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Global Non-bank Financial Institutions Rating Criteria

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Summary

(Editor's Note: We originally published this criteria article on 15 June 2018. We republished it following our periodic review completed on 15 June 2021.As a result of our 2021 review, we updated the author contact information.)

This criteria report outlines the general principles behind our analytical framework for the global non-bank financial institution (NBFI) sector. These criteria are intended to cover a wide range of NBFI issuers, which include finance companies, securities firms, investment managers and other entities that fall under our NBFI definition. Typically, NBFIs are non-deposit taking institutions that lack central bank funding access. These entities also tend to be less systemically important than banks and are regulated separately from licensed banks.

Within each NBFI sub-sector, issuers may differ significantly in their operating and credit profiles. To accommodate such diversity, our criteria are meant to provide principle-based guidelines that enable us to form forward-looking credit opinions that are consistent over market cycles and comparable across industries. Our NBFI methodology may be supplemented by additional criteria in the future to address geography- or sub-sector-specific credit issues.

Our NBFI analytical framework follows a multi-step approach, encompassing qualitative and quantitative factors that, in our opinion, best capture an entity's credit profile. These factors comprise the four pillars of our credit analysis, namely:

- Pillar 1: NBFI Industry Credit Index (NICI);
- Pillar 2: Business Profile Assessment;
- Pillar 3: Capital Formation Assessment; and
- Pillar 4: Capital Adequacy Assessment.

Our four-pillar analysis generates an indicative credit score (ICS), which expresses our preliminary view of an entity's standalone creditworthiness. The ICS may be adjusted upwards or downwards based on factors beyond those considered in our standard scorecards. The adjusted score represents an entity's standalone credit profile (SACP), which reflects our opinion of an NBFI's viability as a going concern in the absence of external support.

Our external support analysis builds upon the SACP of a rated entity by incorporating the potential for capital and / or liquidity infusions from the issuer's shareholder(s) or the public sector under stress scenarios. Where justified, an NBFI's credit ratings may benefit from its status as a government-related entity, importance to the financial system, or membership of a broader business organization.

In assigning issuance ratings, we consider a fixed-income instrument's subordination, conversion features and loss absorption characteristics, among other factors. In the vast majority of cases, an NBFI's senior unsecured debt ratings are aligned with its long-term issuer credit rating. The ratings on junior and hybrid instruments are notched down based on our evaluation of their covenants and expectations of issuer and regulatory behavior.

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Scope of Criteria

The criteria in this report apply to NBFIs globally. We define NBFIs as financial institutions that demonstrate the following characteristics:

- NBFIs are regulated separately from banks in most cases. Although NBFIs are regulated in one form or another, they receive less regulatory oversight compared to their banking counterparts in most jurisdictions. This is particularly important to our analysis in areas such as risk management, capitalization and leverage;
- NBFIs typically lack deposit franchises and central bank funding access, with principal funding coming from shareholders, banks and other investors. Consequently, NBFIs' funding sources tend to be less stable, resulting in more vulnerable balance sheet positions during financial distress;
- NBFIs are widely viewed by regulators and market participants as less systemically important than banks and insurers due to their relatively small size individually, fragmented industry structure and lack of a deposit base. This may affect how we view the likelihood and quantum of extraordinary external support from the government and relevant authorities in stress scenarios.

NBFI issuers may be broadly grouped into the following categories:

- **Finance Companies**, which are commonly non-depository institutions that engage in lending activities in the retail or commercial space, including consumer loan companies and leasing firms. Our criteria also apply to captive finance companies, such as automobile or equipment finance companies whose operations are highly integrated with their parents' core manufacturing businesses;
- **Securities Firms**, which are generally retail / wholesale broker-dealers, corporate finance advisors, or firms that engage in multiple business lines traditionally considered as investment banking activities. However, securities firms that are regulated as bank holding companies or universal banks may be analyzed under or in conjunction with our Global Bank Rating Criteria;
- **Investment Managers**, which include traditional and alternative fund managers, as well as investment companies that manage their own capital on a long-term basis, such as family offices and sovereign wealth funds. However, these criteria are not intended to cover investment holding companies that take large or controlling stakes in and exert significant influence over a small number of investees. Investment holding companies are analyzed under a separate set of rating criteria due to their unique operating model;
- **Other NBFI Entities.** These criteria are designed to cover all other entities that fall under our descriptions above, which may include distressed debt managers, financial guarantors, securities exchanges, and select financial technology companies. For NBFIs with distinct business models, profit drivers and balance-sheet risks, our rating committees may adopt bespoke guidelines that best reflect the entities' credit profiles.

Our methodology can also cater to issuers that operate across a number of NBFI sub-sectors. For these entities, our approach is to analyze the separate product lines as if they were independent operations and aggregate their profiles to arrive at a final credit opinion. In these cases, our final assessments may be weighted by assets, capital employed, revenues, profits, cash flows, or any other metric appropriate for each rated entity.

Analytical Framework

Four-Pillar Analysis

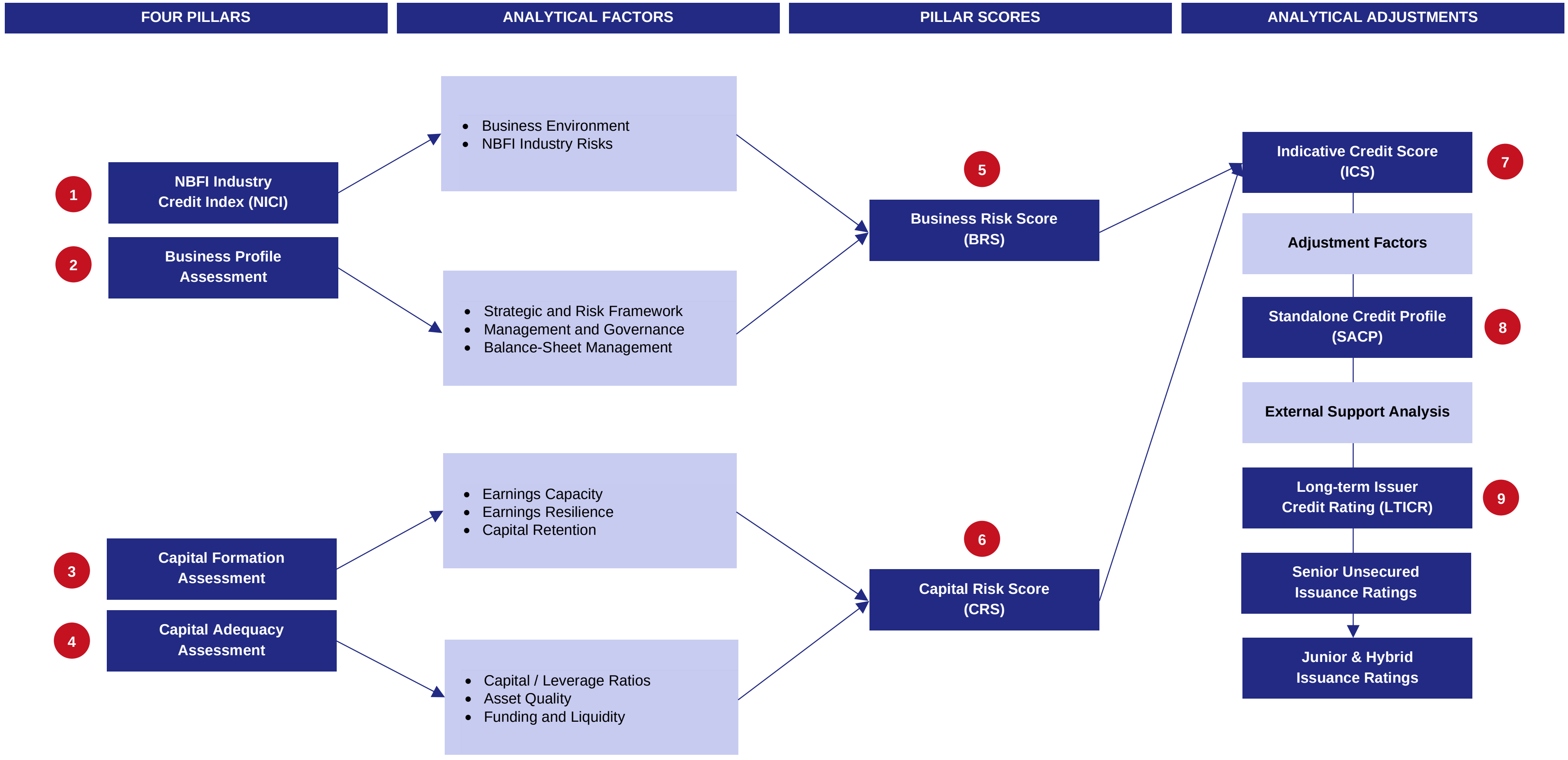
Our analytical approach for NBFIs follows a four-pillar framework, as shown in Exhibit 1. We believe the score for each pillar – and the way pillar scores are combined – convey useful information on the building blocks of an NBFI's creditworthiness and the inflection points that may cause its ratings to change. The four pillars that support our rating opinions are:

- **Pillar 1: NBFI Industry Credit Index (NICI).** The NICI expresses our view of an NBFI sub-sector's overall credit quality over the economic cycle. To enhance the granularity of our analysis, we may assign different NICI scores to each NBFI sub-sector within a given country. For instance, we may assign separate NICI scores for the leasing, securities, and distressed asset management sub-sectors in China. In our evaluation, we review each country's business environment, with an emphasis on economic performance and institutional strength. We also assess an NBFI sub-sector's competitive dynamics, regulatory landscape, and vulnerability to potential banking crises. Mature markets with sound economic fundamentals, stable competitive dynamics, and robust regulatory infrastructure tend to score higher on our NICI scale. Within each sub-sector for a given country, individual issuers' credit profiles form a distribution around the NICI, although the dispersion may vary widely across markets and regions.
- **Pillar 2: Business Profile Assessment.** Our business profile assessment focuses on the strengths and weaknesses of an NBFI issuer, with regards to its strategic and risk framework, management and governance, and balance-sheet management. An understanding of these qualitative aspects of an organization enables us to put its financial data into perspective and make an informed judgement on its ability to deliver on its objectives. The inputs into our analysis are derived from a variety of sources, such as our interactions with management, observations of competitive behavior, channel checks, and commentaries by other market participants. NBFIs that receive favorable business profile evaluations usually have defensible market positions supported by a seasoned management team, a prudent strategy, and a proven enterprise risk management framework.
- **Pillar 3: Capital Formation Assessment.** Under Pillar 3 of our framework, we assess an NBFI's ability to generate capital internally via retained earnings, which are a critical source of capital strength for these types of issuers as going concerns. As an NBFI's earnings profile is a function of its business mix, market position and operating environment, we adopt a principle-based approach to evaluate profitability. Starting with an entity's return on assets and equity, we evaluate its earnings resilience based on a range of profitability indicators, which may differ from sub-sector to sub-sector and issuer to issuer. Ultimately, these indicators allow us to form a comprehensive and forward-looking view of an entity's sustainable return on capital. Our analysis then considers management's policy to retain capital for growth, as opposed to making shareholder distributions via dividends and share repurchases.
- **Pillar 4: Capital Adequacy Assessment.** The final building block of our framework concerns an NBFI's existing and prospective balance-sheet strength. Our assessment is driven by our analysis of an NBFI's capital and leverage ratios, asset quality, and funding and liquidity. For the majority of cases, meeting the regulators' minimal capital adequacy and other prudential ratios is a necessary but insufficient condition for an issuer to achieve a standalone credit profile in the 'bbb' category or above. In addition to our base-case expectations, we may perform sensitivity tests and scenario analyses to measure an NBFI's capital performance under adverse operating conditions. As circumstances warrant and where practicable, we may make adjustments to an entity's reported data to paint a clearer picture of its capital strength.

Indicative Credit Score

While our Pillar-1 and Pillar-2 assessments are predominantly qualitative, the Pillar-3 and Pillar-4 factors are mostly quantitative in nature. Once all four pillars are scored individually, we combine the Pillar-1 and Pillar-2 scores to derive a Business Risk Score (BRS). Similarly, we combine Pillar-3 and Pillar-4 scores to form a Capital Risk Score (CRS). Our four-pillar analysis culminates in an indicative credit score (ICS), which is a function of an NBFI's BRS and CRS. The ICS represents our preliminary assessment of an NBFI's standalone creditworthiness.

