances the large scale of its economy and its high degree of diversification against its moderate wealth levels and growth prospects following the 2015-2016 recession.

» **Moderate Institutional Strength** Our assessment considers that Brazil's low ranking in the country's relatively low rankings in “Government Effectiveness” and “Control of Corruption,” as measured by the Worldwide Governance Indicators, understate the strength of its institutional arrangements and policy credibility.

» **Moderate- Susceptibility to Event Risk:** Overall, we believe susceptibility to event risk is “Moderate-,” incorporating Brazil's relative resilience to external shocks, largely because of its large stock of international currency reserves, the government's small share of foreign-currency-denominated debt and access to a deep domestic financial market, and narrowing current account deficits, which are fully covered by foreign direct investment inflows. However, the score also reflects the potential risk that political developments could hurt growth and fiscal outcomes given uncertainty surrounding post-2018 policy continuity.

*excluding adjustment related to “credit boom” **excluding adjustment related to track record of sovereign default ***excluding banking factors

Regional and selected peers´ Macro Profiles

Brazil’s macro profile is Moderate -

Selected Macro Profile Rank Ordering

Country	Economic strenght	Institutional strenght	Susceptibility to event risk	Most recent banking country risk	Adjusted Credit Factor	Funding Conditions	Industry Structure	Latest signed-off Macro Profile
CHILE	H	VH	M-	Strong +	0	0	0	Strong +
CHINA	VH-	H-	L+	Strong +	-2	0	0	Moderate +
COLOMBIA	H	M	L+	Strong -	-1	0	0	Moderate +
INDONESIA	H+	M	L	Strong -	-1	0	0	Moderate +
MEXICO	H	M-	L+	Moderate +	0	0	0	Moderate +
PERU	M+	M+	L+	Moderate +	0	0	0	Moderate +
PORTUGAL	H-	VH-	M-	Strong	-1	-1	0	Moderate +
SLOVENIA	H-	H+	L+	Strong	-1	0	-1	Moderate +
THAILAND	H-	H-	M	Strong -	-1	0	0	Moderate +
INDIA	H+	M	L	Strong -	-2	0	0	Moderate
PANAMA	H-	M	L	Moderate +	0	-1	0	Moderate
SOUTH AFRICA	M+	M+	L+	Moderate +	0	-1	0	Moderate
BRAZIL	M	M	M-	Moderate -	0	0	0	Moderate -
HUNGARY	M+	M+	L+	Moderate +	0	-1	-1	Moderate -
MOROCCO	M	M	M-	Moderate -	0	0	0	Moderate -
PARAGUAY	M-	L+	L	Moderate -	0	0	0	Moderate -
ROMANIA	M+	M	M-	Moderate	0	-1	0	Moderate -
URUGUAY	M+	H	L-	Strong -	0	-1	-2	Moderate -
COSTA RICA	M+	M-	M+	Weak +	0	0	0	Weak +
OMAN	M+	M-	M	Moderate -	-1	0	0	Weak +
BOLIVIA	M-	L	M	Weak	0	0	0	Weak
SRI LANKA	M+	L+	M+	Weak +	-1	0	0	Weak
TURKEY	H	L+	H+	Weak +	0	-3	0	Very Weak +
ARGENTINA	M-	L	H+	Very Weak +	0	-2	0	Very Weak -

Note: * Macro Profiles for each geography are available on moodys.com

Debt Structure Analysis

Standardized LGF uplift based on instrument type

Given the absence in Brazil of an operational going-concern resolution regime (ORR), wherein banks are resolved by bailing-in creditors, the impact of failure on a bank's different debt classes absent government support (i.e. bail-out) is unclear as we believe that resolution procedures will be determined on an ad-hoc basis, rather than being clearly defined ex ante

The **EXPECTED LOSS** of each debt class is derived from a **standardised instrument notching for all non-ORR banks**

Instrument Type	Basic LGF Notching
Counterparty Risk Assessment	Adjusted BCA +1 = Ba2 (cr)
Issuer rating	In line with Adjusted BCA = Ba3

non-ORR

- Counterparty Risk Assessment
- Bank deposits
- Senior long-term debt (Bank)
- Subordinated debt (Bank)
- Dated subordinated debt (Bank)
- Junior subordinated debt (Bank)
- Preference shares (Bank)
- Equity

