

Criteria | Financial Institutions | Banks:

Banking Industry Country Risk Assessment Methodology And Assumptions

December 9, 2021

(Editor's Note: On Dec. 6, 2022, we republished this criteria article to make nonmaterial changes. See the "Revisions And Updates" section for details.)

OVERVIEW AND SCOPE

1. This article describes our criteria for determining a Banking Industry Country Risk Assessment (BICRA).
2. The criteria constitute specific methodologies and assumptions under "Principles of Credit Ratings," published Feb. 16, 2011.
3. The criteria apply to all banking systems for which financial institution (FI) issuer credit ratings (ICRs) have been, or will be, assigned.

Key Publication Information

- Effective date: These criteria are effective Dec. 9, 2021, except in jurisdictions that require local registration. In those jurisdictions, the criteria are effective only after the local registration process is completed.
- This updated methodology follows our request for comment, "Request For Comment: Banking Industry Country Risk Assessment Methodology And Assumptions," published June 8, 2021. For the changes between the RFC and the final criteria, see "RFC Process Summary: Banking Industry Country Risk Assessment Methodology And Assumptions," Dec. 9, 2021.
- These criteria supersede the articles listed in the "Fully Superseded Criteria" section at the end of this article.

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METHODOLOGY

4. Our BICRA criteria evaluate and compare the relative strength of global banking systems. BICRA scores are on a scale from 1 to 10, with group 1 representing the lowest-risk banking systems and group 10 the highest-risk ones.
5. A BICRA analysis for a country incorporates the entire country's financial system, taking into account the impact of entities other than banks on the financial system. It also looks at the conditions under which rated and unrated entities operate.
6. A BICRA score is based on a forward-looking time horizon of three to five years, but also incorporates factors beyond this horizon where we consider them to be relevant, material, and sufficiently visible.
7. There are two components to the BICRA criteria: economic risk and industry risk. The analysis is then further divided into six factors (each reflecting various subfactors) that result in an economic and industry risk score for each country (see table 1). A higher risk factor is given a greater weight in the assignment of the final BICRA scores (see table 2).
8. Changing conditions in the economy and banking industry of a country can have profound effects on the creditworthiness of an FI. Therefore, we assess the trends that might affect our economic and industry risk scores. We use the following qualifiers to signal the trends we observe, typically over the next six to 24 months, in economic and industry risk: positive, stable, and negative:
 - Positive means that we think the risk score may improve.
 - Stable means that we think the risk score is unlikely to change.
 - Negative means that we think the risk score may worsen.
9. We identify a positive or negative trend when we believe there is at least a one-in-three likelihood that said trend may lead to a change in the economic or industry risk score in a banking sector. However, our identification of a trend, positive or negative, doesn't mean that we will necessarily revise an economic or industry risk score over the six- to 24-month period mentioned above. Conversely, a stable trend doesn't indicate that we wouldn't change the score over that period, particularly in case of rapid and unexpected developments in an economy or banking sector. Our opinion about a positive or negative trend can affect the outlooks on the ICRs on FIs operating in a country.
10. Our criteria for rating FIs use the economic and industry scores produced by the BICRA analysis to determine an anchor, which is our starting point for determining a stand-alone credit profile (SACP) or group SACP in that criteria (see "Financial Institutions Rating Methodology" ("FI criteria"), published Dec. 9, 2021).
11. The BICRA analysis incorporates a government's influence on its banking system, including existing emergency systemwide support programs. It excludes the potential for targeted government intervention and rescue of specific financial institutions. This extraordinary government support for systemically important institutions is reflected in the ICR on an entity in our FI criteria.

ECONOMIC AND INDUSTRY RISK

12. The BICRA methodology has two main analytical components to the BICRA criteria are: economic risk and industry risk.

13. A banking sector's economic risk is determined by the structure, performance, flexibility, and stability of the country's economy, actual or potential imbalances in the economy, and the credit risk stemming from economic participants, mainly households and enterprises.
14. The industry risk is determined by the quality, effectiveness, and track record of bank regulation and supervision, as well as the competitive environment of a country's banking industry, including its risk appetite, structure, risk-adjusted financial performance, and possible distortions in the market. Industry risk also addresses the variety and stability of funding options available to banks, including the role of the central bank and government.
15. The economic and industry risk scores are each based on the analysis of three factors, comprising the six BICRA factors (see the following table).

Table 1

Components Of The BICRA Criteria

BICRA factor	Initial score based on	Adjustments to initial score
ECONOMIC RISK		
A) Economic resilience	Economic assessment score of the sovereign	A single adjustment, taking into account the following: --Relevance of GDP per capita; --Macroeconomic policy flexibility; --Political and geopolitical risk; --Environmental risk; and --Other relevant risks not incorporated in the initial score.
B) Economic imbalances	Measure of house price growth (if a primary source of risk) and growth in private sector debt to GDP in expansionary phase. Measure of asset quality and other indicators in correction/recovery phase.	A single adjustment, taking into account the following: --External debt or current account deficit; --Imbalances within the commercial real estate sector; --Exposure to cyclical industries or large projects, commodity prices, or currency risk; --Rapid change in property prices or private debt; and --Other relevant risks not incorporated in the initial score.
C) Credit risk in the economy	GDP per capita and leverage	A single adjustment, taking into account the following: --Lending and underwriting standards; --Payment culture and rule of law; and --Other relevant risks not incorporated in the initial score.

Table 1

Components Of The BICRA Criteria (cont.)**INDUSTRY RISK**

D) Institutional framework	Banking regulation and supervision	A single adjustment, taking into account the following: --Regulatory track record; --Level of regulators' conservatism; --Complexity of the system; and --Governance and transparency.
E) Competitive dynamics	Banking sector risk appetite	A single adjustment, taking into account the following: --Industry stability; and --Market distortions.
F) Systemwide funding	Measure of the domestic loan-to-deposit ratio and net external debt-to-domestic loans ratio	A single adjustment, taking into account the following: --Stability of deposits, including access to debt capital markets; --Diversity of funding; --Mismatches; --Track record and capacity of authorities to provide funding or liquidity support; and --Other relevant risks not incorporated in the initial score.

16. A series of quantitative and qualitative elements form the basis for assigning an initial assessment for each factor. We then refine these initial assessments based on a number of analytical elements.
17. Where data and estimates result in a borderline assessment between two categories, we base the scoring on the expected trend. When applying sections of the criteria that reference dollar-based values, we may consider how foreign-exchange translations affect relevant metrics and information, and normalize these movements to the extent we deem analytically relevant.

Adjusting the initial score for a given BICRA factor to arrive at the final score for that factor

18. To apply the factor-specific adjustment to the initial score for any of the six BICRA factors, we assess holistically the elements relevant for that adjustment. That is, we qualitatively assess the magnitude of the relevant elements behind the adjustment. The magnitude of the adjustment depends on how much we think the risks associated with the factor have been under- or overestimated by the initial score. We qualitatively assess the extent positive and negative considerations may or may not offset each other.

Assessment And Scoring

19. Each BICRA factor is scored on a scale of '1' (very low risk) to '6' (extremely high risk) (see table 2). This scoring is based on analysis of the characteristics associated with each BICRA factor.
20. We map the score for each BICRA factor to points, as shown in table 2, to determine the overall assessment of economic risk and industry risk, which ultimately leads to the classification of banking systems into BICRA groups. The points range from 1 to 10, with one point corresponding to "very low risk" and 10 points corresponding to "extremely high risk." The scale shown in table 2 ensures that higher-risk factors have a greater influence on each of the economic and industry risk scores.