Exhibit 1: Global NBFI Rating Framework



FOUR PILLARS

ANALYTICAL FACTORS

PILLAR SCORES

ANALYTICAL ADJUSTMENTS

1
NBFI Industry Credit Index (NICI)
2
Business Profile Assessment
3
Capital Formation Assessment
4
Capital Adequacy Assessment
5
Business Risk Score (BRS)
6
Capital Risk Score (CRS)
7
Indicative Credit Score (ICS)
Adjustment Factors
8
Standalone Credit Profile (SACP)
External Support Analysis
9
Long-term Issuer Credit Rating (LTICR)
Senior Unsecured Issuance Ratings
Junior & Hybrid Issuance Ratings

- Business Environment
- NBFI Industry Risks

- Strategic and Risk Framework
- Management and Governance
- Balance-Sheet Management

- Earnings Capacity
- Earnings Resilience
- Capital Retention

- Capital / Leverage Ratios
- Asset Quality
- Funding and Liquidity

Adjustment Factors

As described above, our indicative credit score (ICS) is intended to encompass the main drivers of an NBFI's standalone creditworthiness. However, there may be idiosyncratic factors that our scorecards are unable to adequately capture. These factors – and their relevance to individual issuers – vary from entity to entity. The following is a list of examples where we may refine an NBFI's ICS. On a culminative basis and in most cases, these factors may lead to a maximum upward or downward adjustment to an issuer's ICS of two notches.

- **Management and Corporate Governance.** We first assess this factor in Pillar 2 of our analytical framework, but for extreme cases where a significant lapse in management judgement or governance procedures is observed, we may consider lowering an issuer's ICS further;
- **Track Record and Size.** For NBFIs that have short track records either as a result of their recent establishment, mergers and acquisitions, or spin-offs, we may consider notching down their ICS to reflect the execution risks involved. Should we determine that an issuer's asset size is sub-scale relative to its peers, we may also adjust its ICS downwards to account for its potential competitive disadvantages;
- **Cumulative Effect of Rating Factors.** Our analytical framework is designed such that each factor is assessed and scored individually, before being aggregated to arrive at pillar scores. In the process, an entity which consistently scores on the high / low end of the indicative ranges may receive an ICS that is under- / overestimated on an aggregate basis. Should we decide that these cumulative effects are material, we may adjust an issuer's ICS upward or downward.
- **Peer Comparison.** Peer comparative analyses provide valuable insights into the relative ranking of an NBFI's standalone creditworthiness. If an issuer consistently out- / underperform its peers on key credit metrics, we may consider notching up / down its ICS to ensure sufficient differentiation between issuers. We usually define an NBFI's peer group as entities with comparable size and credit characteristics in the same or similar markets.

As individual firms may have unique attributes that warrant close examination, the list above is not meant to be exhaustive. When we fine-tune the ICS, our focal point is on the strongest / weakest link of an issuer's credit profile which may result in an under- / overestimation of our preliminary assessment.

After adjusting for company-specific features, we arrive at an NBFI's standalone credit profile (SACP). The SACP expresses our opinion of an NBFI issuer's viability as a going concern in the absence of implicit or explicit external support.

External Support Analysis

In our external support analysis, we assess the capital and / or liquidity assistance that may be available to an NBFI in distress. Our emphasis here is on "extraordinary" support under severe stress scenarios. On-going support – such as revolving credit lines that are part and parcel of a parent-subsidiary relationship – is considered separately under Pillars 2 and 4. Extraordinary support may occur through one or a combination of the three channels below:

- **Government-related Entities (GRE).** For issuers we identify as GREs – either due to their direct / indirect government ownership or their other ties with and importance to the government – we may factor in the support that they may receive due to their status;
- **Systemic Importance.** While we believe the NBFI sector as a whole tends to be less systemically important to a financial system compared to banks, certain issuers may still pose material risks owing to their size, complexity, substitutability and interconnectedness with the rest of the market. In particular, entities officially designated as global or domestic systemically-important financial institutions may potentially be beneficiaries of public-sector rescues under specific scenarios, in our view.
- **Parental Support.** Firms that belong to a broader financial services or corporate group may receive capital and / or liquidity support from their parent organizations as required. Such support may sometimes arise from fear of reputational damage to the franchise.

As a general rule, we consider the strongest source of potential support if an NBFI may be bailed out via more than one of these avenues. For all three support sources, our primary consideration is the support provider's ability and willingness to act as a backstop for the distressed firm. Depending on the distance between the starting credit profiles of the support provider and beneficiary, we may adopt either a top-down or a bottom-up approach in adjusting an entity's standalone credit profile. At the extremes, an NBFI may be assigned an issuer credit rating that is aligned with that of the support provider's or one solely based on its standalone credit profile.

It is noteworthy that, in our external support analysis, we typically exclude policy support that is available to all, or a large group of, NBFIs in the market. An example would be liquidity injections by the central bank to shore up the securities markets. We believe such broad-based support mechanisms would be best analyzed under Pillar 1 of our analytical framework. Similarly, we generally exclude the impact of industry protection funds on potential recoveries when we assess an NBFI's overall creditworthiness.

Issuance Ratings

In assigning issuance ratings, we consider a fixed-income instrument's subordination, conversion mechanisms, and loss absorption characteristics, among other factors. In the vast majority of cases, we align an NBFI's senior unsecured issuance rating with its long-term issuer credit rating. The ratings on junior and hybrid instruments are notched down based on our evaluation of their covenants and expectations on issuer and regulatory behavior.

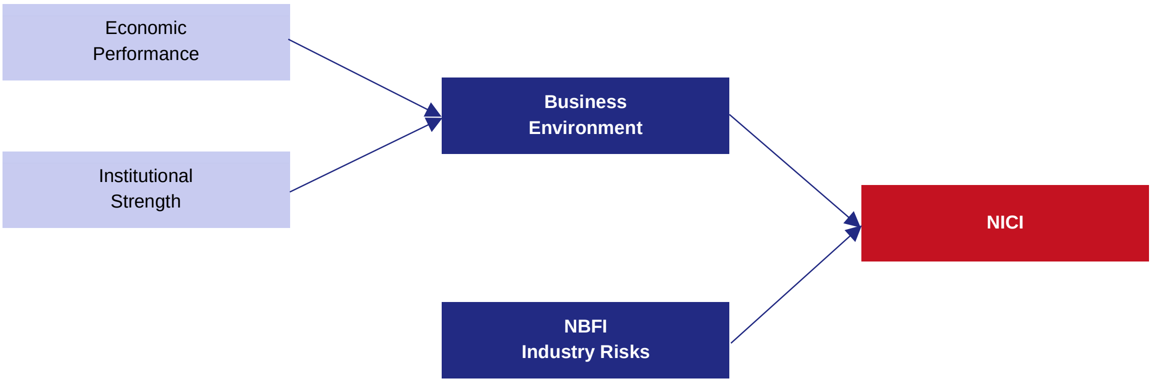
Pillar 1: NBFI Industry Credit Index (NICI)

Our Pillar-1 analysis aims to dissect NBFI sub-sectors into two dimensions, namely their business environment and industry-specific risks (Exhibit 2). By definition, our NICI represents our view of an NBFI sub-sector's overall credit quality over the economic cycle. For a given sub-sector, we may conceptually form a distribution of all individual issuers' credit profiles around this mean. As far as practicable, we try to define a sub-sector as a homogenous group of product and service providers. For instance, China's securities industry would receive one NICI score, while the Japanese consumer finance industry would receive another. As the NICI is designed to measure structural credit quality rather than cyclical performance, we believe it is likely that most NBFI sub-sectors' index scores would remain unchanged over a 12- to 24-month horizon.

Business Environment

Our business environment assessment is driven by our review of a market's economic performance and institutional strength. Both of these factors are key components in our Sovereign Rating Criteria. By drawing from our sovereign analysis, we seek to ensure consistency in our cross-practice macro-level assumptions, while isolating the factors most directly relevant to the NBFI sector.

Exhibit 2: NBFI Industry Credit Index (NICI) Framework



Economic Performance

In our view, a market's economic performance is a simple, yet powerful, indicator of the NBFI industry's operating conditions. Specifically, our analysis makes reference to our sovereign rating team's definitions and forecasts of GDP per capita and real GDP growth. Other things being constant, we believe advanced economies with robust economic performance usually foster a more favorable external environment for the NBFI sector.

GDP per Capita

We classify a jurisdiction into one of five stages of economic development based on our estimate of current-year GDP per capita (Exhibit 3). When a market's GDP per capita falls within 20% of the threshold between two neighboring stages of economic development, we also consider other factors – such as its level of industrialization and urbanization, the prevalence of high-value added services, and the scale of public infrastructure – in determining the final classification.

Exhibit 3: GDP per Capita Scorecard

	Stage of Economic Development				
	5	**4**	**3**	**2**	**1**
GDP per Capita (USD)*	> 24,000	12,000 – 24,000	6,000 – 12,000	3,000 – 6,000	< 3,000

* Based on our current-year estimate

Real GDP Growth

Our assessment on real GDP growth is based on a market's long-term trend, relative to the peer average within the same stage of economic development as defined in the preceding section on GDP per capita. For a given jurisdiction, we calculate a 10-year time-weighted average of its real GDP growth from t-6 to t+3, where t is the current year of analysis. This metric is scored on the basis of its deviation from the peer group average according to the guidelines in Exhibit 4.

Exhibit 4: Real GDP Growth Scorecard

	Within Each Stage of Economic Development				
	5	**4**	**3**	**2**	**1**
Real GDP Growth*	1.5 Standard Deviations Higher	1 Standard Deviation Higher	Stage Average	1 Standard Deviation Lower	1.5 Standard Deviations Lower

* Based on our calculation of a 10-year time-weighted average from t-6 to t+3, where t is the current year of analysis

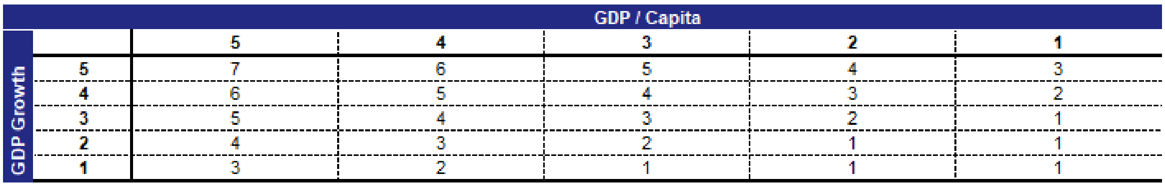
Preliminary Score on Economic Performance

The overall score for economic performance is derived from the matrix in Exhibit 5. Each market receives a score from 1 (very weak) to 7 (very strong). As an illustration, a country with a current-year GDP per capita estimate of USD20,000 would be classified in Stage 4 of economic environment. Assuming its 10-year time-weighted-average real GDP growth is 1.2 standard deviations higher than its peer group mean (a score of 4), its preliminary economic performance score would be 5.

Resilience Adjustment

While our real GDP growth metric is influenced by our forecasts for the next three years, we recognize that our central-case scenario may not capture the resilience or vulnerability of an economy when the macro environment experiences an unexpected and abrupt deterioration. Therefore, we may refine our preliminary score based on additional factors such as a country's economic diversity, exposure to commodity prices, reliance on imports and exports, and susceptibility to geopolitical conflicts. Given that severe stress scenarios may result in a wide range of outcomes for different regions and economies, we may raise or lower a country's preliminary score by up to three points, subject to a minimum and maximum score of 1 and 7, respectively.

Exhibit 5: Economic Performance Preliminary Scorecard



		GDP / Capita				
		5	4	3	2	1
GDP Growth	5	7	6	5	4	3
	4	6	5	4	3	2
	3	5	4	3	2	1
	2	4	3	2	1	1
	1	3	2	1	1	1

Institutional Strength

Our evaluation of institutional strength incorporates our sovereign analysts' views of the robustness of a jurisdiction's general and monetary policy frameworks. In particular, our analysis focuses on a market's ability to respond to internal and external shocks and foster a stable environment for business activities through its public policy infrastructure and monetary policy. We assess a market's general institutions and monetary institutions separately to which we assign scores out of a total score of 7 each. These two scores are then averaged and rounded to the nearest number to generate an overall score for institutional strength.