Short-term Ratings

Long Term Rating	Short Term Rating
Aaa	
Aa1	
Aa2	Prime-1
Aa3	
A1	
A2	
A3	Prime-2
Baa1	
Baa2	Prime-3
Baa3	
Ba1, Ba2, Ba3	
B1, B2, B3	Not Prime
Caa1, Caa2, Caa3	
Ca, C	

National Scale Rating (NSR) Positioning

Brazil

Global Scale	National Scale
Ba1 and above	Aaa.br
Ba2	Aa1.br to Aa3.br
Ba3	A1.br to A3.br
B1	Baa1.br to Baa3.br
B2	Ba1.br to Ba2.br
B3	Ba3.br to B2.br
Caa1	B3.br to Caa1.br
Caa2	Caa2.br
Caa3	Caa3.br
Ca	Ca.br
C	C.br

Positioning of the NSR is driven by the Global scale rating.

Appendix: Common BCA Adjustments I

Financial Factor	Key Driver	Description
Asset Risk	Loan Growth	» An Asset Risk score above “baa” is unlikely assigned if loan growth is in excess of 10% or more than 50% above the local market » Particularly high growth will limit the asset risk score to “ba” whilst growth driven by high-risk asset classes will most likely result in an assigned score of “b”
	Credit Concentration	» A positive adjustment to the Asset Risk score is possible, if exposures are spread globally or across many diverse geographic regions, and where the bank’s largest exposures are modest relative to capital (<100% of TCE), with no single dominant sector exposure (<200% of TCE), and no concentrations to a single sector we consider to be high risk (e.g. commercial real estate <50%)
		» A negative adjustment to the Asset Risk score is made, likely resulting in a lower Solvency score, where exposures are concentrated within a relatively small undiversified economy, where the bank’s largest 20 exposures are collectively large (e.g. 200% of TCE), where exposures to a single sector are material (e.g. 500% of TCE) or where there are modest concentrations to a high-risk sector (e.g. 100% of TCE) » An Asset Risk score above “ba” is unlikely assigned where concentrations are considered severe
	Problem Loan and Collateral Coverage	» A positive adjustment to the Asset Risk score is possible where loan-loss provisions and high quality collateral exceed problem loans by a considerable margin (e.g. 2x) » A negative adjustment to the Asset Risk score is made if problem loans are not fully covered by provisions, expected recoveries and collateral; a modest shortfall (e.g. 10%) would typically lead to a one notch adjustment, in severe cases a larger adjustment is likely
	Long-Run Loan-Loss Performance	» An Asset Risk score above “baa” is possible if loan-loss charges are <40% of pre-provision earnings in the long-run (e.g. 10 years) and < 60% of pre-provision earnings in any single year
		» An Asset Risk score of “ba” is assigned where loan-loss charges in the long run (e.g. 10 years) are >50% of pre-provision earnings » An Asset Risk score of “ba” or lower is assigned where loan-loss charges in the long-run (e.g. 10 years) are >>50% of pre-provision earnings and/or these charges are volatile

Appendix: Common BCA Adjustments II

Financial Factor	Key Driver	Description
Asset Risk	Non-Lending Credit Risk	» A negative adjustment is made if the Asset Risk score is above "ba" when a bank undertakes material risky activities outside of its loan book which are not well captured by problem loan metrics, e.g. leasing activity, where risk is related to residual value , or hold corporate bonds
	Market Risk	» An Asset Risk score is unlikely assigned above "baa" if market risk levels are elevated, if an institution's business model is skewed to market risk a "ba" or "b" may be assigned » Indicators of market risk may include: (1) cash trading book >10% of assets, (2) trading revenues >10% of revenues over time, (3) high or volatile VaR relative to TCE, (4) high proportion of market RWAs, (5) material level 3 assets, e.g. >50% of TCE, (6) long-term investments >50% of TCE, (7) net derivatives >100% TCE, (8) 10% change in an exchange ratio would impact a capital ratio or earnings by >5%
	Operational Risk	» An Asset Risk score above "baa" is unlikely where the combination of business activity, business practice and the regulatory and legal environment give rise to an elevated level of operational risk
Capital	Nominal Leverage	» A positive adjustment to the Capital score of one notch is made when TCE/Tangible Assets >10%
		» A negative adjustment to the Capital score of one to three notches is made when TCE/Tangible Assets <5% » A negative adjustment to the Capital score of one to three notches is made when TCE/Tangible Assets <3% » A negative adjustment to the Capital score of one to three notches is made when TCE/Tangible Assets <2%
	Regulatory Minima	» A Capital score above "baa" is unlikely where the regulatory buffer is <3% of RWAs » A Capital score above "ba" is unlikely where the regulatory buffer is <2% of RWAs
	Capital Quality	» A positive adjustment to the Capital score may be made where the unrealized gains are not recognized within TCE but are deemed highly likely to be realized
		» A negative adjustment to the Capital score may be made where unrealized losses are not included within TCE but are deemed highly likely to be realized