21. The sum of the points for the three factors, economic resilience, economic imbalances, and credit risk in the economy, determines the economic risk score for a banking system. Likewise, the sum of the points for the three factors, institutional framework, competitive dynamics, and systemwide funding, determines the industry risk score.

Table 2

Scoring The BICRA Factors

Relative risk description	Risk score	Points
Very low risk	1	1
Low risk	2	2
Intermediate risk	3	3
High risk	4	5
Very high risk	5	7
Extremely high risk	6	10

22. The point total for each of the economic and industry risk scores corresponds to a particular score on a 10-point scale, with '1' representing the lowest risk and '10' representing the highest risk (see table 3).

Table 3

Determining Economic Risk And Industry Risk Scores

Point total for the three economic or industry risk factors	Economic risk or industry risk score
3-4	1
5-6	2
7-8	3
9-10	4
11-12	5
13-14	6
15-17	7
18-20	8
21-23	9
24-30	10

23. The economic risk and industry risk scores are combined using a matrix (see table 4) to arrive at a country's BICRA group.

Table 4

Determining A BICRA Group Using Economic Risk And Industry Risk Scores*

Economic Risk	Industry Risk									
	1	2	3	4	5	6	7	8	9	10
1	1	1	2	3	3	4				
2	1	2	2	3	4	4	5			
3	2	2	3	3	4	5	5	6		

Table 4

Determining A BICRA Group Using Economic Risk And Industry Risk Scores* (cont.)

Economic Risk	Industry Risk									
	1	2	3	4	5	6	7	8	9	10
4	3	3	3	4	4	5	6	7	7	
5	3	4	4	4	5	5	6	7	8	9
6	4	4	5	5	5	6	7	7	8	9
7		5	5	6	6	7	7	8	8	9
8			6	7	7	7	8	8	9	10
9				7	8	8	8	9	9	10
10					9	9	9	10	10	10

*On a scale from 1 to 10, from lowest to highest risk.

Economic Risk

24. We use economic resilience, economic imbalances, and credit risk in the economy to capture the economic risk.

Economic resilience

25. The economic resilience factor assesses the structure, performance, and stability of the economy, and its resilience to adverse developments, such as internal or external shocks, as well as other relevant economic considerations that can positively or negatively affect a banking sector.
26. The initial assessment of economic resilience is set by the economic assessment from "Sovereign Rating Methodology," published Dec. 18, 2017, excluding any possible adjustment for a potential credit-fueled asset bubble. This assessment reflects income levels, growth prospects, and economic diversity and volatility. We then adjust the initial assessment for other relevant considerations that might materially reduce or increase risk for a banking sector (see table 5).

Table 5

Economic Resilience Score

The initial economic resilience score is set by the economic assessment from "Sovereign Rating Methodology," published Dec. 18, 2017, excluding any possible adjustment for a potential credit-fueled asset bubble.

We assess the adjustment to the initial score based on the following:

- a)--Relevance of GDP per capita;
- b)--Macroeconomic policy flexibility;
- c)--Political and geopolitical risk;
- d)--Environmental risk; and
- e)--Other relevant risks not incorporated into the initial score.

The maximum positive adjustment is capped at one category, and the maximum negative adjustment can be three categories.

Adjustment to the initial economic resilience score

27. We adjust our initial score for economic resilience, upward or downward, if we consider that the initial score does not adequately reflect the economic resilience risks faced by a banking sector.
28. The relevance of GDP per capita is the only element that can lead to a positive adjustment.

a) Relevance of GDP per capita

29. Situations that could contribute to a negative adjustment include:
 - Oil and gas producing countries with high GDP per capita but a very low level of economic diversification, or banking systems with significant potential energy transition-related risks related to investments or customers, or wider societal pressures;
 - Countries with significant vulnerabilities to climate transition or physical risks, for instance related to the agricultural sector;
 - Countries with very high inflation or hyperinflation;
 - Countries with significant societal pressures, such as very high wealth inequality and/or very high income inequality, divisions between ethnic factions, or longer-term challenges, such as ageing, that could in some cases mean that GDP underestimates the risks for the banking sector;
 - Countries of very small size with very low economic diversification;
 - Countries experiencing an economic recession or abrupt slowdown;
 - Countries with high unemployment, either compared with the historical level for that country or compared with countries that have a similar initial score, or very high youth unemployment; or
 - Countries facing economic sanctions.
30. An example of a specific situation that is viewed positively and might contribute to a positive adjustment of the initial score is where we consider that GDP per capita significantly overestimates the risks indicated by our initial score. For example, this could apply when a country with very large reserves (for example, the existence of a large sovereign wealth fund) has an extra buffer to prevent or limit a material deterioration of its economic environment versus peer countries with similar initial scores.

b) Macroeconomic policy flexibility

31. The limited macroeconomic policy flexibility of a government and a central bank can contribute to a negative adjustment of the initial score. We review three sovereign scores to inform our decision: 1) fiscal--covering fiscal performance and flexibility; 2) debt--covering debt burden; and 3) monetary--covering exchange rate regime and monetary policy credibility. A significant weakness of one or more of these scores versus our initial economic resilience score might contribute to a negative adjustment if it indicates substantial additional risks compared with countries that have a similar initial economic resilience score.

c) Political and geopolitical risk

32. Political and geopolitical risk can contribute to a negative adjustment as shown in table 6. Our

assessment is informed by the institutional assessment under the sovereign criteria.

Table 6

Potential Impact Of Political And Geopolitical Risk On The Economic Resilience Score

Institutional Assessment under sovereign criteria	Potential impact*
At least two categories weaker than the initial economic resilience score.	Potential negative impact is typically one category.
One category weaker than the initial economic resilience score.	Potential negative impact may apply.

*The potential impact depends on the materiality of this risk. Whether the score is adjusted and the size of the adjustment will also depend on the impact of other elements we analyze within economic resilience.

d) Environmental risk

33. Environmental risk might contribute to a negative adjustment if we do not think it is fully captured by the initial score. For example, we could apply a negative adjustment to the assessment for a country whose economy relies highly on sectors or industries exposed to natural disasters or climate change, if this is not already captured in the initial score.

e) Other risks

34. Other relevant risks can contribute to a negative adjustment if they are not incorporated in the initial economic resilience score and we assess them as material for a banking sector. Potential examples of these risks include the presence of a currency peg that we think is at risk of breaking--and could thereby affect the banking sector--or the absence of a central bank, which limits the authorities' flexibility and therefore reduces resilience.

Economic imbalances

35. We assess economic imbalances as a measure of the risk of economic changes leading to an increase in credit losses incurred by the banking sector. Due to the cyclical nature of imbalances, we differentiate between an expansion phase and a correction/recovery phase when assessing economic imbalances.
36. We assess economic imbalances in the following steps:
- First, we form a view on whether economic imbalances are in an expansion or a correction/recovery phase, by holistically assessing the combination of elements listed in our descriptions of an expansion or correction/recovery phase on a best fit basis rather than requiring the system to show each one of these characteristics.
 - Next, we assign an initial score using our criteria shown below for assessing economic imbalances during an expansion phase or correction/recovery phase.
 - To arrive at the final score, we apply an adjustment, if needed, to the initial score based on a range of qualitative elements.