General Institutions

Under general institutions, we analyze a jurisdiction's public policy infrastructure. The core components of our evaluation include:

- Political and social stability;
- Effectiveness of institutions and policymaking;
- Policy framework and targets;
- Crisis prevention and risk management;
- People and sociopolitical aspects of effective governance; and
- Data and transparency.

These sub-factors are considered and scored holistically from 1 (very weak) to 7 (very strong).

Monetary Institutions

In assessing a jurisdiction's monetary effectiveness and flexibility, we base our analysis of its inflation environment. In general, we believe low and stable inflation facilitates sustainable economic growth, instills confidence in monetary policy, and may enable governments to resort to monetary expansion in stress scenarios without disrupting social and economic stability. We employ two metrics to form our view of a market's inflation performance:

- Long-term average consumer price index (CPI) inflation. For a given market, we calculate a 10-year time-weighted average of its CPI inflation from t-6 to t+3, where t is the current year of analysis;

- CPI inflation volatility. We calculate the standard deviation of a given market's CPI inflation over a 10-year period, as defined above.

These two metrics are scored individually from 1 (very weak) to 7 (very strong) according to the scorecard in Exhibit 6.

Exhibit 6: Inflation Scorecard

	7	6	5	4	3	2	1
CPI Inflation*	1.0 – 2.5%	2.5 – 3.5%	3.5 – 4.5%	4.5 – 6.0%	6.0 – 8.0%	8.0 – 10.0%	> 10.0%
CPI Inflation Volatility**	< 1.0	1.0 – 1.5	1.5 – 2.0	2.0 – 2.5	2.5 – 3.0	3.0 – 3.5	> 3.5

* Based on our calculation of a 10-year time-weighted average from t-6 to t+3, where t is the current year of analysis. If the metric is below 0% (deflation), we would assign a score of 1. If the metric is between 0% and 1%, we would assign a score of 1 if there is significant deflationary pressure. Otherwise, we would assign a score of 6 to reflect a low and stable, but sub-optimal, inflation environment.
** Standard deviation of CPI inflation over the same 10-year period

The scores on CPI inflation and CPI inflation volatility are weighted 70% / 30% and rounded to the nearest number to arrive at a score on monetary institutions. This preliminary score may be adjusted upwards or downwards by up to three points based on the following:

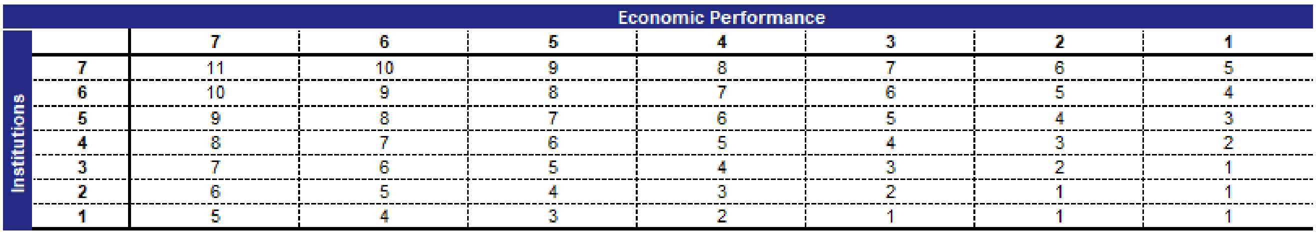
- Exchange rate regime;

- Central bank independence;
- Financial stability and development;
- Currency union membership.

Scoring Business Environment

The overall score on business environment is determined by referencing the matrix in Exhibit 7. A jurisdiction may receive a score from 1 (very weak) to 11 (very strong).

Exhibit 7: Business Environment Scorecard



		Economic Performance						
		7	6	5	4	3	2	1
Institutions	7	11	10	9	8	7	6	5
	6	10	9	8	7	6	5	4
	5	9	8	7	6	5	4	3
	4	8	7	6	5	4	3	2
	3	7	6	5	4	3	2	1
	2	6	5	4	3	2	1	1
	1	5	4	3	2	1	1	1

NBFI Industry Risks

Having evaluated a country's business environment, we consider the risks unique to an NBFI sub-sector. In our view, these risks mainly emanate from an NBFI industry's competitive dynamics, regulatory environment, and vulnerability to potential banking system crises. Competitive dynamics refer to the supply and demand conditions in the market which may influence issuers' risk appetite as well as their sustainable profitability. Under regulatory environment, we examine the prudential supervision which NBFIs within a particular sub-sector are subject to, which may determine the level of protection creditors are afforded. Our banking industry risk score – as defined in our Global Bank Rating Criteria – measures the specific risks of a country's banking sector and serves as the upper limit on the NBFI industry risk score a sub-sector can achieve.

Based on these three factors, we rank NBFI industry-specific risk profiles from 1 (very weak) to 9 (very strong). The sub-factors that contribute to our evaluation, as well as their weightings in our scorecard, are presented in Exhibit 8. The weighted average score is rounded to the nearest number. We score competitive dynamics and regulatory environment based on our comprehensive view of the sub-factors listed. The Banking Industry Risk score is derived from our bank analysts' inputs, as outlined in our Global Bank Rating Criteria.

Exhibit 8: NBFI Industry Risk Scorecard

Factors and Sub-factors		Score Range	Factor Weighting	Analytical Horizon
A.	Competitive Dynamics	1 – 9	50%	
B.	Regulatory Environment	1 – 9	50%	
C.	Banking Industry Risk Score	Cap		
A.	**Competitive Dynamics**	**1 – 9**	**50%**	
1.	Industry Structure			Trend
2.	Supply and Demand			Trend
3.	Policy Role			Trend
4.	Funding Conditions			Trend
B.	**Regulatory Environment**	**1 – 9**	**50%**	
1.	Regulatory Framework			Trend
2.	Creditor Protection			Trend
3.	Institutional Framework			Trend
C.	**Banking Industry Risk Score**	**Cap**		Trend

Competitive Dynamics

The sub-factors we assess can be grouped into four categories: industry structure, supply and demand, NBFIs' public policy role, and funding conditions in the market.

Industry Structure

We assess the relative size, market positions, strategies, and competitive (dis)advantages of distinct segments of the industry. In general, we favor markets where differentiated products and services are possible such that competition, while unavoidable, is not excessive. To that end, we also analyze the extent to which pricing – such as lending rates, brokerage fees, and asset management fees – is market driven or predominantly set by relevant authorities. Our emphasis is on the degree to which NBFIs attempt to price out their competition to the detriment of their on-going profitability. A related consideration is the absolute size of the market relative to the number of competitors. Markets that are fundamentally over-serviced have a tendency to exhibit irrational pricing and risk-taking patterns, especially when liquidity is abundant.

Supply and Demand

On the demand side, our emphasis is on secular trends, which may be a function of a market's socio-demographics, economic structure, and financial market developments. As an example, for finance companies, demand may be driven by steady growth in fixed-asset investments and household consumption. Likewise, securities companies may benefit from rising economic activity and the resulting growth in financing and investment needs. As for investment managers, an important demand driver may be an ageing population that requires private-sector retirement solutions.

On the supply side, we evaluate an NBFI sub-sector's capacity and willingness to service different segments of the market. While a significant over-supply of capacity may lead to pricing pressure and relaxed risk standards, a prolonged shortage may reflect the industry's inability to perform its financial intermediary role, potentially creating ripple effects throughout the real economy.

Policy Role

The public policy role that NBFIs are expected to play differs substantially across jurisdictions and sub-sectors. On one end of the spectrum, there are sub-sectors where the largest players are mostly state-owned and are expected to contribute to a host of policy objectives, including economic growth, and inflation and employment stability. At the other extreme, a market may allow its participants to function fully as commercial entities, with little or no policy interference beyond the tools available through monetary policy. In between, there are markets where entities are incentivized to engage in policy-related activities via targeted relief in regulatory capital and / or liquidity provision. In assessing the impact of a sub-sector's policy role, we analyze the net benefits or costs associated with such a role.

Funding Conditions

Structural funding conditions refer to the long-term ability of NBFIs to finance the growth of their business activities. We evaluate the most common funding channels available to a sub-sector, such as markets for interbank instruments, bank loans and publicly-traded securities. We place a special emphasis on the local fixed-income market, with regards to its stage of development, liquidity, available maturities, and diversity of issuers and capital instruments. Integral to this analysis is the investor profile for NBFI instruments and the potential for systemic risk concentration if there are significant cross-holdings among financial institutions.

Scoring Competitive Dynamics

After we analyze the sub-factors above, we assign an overall score on an NBFI industry's competitive dynamics, ranging from 1 (very weak) to 9 (very strong). We do not assign weightings to individual sub-factors, as the relevance of each sub-factor may vary from market to market. Exhibit 9 provides brief guidelines on our scoring scale and we look for the categories that we believe best fit the market evaluated. Our rating committees may decide to assign an overall score in increments of one point. For instance, if we believe a particular NBFI sub-sector falls in between our guidance for a score of 5 and 7, we may assign a final score of 6.

Exhibit 9: Scoring Guidelines for Competitive Dynamics

	9	7	5	3	1
	Very Strong	Strong	Average	Weak	Very Weak
Industry Structure	The market is in an advanced stage of development. Market segments are well-defined, such that differentiation is achievable and price competition is highly rational. The competitive landscape is stable. Overall, the industry structure creates an optimal environment for sustainable growth.	The market is well-developed. Market segmentation exists, such that some differentiation is achievable and price competition is generally rational. The competitive landscape is largely stable. Overall, the industry structure is conducive to sustainable growth.	The market is developed. Market segmentation exists to an extent and price competition is rational in most cases. The competitive landscape may change marginally. Overall, the industry structure allows for sustainable growth, contingent upon continued favorable structural improvements.	The market is developing or close to being developed. Market segmentation begins to take shape, but price competition may remain fierce. The competitive landscape is evolving. Overall, the industry structure leads to moderate concerns over growth sustainability.	The market is emerging. Market segmentation is minimal and pricing is typically the only basis of competition. The competitive landscape may experience rapid change. Overall, the industry structure leads to serious concerns over growth sustainability.
Supply and Demand	The market's secular trends – such as socio-demographics, economic structure, and financial market developments – give rise to very strong demand in the NBFI sub-sector. Meanwhile, the supply of capacity is in line with that demand, such that the market operates in a highly efficient manner over the cycle.	The market's secular trends – such as socio-demographics, economic structure, and financial market developments – give rise to strong demand in the NBFI sub-sector. Meanwhile, the supply of capacity is mostly in line with that demand, such that the market operates in an efficient manner over the cycle.	The market's secular trends – such as socio-demographics, economic structure, and financial market developments – are supportive of demand in the NBFI sub-sector. Meanwhile, the supply of capacity is generally in line with that demand, such that there is manageable volatility in market efficiency over the cycle.	The market's secular trends – such as socio-demographics, economic structure, and financial market developments – may not be supportive of demand in the NBFI sub-sector. Meanwhile, the supply of capacity often deviates from that demand, such that there is moderate volatility in market efficiency over the cycle.	The market's secular trends – such as socio-demographics, economic structure, and financial market developments –are generally not supportive of demand in the NBFI sub-sector. Meanwhile, the supply of capacity deviates widely from that demand, such that there is high volatility in market efficiency over the cycle.
Policy Role	Most NBFIs in the sub-sector operate on a fully commercial basis. If an NBFI offers policy-driven products and services, its overriding objective is to meet its internal return on capital requirements. Policymakers have a very limited ability to influence management decisions in this regard.	Most NBFIs in the sub-sector operate on a fully commercial basis. If an NBFI offers policy-driven products and services, its overriding objective is to meet its internal return on capital requirements. However, policymakers may have some influence over management decisions in this regard.	Most NBFIs in the sub-sector operate on a commercial basis, but they may sometimes be guided by public policy. If an NBFI offers policy-driven products and services, its objective is to minimize the impacts on its risk profile. Policymakers often have influence over management decisions in this regard.	Some NBFIs in the sub-sector operate on a commercial basis, while others are significantly influenced by public policy. If an NBFI offers policy-driven products and services, its objective is to meet policymakers' implicit or explicit objectives, often at the expense of its risk profile.	Most NBFIs in the sub-sector are significantly influenced by public policy. If an NBFI offers policy-driven products and services, its objective is to meet policymakers' implicit or explicit objectives, almost always at the expense of its risk profile.
Funding Conditions	The sub-sector's funding sources are very diverse. Central bank liquidity mechanisms, interbank infrastructure, and the bond market are highly developed. Funding conditions are expected to remain adequate under the most severe stress scenarios.	The sub-sector's funding sources are diverse. Central bank liquidity mechanisms, interbank infrastructure, and the bond market are well-established. Funding conditions are expected to remain adequate under most stress scenarios.	The sub-sector's funding sources are adequate. Central bank liquidity mechanisms, interbank infrastructure, and the bond market are established. Funding conditions are expected to remain adequate under low-stress scenarios.	The sub-sector's funding sources are limited in breadth and depth. Central bank liquidity mechanisms, interbank infrastructure, and the bond market are developing. Funding conditions are expected to be tight under low-stress scenarios.	The sub-sector's funding sources are very limited in breadth and depth. Central bank liquidity mechanisms, interbank infrastructure, and the bond market are under-developed. Funding conditions are expected to be extremely tight under low-stress scenarios.