Appendix: Common BCA Adjustments III

Financial Factor	Key Driver	Description
Capital	Capital Fungibility	» A negative adjustment to the Capital score may be made where there are significant regulated subsidiaries with higher solo capital requirements than are applicable to the group resulting in “trapped” capital
	Access to Capital	» A negative adjustment to the Capital score by one notch may be made where a bank’s equity market value is persistently and materially below its book value » A negative adjustment to the Capital score may be made for privately held banks or partnerships where the owners are not able to provide additional funds as well as sufficient self-interest in maintaining the capital ratios to facilitate the provision of additional capital in the case of need » A negative adjustment to the Capital score may be made for mutual banks to reflect the institution’s potential inability to raise significant fresh capital in case of need, given its corporate structure
Profitability	Earnings Stability	» A positive adjustment to the Profitability score may be made if earnings volatility has been limited over an extended period including a downturn (e.g. std. dev. <20% from the mean ratio of pre-provision earnings/total assets)
		» A Profitability score above “ba” is unlikely if earnings volatility has been relatively high over an extended period including a downturn (e.g. std. dev. >50% from the mean ratio of pre-provision earnings/total assets)
Funding Structure	Quality of Market Funding	» A positive adjustment to the Funding Structure score may be made if a material component of market funds are of a higher-quality nature (e.g. small denomination bonds, domestic or covered bond investors)
		» A negative adjustment to the Funding Structure score may be made if market funding is skewed towards the most credit-sensitive investors (e.g. money market fund, foreign investors, interbank funding)

Appendix: Common BCA Adjustments IV

Financial Factor	Key Driver	Description
Funding Structure	Quality of Deposit Funding	» A positive adjustment to the Funding Structure score may be made where deposit funding is predominantly composed of small denomination retail customers benefiting from deposit insurance, with a high proportion of checking accounts, and large, high net-worth, institutional or corporate deposits are immaterial
		» A negative adjustment to the Funding Structure score may be made where deposit funding is significantly composed of more credit-sensitive customers (e.g. institutional and corporate depositors, high net-worth individuals, internet based accounts or significant concentrations to individuals
	Term Structure	» A positive adjustment to the Funding Structure score may be made where funding gaps are immaterial and, therefore, assets and liabilities are fully matched (NFSR > 100%) » A high Funding Structure score is unlikely awarded to wholesale-financed entities even when match funded as their matching policy is most likely compromised when funding dries up as the bank tries to defend its franchise by continuing to lend and/or maintain trading inventories even while it suffers shortening maturities
		» A negative adjustment to the Funding Structure score may be made where wholesale funding is heavily skewed towards the short term (<12 months), and without corresponding liquid assets (e.g. NSFR <100%) » A Funding Structure score above “ba” is unlikely where the deficit presents significant risks
	Market Access	» A Funding Structure Score above “b” is unlikely where an entity is unable to raise cash in the market and its funding to run its business is thus severely compromised » A Funding Structure Score as low as “ca” or “c” is possible where lack of funding is expected to lead to the failure of the bank