Expansion phase

37. We consider economic imbalances to be in an expansion phase when imbalances are building up, which is generally reflected in a combination of the following characteristics:

- Credit losses, nonperforming loans (NPLs), and stressed loans are at or close to cyclically low points;
- Private debt as a proportion of GDP is increasing;
- Prices of assets that we consider to be key contributors to imbalances in the economy, are climbing in real terms;
- GDP is growing;
- Unemployment is at or close to a cyclical low level; and
- There is positive consumer, business, and investor sentiment.

Correction/recovery phase

38. We consider economic imbalances to be in a correction/recovery phase when imbalances are unwinding, generally reflected in a combination of the following characteristics:

- Credit losses, NPLs, and stressed loans are significantly increasing or are elevated and/or above cyclically low points;
- Private debt as a proportion of GDP is contracting, or has contracted in recent periods;
- Prices of assets that we consider to be key contributors to imbalances in the economy are decreasing in real terms, or have fallen in recent periods;
- GDP growth is typically contracting or is starting to rise after a period of contraction or slower growth;
- Unemployment is elevated and/or above cyclical low levels; and
- Weak consumer, business, and investor sentiment.

39. We generally consider the sector to be in the latter stages of the correction/recovery phase, although not yet into a new expansion phase, if we see a combination of the following characteristics:

- Credit losses and NPLs are decreasing even if they remain above cyclical low points, or have decreased and are approaching cyclically low points;
- The level of private debt is showing signs of stabilization following a period of decline, or is even starting to grow;
- Prices of those assets that we consider to be key contributors to imbalances in the economy are showing signs of stabilization following a period of decline, or are even starting to grow; and
- The rate of deterioration in other key indicators (such as consumer, business, and investor confidence, unemployment, GDP growth, and per capita GDP growth) is decreasing, or these indicators are showing signs of stabilization, or even improvement.

Initial score in an expansion phase

40. When economic imbalances are in an expansion phase, we typically assign an initial score using the following two data series, as shown in table 7:

- Residential housing price growth in real terms; and
- Growth in private sector debt relative to GDP.

41. In some cases, we may conclude that the housing sector is not, and is not likely to be, an important driver of imbalances in the economy. These cases are where we use table 8 instead of table 7 to assign an initial score. In arriving at this conclusion about the role of the housing sector, we consider a range of elements, such as:

- Housing-related debt as a proportion of total private sector debt;
- The proportion of households carrying housing-related debt; and
- The importance of the housing sector and house prices to economic activity.

Table 7

Initial Economic Imbalances Score: Expansionary Phase

(Where housing is, or could be, an important driver of imbalances)

Change in private sector debt (percentage points of GDP)	Change in inflation-adjusted housing prices (%)					
	Below 2%	2% - <4%	4% - <6%	6% - <8%	8% - <11%	11% or higher
Below 2 pps	1	1	2	2	3	4
2 - <3 pps	1	2	2	3	3	4
3 - <5 pps	2	2	3	3	4	5
5 - <8 pps	2	3	3	4	4	5
8 - <14 pps	3	3	4	4	5	6
14 pps or higher	4	4	5	5	6	6

42. When we use table 8, we assign an initial score during expansion phase by mapping the trend in the growth in private sector debt relative to GDP.

Table 8

Initial Economic Imbalances Score: Expansionary Phase

(Where housing is not, nor is likely to be, an important driver of imbalances)

Change in private-sector debt (percentage points of GDP)	Initial score
below 3pps	2
3 - < 8 pps	3
8 - < 14 pps	4
14 pps or higher	5

pps--Percentage points.

43. We incorporate our expectations regarding the likely trend in the future when using the data points to assign the initial scores, informed by the events over the last three years and the current year.
44. Typically, we use the low points of NPLs and credit losses in the recent cycle(s) as cyclical low points for each system when assessing imbalances. The cyclical low points vary from system to system and even for the same system over a period of time.

Change in inflation-adjusted housing prices:

45. Typically, we derive inflation-adjusted housing prices using the nominal house price index that we consider to be representative of national house prices.
46. If an official house price index is not available, and we consider the housing sector an important driver of imbalances in the economy, we use other sources. These sources could include an unofficial house price index, broker reports, or any other reliable information to estimate house price growth.
47. We may also use the real house price index if one is available and we consider it as representative of the trend in real house prices. Typically, we use the average of the past three years plus the current year's change in inflation-adjusted housing prices. Nevertheless, we may use a shorter- or longer-term trend in some specific cases. For example, a rapid rise in house prices over the most recent two years following a rapid decline of the same order in the two prior years could result in the four-year average suggesting that imbalances are very low; whereas the level of imbalances in reality could be elevated.
48. In addition, we may take into account our expectation for house prices in the near future when we determine the initial score.

Change in private sector debt (% points of GDP):

49. Typically, we use the average of the past three years' plus the current year's change in private sector debt (as % points of GDP) when determining the initial score. Nevertheless, we may use a shorter- or longer-term trend in some situations. For example, a rapid rise in private debt over the most recent two years following a rapid decline of the same order in the two prior years could result in the four-year average suggesting that imbalances are very low; whereas the level of imbalances could be elevated.
50. In addition, when we determine the initial score, we may take into account our expectation of private sector debt in the near future.
51. We use the broadest measure of private sector debt available to calculate change in private sector debt, which includes:
 - Borrowing of nonfinancial corporates from banks and all other sources, including finance companies, insurance companies, domestic and international capital markets, and pension funds;
 - Borrowing of the household sector from banks and all other sources, including finance companies; and
 - Borrowing of public sector entities from banks and all other sources if we do not see this debt effectively as the respective government's liability.
52. In our measure of private sector debt within an economy, we exclude items if, in our view, they do not contribute to the debt servicing burden of the private sector within the economy. We typically would only exclude such items if we also see the quantum of such debt as material.

Initial score in a correction/recovery phase

53. When economic imbalances are in a correction/recovery phase, we assign an initial score using table 9. In arriving at this initial score, we holistically assess the combination of characteristics listed in the table on a best fit basis; rather than requiring the banking system to show each one of these characteristics. The choice of column in table 9 reflects whether we consider a banking

system to be in the correction part or the recovery part of this correction/recovery phase, based on the characteristics in the columns.

Table 9

Initial Economic Imbalances Score In A Correction/Recovery Phase

Initial score	Description of events in a banking system in the correction part of the correction/recovery phase	Description of events in a banking system in the recovery part of the correction/recovery phase
2	An orderly correction is going on. Although asset prices and/or private debt are decreasing, the rate of decline is modest and we expect the credit losses and NPLs may be modestly above cyclically low points. Other key indicators (such as consumer and business confidence, unemployment, GDP growth, and per capita GDP growth) typically remain solid.	A correction/recovery phase is coming to an end. Although asset prices and/or private debt may still be decreasing, the credit losses and NPLs are approaching cyclically low points. Other key indicators (such as consumer and business confidence, unemployment, GDP growth, and per capita GDP growth) are typically stabilizing or even improving.
3	Asset prices and/or private debt are significantly decreasing. We expect the credit losses and NPLs to be above cyclical low points. Other key indicators (such as consumer and business confidence, unemployment, GDP growth and per capita GDP growth) are typically weaker in a historical comparison.	Following a substantial correction, credit losses and NPLs are reducing but still remain above cyclical low points. Other key indicators (such as consumer and business confidence, unemployment, GDP growth, and per capita GDP growth) are typically weaker in a historical comparison or showing early signs of stabilization.
4	Asset prices and/or private debt are decreasing substantially. We expect credit losses and NPLs to be very high and/or substantially above cyclical low points. Other key indicators (such as consumer and business confidence, unemployment, GDP growth, and per capita GDP growth) are typically substantially weaker in a historical comparison.	We do not consider a system to be in the recovery part of this phase when the initial score is 4.
5	Asset prices and/or private debt are rapidly falling. We expect credit losses and NPLs to be extremely high and/or very substantially above cyclical low points. Other key indicators (such as consumer and business confidence, unemployment, GDP growth, and per capita GDP growth) are typically very substantially weaker in historical comparison.	We do not consider a system to be in the recovery part of this phase when the initial score is 5.