Note: We assign an overall score on competitive dynamics from 1 (very weak) to 9 (very strong), based on our comprehensive views on the sub-factors listed. We may assign scores in increments of one point. For instance, if we believe a particular NBFI sub-sector falls in between our guidance for a score of 5 and 7, we may assign a final score of 6.

Regulatory Environment

The next component of our NBFI industry risk assessment is a sub-sector's regulatory environment. In most markets, NBFIs are subject to some form of prudential regulation, but the scope and intensity of such oversight are often more relaxed than the banking industry. We evaluate an NBFI sub-sector's regulatory environment with a focus on its framework, the protection provided to creditors, and the strength of the institutions responsible for prudential supervision.

Regulatory Framework

From finance companies to securities firms and investment managers, the supervisory frameworks applicable to NBFIs globally remain highly differentiated. The elements we assess include the formulation of required capital adequacy, leverage and liquidity ratios, asset classifications, loss provision standards, the admissibility of supplementary capital instruments, the designation and oversight of systemically important financial institutions, and other micro- / macro-prudential regulations. We compare these aspects of a regulatory framework with international industry standards and assign a relative score accordingly.

Creditor Protection

Our creditor protection analysis extends to the general corporate sector and examines the payment culture and enforcement of bankruptcy laws in the market. In particular, we analyze the jurisdiction's track record of providing creditors with recourse to defaulted counterparties via restructuring and liquidation schemes. With respect to the NBFI sector, we assess the resolution systems in place and the avenues available to different classes of creditors in case of failure. We view the implementation of industry protection fund schemes positively at the sub-sector level, although this would not be considered at the analysis of individual issuers.

Institutional Framework

Institutional framework refers to the collective body of people, organizations, policies and processes that form an NBFI sub-sector's regulatory environment. We assess institutional effectiveness by reviewing the regulator's objectives, supervisory authority, quality of disclosures, and level of risk management and corporate governance oversight. We may also assess the regulator's interactions with other financial authorities, such as a jurisdiction's banking and securities regulators and the central bank to gain insight into its policy priorities.

Scoring Regulatory Environment

We assign an overall score on an NBFI sub-sector's regulatory environment, ranging from 1 (very weak) to 9 (very strong). We do not assign weightings to individual sub-factors, as the relevance of each sub-factor may vary from market to market. Exhibit 10 provides brief guidelines on our scoring scale and we look for the categories that we believe best fit the market evaluated. Our rating committees may decide to assign an overall score in increments of one point. For instance, if we believe a particular NBFI sub-sector falls in between our guidance for a score of 5 and 7, we may assign a final score of 6.

Banking Industry Risk Score

Banking system risks are a factor that we assess across most financial and corporate sectors as they form an essential part of the environment in which an entity operates. We believe the systematic risk associated with a country's banking industry is of particular relevance to NBFIs. Below are some of the reasons why this may be the case:

- NBFIs are important financial intermediaries between households, corporations and capital markets;
- NBFIs are significant depositors in a country's banking system;
- NBFIs could be sizable institutional investors and / or issuers in a country's capital markets;
- NBFIs' credit profiles are highly exposed to fluctuations in interest rates and financial asset prices.

Accordingly, we believe it would be exceedingly rare for an NBFI sub-sector to have better overall credit quality than the banking system in the same jurisdiction. We incorporate this view into our methodology by setting a country's banking industry risk score, as defined in our Global Bank Rating Criteria, as the upper limit on the NBFI industry risk score.

Exhibit 10: Scoring Guidelines for Regulatory Environment

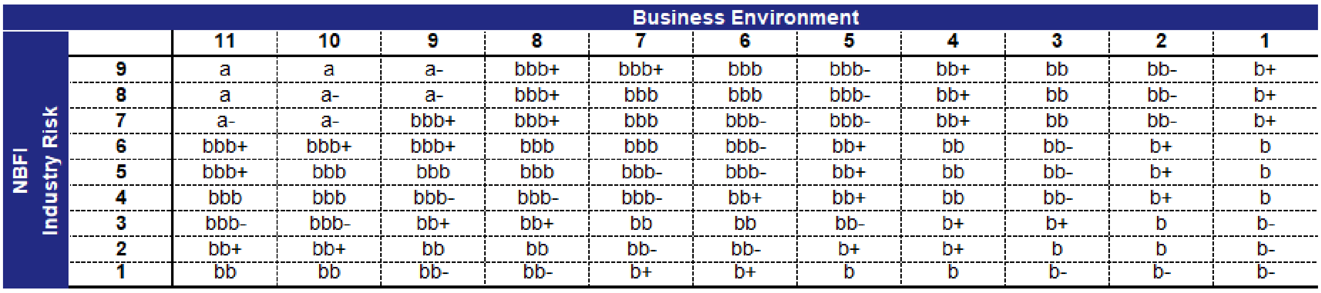
	9	7	5	3	1
	Very Strong	Strong	Average	Weak	Very Weak
Regulatory Framework	The regulatory framework is among the most comprehensive and robust globally. NBFIs in the sub-sector are held to very high standards with regards to capital adequacy and other prudential regulations. Accounting standards and disclosures fully reflect the industry's underlying economics. Domestic systemically important financial institutions are properly identified and supervised.	The regulatory framework is comprehensive and robust. NBFIs in the sub-sector are held to high standards with regards to capital adequacy and other prudential regulations. Accounting standards and disclosures largely reflect the industry's underlying economics with only minor exceptions. Domestic systemically important financial institutions are properly identified and supervised.	The regulatory framework is largely in line with international standards. NBFIs in the sub-sector are held to established standards with regards to capital adequacy and other prudential regulations. Accounting standards and disclosures reflect the industry's underlying economics with a number of notable exceptions. Domestic systemically important financial institutions are properly identified, but their supervision may have room for improvement.	The regulatory framework is in line with most international standards. Standards with regards to capital adequacy and other prudential regulations are evolving. Accounting standards and disclosures reflect the industry's underlying economics with a large number of notable exceptions. Domestic systemically important financial institutions regulations are developing.	The regulatory framework falls short of most international standards. Standards with regards to capital adequacy and other prudential regulations are rudimentary. Accounting standards and disclosures fail to reflect the industry's underlying economics in many cases. Domestic systemically important financial institution regulations are non-existent or developing.
Creditor Protection	Bankruptcy and restructuring laws are very well-established and strictly enforced. Creditors are able to form reasonable expectations on recoveries and other forms of recourse in almost all default cases. Specific to the NBFI sub-sector, effective resolution regimes are in place and are expected to address almost all potential failures in a timely manner.	Bankruptcy and restructuring laws are well established and strictly enforced. Creditors are able to form reasonable expectations on recoveries and other forms of recourse in most default cases. Specific to the NBFI sub-sector, effective resolution regimes are in place and are expected to address most potential failures in a timely manner.	Bankruptcy and restructuring laws are established, but their enforcement may be subject to some uncertainty. Creditors are able to form reasonable expectations on recoveries and other forms of recourse in some default cases. Specific to the NBFI sub-sector, resolution regimes are adequate for most scenarios.	Bankruptcy and restructuring laws are established, but their enforcement may be subject to a high level of uncertainty. Creditors are unable to form reasonable expectations on recoveries and other forms of recourse in many default cases. Specific to the NBFI sub-sector, resolution regimes are inadequate for most scenarios.	Bankruptcy and restructuring laws have a limited track record of effectiveness. Creditors are unable to form reasonable expectations on recoveries and other forms of recourse in most default cases. Specific to the NBFI sub-sector, resolution regimes are not formally implemented.
Institutional Framework	The regulator is an independent body and has a singular objective of ensuring the financial stability of NBFIs in the sub-sector. There is a robust system in place to maintain personnel and policy consistency. There is a very strong track record of regulatory effectiveness, as reflected in early warning signals on almost all entities in distress.	The regulator is an independent body and has a primary objective of ensuring the financial stability of NBFIs in the sub-sector. There is a sufficiently robust system in place to maintain personnel and policy consistency. There is a strong track record of regulatory effectiveness, as reflected in early warning signals on most entities in distress.	The regulator has a main objective of ensuring the financial stability of NBFIs in the sub-sector, but it may have secondary considerations such as economic growth. There is an adequate system in place to maintain personnel and policy consistency. There is a long track record of regulatory effectiveness, as reflected in early warning signals on many entities in distress.	The regulator has an objective of ensuring the financial stability of NBFIs in the sub-sector, but it often has secondary considerations such as economic growth. The system in place to maintain personnel and policy consistency may be inadequate in some cases. There is a limited track record of regulatory effectiveness, as reflected in a failure to detect entities in distress in most cases.	The regulator almost always has competing objectives of financial stability and economic growth. The system in place to maintain personnel and policy consistency has proved to be inadequate. There is a very limited track record of regulatory effectiveness, and almost all entity failures have not been detected prior to occurrence.

Note: We assign an overall score on regulatory environment from 1 (very weak) to 9 (very strong), based on our comprehensive views on the sub-factors listed. We may assign scores in increments of one point. For instance, if we believe a particular NBFI sub-sector falls in between our guidance for a score of 5 and 7, we may assign a final score of 6.

Determining the NBFI Industry Credit Index (NICI)

The final step of our Pillar-1 analysis is to combine our business environment score (on a scale of 1 to 11) and NBFI industry risk score (on a scale of 1 to 9) to arrive at an NICI score. This is achieved by referencing the matrix in Exhibit 11 below.

Exhibit 11: Determining the NICI



		Business Environment										
NBFI Industry Risk		11	10	9	8	7	6	5	4	3	2	1
	9	a	a	a-	bbb+	bbb+	bbb	bbb-	bb+	bb	bb-	b+
	8	a	a-	a-	bbb+	bbb	bbb	bbb-	bb+	bb	bb-	b+
	7	a-	a-	bbb+	bbb+	bbb	bbb-	bbb-	bb+	bb	bb-	b+
	6	bbb+	bbb+	bbb+	bbb	bbb	bbb-	bb+	bb	bb-	b+	b
	5	bbb+	bbb	bbb	bbb	bbb-	bbb-	bb+	bb	bb-	b+	b
	4	bbb	bbb	bbb-	bbb-	bbb-	bb+	bb+	bb	bb-	b+	b
	3	bbb-	bbb-	bb+	bb+	bb	bb	bb-	b+	b+	b	b-
	2	bb+	bb+	bb	bb	bb-	bb-	b+	b+	b	b	b-
	1	bb	bb	bb-	bb-	b+	b+	b	b	b-	b-	b-

The NICI score follows a scale of ‘a’ to ‘b-’ for a total of 11 categories. The scoring matrix is calibrated with a number of considerations in mind:

- Even for an NBFI sub-sector that has the best business environment and industry risk profiles, the maximum NICI score it can attain is ‘a’. This reflects our view that, given the NBFI industry’s interlinkages with the broader economy and vulnerability to unexpected credit, liquidity and capital market downturns, it is highly unlikely that the sector as whole would have a credit profile that exceeds our expectations for the ‘a’ rating category;
- It would be exceptionally rare for an NBFI sub-sector as a whole to have a better credit profile compared to the sovereign in which it is domiciled. However, we do not impose strict caps on individual issuers’ ratings based on the applicable sovereign ratings;
- Even in jurisdictions with highly stable business environments, industry-specific risks play a significant role in driving the final NICI score.

Multi-national NBFIs

- For NBFIs with more than 10% of their assets in markets outside of their home jurisdictions, we calculate a weighted average NICI score based on their asset distribution (Exhibit 12). This is done to ensure that our analysis fully captures the external risks to which an institution is exposed. As an example, if an NBFI has 80% of its assets in a jurisdiction with an NICI score of ‘bbb’ (numeric score of 8) and the remaining 20% of its assets in a ‘bb’-scored market (numeric score of 5), the applicable weighted average NICI score would be ‘bbb-’ (numeric score of 7).