Appendix: Common BCA Adjustments V

Financial Factor	Key Driver	Description
Liquid Resources	Quality of Liquid Assets	» A positive adjustment to the Liquid Resources score, usually by up to three notches, may be made where the liquid asset ratio understates liquidity because it does not include: (1) reliable committed lines of credit; (2) assets that are of a very high quality nature (typically Aaa or Aa government or government-related bonds); or (3) assets that can be readily converted to cash (e.g. through internal securitizations)
		» A negative adjustment to the Liquid Resources score, usually by up to three notches, may be made where the liquid asset ratio overstates liquidity because it includes: (1) substantial encumbered assets; (2) assets held for market-making purposes; (3) assets that are not readily market able or of weak credit quality; or (4) assets not eligible at central banks
	Intra-group restrictions	» A negative adjustment to the Liquid Resources score may be made where material barriers to intra-group funding exist

Appendix: Financial factors

We combine the Macro Profile and the financial factors to arrive at the Initial Scores

- We use the Macro Profile to condition the bank’s financial ratios by the relative strength or weakness of the banks’ operating environment
- Each financial ratio is scored on a global scale before integration of the Macro Profile
- For a given financial ratio, the weaker the Macro Profile, the lower the score is likely to be assigned to this financial ratio

Asset Risk Ratio

Macro Profile: Moderate -	Financial Ratio	STEP 1	STEP 2	Initial Score
Asset Risk Factor: *Problem Loans / Gross Loans*	1.8%	S	M-	baa3

STEP 1 Factor

Asset Risk Factor *Problem Loans / Gross Loans*	VS+	VS	VS-	S+	S	S-	M+	M	M-	W+	W	W-	VW+	VW	VW-
	≤ 0.5%	0.5%-0.75%	0.75%-1%	1%-1.5%	1.5%-2%	2%-3%	3%-4%	4%-5%	5%-6%	6%-8%	8%-10%	10%-15%	15%-20%	20%-25%	> 25%

STEP 2 Deriving Initial Score

MACRO PROFILE	VS+	VS	VS-	S+	S	S-	M+	M	M-	W+	W	W-	VW+	VW	VW-
Very Strong + (VS+)	aaa	aaa	aa1	aa1	aa2	aa3	a1	a3	baa1	baa2	ba1	ba3	b2	caa1	caa3
Very Strong (VS)	aaa	aa1	aa1	aa2	aa3	a1	a2	a3	baa1	baa3	ba1	ba3	b2	caa1	caa3
Very Strong - (VS-)	aa1	aa1	aa2	aa2	aa3	a1	a2	baa1	baa2	baa3	ba2	b1	b2	caa1	caa3
Strong + (S+)	aa1	aa2	aa2	aa3	a1	a2	a3	baa1	baa2	ba1	ba2	b1	b3	caa1	caa3
Strong (S)	aa2	aa2	aa3	a1	a2	a3	baa1	baa2	baa3	ba1	ba3	b1	b3	caa1	caa3
Strong - (S-)	aa3	aa3	a1	a2	a3	a3	baa2	baa3	ba1	ba2	ba3	b2	b3	caa2	caa3
Moderate + (M+)	a1	a1	a2	a3	a3	baa1	baa2	baa3	ba2	ba3	b1	b2	b3	caa2	caa3
Moderate (M)	a2	a2	a3	baa1	baa1	baa2	baa3	ba1	ba2	ba3	b1	b3	caa1	caa2	caa3
Moderate - (M-)	A3	a3	baa1	baa2	baa3	baa3	ba1	ba2	ba3	b1	b2	b3	caa1	caa2	caa3
Weak + (W+)	baa1	baa2	baa2	baa3	ba1	ba2	ba2	ba3	b1	b2	b3	b3	caa1	caa2	caa3
Weak (W)	baa2	baa3	ba1	ba1	ba2	ba3	ba3	b1	b2	b3	b3	caa1	caa2	caa2	caa3
Weak - (W-)	baa3	ba1	ba2	ba3	ba3	b1	b2	b2	b3	b3	caa1	caa1	caa2	caa2	caa3
Very Weak + (VW+)	ba1	ba3	ba3	b1	b2	b2	b3	b3	caa1	caa1	caa2	caa2	caa2	caa3	caa3
Very Weak (VW)	ba3	b1	b2	b3	b3	caa1	caa1	caa1	caa2	caa2	caa2	caa2	caa3	caa3	caa3
Very Weak - (VW-)	b1	b3	caa1	caa1	caa2	caa2	caa2	caa3	caa3	caa3	caa3	caa3	caa3	caa3	caa3