Adjustment to the initial economic imbalances score

54. We apply an adjustment to the initial score, when relevant, based on a range of qualitative elements.
55. We apply a negative adjustment to the initial score, by up to four categories, if we consider that the initial score understates the true extent of imbalances. The elements that could contribute negatively to the final score include one or more of the following:
 - High external debt or current account deficit (referred to as external imbalances).
 - High volatility within the economy, including in private sector debt growth, economic activity, or property prices.
 - High imbalances within the commercial real estate sector.
 - High exposure of the economy and the banking sector to cyclical industries or large projects.
 - High exposure of the economy to commodity prices.

- High exposure of the economy to currency risk.
- Rapid build-up or drop in property prices or private debt (in real or nominal terms), or a significant fall in savings rate, over a short period.
- Large immigration or emigration.
- High consumer or wholesale price inflation.
- Build-up of debt or asset prices within an important geography or part of the economy.

56. We use our external assessment that we have determined for the country under our sovereign criteria to inform the potential negative impact of external imbalances on our adjustment to the initial economic imbalances score, as shown in the following table:

Table 10

Potential Impact Of External Imbalances On The Economic Imbalances Score

External assessment under sovereign criteria	Potential impact*
4 or 5	Potential negative impact is typically one category.
6	Potential negative impact is typically two categories.

*The potential impact depends on the materiality of this risk. Whether we adjust the score and the size of any adjustment will also depend on the impact of other elements we analyze within Economic Imbalances.

57. We apply a positive adjustment to the initial score, by up to two categories, if we consider that the initial score overstates the true extent of imbalances. The elements that could contribute to a stronger final score include:
- A materially stronger household sector than countries with a similar initial score; and/or
 - A materially stronger corporate sector than countries with a similar initial score.

Transition between expansion and correction/recovery phases

58. Given the challenges of determining inflection points between expansion and correction/recovery phases, we apply the following to score economic imbalances:
- Typically, we do not improve the score when economic imbalances transition from an expansion phase to a correction/recovery phase.
 - Typically, we expect the scoring of economic imbalances to remain unchanged or improve by not more than one category when imbalances in a system are transitioning from a correction phase to a recovery or expansion phase, or from a recovery to an expansion phase.
 - Where it is not clear whether imbalances are in an expansion or correction/recovery phase, we typically apply the approach that results in the weakest score.
59. The different phases of an economic imbalance cycle may not always occur in any particular order, say: expansion phase, correction phase, and recovery phase. At times, we may revise the score to expansion phase immediately following the correction phase. Similarly, the expansion phase may not always follow the recovery phase. At times, the correction may recur immediately following the recovery phase. Nevertheless, the recovery phase will typically follow the correction phase.

Credit risk in the economy

60. The credit risk in the economy score assesses risks faced by the banking sector due to the leverage in the economy and debt-servicing capacity, taking into account underwriting practices, creditors' ability to enforce their rights, and other qualitative elements.
61. The assessment of the credit risk score is described in table 11. We determine an initial score and then apply an adjustment if it is not an adequate reflection of the credit risks faced by a banking sector. The maximum negative adjustment is three categories. The overall positive adjustment, if any, is typically one category but not more than two categories. A positive adjustment of two categories is permitted only when the initial score is 4 or 5.

Table 11

Credit Risk In The Economy Score

The initial credit risk in the economy score is set by the combination of private sector leverage as a % of GDP and GDP per capita.

THE ADJUSTMENT TO THE INITIAL SCORE BY QUALITATIVE FACTORS:

When the initial score understates the credit risk, we will apply a negative adjustment to the score by applying an adjustment for weaknesses relative to peers for factors such as:

- More aggressive lending and underwriting standards;
 - Impediments in the ability of creditors to enforce their rights in a timely manner;
 - Exposure to risky sectors, currency risks, single name exposures, etc.;
 - Rapidly deteriorating economy or sovereign creditworthiness;
 - Materially lower per capita GDP or higher private sector debt within the data range used for the initial score in table 12;
 - GDP per capita distorted by currency movements or price volatility;
 - GDP per capita overstates the debt capacity of the part of the private sector that borrows from banks.
-

The maximum negative adjustment from the initial score is three categories.

When the initial score overstates the true extent of credit risk, we will apply a positive adjustment to the score by applying an adjustment. For example:

- The household or corporate sector is stronger, and there is a supportive funded pension scheme or tax regime, and a large social safety net;
 - Higher per capita GDP, or lower private sector debt within the data range used for the initial score in table 12;
 - GDP per capita is distorted by currency movements or price volatility;
 - GDP per capita understates the debt capacity of the part of the private sector that borrows from banks.
-

The maximum positive adjustment from the initial score is typically one category and at most two. A positive adjustment of two categories is permitted only when the initial score is 4 or 5.

62. **Initial score** The initial assessment of the credit risk score is derived from the combination of GDP per capita in U.S. dollars, as a proxy for the private sector's debt capacity, and private sector debt as a percentage of GDP, as a measure of leverage. This assessment of the initial score is described in table 12. We base the initial score on our projections for a country's GDP per capita or private sector debt as a percentage of GDP, informed by performance over the last three years and in the current year.

Table 12

Initial Credit Risk Score

Debt capacity: GDP per capita (US\$)	Leverage: private sector debt as % of GDP		
	Below 75%	75%-150%	>150%
>41,400	1	2	3
17,500-41,400	2	3	4
Below 17,500	3	4	5

Adjustment to the initial credit risk in the economy score

63. We then adjust the initial assessment of the credit risk score upward or downward for qualitative elements if it does not in our view fully reflect credit risks faced by a banking sector. For this, we assess qualitative elements such as:
- Lending, underwriting, and problem-loan recognition standards;
 - Payment culture and rule of law, including impediments in creditors' ability to enforce their rights in a timely manner;
 - Exposure to risky sectors, high single-name exposures, and material currency risk;
 - Household or corporate sector that is materially weaker or stronger than in peer countries, either on a stand-alone basis or due to the impact of support measures or interventions by the government;
 - Rapidly deteriorating economy or sovereign; and
 - GDP per capita distorted by currency movements or price volatility.
64. Examples of adjustments to the initial credit risk score are:
- A positive adjustment may be influenced by a per capita GDP that is materially higher than that of countries with a similar initial credit risk score, to reflect the better debt capacity of households. Conversely, a negative adjustment could apply when per capita GDP is materially lower than countries with a similar initial score.
 - We also consider as a positive element for credit risk supportive mechanisms, such as generous social welfare or pension schemes, or tax regimes that offer a substantial safety net.
 - A negative adjustment to the initial credit risk score could apply when a banking sector has high corporate NPLs compared with peers with a similar initial score or when compared with its historic levels.
 - The GDP per capita of a country materially overstates or understates the debt capacity of part of the private sector that would typically borrow from the banks. For example, in oil-producing economies, while oil production can result in significantly higher GDP per capita, few of the companies generating this wealth will borrow from the banking sector. In addition, GDP per capita overestimates the underlying per capita position of the private sector. In this case, we might worsen the credit risk score, assuming all other elements analyzed for the adjustment remain neutral, on the basis that the GDP per capita materially overstates the debt capacity of the borrowers.
 - In general, an adjustment to the initial score could apply when the composition of a banking

sector's loan book is significantly different from that of banking sectors in countries with a similar initial credit risk score. This is the case if, for example, there is a significantly larger or smaller share of prime quality mortgage loans (which are typically low risk), or a significantly larger or smaller share of real estate and construction loans and/or unsecured consumer credit (which are typically high risk). For example, we might apply a negative adjustment to the credit risk score of a banking sector that has a significantly larger relative share of lending to small- and midsize enterprises.