Exhibit 12: Numeric Scores of NICI Categories

NICI Score	Numeric Score
a	11
a-	10
bbb+	9
bbb	8
bbb-	7
bb+	6
bb	5
bb-	4
b+	3
b	2
b-	1

Pillar 2: Business Profile Assessment

Under Pillar 2 of our analytical framework, we assess an NBFI's business profile from both a top-down and cross-functional perspective, beginning with its strategic and risk framework, which outlines the key parameters around which the organization operates. Second, we analyze the entity's management and governance structure, which largely determines its ability to execute its strategic and risk priorities. Finally, we evaluate the NBFI's balance-sheet management capabilities, which would involve a wide range of business functions and cross-functional teams and / or committees.

The factors and sub-factors that we analyze, as well as their respective weightings towards our final business profile assessment score, are presented in Exhibit 13. The weighted average score is rounded to the nearest number to arrive at a final score. While our scoring guidelines are qualitative in nature, we may refer to an array of quantitative metrics, measured over time and compared across an NBFI's peers, depending on the specific features of a sub-sector and the participants therein.

Exhibit 13: Business Profile Assessment Scorecard

Factors and Sub-factors		**Score Range**	**Factor Weighting**	**Analytical Horizon**
A.	Strategic Framework	1 – 11	25.0%	
B.	Management and Governance	1 – 11	25.0%	
C.	Balance Sheet Management	1 – 11	50.0%	
A.	**Strategic and Risk Framework**	1 – 11	**25.0%**	
1.	Market Position			Trend
2.	Appropriateness of Strategy			Trend
3.	Risk Preferences			Trend
B.	**Management and Governance**	1 – 11	**25.0%**	Trend
1.	Quality, Consistency and Continuity			Trend
2.	Governance Structure			Trend
3.	Risk Oversight			
C.	**Balance-sheet Management**	1 – 11	**50.0%**	Trend
1.	Asset Risk Management			Trend
2.	Funding Risk Management			Trend

Strategic and Risk Framework

An NBFI's strategic and risk framework refers to the way its top-down strategic objectives and risk preferences are articulated, either explicitly as communicated to internal and external stakeholders, or implicitly as can be observed through its corporate behavior over time. The sub-factors we consider include an issuer's market position, the appropriateness of its corporate strategy, and its risk appetite. Our score on strategic and risk framework is based on a comprehensive analysis of these three factors and ranges from 1 (very weak) to 11 (very strong). We may assign scores in increments of one point if we believe an NBFI falls between two of the categories shown.

Market Position

An NBFI's existing market position may have a significant bearing on its future strategic direction and risk preferences. For example, a securities firm which controls a large portion of the high-net worth individual market may be less tempted to engage in price cutting that may be prevalent among smaller, less established competitors. In contrast, a small finance company that competes directly with commercial banks might adopt an aggressive pricing strategy in an attempt to gain market share, especially when liquidity conditions are supportive.

In view of the diversity of industry structures globally, we do not use prescribed metrics, such as market shares, to quantify an NBFI's market position. Instead, our assessment is informed by our overall view on an entity's competitive advantages and disadvantages, relative to its peers in the domestic market and issuers of comparable size and credit standing in other jurisdictions. We score market position with reference to the broad guidelines in Exhibit 14. It is important to note that these guidelines are for indicative purposes only and may not be fully applicable to all entities we analyze.

Exhibit 14: Market Position Scorecard

Score	Indicative Guidelines
11	The NBFI is, by far, the only market leader in its domestic sub-sector, with a dominant position across almost all products. It controls a significant portion of the market by assets, revenues or profits and has extensive customer relationships. Typically, it is an issuer with well-diversified product and service offerings. In addition, it may have substantial operations on a regional or global basis, ranking in the top quartile in most foreign jurisdictions in which it operates. In our view, its competitive advantages are sustainable in the long-term, mainly due to its structural strengths.
9	The NBFI is among the market leaders in its domestic sub-sector, with a very strong position across most products. It controls a considerable portion of the market by assets, revenues or profits and has well-established customer relationships. Typically, it is an issuer with well-diversified product and service offerings. In addition, it may have operations on a regional or global basis, ranking in the top half in most foreign jurisdictions in which it operates. In our view, its competitive advantages are sustainable in the long-term, provided that it continues to invest in its branding, sales and marketing, technology, and human resources, etc.
7	The NBFI is a formidable competitor in its domestic sub-sector, with a strong position across many products. It controls a relatively large portion of the market by assets, revenues or profits and has established customer relationships. Typically, it is an issuer with diversified product and service offerings. In addition, it may have operations on a regional or global basis, but its position in foreign markets is much weaker than at home. In our view, its competitive advantages may be challenged by its closest peers in the long-term, mainly due to the vulnerability of its franchise differentiation.
5	The NBFI is a respectable competitor in its domestic sub-sector, ranking close to the middle across most products. The size of its domestic market share is similar to that of the average competitor and its customer relationships tend to be focused on select segments. Its product and service offerings may also have a skew towards certain segments, typically tailored for the middle market. If it has a foreign presence, its international operations are unlikely to become a meaningful part of the organization in the foreseeable future. In our view, its competitive advantages may be challenged by its closest peers in the near-term, mainly due to the vulnerability of its franchise differentiation.
3	The NBFI is a below-average competitor in its domestic sub-sector, perhaps due to its limited geographical presence. The size of its domestic market share is relatively small and its customer relationships are focused on select segments. Its product and service offerings may also have a skew towards certain segments, typically tailored for the middle to low end of the market. Its foreign presence is generally limited, with the exceptions of representative offices and small branches. In our view, its competitive advantages, if any, are constantly challenged by its closest peers, mainly due to its weak franchise differentiation.
1	The NBFI is among the weakest competitors in its domestic sub-sector, ranking close to the bottom across most products. The size of its domestic market share is extremely small and its customer relationships are focused on niches. Its product and service offerings may have a skew towards certain segments, typically tailored for the low end of the market. Its foreign presence is very limited, with the exceptions of representative offices and small branches. In our view, it has no competitive advantages relative to its peers.

Appropriateness of Strategy

Having examined an NBFI's existing market position, we evaluate its strategy going forward. Our interpretation of an organization's strategy is generally derived from multiple sources, including the issuer's public statements, our interactions with management, our observation of the issuer's corporate behavior over time, channel checks, and commentaries by other market participants. An NBFI's strategy is assessed mainly with regards to its appropriateness, given its current market position, execution capabilities, financial performance, and capital adequacy.

The most common strategies pursued by management may seek to increase market share, optimize return on equity, maximize shareholder dividends / share buybacks, or preserve capital. Often, management's strategy formulation is a function of the mandate given by the board of directors, shareholder expectations, the regulatory landscape, and its own incentives. The suitability of a given strategy for an NBFI may also change over time, as the organization continues to evolve. As such, our assessment of strategy may change from one period to another, even if management's strategic statement remains the same. We score the appropriateness of strategy by referencing the indicative guidelines in Exhibit 15.

Exhibit 15: Appropriateness of Strategy Scorecard

Score	Indicative Guidelines
11	The NBFI’s strategy is highly supported by its current market position, execution capabilities, financial performance, and capital adequacy. The strategy is formulated with a view to balance the interests of the issuer’s internal and external stakeholders, including its shareholders, creditors, customers, and regulators. The strategy, if property implemented, is expected to be significantly beneficial to creditors, including its bondholders and other counterparties. In our view, the suitability of the strategy is extremely unlikely to change in the next 3 to 5 years.
9	The NBFI’s strategy is well supported by its current market position, execution capabilities, financial performance, and capital adequacy. To a large extent, the strategy is formulated with a view to balance the interests of the issuer’s internal and external stakeholders, including its shareholders, creditors, customers, and regulators. The strategy, if property implemented, is expected to be largely beneficial to creditors, including its bondholders and other counterparties. In our view, the suitability of the strategy is highly unlikely to change in the next 3 to 5 years.
7	The NBFI’s strategy is supported by its current market position, execution capabilities, financial performance, and capital adequacy. To a certain degree, the strategy is formulated with a view to balance the interests of the issuer’s internal and external stakeholders, including its shareholders, creditors, customers, and regulators. The strategy, if property implemented, is expected to be incrementally beneficial to creditors, including its bondholders and other counterparties. In our view, the suitability of the strategy is unlikely to change in the next 3 to 5 years.
5	The NBFI’s strategy is somewhat supported by its current market position, execution capabilities, financial performance, and capital adequacy, but risks may be on the down side. The strategy is formulated with a view to optimize the interests of one or more of the issuer’s internal and external stakeholders, including its shareholders, creditors, customers, and regulators. The strategy, if implemented, is expected to be close to neutral to creditors, including its bondholders and other counterparties. In our view, the suitability of the strategy may be subject to change in the next 3 to 5 years.
3	The NBFI’s strategy may not be fully supported by its current market position, execution capabilities, financial performance, and capital adequacy, and risks are predominantly on the down side. The strategy is formulated with a view to optimize the interests of a small number of the issuer’s internal and external stakeholders, most likely its shareholders or related parties. The strategy, if implemented, is expected to be incrementally detrimental to creditors, including its bondholders and other counterparties. In our view, the suitability of the strategy is likely to decrease further in the next 3 to 5 years.
1	The NBFI’s strategy is clearly not supported by its current market position, execution capabilities, financial performance, and capital adequacy, and downside risks are significant. The strategy is formulated with a view to optimize the interests of the issuer’s shareholders or related parties. The strategy, if implemented, is expected to be significantly detrimental to creditors, including its bondholders and other counterparties. In our view, the suitability of the strategy is extremely likely to decrease further in the next 3 to 5 years.

Risk Preferences

With regards to an NBFI’s risk preferences, our focus is on the level of risk it is prepared to take to execute its strategy. An entity’s risk appetite is then viewed in the context of its on-going financial performance and projected balance-sheet quality. While our Pillar-3 (capital formation) and Pillar-4 (capital adequacy) analyses attempt to quantify the variability around an issuer’s earnings and potential balance-sheet vulnerabilities, our assessment here is primarily concerned with an NBFI’s willingness, rather than capacity, to take on incremental risks. Accordingly, we also evaluate an issuer’s track record of adhering to risk guidelines and maintaining pricing discipline over previous cycles.

In general, we view positively NBFIs that have demonstrated consistency in their risk preferences over time, as their exposures over the cycle would be more predictable and easily quantifiable. In comparison, issuers that have gone through multiple phases of over-expansion and over-contraction in the past are at significantly higher risk of mis-estimating their exposures, in our view. Consistency in risk appetite is particularly relevant to an NBFI’s new product development, overseas expansion, and mergers and acquisitions (M&A) plans, which may involve risks with which management is considerably less familiar.

Our indicative scoring guidelines on risk preferences are shown in Exhibit 16.

Exhibit 16: Risk Preferences Scorecard

Score	Indicative Guidelines
11	The NBFI has a consistently low risk appetite, as demonstrated by the strong resilience of its financial performance and balance sheet over previous downturns. Any incremental change in risk appetite is well conceived, managed and implemented. Risk preferences are determined by a large group of stakeholders within the organization, with strong expertise in their respective areas. There is a clear preference for organic growth over M&A opportunities, which are taken infrequently and typically as “add-ons” that complement the issuer’s existing operations.
9	The NBFI has a low risk appetite, as demonstrated by the relative resilience of its financial performance and balance sheet over previous downturns. Any incremental change in risk appetite is generally well conceived, managed and implemented. Risk preferences are determined by a wide base of stakeholders within the organization, with strong expertise in their respective areas. There is a general preference for organic growth over M&A opportunities, which are taken infrequently and involve a limited portion of the issuer’s financial resources.
7	The NBFI has a below-average risk appetite as compared to its closest peers and as demonstrated by the relatively low volatility in its financial performance and balance sheet over previous downturns. Any incremental change in risk appetite is properly conceived, managed and implemented. Risk preferences are determined by a representative cross-section of senior and middle management. There is a preference for organic growth over M&A opportunities, which are taken opportunistically and involve a manageable portion of the issuer’s financial resources.
5	The NBFI has an average risk appetite as compared to its closest peers and as demonstrated by the industry-level volatility in its financial performance and balance sheet over previous downturns. Any incremental change in risk appetite is adequately conceived, managed and implemented. Risk preferences are determined by a broad representation of senior management. The issuer is generally agnostic with regards to organic growth and M&A opportunities, which may be taken from time to time and involve a considerable portion of its financial resources.
3	The NBFI has an above-average risk appetite as compared to its closest peers and as demonstrated by the above industry-level volatility in its financial performance and balance sheet over previous downturns. Incremental changes in risk appetite may often be inadequately conceived, managed and implemented. Risk preferences are determined by a small number of senior management members. The issuer may have a preference for M&A opportunities over organic growth, reflecting its willingness to put a large portion of its financial resources at risk.
1	The NBFI has a consistently high risk appetite, as demonstrated by the extreme volatility in its financial performance and balance sheet over previous downturns. Incremental changes in risk appetite are often inadequately conceived, managed and implemented. Risk preferences are determined by only a few decision makers. The issuer has a clear preference for M&A opportunities over organic growth, reflecting its willingness to put a significant portion of its financial resources at risk.