Source: Moody‘s Investors Service

Appendix: Financial factors – Translation table

We combine the Macro Profile and the financial factors to arrive at the Initial Scores

Financial Factor Ratios	Categories														
	VS+	VS	VS-	S+	S	S-	M+	M	M-	W+	W	W-	VW+	VW	VW-
ASSET RISK (25%) Problem Loans / Gross Loans	≤ 0.5%	0.5%-0.75%	0.75%-1%	1%-1.5%	1.5%-2%	2%-3%	3%-4%	4%-5%	5%-6%	6%-8%	8%-10%	10%-15%	15%-20%	20%-25%	> 25%
CAPITAL (25%) TCE / RWA (Basel I)	≥ 19.7%	17.7%-19.7%	15.8%-17.7%	14.8%-15.8%	13.8%-14.8%	12.8%-13.8%	11.8%-12.8%	10.8%-11.8%	9.9%-10.8%	8.9%-9.9%	7.9%-8.9%	6.9%-7.9%	6.9%-5.9%	5.9%-4.9%	< 4.9%
TCE / RWA (Basel II)	≥ 20.7%	18.6%-20.7%	16.6%-18.6%	15.5%-16.6%	14.5%-15.5%	13.5%-14.5%	12.4%-13.5%	11.4%-12.4%	10.4%-11.4%	9.3%-10.4%	8.3%-9.3%	7.2%-8.3%	6.2%-7.2%	5.2%-6.2%	< 5.2%
TCE / RWA (Basel III)	≥ 20%	18%-20%	16%-18%	15%-16%	14%-15%	13%-14%	12%-13%	11%-12%	10%-11%	9%-10%	8%-9%	7%-8%	6%-7%	5%-6%	< 5.%
PROFITABILITY (15%) Net Income / Tangible Assets	≥ 2.5%	2.25%-2.5%	2%-2.25%	1.75%-2%	1.5%-1.75%	1.25%-1.5%	1%-1.25%	0.75%-1%	0.5%-0.75%	0.375%-0.5%	0.25%-0.375%	0.125%-0.25%	0%-0.125%	-1%-0%	< -1%
FUNDING STRUCTURE (20%) Market Funds / TBA	≤ 2.5%	2.5%-3.75%	3.75%-5%	5%-7.5%	7.5%-10%	10%-15%	15%-20%	20%-25%	25%-30%	30%-35%	35%-40%	40%-50%	50%-60%	60%-70%	> 70%
LIQUID RESOURCES (15%) Liquid Banking Assets / TBA	≥ 70%	60%-70%	50%-60%	40%-50%	35%-40%	30%-35%	25%-30%	20%-25%	15%-20%	10%-15%	7.5%-10%	5%-7.5%	3.75%-5%	2.5%-3.75%	< 2.5%