Elements driving an adjustment to the initial credit risk in the economy score -- household lending and underwriting standards

65. To assess the risk related to household lending that could contribute to a weakening of the initial score, examples of key elements we use include:
- The prevalence of higher risk products, such as unsecured or nonprime credit;
 - Aggressive underwriting standards for unsecured lending and other consumer credit;
 - Whether underwriting standards for mortgage lending are based on multiple elements (such as affordability and collateral values) or one element only. We consider cases in which origination of mortgage loans is based on collateral values only as an aggressive underwriting practice that may increase risks and contribute to a negative adjustment of the initial score;
 - The share of new mortgage lending at loan-to-value (LTV) ratios exceeding 80%. Cases where this proportion is significant could indicate more relaxed or aggressive underwriting standards that may contribute to a negative adjustment to the initial score;
 - The average indexed LTV for the residential mortgage portfolio; and
 - Interest coverage standards and interest-rate sensitivity, including considerations of how the level and volatility or stability of interest rates can affect household borrowers.

Elements driving an adjustment to the initial credit risk in the economy score -- exposure to risky sectors, single-name exposures, currency risks, and other risks

66. To assess risks related to corporate lending that could contribute to a weakening of the initial score, we take into account elements such as:
- Sector concentration in cyclical or vulnerable sectors, including single-name concentrations, as a percentage of total lending or of the equity base. High concentration may contribute to a negative adjustment to the initial score. We view sectors that are typically more heavily affected by an economic downturn, such as commodities or shipping, as potentially cyclical or vulnerable;
 - Share of real estate, construction, and development as a percentage of total lending;
 - Share of lending in foreign currency as a percentage of total lending. This adds a source of risk for unhedged borrowers in the face of a potential weakening of the local currency;
 - The prevalence of relatively higher risk products such as leveraged or covenant-lite loans; and
 - Interest coverage standards and interest-rate sensitivity, including considerations of how the level and volatility or stability of interest rates can affect corporate borrowers.

Elements driving an adjustment to the initial credit risk in the economy score

-- weaker/stronger household or corporate sector

- 67. To assess the relative strength of a household or corporate sector for an upward or downward adjustment to the initial credit risk score, we take into account elements such as if the household or corporate sector of a country is significantly financially stronger or weaker than that of countries with a similar initial credit risk score.
- 68. To assess the household sector, we use indicators such as the household sector's debt to GDP, debt service to disposable income, financial wealth, delinquencies, and NPLs in the system, as well as information from banks and other external parties.
- 69. To assess a corporate sector's financial position we typically consider credit trends of the corporate sector, which may include corporate bankruptcies, delinquencies, and NPLs in the system, as well as information from banks and other external parties.

Elements driving an adjustment to the initial credit risk in the economy score

-- impediments in creditors' ability to timely enforce their rights

- 70. The ability for creditors to enforce their rights in a timely manner is another element that could influence the severity of credit losses. In assessing this adjustment, we analyze creditors' rights and the predictability of the legal framework, including bankruptcy law and credit rights, the creditor's ability to recover collateral, and the resolution time for bankruptcy or foreclosure. For this, we consider external indicators, such as the World Bank's governance indicators for the rule of law and control of corruption and Transparency International's corruption perceptions index. This element could contribute to a negative adjustment of the initial credit risk score if we consider that there is an ineffective legal framework and judicial system, and in some cases arbitrary legal and judicial decisions. This would typically be the case when the average of the World Bank's rule of law and control of corruption governance indicators is negative.

Elements driving an adjustment to the initial credit risk in the economy score

-- rapidly deteriorating economy or sovereign creditworthiness

- 71. In general, a rapid deterioration of the economy and/or of the sovereign's creditworthiness could entail additional credit risks for banks and nonbank financial institutions operating in a country and heighten the severity for potential credit losses incurred by the financial institutions. This would depend on the potential impact on the system's specific credit exposures, including the size of the government securities the banking sector holds. Under these circumstances, this element could contribute to a negative adjustment to the initial credit risk score until conditions start to stabilize and risks for potential additional losses diminish.

Elements driving an adjustment to the initial credit risk in the economy score

-- GDP per capita distorted by currency movements or price volatility

- 72. If GDP per capita is materially distorted by currency movements or price volatility (e.g., commodity prices) then we will typically apply a one-category positive or negative adjustment to the initial score, excluding the effect of other elements we analyze for the adjustment to the initial score.
- 73. Examples of situations where price or currency volatility may distort the credit risk assessment

include:

- A significant change in GDP per capita compared with previous years if this stems mainly from a change in the country's currency exchange rate to the U.S. dollar. The focus of the analysis is the private sector's debt capacity in local-currency terms.
- A significant change in GDP per capita that is mainly due to highly volatile commodity prices, especially if we project the GDP per capita will return to prior levels within two to three years.

Industry Risk

74. To assess industry risk we consider three factors: institutional framework; competitive dynamics; and systemwide funding. The assessment of industry risk includes the quality and effectiveness of bank regulation and supervision, including authorities' track record in preventing or managing financial sector turmoil, and the competitive environment of a country's banking industry, including its risk appetite, structure, and risk-adjusted profitability, as well as possible distortions in the market. Industry risk also incorporates the range and stability of funding options available to banks, including the roles of the central bank and the government.

Institutional framework

75. We base the assessment of the institutional framework score on our analysis of the following elements:
- Banking regulation and supervision;
 - Regulatory track record;
 - Level of regulators' conservatism;
 - Complexity of the system; and
 - Governance and transparency.
76. Our initial assessment of a banking sector's institutional framework is based on the evaluation of banking regulation and supervision on a best fit basis (see table 13). We then adjust this initial assessment score, ranging from '2' to '4', downward or upward if other elements add or reduce risks to a banking sector. Table 13 shows the elements that contribute to an adjustment.
77. The maximum positive adjustment from the initial institutional framework score is one category, the maximum negative adjustment is three categories.

Table 13

Institutional Framework Score

Our analysis of the regulation and supervision of the banking sector sets our initial BICRA institutional framework assessment. This assessment and related score can be:

Above average (2):

Banking regulation is stronger than international standards. Supervision is very effective and hands-on. Regulator monitors banks closely and frequently, and imposes strong market discipline. It also monitors emerging risks (e.g., cyber risk, technological innovation, and ESG-related factors) and ensures banks proactively manage these risks.