Management and Governance

The people, policies and processes within the organization enable an NBFI to execute its strategic and risk framework. These factors are assessed under the management and governance factor, which comprises management quality, consistency and continuity, an issuer’s governance structure, and its risk oversight functions. We evaluate these sub-factors holistically and assign an overall score of between 1 (very weak) to 11 (very strong) on management and governance. We may assign scores in increments of one point, should we determine that an entity’s characteristics fall in between any two categories shown.

Quality, Consistency and Continuity

This represents our subjective view of management’s ability to execute its long-term strategies as set forth by the board of directors and within the confines of the relevant regulatory framework. We may take into account factors such as senior management’s qualifications and experience in the industry, continuity and international exposure. Senior management teams with a limited track record, unproven execution capabilities, or high turnover may signal potential risks in an issuer’s overall risk management. We also pay close attention to management’s compensation packages and other incentive schemes to gauge its key performance indicators, as laid out by the board of directors and major shareholders.

We present the indicative guidelines on quality, consistency and continuity in Exhibit 17.

Exhibit 17: Quality, Consistency and Continuity Scorecard

Score	Indicative Guidelines
11	The NBFI is run by a well-seasoned senior management team, with proven experience in the domestic and international markets. Almost all the senior executives have been with the organization for an extended period of time. They have demonstrated a highly consistent track record in steering the issuer through multiple credit cycles. In our view, the interests of creditors form an essential part of their long-term incentives. It is highly unlikely that key management members will leave the firm over the next 3 to 5 years.
9	The NBFI is run by a seasoned senior management team, with extensive experience in the domestic and international markets. The majority of the senior executives have been with the organization for an extended period of time. They have demonstrated a consistent track record in steering the issuer through multiple credit cycles. In our view, the interests of creditors form an important part of their long-term incentives. It is unlikely that key management members will leave the firm over the next 3 to 5 years.
7	The NBFI is run by an experienced senior management team, with previous exposures in the domestic and international markets. Most senior executives have been with the organization for an extended period of time. They have demonstrated a track record in steering the issuer through multiple credit cycles. In our view, the interests of creditors form a part of their long-term incentives. It is unlikely that we will see significant turnover in key management members over the next 3 to 5 years.
5	The NBFI is run by an experienced senior management team, but such experience is typically limited to the domestic or regional markets. Many senior executives have been with the organization for an extended period of time. They have demonstrated a track record in managing the issuer through multiple credit cycles with varying degrees of success. In our view, the interests of creditors may not be an important part of their long-term incentives. There may be some concerns over turnover in key management members over the next 3 to 5 years.
3	The NBFI is run by a senior management team with varying levels of industry experience and such experience is typically limited to the domestic market. Some senior executives have been with the organization for an extended period of time. They may have a track record in managing the issuer through multiple credit cycles, but their execution capability may be weak at times. In our view, the interests of creditors may not be part of their long-term incentives. There may be some concerns over turnover among key management members over the next 3 to 5 years.
1	The NBFI is run by a senior management team with minimal industry experience and such experience is limited to the domestic market. Many senior executives are new to the organization. They have yet to demonstrate a track record in managing the issuer through multiple credit cycles, and their execution capability is questionable. In our view, the interests of creditors are not part of their long-term incentives. There may be serious concerns over turnover among key management members over the next 3 to 5 years.

Governance Structure

We begin our assessment of an NBFI’s corporate governance standards by analyzing the composition, experience, and balance of interests of its board of directors. In the majority of jurisdictions, an NBFI’s board of directors is subject to competency and suitability requirements by its regulators. However, we believe compliance with existing regulatory requirements is a necessary but insufficient condition to ensure an adequate governance structure. A more important consideration in our analysis is whether the board can properly perform its strategic and risk functions and thoroughly consider the impacts of any major corporate decisions on creditor interests.

In our opinion, board effectiveness may be heavily influenced by the motivations of an issuer’s controlling shareholder(s), which may have full control over any board actions. For public-sector entities, we would consider if such motivations include the promotion of policy objectives at the expense of creditor interests. As for private-sector issuers controlled by a single shareholder or a consortium of investors acting in concert, our evaluation emphasizes the balance of interests between shareholders and creditors, which may be reflected in the board’s return on equity and capital adequacy expectations. In addition, common attributes of an effective governance structure may include the appointment of a non-executive chairman and a meaningful number of independent, non-executive board members.

If an NBFI is also subject to the oversight of a supervisory board or similar bodies (such as those that represent an issuer’s employees), we may also evaluate its functions and the extent to which it affects the organization’s strategy and risk priorities.

Our broad governance structure guidelines are shown in Exhibit 18.

Exhibit 18: Governance Structure Scorecard

Score	Indicative Guidelines
11	In our opinion, the NBFI's corporate governance standards are among the best globally and have proved to be extremely effective in driving its strategic and risk objectives. There is a very high degree of independence between the issuer's board of directors and management, so as to ensure that its major corporate decisions are subject to intense internal oversight. Independent, non-executive members play an integral role on the board.
9	In our opinion, the NBFI's corporate governance standards exceed international industry norms and have proved to be highly effective in driving its strategic and risk objectives. There is a high degree of independence between the issuer's board of directors and management, so as to ensure that its major corporate decisions are subject to thorough internal oversight. Independent, non-executive members play an important role on the board.
7	In our opinion, the NBFI's corporate governance standards are in line with international industry norms and have proved to be effective in driving its strategic and risk objectives. There is adequate independence between the issuer's board of directors and management, so as to ensure that its major corporate decisions are subject to an additional layer of internal oversight. Independent, non-executive members play a role on the board.
5	In our opinion, the NBFI's corporate governance standards are in line with local or regional industry norms and have proved to be effective in driving its strategic and risk objectives in most instances. There is some independence between the issuer's board of directors and management, but corporate decision-making power may be concentrated. Independent, non-executive members may be present, but their expertise and ability to provide effective checks and balances may be inadequate in some cases.
3	In our opinion, the NBFI's corporate governance standards are below local or regional industry norms, but have proved to be effective in driving its strategic and risk objectives in some instances. There is limited independence between the issuer's board of directors and management, and corporate decision-making power is concentrated. Independent, non-executive members may be present in form, but in terms of substance, their expertise and ability to provide effective checks and balances are inadequate.
1	In our opinion, the NBFI's corporate governance standards are well below local industry norms and have proved to be ineffective in driving its strategic and risk objectives in most instances. There is very limited independence between the issuer's board of directors and management, and corporate decision-making power is highly concentrated. Independent, non-executive members may or may not be present in form, but in terms of substance, their expertise and ability to provide effective checks and balances are highly inadequate.

Risk Oversight

In this section, we evaluate the degree to which an NBFI's high-level risk framework is properly communicated and implemented throughout the organization. We focus on the people, internal risk oversight functions, as well as policies and processes involved in designing, monitoring and revising its risk parameters. Depending on the complexities of an issuer's business, its adoption of risk-based management may involve systems and procedures that are unique to its needs.

Instead of focusing solely on the teams, departments, and management committees that are internally designated as risk functions, we analyze an organization's risk culture on a holistic basis. For instance, while a finance company may have formulated stringent underwriting policies, a lack of training or oversight of front-line officers may result in major weaknesses in its first line of defence against problem assets. We gauge the adequacy of firm-wide risk-oversight functions by evaluating the NBFI's market behaviour against established policies and the track record of compliance breaches.

In today's operating environment, IT infrastructure has become a required core competency for NBFIs globally. The adequacy of a firm's IT capabilities may have far-reaching impacts on various factors ranging from asset origination, pricing and internal approvals to liquidity and capital management. The protection of customer privacy has also become a regulatory priority in the majority of jurisdictions. Among other factors, we gauge an organization's IT infrastructure quality by reviewing its system designs, data control processes, scalability and recoverability.

Although our scoring guidelines for risk oversight are qualitative in nature, we may supplement our analysis with quantitative metrics, such as a trading book's value at risk and the notional exposures of derivatives positions. We score risk oversight based on the guidelines in Exhibit 19.

Exhibit 19: Risk Oversight Scorecard

Score	Indicative Guidelines
11	There is a very strong track record of internal and external compliance. with no notable incidents of risk management breaches in the last 3 to 5 years. The NBFI has extremely strong risk oversight capabilities, accompanied by a prudent risk culture throughout the organization. There is very close coordination among key business functions and positions to ensure that the issuer's established risk parameters are consistently communicated, observed and adjusted as required. Operational risks are minimal and significantly mitigated by substantial investments in systems and processes.
9	There is a strong track record of internal and external compliance. with close to no notable incidents of risk management breaches in the last 3 to 5 years. The NBFI has strong risk oversight capabilities, accompanied by a generally prudent risk culture throughout the organization. There is close coordination among key business functions and positions to ensure that the issuer's established risk parameters are consistently communicated, observed and adjusted as required. Operational risks are limited and mitigated by substantial investments in systems and processes.
7	There is a long track record of internal and external compliance. with only a few notable incidents of risk management breaches in the last 3 to 5 years. The NBFI has more than adequate risk oversight capabilities, accompanied by a sufficiently conservative risk culture throughout the organization. There is coordination among key business functions and positions to ensure that the issuer's established risk parameters are consistently communicated, observed and adjusted as required. Operational risks are manageable and mitigated by continued investments in systems and processes.
5	There is a relatively short track record of internal and external compliance. with a number of notable incidents of risk management breaches in the last 3 to 5 years. The NBFI has adequate risk oversight capabilities in most cases, accompanied by a favorable risk culture in the main business functions. There is some coordination among key business functions and positions to ensure that the issuer's established risk parameters are consistently communicated, observed and adjusted as required. Operational risks may be a challenge if there are no continued investments in systems and processes.
3	There is a weak track record of internal and external compliance. with many notable incidents of risk management breaches in the last 3 to 5 years. The NBFI has less than adequate risk oversight capabilities in many cases, accompanied by an inconsistent risk culture in the main business functions. There is limited coordination among key business functions and positions to ensure that the issuer's established risk parameters are consistently communicated, observed and adjusted as required. Operational risks will be a challenge if there are no continued investments in systems and processes.
1	There is a very weak track record of internal and external compliance. with a large number of notable incidents of risk management breaches in the last 3 to 5 years. The NBFI has inadequate risk oversight capabilities in many cases, accompanied by an inconsistent risk culture throughout the organization. There is very limited coordination among key business functions and positions to ensure that the issuer's established risk parameters are consistently communicated, observed and adjusted as required. Operational risks are an on-going challenge and a major credit concern.

Balance-sheet Management

The risk attributes of an NBFI's assets, liabilities and capital are important drivers of its creditworthiness. Just as we focus on firm-wide risk culture in the preceding section, we assess an issuer's ability to manage its balance sheet via the coordination of its key business functions here. The key asset-liability areas we consider are summarized in Exhibit 20.

Exhibit 20: Key Asset-liability Areas Analyzed

Assets	Funding
Credit risks	Stability
Interest-rate risks	Diversity
Market risks	Tenor
Liquidity risks	Cost

We evaluate the asset risk and funding risk sub-factors holistically and assign an overall score of between 1 (very weak) to 11 (very strong) on balance-sheet management. We may assign scores in increments of one point, should we determine that an NBFI's characteristics fall in between any two categories shown.