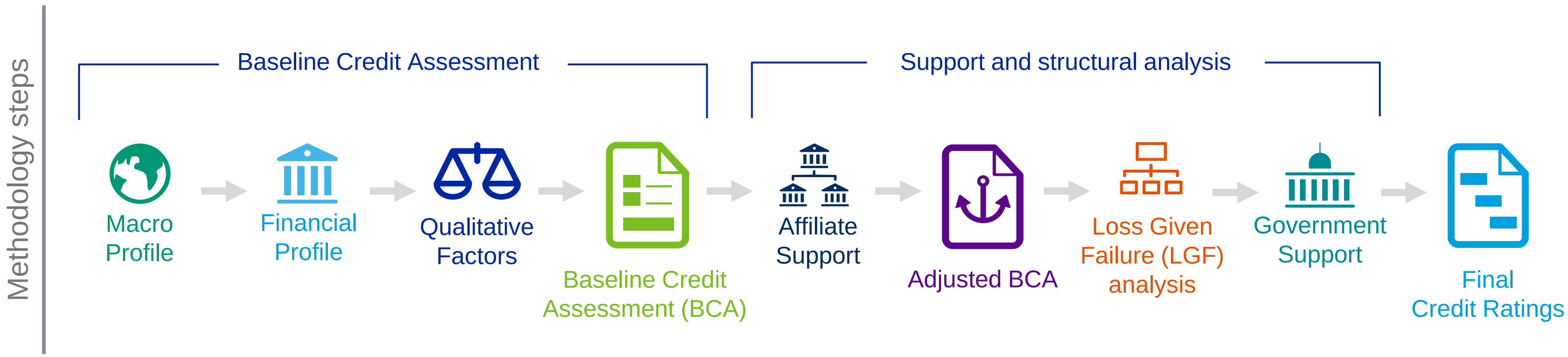
Financial Factor Scores

Macro Profile	VS+	VS	VS-	S+	S	S-	M+	M	M-	W+	W	W-	VW+	VW	VW-
Very Strong + (VS+)	aaa	aaa	aa1	aa1	aa2	aa3	a1	a3	baa1	baa2	ba1	ba3	b2	caa1	caa3
Very Strong (VS)	aaa	aa1	aa1	aa2	aa3	a1	a2	a3	baa1	baa3	ba1	ba3	b2	caa1	caa3
Very Strong - (VS-)	aa1	aa1	aa2	aa2	aa3	a1	a2	baa1	baa2	baa3	ba2	b1	b2	caa1	caa3
Strong + (S+)	aa1	aa2	aa2	aa3	a1	a2	a3	baa1	baa2	ba1	ba2	b1	b3	caa1	caa3
Strong (S)	aa2	aa2	aa3	a1	a2	a3	baa1	baa2	baa3	ba1	ba3	b1	b3	caa1	caa3
Strong - (S-)	aa3	aa3	a1	a2	a3	a3	baa2	baa3	ba1	ba2	ba3	b2	b3	caa2	caa3
Moderate + (M+)	a1	a1	a2	a3	a3	baa1	baa2	baa3	ba2	ba3	b1	b2	b3	caa2	caa3
Moderate (M)	a2	a2	a3	baa1	baa1	baa2	baa3	ba1	ba2	ba3	b1	b3	caa1	caa2	caa3
Moderate - (M-)	a3	a3	baa1	baa2	baa3	baa3	ba1	ba2	ba3	b1	b2	b3	caa1	caa2	caa3
Weak + (W+)	baa1	baa2	baa2	baa3	ba1	ba2	ba2	ba3	b1	b2	b3	b3	caa1	caa2	caa3
Weak (W)	baa2	baa3	ba1	ba1	ba2	ba3	ba3	b1	b2	b3	b3	caa1	caa2	caa2	caa3
Weak - (W-)	baa3	ba1	ba2	ba3	ba3	b1	b2	b2	b3	b3	caa1	caa1	caa2	caa2	caa3
Very Weak + (VW+)	ba1	ba3	ba3	b1	b2	b2	b3	b3	caa1	caa1	caa2	caa2	caa2	caa3	caa3
Very Weak (VW)	ba3	b1	b2	b3	b3	caa1	caa1	caa1	caa2	caa2	caa2	caa2	caa3	caa3	caa3
Very Weak - (VW-)	b1	b3	caa1	caa1	caa2	caa2	caa2	caa3	caa3	caa3	caa3	caa3	caa3	caa3	caa3

Source: Moody‘s Investors Service

Appendix: Moody’s Bank Methodology

A sequential analysis taking into account a new form of “resolution” and generating ratings for each instrument class



Baseline Credit Assessment

The BCA analyses a bank’s financials and operating environment to capture its **stand-alone probability of default**

BCA components:

- **Macro Profile:** Captures the bank’s operating and economic environment
- **Financial Profile:** Captures the bank’s financial health, gauging key solvency and liquidity ratios, together with Initial Scores and judgments, creating a forward looking assessment
- **Qualitative Factors:** Adjust Financial Profile to reflect non-financial qualitative judgments

Support and Structural Analysis

Moody’s individual credit ratings speak to **each credit instrument’s expected loss**

Support and structural analysis:

- **Affiliate Support:** Adjusts the BCA to capture the likelihood of affiliate support from parent and/or cooperative group support, resulting in the Adjusted BCA
- **The Loss Given Failure (LGF) analysis:** Captures the risks different creditors are exposed to in the event of the banks failure, absent government support
- **Government Support:** Captures the extent to which risk to each creditor class is mitigated by public support and adds uplift at the instrument class level

Source: Moody‘s Investors Service

Appendix: Counterparty Risk Assessment

Reference point for structured and public finance transactions

The Counterparty Risk Assessment (CR Assessment) measures an issuer's **probability of defaulting** on its **counterparty obligations** and **contractual commitments** (covered bonds, letters of credit, derivatives, etc.)