Average (3):

Banking regulation is broadly in line with international standards. Supervision is effective and hands-on. The regulator usually monitors banks closely and frequently, although gaps could occur, and imposes good market discipline. It understands the emergence of newer risks (e.g., cyber risk, technological innovation, and ESG-related factors), but has not yet introduced sufficient measures to ensure banks proactively manage these risks.

Below average (4):

Bank regulation is weaker than international standards. Supervision is less effective and less hands-on. There could also be significant gaps or delays in monitoring financial institutions, and only impose limited market discipline.

We assess whether to apply an adjustment to the initial institutional framework score based on the following:

- Regulatory track record;
- The regulator's level of conservatism or leniency;
- Complexity of the sector;
- The quality of banks' governance and transparency.

The maximum positive adjustment is one category, while the maximum negative adjustment is three categories.

Banking regulation and supervision

78. We assess the scope and intent of the regulatory and supervisory framework. The goal is to evaluate regulators' ability to preserve financial stability through business and economic cycles, particularly during periods of economic decline and turbulence.
79. The analysis includes both the letter and the spirit of a country's banking laws and regulations, the extent of regulatory powers of control over the banking industry and other entities that may affect financial stability, the degree to which regulatory policies foster market discipline, the financial and human resources available, and the balance of power between regulators and industry participants, including the government.
80. Banking systems with stronger institutional frameworks show effective enforcement of rules and policies, combined with a low potential for financial institutions to circumvent regulatory restrictions. We also see as positive macroprudential policies that limit or reduce a banking sector's risks and vulnerabilities. That includes, among others:
 - Effective countercyclical provisions designed to limit banking sector losses during a downturn,
 - Effective actions to prevent excessive lending to certain segments, and
 - The active use of capital buffers to protect bank depositors and creditors during periods of financial stress.
81. Typically, we expect the strongest regulators to monitor newer and emerging risks, including risks

relating to cyber risk, technological innovation, and ESG factors, to ensure banks proactively manage these risks.

82. Our assessment also covers regulators' ability to control and prevent financial crimes, including money laundering. These issues appear to be influenced by some intrinsic characteristics of some banking systems, for example, ties with countries under sanctions, or being in a tax haven or tax-attractive jurisdiction, but also by the quality of the supervision. Material deficiencies in control and prevention by authorities would contribute to a weaker score on regulation and supervision.
83. A main focus of the analysis is on the effectiveness of supervision versus the written regulations. Though many countries apply relatively similar regulations based on international standards, there are important differences in regulatory supervision across countries' banking systems.

Adjustment to the initial institutional framework score

84. The initial score for institutional framework can be adjusted, upward or downward, based on the following elements:
- a) Regulatory track record;
 - b) Level of conservatism;
 - c) Complexity of the system; and
 - d) Governance and transparency.

a) Regulatory track record

85. Although our overall institutional framework assessment is forward looking, we also look at the history of bank and nonbank financial institutions' defaults or rescues (both the number and size) over a relatively long period of time as well as associated regulatory actions. The regulatory track record reflects the effectiveness of banking regulation and supervision, including examples of past successes in taking preventive measures and reducing a banking system's vulnerability to a financial crisis. A strong track record, that is, for countries that have clearly exhibited regulatory intent and actions that resulted in successfully limiting risk to a banking system, does not by itself justify a positive adjustment of our initial assessment. Conversely, however, a weak regulatory track record, such as a history of poor and reactive regulatory responses, could contribute to a negative adjustment of the initial score.
86. We recognize that rules and regulations tighten and weaken during the economic cycle. The regulatory environment is typically the most stringent after a crisis and more lenient at other times. We take account not only of regulatory experience but also significant and sustainable changes that will alter the response to future crises. We use evidence of demonstrated, clear, and meaningful authority financial supervisors display in response to rising risks. If changes are fundamental in terms of nature and expected impact, this may alleviate concerns over a regulatory track record that would otherwise lead to a negative adjustment.

b) Level of conservatism

87. Many regulators use regulatory ratios, and similar policies, to limit risk. However, there might be meaningful differences in the way the ratios are defined and measured, as well as their levels. We therefore analyze the level of conservatism or aggressiveness of these regulatory ratios and policies, including the extent to which they allow for countercyclical measures when appropriate.

They include capital adequacy ratios and standards, loan classifications, provisioning standards, regulations governing market disclosure, and requirements to produce consolidated accounts, among others. Meaningful differences in the level of conservatism compared with international standards could contribute to a negative or positive adjustment.

c) Complexity

88. Regulators across the world share the same objectives, but the difficulty of their task varies according to the different characteristics and levels of risk of the banking sectors that they oversee. For example, a high level of complexity adds challenges to effectively regulating and supervising a banking sector. Complexity could come, among others, from the size of the sector relative to the economy, the number of players, the nature of their operations and products, the level of sophistication, and the size of banks' foreign operations. There is no pre-set link between the complexity of a banking sector and the quality of its regulation or supervision. In the case of a complex banking system, we assess whether regulators are well equipped to deal with this level of complexity. Conversely, the regulation and supervision of a very simple banking sector would not require the same level of sophistication.

d) Governance and transparency

89. Our assessment of governance and transparency is one element that could lead us to adjust negatively our initial institutional framework score. We don't apply a positive adjustment for this element because the initial score already incorporates an expectation of appropriate corporate governance standards and transparency for this prudentially regulated sector. We evaluate governance standards by considering the balance of stakeholder interests, including shareholders, employees, depositors, and borrowers, which may, for example, include a consideration of negative intervention by the government that takes forms, such as directed lending.
90. Corporate governance that is transparent, prudent, and independent of undue outside influence limits risks in a banking system. Conversely, opaque, imprudent governance that sets no limits on owners' influence increases the risk in a banking system. Examples of structural deficiencies in terms of governance in the banking sector may include the prevalence in the system of related-party lending, opaque ownership structures, a nontransparent financial sector made up of a myriad of entities lightly controlled by local supervisors (encompassing shadow banking, booking centers, holdings, or special-purpose entities whose location is for tax reasons only, and other factors), or repeated and unaddressed scandals affecting the whole sector and the country (such as money laundering or tax evasion).
91. Our analysis also takes account of systemwide compensation practices and incentives to determine whether they work to reward prudent management. We factor whether the financial authorities apply a test to ensure that the owners of banks and other types of financial institutions are fit and proper, and whether the test is effective. Another sign of good governance and transparency is the clear disclosure of the true ultimate bank owners; rather than just shell or nominee companies.
92. We review the frequency and timeliness of reporting, and the quality and standardization of financial reports. The quality of accounting and disclosure standards helps determine the information risk in a particular banking sector. We assess the quality of accounting and disclosure standards, including whether a banking industry has adopted internationally recognized accounting standards, such as International Financial Reporting Standards (IFRS) or U.S. Generally Accepted Accounting Practice (GAAP), or instead chooses local GAAP. The assessment is

also informed by the extent and effectiveness of a country's auditing requirements. Deficiencies in the quality or frequency of financial statements could contribute to a negative adjustment.

Competitive dynamics

93. The competitive dynamics factor represents structural implications of the competitive landscape banks face. It assesses banks' ability in the face of such competition to adequately price risks and ensure revenue covers expense, expected losses, and the cost of capital over an economic cycle without having to take excessive risks.
94. A banking industry's competitive dynamics score is determined by the following elements:
 - Risk appetite;
 - Industry stability; and
 - Market distortions.
95. We determine the initial competitive dynamics score by assessing the risk appetite of a banking sector (as described in table 14) on a best fit basis, which is then subject to an adjustment based on our assessment of industry stability and market distortions to arrive at the final score. The maximum negative adjustment from the initial competitive dynamics score is two categories. We do not make a positive adjustment.