Asset Risk Management

Depending on an NBFI's business model, its asset composition may differ significantly from that of its peers. For finance companies, their assets consist mainly of loan portfolios and receivables. Securities brokers may have diverse exposures, including securities held for trading purposes, derivative positions, and margin loan portfolios. Investment managers' on-balance sheet positions largely depend on their mandates and may range from equities and fixed-income securities to alternative assets, such as real estate and commodities.

For an NBFI with credit exposures, our first consideration is its ability to manage its asset quality. We begin by analyzing the mix of its loans and receivables by type, industry, geography, tenor and collateral / guarantee status. We attempt to identify potential risk concentrations in the portfolio, particularly with regards to borrower classification and correlation. This is followed by a review of the issuer's non-performing loan (NPL) recognition, classification and management policies. In general, we favor NBFIs that take a forward-looking and consistent approach in provisioning for potential credit losses. A study of an entity's NPL accounting and provisioning practices over time and relative to its peers' may provide useful insights into the institution's ability to navigate credit downturns in the future.

For securities firms and investment managers, we analyze the interest-rate, market and liquidity risks of their trading and investment exposures. An issuer that runs large proprietary trading positions may be more exposed to market gyrations, compared to peers with only agency operations. The potential shortage of liquidity for many instruments may also expose the issuer to uncertainties in volatile markets. If a firm's positions are managed through the use of derivatives, we assess the effectiveness of such protection and the counterparty risks involved.

Finally, for all NBFIs, we evaluate their asset valuation and accounting policies to ascertain whether their underlying asset risks are conservatively expressed in their financial statements. We score asset risk management with reference to the indicative guidelines in Exhibit 21.

Exhibit 21: Asset Risk Management Scorecard

Score	Indicative Guidelines
11	The NBFI has an exceptional ability to manage its credit, interest-rate, market and liquidity risks, as demonstrated by the strong resilience of its asset base over the cycle. The issuer has a very well-diversified portfolio by type, industry, geography, tenor, and collateral / guarantee status. Management follows an extremely prudent loss recognition, classification and management policy. The interest-rate, market and liquidity risks of its trading and investment positions are either minimal, or meticulously managed via well-established hedging policies. Accounting standards and disclosures fully reflect the issuer's underlying asset exposures.
9	The NBFI has a very strong ability to manage its credit, interest-rate, market and liquidity risks, as demonstrated by the resilience of its asset base over the cycle. The issuer has a well-diversified portfolio by type, industry, geography, tenor, and collateral / guarantee status. Management follows a prudent loss recognition, classification and management policy. The interest-rate, market and liquidity risks of its trading and investment positions are either minimal, or well managed via well-established hedging policies. Accounting standards and disclosures reflect the issuer's underlying asset exposures, with only a few minor exceptions.
7	The NBFI has a strong ability to manage its credit, interest-rate, market and liquidity risks, as demonstrated by the relative resilience of its asset base over the cycle. The issuer has a diversified portfolio by type, industry, geography, tenor, and collateral / guarantee status. Management follows a sufficiently prudent loss recognition, classification and management policy. The interest-rate, market and liquidity risks of its trading and investment positions are relatively limited and managed via well-established hedging policies. Accounting standards and disclosures reflect the issuer's underlying asset exposures, with only a few exceptions.
5	The NBFI has an adequate ability to manage its credit, interest-rate, market and liquidity risks, as demonstrated by the relatively low volatilities of its asset base over the cycle. The issuer has a diversified portfolio, but there may be a skew by type, industry, geography, tenor, or collateral / guarantee status. Management follows an adequate loss recognition, classification and management policy. The interest-rate, market and liquidity risks of its trading and investment positions are within comfortable limits and may be managed via hedging policies. Accounting standards and disclosures reflect the issuer's underlying asset exposures for the most part.
3	The NBFI has a weak ability to manage its credit, interest-rate, market and liquidity risks, as demonstrated by the volatilities of its asset base over the cycle. The issuer has a somewhat diversified loan portfolio, but there may be a significant skew by type, industry, geography, tenor, or collateral / guarantee status. Management follows a loss recognition, classification and management policy as required by minimum regulatory standards. The interest-rate, market and liquidity risks of its trading and investment positions may lead to significant volatilities and hedging policies may not mitigate such risks. Accounting standards and disclosures may not reflect the issuer's underlying asset exposures in many instances.
1	The NBFI has a very weak ability to manage its credit, interest-rate, market and liquidity risks, as demonstrated by the extreme volatilities of its asset base over the cycle. The issuer has a concentrated portfolio with a significant skew by type, industry, geography, tenor, or collateral / guarantee status. Management follows a loss recognition, classification and management policy that may fall short of minimum regulatory standards. The interest-rate, market and liquidity risks of its trading and investment positions are expected to lead to significant volatilities and hedging policies may not mitigate such risks. Accounting standards and disclosures do not reflect the issuer's underlying asset exposures in many instances.

Funding Risk Management

A notable difference between NBFIs and banks is the former's inability to take customer deposits as a form of funding. This leads to NBFIs' heavy reliance on wholesale funding channels to finance their day-to-day operations. Depending on the sub-sector, an NBFI's funding sources may include interbank liabilities, bank loans, debt capital markets, and shareholders' funds.

We assess an issuer's funding risk management primarily based on the stability, diversity, tenor, and cost of its interest-bearing liabilities. To manage potential market volatilities, NBFIs would benefit from a diversity of funding sources by type, tenor and currency. We also assess the tenor and currency denomination of an issuer's funding in the context of its asset profile, in order to quantify its net interest-rate and foreign-exchange sensitivities. We analyze an issuer's funding cost relative to its peers' and over time. While an NBFI with a costly funding base may be able to transfer a part of its costs to its customers, it may sometimes result in a downward shift in asset quality profile, leading to a deviation from its intended strategic and risk framework.

We score funding risk management based on the indicative guidelines in Exhibit 22.

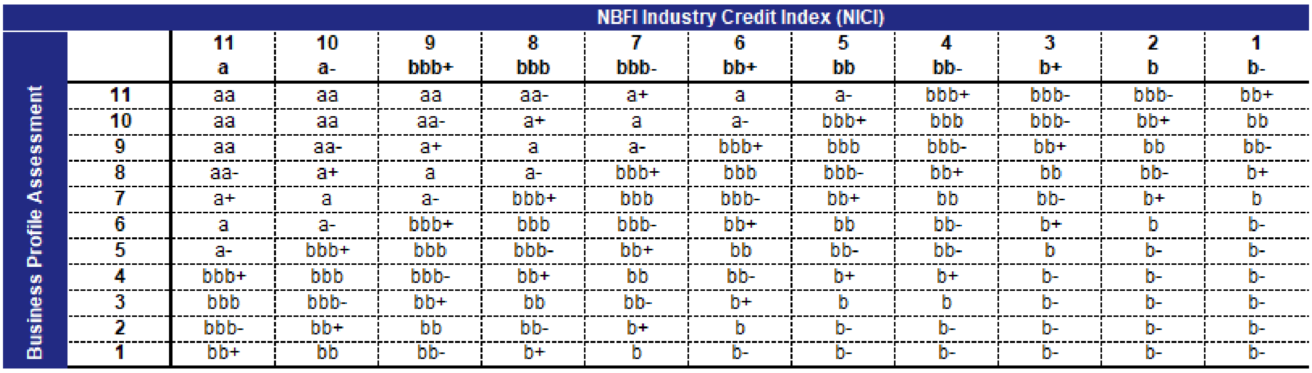
Exhibit 22: Funding Risk Management Scorecard

Score	Indicative Guidelines
11	The NBFI's funding base is extremely stable. There is a very high level of funding diversification by type and tenor, which are closely matched with its asset profile. Overall, the issuer has access to the lowest cost funding among its peers. Any material increase in funding cost is almost entirely passed on to its borrowers, with a very limited adverse impact on its margins and asset quality profile.
9	The NBFI's funding base is very stable. There is a high level of funding diversification by type and tenor, which are closely matched with its asset profile. Overall, the issuer has access to low cost funding relative to its peers' in the market. Any material increase in funding cost is largely passed on to its borrowers, with a limited adverse impact on its margins and asset quality profile.
7	The NBFI's funding base is generally stable. There is reasonable diversification by type and tenor, which are mostly matched with its asset profile. Overall, the issuer has access to lower cost funding relative to most of its peers' in the market. Any material increase in funding cost is partially passed on to its borrowers, with a modest adverse impact on its margins and asset quality profile.
5	The NBFI's funding base is stable. There is some diversification by type and tenor, which are matched with its asset profile to an extent. Overall, the issuer has access to average cost funding relative to its peers' in the market. Any material increase in funding cost is passed on to its borrowers only to some extent, with a noticeable adverse impact on its margins and asset quality profile in parts of the cycle.
3	The NBFI's funding base may be subject to some volatility. There is only moderate diversification by type and tenor, which may not be closely matched with its asset profile. Overall, the issuer only has access to above-average cost funding relative to its peers' in the market. Any material increase in funding cost may not be adequately passed on to its borrowers, leading to a material adverse impact on its margins or asset quality profile.
1	The NBFI's funding base is subject to high volatility. There is a low level of diversification by type and tenor, which are largely mismatched with its asset profile. Overall, the issuer only has access to high cost funding relative to its peers' in the market. Any material increase in funding cost is inadequately passed on to its borrowers, leading to a significant adverse impact on its margins or asset quality profile.

Business Risk Score (BRS)

After we arrive at a weighted average score on business profile assessment (rounded to the nearest number), the next step in our analytical framework is to generate a business risk score. The BRS ranges from ‘aa’ to ‘b-’ for a total of 14 categories. The BRS is determined by referencing the matrix in Exhibit 24.

Exhibit 24: Determining the BRS



Business Profile Assessment	NBFI Industry Credit Index (NICI)										
	11 a	10 a-	9 bbb+	8 bbb	7 bbb-	6 bb+	5 bb	4 bb-	3 b+	2 b	1 b-
11	aa	aa	aa	aa-	a+	a	a-	bbb+	bbb-	bbb-	bb+
10	aa	aa	aa-	a+	a	a-	bbb+	bbb	bbb-	bb+	bb
9	aa	aa-	a+	a	a-	bbb+	bbb	bbb-	bb+	bb	bb-
8	aa-	a+	a	a-	bbb+	bbb	bbb-	bb+	bb	bb-	b+
7	a+	a	a-	bbb+	bbb	bbb-	bb+	bb	bb-	b+	b
6	a	a-	bbb+	bbb	bbb-	bb+	bb	bb-	b+	b	b-
5	a-	bbb+	bbb	bbb-	bb+	bb	bb-	bb-	b	b-	b-
4	bbb+	bbb	bbb-	bb+	bb	bb-	b+	b+	b-	b-	b-
3	bbb	bbb-	bb+	bb	bb-	b+	b	b	b-	b-	b-
2	bbb-	bb+	bb	bb-	b+	b	b-	b-	b-	b-	b-
1	bb+	bb	bb-	b+	b	b-	b-	b-	b-	b-	b-

Pillar 3: Capital Formation Assessment

We view an NBFI’s ability to generate capital internally through retained earnings as a critical source of financial strength. Our assessment of capital formation is informed by our analysis of an issuer’s earnings capacity, earning resilience, and capital retention. Under earnings capacity, we form a preliminary view of profitability based on an entity’s return on average assets (ROAA) and return on average equity (ROAE). Our analysis is refined through a deep-dive into the key capital formation drivers, which may include net interest income, fee income, investment income, operating costs, and other profit and loss items unique to an NBFI sub-sector or issuer. An issuer’s earnings profile is finally evaluated against management’s policy to retain capital for growth and as an additional cushion. Our approach assesses financial metrics using a principle-based approach, taking into account an entity’s financial performance on an absolute basis, relative to peers, and under stress scenarios.

The final score on capital formation ranges from 1 (very weak) to 11 (very strong), based on the scorecard in Exhibit 25.