It reflects that these obligations may be **preserved as going-concern** and are **less likely to be subject to bail-in or the application of other resolution tools** in order to reduce contagion and preserve a bank's critical functions

The CR Assessment serves as **a reference point** in structured and public finance transactions

The CR Assessment is an input to credit ratings and not a final credit rating; this is denoted by a (cr) modifier, e.g. Baa1 (cr)

Advanced LGF

For ORR banks, the CR Assessment is assigned at the level of the Adjusted BCA in addition to bank specific uplift owing to subordinated capital and debt instruments, prior to applying government support (if any)

Basic LGF

For non-ORR banks, the CR Assessment is assigned at the level of the Adjusted BCA in addition to +1 standard notch of uplift for a lower probability of default prior to applying government support (if any)

Source: Moody's Investors Service

Appendix: Government Support

Reflects the likelihood that the government will inject public funds to recapitalize the bank and/or bail-out creditors

- Government support is assessed separately for each creditor class and ratings uplift derived using Joint Default Analysis.

1 – Sovereign Rating: Measures the capacity of the sovereign to provide support

2 – Probability of Support:

95-100%	Government Backed
70-94%	Very High
50-69%	High
30-49%	Moderate
0-29%	Low

3 – Dependence:

90%	Very High
70%	High
50%	Moderate

4 – Potential Uplift: Notching within the JDA range is a Rating Committee judgment

Appendix: What do our financial ratios mean

SOLVENCY (65% weight) The combination of a bank's risk, and its capacity to absorb any resultant losses from capital and earnings	ASSET RISK (25% weight) is measured by the Problem Loans / Gross Loans ratio, which signals potential problems, credit losses and pressure on solvency that disadvantage bondholders. Most bank failures stem from credit risk, since even a small deterioration in the value of an institution's assets can have a significant effect on its solvency given the bank's typically high balance sheet leverage.	WORST OF
	CAPITAL (25% weight) is measured by Tangible Common Equity / Risk-weighted Assets. Good capital levels are important since the greater the risk of unexpected losses, the more capital a bank needs to hold to protect bondholders and maintain the creditor confidence necessary to fund itself.	LATEST AVAILABLE
	PROFITABILITY (15% weight) as measured by Net Income / Total Assets, helps determine an institution's ability to generate capital, and is a complementary indicator of its ability to absorb losses and recover from shocks.	WORST OF
LIQUIDITY (35% weight) The combination of the mismatch between the maturity of a bank's assets and its liabilities, the reliability of funding, and its capacity to meet cash outflows from liquid reserves	FUNDING STRUCTURE (20% weight) as measured by Market Funds / Tangible Banking Assets, has a strong bearing on the bank's potential to need assistance. If a bank makes significant use of unreliable funding sources (short-term or from risk-sensitive counterparties), it is more likely to suffer difficulties refinancing its debt.	LATEST YEAR-END
	LIQUID RESOURCES (15% weight) as measured by Liquid Assets / Tangible Assets, is an indicator of a bank's ability to attain funding from credit-sensitive investors. If a bank has a stock of high-quality liquid instruments that it can sell or repo for cash, it will be better able to respond to the changing behavior of its counterparties.	LATEST YEAR-END

Ratio rationale

The ratios necessarily fluctuate over time, and their significance varies. For the problem loan ratio and profitability ratio, we review the latest three year-end ratios as well as the most recent intra-year ratio where applicable, and base our starting point ratio on the weaker of the average of this period and the latest reported figure. This reduces the inherent cyclicality of these ratios while ensuring that we capture sudden deterioration. Improvements thereby have a slower impact, which reflects our view that they should be proven over time. For the capital ratio, we use the latest provided figure. For the funding structure and liquid asset ratios, we use the latest year-end figures as we believe them to be the most representative and reliably.