Table 14

Competitive Dynamics Score

The initial BICRA competitive dynamics score is set by our analysis of the banking sector's risk appetite, which can be assessed as:

Category	Description	Initial competitive dynamics score
Very low risk appetite		
	--A banking sector with a structurally high and stable risk-adjusted profitability. --The competitive environment allows banks to easily cover their cost of capital and remunerate shareholders. --The most significant players' strategies are visibly focused on creditworthiness, including capital strength and stability. -- Typically, the impact of a bonus culture is limited but can lead to additional risks. --Untested innovative, complex, and risky products are limited; the share of high-risk lending is low; growth in loans or assets is low; and commercial practices are conservative.	1

Table 14

Competitive Dynamics Score (cont.)**Moderate risk appetite**

--A banking sector with a structurally relatively high and stable risk-adjusted profitability. 2

--The competitive environment allows banks to cover their cost of capital and remunerate shareholders.

--The most significant players' strategies usually focus on creditworthiness, including capital strength and stability.

--Typically, the bonus culture is limited but can lead to additional risks.

--Untested, innovative, complex, and risky products are limited; the share of high-risk lending is relatively low; growth in loans or assets is limited; and commercial practices are relatively conservative.

Adequate risk appetite

--A banking sector with an adequate risk-adjusted profitability. 3

--The competitive environment is mildly or not supportive for banks to cover their cost of capital and remunerate shareholders.

--The most significant players' strategies are relatively balanced between creditworthiness and profitability.

--Typically, the bonus culture is developed, but leads to only limited additional risks.

--Untested innovative, complex, and risky products are relatively limited; the share of high risk lending is relatively limited; growth in loans or assets is contained; and commercial practices might be less conservative.

High risk appetite

--A banking sector with an inadequate risk-adjusted profitability. 4

--Banks have to take high risks to cover their cost of capital and remunerate their shareholders.

--The largest players' strategies favor profitability or expansion versus capital strength.

--The sector might exhibit the following: a bonus culture that leads to excessive risks; untested, innovative, complex, and risky products; significant share of high-risk lending; rapid growth of loans or assets; and aggressive commercial practices.

An adjustment to the initial competitive dynamics score is assessed based on the following:

--Industry stability; and

--Market distortions

The maximum negative adjustment is two categories. We do not make a positive adjustment.

Risk appetite

96. We determine the initial competitive dynamics score by a banking sector's risk appetite. It reflects the relative degree of risk and uncertainty that banks have to, or are willing to, accept in their quest for profitability. This might be influenced by elements related to the banking sector but also to the external environment, including the level of interest rates as an influence on margins.
97. We analyze a range of metrics to assess a banking system's profitability, qualitatively adjusting

for our views of the level of risk taken and the level of capitalization in the system. In addition to return on equity, other measures we take into account include net interest margins, cost-to-income ratios, pre-provisions profitability, and returns on risk-weighted assets. Assessment of profitability is over a prolonged period typically capturing at least one full economic cycle, including an upturn and downturn. Structurally high volatility in a banking sector's profitability would typically lead to a weaker initial score.

98. The following elements also inform our assessment of a banking sector's risk appetite:

- The growth in total loans or assets. Rapid growth would typically indicate a higher risk appetite, while limited asset growth could indicate a lower risk appetite.
- The most significant players' strategies and whether they are focused on capital strength ahead of profitability and risks. A track record of banks having maintained relatively weak capitalization, particularly during years of high profitability, would suggest a higher appetite for risk. Other common signs of a high risk appetite are rapid expansion overseas, entrance into new markets or businesses, or significant acquisitions.
- The relative presence or absence of innovative and complex products in the market.
- The share of high-risk products, for which credit losses appear to be substantially above the banking sector's overall credit loss experience. Subprime mortgages are one example of a high-risk product.
- The relative aggressiveness or conservatism of the sector's commercial practices, possibly linked to compensation practices. We would typically see a track record of numerous litigations from consumers and high related fines due to misselling of products as signs of aggressiveness. We do not consider prevalence of trading or other investment banking activities by itself as reflective of aggressive commercial practices because we make an adjustment in the ratings on investment banks at the institution-specific level (see FI criteria).

Adjustment to the initial competitive dynamics score

99. We can adjust the initial score for competitive dynamics downward based on the following elements:

- a) Industry stability; and
- b) Market distortions.

a) Industry stability

100. We typically make a negative adjustment to the initial competitive dynamics score for this element if we assess the banking industry faces sufficient additional risks, due to instability. Our assessment of stability is based on the absence or presence of overcapacity, the likelihood of new entrants (banks and nonbank financial institutions), or a material change in the competitive environment. We also take into account the potential impact of new developments, such as new technologies and the capacity to deliver them, and new players such as technology companies, to determine the risk of disruption or instability.

b) Market distortions

101. Certain market characteristics distort competition and earnings generation or prospects and have an important effect on the underlying risk in a banking sector. We may make a negative

adjustment to the initial competitive dynamics score if a banking sector is showing material distortions. The assessment of market distortions takes into account: 1) the market share of government-owned banks and not-for-profit banks that do not operate on full commercial terms; 2) the degree of government involvement in setting interest rates and in directing lending; and 3) the nature of competition from nonbank competitors such as investment funds, finance companies, technology firms, and securities markets, particularly where these are subject to different regulations than banks.

Systemwide funding

102. We score systemwide funding risk based on our assessment of a banking system's relative susceptibility to a loss of funding that we think would result in a systemwide liquidity crisis. We take into account the stability and diversity of sources that fund a banking system and its access to alternative funding sources.

103. We assess systemwide funding in the following steps:

- First, we assign an initial score using table 15.
- Second, we arrive at the final score by applying an adjustment to the initial score based on a range of qualitative elements as shown below.

Table 15

Initial Systemwide Funding Score

Net external debt/domestic systemwide loans (%)	Domestic systemwide loans/domestic core customer deposits (by formula) (%)					
	<90	90 - <110	110 - <130	130 - <150	150 - <200	200 or greater
<0	1	2	2	3	3	4
0 - <10	2	2	3	3	4	4
10 - <20	2	3	3	4	4	5
20 - <30	3	3	4	4	5	5
30 - <40	3	4	4	5	5	6
40 or greater	4	4	5	5	6	6

104. When assigning the initial score using the above table, we typically use our expectations for the likely trend in the near future, informed typically by the ratios for the past two completed years. The following definitions apply:

Systemwide domestic loans: Includes loans by the banking system to the entire domestic nonfinancial sector including households, corporates, public enterprises, and the governments.

Net external debt: We use the net external debt figure from our sovereign analysis, which equals gross external borrowings of resident financial institutions minus their nonresident assets. In some cases, we make an adjustment to this figure to reflect situations where it over or under states the net exposure due to residency or financial institution sectoral classifications.

Domestic core customer deposits (by formula):

- 100% of deposits from the domestic households (that is, resident households),
- 100% of deposits from the domestic governments,

- 100% of deposits from the domestic government-owned nonfinancial enterprises if we expect that these deposits will be as stable as those from the relevant domestic government itself,
- 50% of deposits from all remaining domestic government-owned nonfinancial enterprises, and
- 50% of deposits from other domestic nonfinancial corporate entities.