Due to national differences in the implementation and the phase-in period of the Basel III Accord, we use the Tangible Common Equity, TCE, as the numerator for our capital ratio since it is close to the narrowest and now most prevalent regulatory measure of capital, Common Equity Tier 1. We focus on pure common equity and exclude "hybrid" instruments, except those that provided equity-like loss-absorption capacity before the point of non-viability. TCE also caps the contribution of deferred tax assets at 10% of the total and excludes minority interest.

Source: Moody's Investors Service

Appendix: What do our ratings and assessments mean

Moody's Ratings and Assessments

Rating / Assessment	Measure	Description
Counterparty Risk Assessment	Probability of default measure	COUNTERPARTY RISK ASSESSMENT (CR ASSESSMENT) Counterparty risk assessments are opinions on the likelihood of a default by an issuer on certain senior operating obligations and other contractual commitments, including payment obligations associated with covered bonds (and certain other secured transactions), derivatives, letters of credit, third party guarantees, servicing and trustee obligations and other similar operational obligations that arise from a bank in performing its essential client-facing operating functions. CR assessments are assigned to legal entities in banking groups and, in some instances, other regulated institutions with similar bank-like senior obligations. CR assessments do not take into consideration the expected severity of loss in the event of default.
Counterparty Risk Rating	Expected loss measure	COUNTERPARTY RISK RATING: CRRs are opinions of the ability of entities to honor the uncollateralized portion of non-debt counterparty financial liabilities (CRR liabilities) and also reflect the expected financial losses in the event such liabilities are not honored.
Deposits	Expected loss measure	DEPOSIT RATINGS Our Long-Term Bank Deposit Rating is an expected loss measure, which considers both the likelihood of default and severity of loss, and our opinion of a bank's ability to repay its foreign and/or domestic currency deposit obligations with an original maturity of one year of more. It takes intrinsic strength (the BCA) as a starting point and further incorporates our view of the expected financial loss in the case of a default (our Loss Given Failure or LGF analysis) as well as any government support that may be provided. Applies to the most junior class of uninsured deposits, such as large corporate or institutional deposits, including term deposits with maturities of over one year. Short-term ratings are used for deposits of less than 13 months original maturity and are mapped from the LT deposit rating in four rating categories (Prime-1, Prime-2, Prime-3, Not Prime).
Senior unsecured	Expected loss measure	LONG-TERM SENIOR UNSECURED DEBT RATING / ISSUER RATING It is an expected loss measure that expresses our opinion of the ability of debt-issuing banks to honour their current and future senior unsecured debt and debt-like obligations with an original maturity of one-year or more. As with Deposit Ratings it takes intrinsic strength as a starting point and further incorporates our view of the expected financial loss in the case of a default as well as any government support that may be provided. If the rated entity has no senior debt outstanding, we may assign an Issuer Rating as a placeholder. SHORT-TERM DEBT Short-term debt ratings are used for debt of less than 13 months original maturity, including commercial paper, and are an expected loss measure. These are mapped from the long-term debt rating in four categories.
Subordinated AT1 rating / Hybrid rating	Expected loss measure	JUNIOR SECURITIES Like deposits and senior debt, these securities are rated as part of our LGF post-failure analysis. We may remove additional notches from the instrument rating to reflect the risk that the instruments could suffer losses before an institution reaches the point of failure (e.g. coupon suspension or principal is converted to equity or written down, in the case of non-viability contingent capital securities). We do not use a notching framework for rating high trigger contingent capital securities, but instead use a model to determine the risk of a trigger breach as well as a the risk of a bank-wide failure.
Baseline Credit Assessment (BCA)	Probability of default measure	BASELINE CREDIT ASSESSMENT (BCA) The BCA expresses the likelihood of an issuer defaulting on one or more of its debt obligations, or requiring financial or other support to avoid such a default, and does not provide an opinion on the severity of any loss. It is our opinion of a debt issuer's standalone intrinsic strength, without any external support. To determine our Adjusted BCA we incorporate into the BCA our assessment of the likelihood of support for the issuer from affiliates (a parent, group, or cooperative structure).

Source: Moody's Investors Service

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