105. In our definition of deposits from households, we include alternative retail funding--such as retail bonds issued by banks—if it is held by households and we consider such funding to be as stable as deposits from households. To assess stability, we review factors such as investor-base characteristics, whether there is a long and proven track record, and whether we expect the regulatory backdrop to support the stability.

106. Our measure of core customer deposits excludes funds placed with banks by money market funds or other professional investors.

Adjustment to the initial systemwide funding score

107. We apply an adjustment to the initial score based on a range of qualitative elements.

108. We apply a negative adjustment to the initial score, by up to four categories, if we consider that the initial score understates the true extent of systemwide funding risks. In arriving at our final score, we holistically assess a range of elements, including:

- Susceptibility to unstable deposits. For example, if a large proportion of deposits are from foreign depositors, or there is a history or likelihood of high volatility or runs on deposits;
- Limited diversity of funding by source, type, tenor, and currency. For example, if banks lack access to funding from either domestic or foreign debt capital markets;
- Rapidly deteriorating economy or sovereign distress;
- Significant mismatch in maturity or currency of assets and liabilities;
- Exposure to a change in the tax regime or banking secrecy regime that could lead to a significant reduction in deposits; and
- Ineffective track record or capacity of the central bank and sovereign to provide funding or liquidity support to banks.

109. We apply a positive adjustment to the initial score, by up to two categories, if we consider that the initial score overstates the true extent of systemwide funding risks. In arriving at a final score, we holistically assess a range of elements, including:

- Access to funding from debt capital markets, including covered bonds;
- Ongoing funding support available from the central bank and sovereign; and
- Corporate and other nonretail deposits are a significant source of funding and we consider them more stable than those of peers.

110. Typically, the debt capital market characteristics contribute to qualitative adjustments to the initial score as shown in table 16.

Table 16

Debt Capital Market Characteristics Contribute To Qualitative Adjustments To The Initial Systemwide Funding Score

Category	Characteristics	Impact on funding score*
Broad and deep debt capital market		
	--Private sector debt issued in the domestic debt capital market exceeds 25% of GDP. --There is an active capital market for issuance of debt securities by private sector for maturities exceeding one year.	Potential positive impact is typically one category.
Moderately broad and deep debt capital market		
	--Characteristics falling between the categories above and below this category.	Neutral impact.
Narrow and shallow debt capital market		
	--Private sector debt issued in the domestic debt capital market is less than 10% of GDP. --Very limited capital market for issuance of debt securities by private sector for maturities exceeding one year.	Potential negative impact is typically one category.

*Depending on the materiality of this element and the impact of other elements analyzed within this factor.

111. Typically, the government's role contributes to qualitative adjustments to the initial score as shown in table 17.

Table 17

The Government's Role Contributes To Qualitative Adjustments To The Initial Systemwide Funding Score

Category	Characteristics	Impact on funding score*
Strong		
	--Government has a highly effective track record of providing guarantee and liquidity support during periods of market turmoil. --Central bank lending facilities are very strong in terms of capacity to service the size of the industry's funding needs and in responsiveness and flexibility to changing funding needs.	Potential positive impact is typically one category.
Adequate		
	--Characteristics falling between the categories above and below this category.	Neutral impact.
Weak		
	--Government has an ineffective track record of providing guarantee and liquidity support during periods of market turmoil (for example, a deposit freeze). --Central bank lending facilities are limited in terms of capacity to service the industry's funding needs and the government is often unresponsive and inflexible to changing funding needs.	Potential negative impact is typically one category.

*Depending on the materiality of this element and the impact of other elements we analyze within this factor.

112. Typically, we do not raise the final systemwide funding score to very low risk on the basis of a

positive contribution from the government role.

- ¹¹³. Typically, the absence of access to external funding or susceptibility to deposit instability contributes to a negative adjustment of one or more categories, depending on the impact of other elements we analyze within this factor.

CHANGES FROM PREVIOUS CRITERIA

- ¹¹⁴. The criteria:

- Change the approach for arriving at the final scores for each economic risk and industry risk factor by replacing the current subfactor-specific individual adjustments with--for each factor--an initial score followed by a single adjustment to arrive at the final score.
- Address a broader range of economic and industry characteristics to reflect specific features of a particular economy or financial services sector.
- Remove percentage limits on the frequency of adjustments' use.
- Change how we incorporate results from our sovereign analysis in our BICRA analysis when considering the adjustments to the initial scores.
- Highlight more explicitly where we capture newer and emerging risks such as cyber risks, technical innovation, and environmental, social, and governance (ESG)-related factors within our BICRA analysis.
- Use an alternative metric to assess the initial score for economic imbalances when the real estate market is not expected to be a primary source of economic imbalances.
- Clarify the assessment of the correction phase within the economic imbalances analysis.
- Remove the comparison of profitability of the banking sector versus other industries as a key measure of risk appetite when assessing competitive dynamics.

IMPACT ON OUTSTANDING RATINGS

- ¹¹⁵. Because we are not proposing any fundamental changes to the BICRA framework, we expect that, based on current credit characteristics, there will be no changes to economic or industry risk scores, and accordingly, to BICRA scores. Hence, there will be no impact on ratings due to the new BICRA criteria in and of itself.

REVISIONS AND UPDATES

This article was originally published on Dec. 9, 2021.

Changes introduced after original publication:

- On March 31, 2022, we republished this criteria article to make nonmaterial changes by adding "Sector And Industry Variables: Banking Industry Country Risk Assessment Update: March 2022" in Related Publications.
- On April 26, 2022, we republished this criteria article to make nonmaterial changes to the "Related Publications" section, where we added references to the current and select archived versions of the sector and industry variables report.
- On Dec. 6, 2022, we republished this criteria article to make nonmaterial changes to the

"Related Publications" section.

RELATED PUBLICATIONS

Fully Superseded Criteria

- Banking Industry Country Risk Assessment Methodology And Assumptions, Nov. 9, 2011

Related Criteria

- Financial Institutions Rating Methodology, Dec. 9, 2021
- Environmental, Social, And Governance Principles In Credit Ratings, Oct. 10, 2021
- Sovereign Rating Methodology, Dec. 18, 2017

Related Sector And Industry Variables Reports

- Sector And Industry Variables: Banking Industry Country Risk Assessment (see "Table Of Contents: S&P Global Ratings Financial Institutions Criteria" for the current version)

Related Research

- RFC Process Summary: Banking Industry Country Risk Assessment Methodology And Assumptions, Dec. 9, 2021

This article is a Criteria article. Criteria are the published analytic framework for determining Credit Ratings. Criteria include fundamental factors, analytical principles, methodologies, and /or key assumptions that we use in the ratings process to produce our Credit Ratings. Criteria, like our Credit Ratings, are forward-looking in nature. Criteria are intended to help users of our Credit Ratings understand how S&P Global Ratings analysts generally approach the analysis of Issuers or Issues in a given sector. Criteria include those material methodological elements identified by S&P Global Ratings as being relevant to credit analysis. However, S&P Global Ratings recognizes that there are many unique factors / facts and circumstances that may potentially apply to the analysis of a given Issuer or Issue. Accordingly, S&P Global Ratings Criteria is not designed to provide an exhaustive list of all factors applied in our rating analyses. Analysts exercise analytic judgement in the application of Criteria through the Rating Committee process to arrive at rating determinations.

This report does not constitute a rating action.

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