Exhibit 25: Capital Formation Scorecard

Factors and Sub-factors		Score Range	Sub-factor Weighting	Factor Nature	Analytical Horizon / Considerations
A.	Earnings Capacity	1 – 11		Preliminary Score	
B.	Earnings Resilience	-3 to +3		Adjustments	
C.	Capital Retention	-1 / 0		Adjustments	
A.	**Earnings Capacity**	**1 – 11**	**100.0%**	**Preliminary Score**	
1.	Return on Average Assets	1 – 11	70.0%		t-2 to t+1*
2.	Return on Average Equity	1 – 11	30.0%		t-2 to t+1*
B.	**Earnings Resilience**	**-3 to +3**		**Adjustments**	
1.	Net Interest Margin				Trend / Stress Testing / Peer Comparison
2.	Fee Income				Trend / Stress Testing / Peer Comparison
3.	Investment Income				Trend / Stress Testing / Peer Comparison
4.	Cost-income Ratio				Trend / Stress Testing / Peer Comparison
5.	Other Items / Businesses				Trend / Stress Testing / Peer Comparison
6.	Diversification				Trend / Stress Testing / Peer Comparison
C.	**Capital Retention**	**-1 / 0**		**Adjustments**	
1.	Dividend Payouts / Share Buybacks	-1 / 0			Long-term Policy

* Calculated based on a 5-year time-weighted average. Standard weightings are as follows: t-2 (10%), t-1 (20%), t (35%), t+1 (25%), t+2 (10%), where t is the current year of analysis. Time weightings may be subject to rating committee adjustments on a case-by-case basis.

Earnings Capacity

Our preliminary evaluation of an NBFI's profitability is based on its 5-year time-weighted ROAA and ROAE, scored as per the guidelines in Exhibit 26. The scores on ROAA and ROAE are then weighted 70% / 30% to reflect their relative importance to our analysis. For instance, if an issuer has a 5-year time-weighted ROAA of 1.25% (a score of 6) and a 5-year time-weighted ROAE of 10.5% (a score of 4), its overall score would be 70% x 6 + 30% x 4 = 5.4, or 5, after being rounded to the nearest number.

Overall, we believe these two standard ratios have the highest explanatory power on an NBFI's on-going earnings capacity. We note that while ROAA is a leverage-neutral indicator of profitability, ROAE is influenced by an issuer's capital structure. Our decision to include ROAE as a profitability indicator also stems from our view that shareholder returns may affect the availability of common equity financing and expectations on dividend payouts and share repurchases. In our opinion, these are frequently major determinants of an institution's capital management strategy.

As far as practicable, non-recurring items are excluded from our calculations to enable more robust comparisons across the sector and over time. These items may include the impacts from discontinued operations, operating asset disposals, one-off tax benefits or charges. In a limited number of cases, our rating committees may change the standard time weightings on an issuer's ROAA and ROAE over a 5-year period to address sharp reversals in expected financial performance. For instance, higher weights could be assigned to our forecasts relative to historical figures following a major restructuring exercise that we expect to fundamentally change an entity's earnings profile going forward.

Exhibit 26: Earnings Capacity Scorecard

	ROAA*	**ROAE***
	70% of Total Score	30% of Total Score
Score	**Range**	**Range**
11	≥ 5.00%	≥ 20%
10	4.00 – 5.00%	18 – 20%
9	3.00 – 4.00%	16 – 18%
8	2.00 – 3.00%	15 – 16%
7	1.50 – 2.00%	14 – 15%
6	1.00 – 1.50%	12 – 14%
5	0.75 – 1.00%	11 – 12%
4	0.50 – 0.75%	10 – 11%
3	0.25 – 0.50%	8 – 10%
2	0.00 – 0.25%	6 – 8%
1	≤ 0.00%	≤ 6%

* Calculated based on a 5-year time-weighted average. Standard weightings are as follows: t-2 (10%), t-1 (20%), t (35%), t+1 (25%), t+2 (10%), where t is the current year of analysis. Time weightings may be subject to rating committee adjustments on a case-by-case basis.

Earnings Resilience

Our earnings capacity estimation in the preceding section captures an issuer's financial performance in recent years and our base-case expectations over the forecast period. To further build on that analysis, we next attempt to decompose an NBFI's earnings streams and assess its profitability drivers under stress scenarios, whose parameters may be determined on a market-by-market basis and subject to change over time. Our evaluation of each earnings driver may result in an upward or downward adjustment to its starting earnings capacity score. The aggregate adjustment is limited to a maximum of three points in either direction. For example, if an issuer has a preliminary earnings capacity score of 5, its adjusted score could range from 2 to 8. In any case, the adjusted score would fall between 1 (very weak) to 11 (very strong).

We list the core earnings drivers that are most common for each major type of NBFIs below. For specific issuers, we may evaluate any combination of these drivers as well as other factors that are not shown here based on their business models.

Finance Companies

When we evaluate a finance company's earnings resilience, we attempt to decompose its pre-provision operating profit. Credit costs are considered together with an issuer's asset quality under Pillar 4 of our framework.

- *Net interest margin*. The core component of a finance company's pre-provision operating profit is its net interest margin. measured as (interest income – interest expenses) / average interest-earning assets. We examine an issuer's asset yield and funding cost separately, in order to identify any potential vulnerabilities if the interest-rate environment was to experience a significant unexpected change. As part of the analysis, we would quantify an entity's net interest-rate exposure, which is a function of its pricing and funding structure (i.e. % fixed versus % floating) and its balance sheet's duration characteristics. A closely-related consideration is the currency-denomination of a finance company's interest-earning assets and interest-bearing liabilities as well as its net foreign exchange exposure.
- *Fee income*. Depending on a finance firm's business, it may be able to generate a meaningful non-interest income stream. In the case of leasing companies, this may be in the form of consulting fees associated with specialized equipment purchases, most notably in the heavy equipment and aircraft leasing space. We generally regard such fee income streams positively. However, we would exercise caution when such fees appear significant compared to interest income, which may either indicate that such income streams are front-loaded and may tail off over the life of the loan book or suggest that such consulting services are effectively a way to disguise finance charges that may exceed industry norms.
- *Cost-income Ratio*. While operating costs – such as staff salaries, office rental and system expenses – are generally not a key credit rating factor for finance companies, there may be certain situations that deserve a more thorough analysis. Cost structures that may be beneficial to finance companies under stress typically contain a substantial variable component in the form of discretionary staff bonuses and downsizing flexibility.

Securities Firms

For securities firms, we analyze the earnings resilience of each of its major product lines, which may include retail and institutional brokerage, corporate finance, margin and other forms of financing, as well as proprietary investments.

- *Fee income*. In general, our assessment favors securities firms with a steady fee income stream that is less exposed to fluctuations in the capital market environment. These income sources may include account maintenance, trust and custodian, advisory and other service fees. By contrast, fee streams that are more dependent on market conditions, such as securities brokerage commissions as well as equity and debt market origination fees, may be less stable under stress scenarios and would receive less benefit in our analysis accordingly.
- *Trading / investment income*. Our evaluation focuses on a trading book or investment portfolio's return objectives, risk limits, and potential volatilities in adverse market climates. For fixed-income positions, we seek to look through accounting classifications and mark-to-market an issuer's material positions regardless of whether the volatilities of such exposures are reflected in the income statement, through comprehensive income, or not captured in the financial statements at all. Potential red flags are exposures to assets without readily observable pricing (i.e. level-2 and level-3 assets). Assets whose reported valuations are predominately determined by modelling could be especially problematic during widespread liquidity crises. In addition to bond holdings, we also closely scrutinize a securities broker's equity, real estate, commodity, derivative and other structured positions to discern its exposures across asset classes. Correlations of various asset classes may increase or decrease an entity's trading risks under extreme scenarios.
- *Cost-income ratio*. Staff costs typically represent a significant portion of a securities firm's operating cost structure. The extent to which management can scale down its capital market operations and / or control discretionary payments to its staff may determine its ability to navigate market downturns. On the other hand, if we determine that a firm may face upward pressure on operating costs – such as those associated with management payouts – even if it experiences a challenging environment, we may consider lowering its capital formation score.

Investment Managers

An investment manager's earnings resilience is a function of its investment mandates, strategies, product diversification, and capital at risk.

- *Fee income*. Consistent growth in assets under management (AuM) drives fee income growth. We examine an investment manager's gross AuM inflows and redemption patterns. In particular, we attempt to gauge the "stickiness" of a manager's AuM by quantifying the sources of fund inflow, which may originate from a wide range of retail and institutional investors. In addition, we analyze net fund flows into different investment strategies and products, which may shed light on the trends in management and performance fees going forward. Traditional managers that oversee a large portfolio with diverse asset allocation strategies may benefit from a more steady, albeit lower-margin, revenue stream, as compared to alternative managers that derive most of its earnings from performance fee income.

- *Investment income*. For investment companies that have their own principal at risk, we measure their investment performance on an absolute basis and relative to industry benchmarks. A firm's track record in delivering returns to its principals is viewed in the context of its investment mandates and risk guidelines. In general, we believe managers that have broad investment mandates across industries and asset classes are better-positioned to cope with external shocks, as compared to niche players that are active in only a narrowly-defined space.
- *Cost-income ratio.* Similar to securities firms, staff costs are generally the largest component of an investment firm's cost base. Cost flexibility may be particularly important for firms with active mandates whose fund performance has a direct impact on the compensation packages of its analysts and portfolio managers. While these firms may have an ability to scale back its staff expenses, the potential for key management turnover in stress scenarios may lead us to re-visit our Pillar-2 business profile assessment.

Other Items / Businesses

For product or business lines not captured in our analysis above, we may consider their resilience to an economic downturn under this sub-factor. In cases where these operations are sizable, their financial variability may further exacerbate the pressure on an NBFI's earnings profile in stress scenarios. An example is when a leasing firm's loan book and its affiliated equipment servicing business are concurrently hit by a major credit crisis. These cross-sector exposures may place a severe strain on an entity's capital formation capacity when it is needed the most. However, under rare circumstances, an NBFI's other businesses may serve as a volatility dampener. An example would be a property and casualty insurance operation whose underwriting profitability is almost entirely independent of securities market performance.

Diversification

An NBFI's earnings diversification in terms of geography and customer and product segment may be a key rating factor under stress scenarios. Entities that have a broader footprint would generally be less exposed to crises that affect one or more of its operations. Diversification may also allow issuers to maintain a more balanced capital profile, with more mature, capital-generating business units funding fast-growing capital-intensive operations. However, we take a cautious approach in cases where management is aggressively over-expanding its non-core geographical and product segments, especially when it relates to M&As and capital-market businesses. There may also be higher-than-expected correlation between product and asset categories during extreme adverse scenarios, as we have witnessed during financial crises in the past.

Scoring Guidelines

To summarize, Exhibit 27 highlights the key metrics we refer to in our assessment of an issuer's capital resilience, while Exhibit 28 provides guidance on how we determine the upward or downward adjustment to the preliminary earnings capacity score. Where circumstances warrant, we may consider other elements of an entity's earnings profile to arrive at a final conclusion.

Exhibit 27: Key Earnings Resilience Metrics

Sub-factor	Metrics
Net Interest Margin	• Net Interest Margin = (Interest Income – Interest Expenses) / Average Interest-earning Assets • Net Interest Spread = Asset Yield – Funding Cost
Fee Income	• Fee Income Contribution = Gross Fee Income / Revenue • Fee Expense Ratio = Fee Expenses / Gross Fee Income
Investment Income	• Investment Yield = Net Investment Income / Average Investments
Cost-income Ratio	• Cost-income Ratio = Operating Expenses / Revenue
Other Businesses	• Contribution from Other Businesses = Income from Other Businesses / Revenue • Profitability of Other Businesses = Estimated ROAA and ROAE of Other Businesses

Exhibit 28: Earnings Resilience Scorecard

+2 / +3	+1	0	-1	-2 / -3
We expect the negative impact of our stress scenario on this particular earnings driver to be very limited. The starting earnings capacity score underestimates the resilience of this component of the issuer's profitability profile to a significant degree.	We expect the negative impact of our stress scenario on this particular earnings driver to be limited. The starting earnings capacity score underestimates the resilience of this component of the issuer's profitability profile to a large degree.	We expect the negative impact of our stress scenario on this particular earnings driver to be moderate. The starting earnings capacity score adequately captures a potential shock to this component of the issuer's profitability profile.	We expect the negative impact of our stress scenario on this particular earnings driver to be material. The starting earnings capacity score overestimates the resilience of this component of the issuer's profitability profile to a large degree.	We expect the negative impact of our stress scenario on this particular earnings driver to be severe. The starting earnings capacity score overestimates the resilience of this component of the issuer's profitability profile to a significant degree.

Pillar 4: Capital Adequacy Assessment

Pillar 4 of our analytical framework evaluates an NBFI's capitalization / leverage, incorporating our understanding of its operating environment (Pillar 1), business profile (Pillar 2), and capital formation capacity and resilience (Pillar 3). The foundation of Pillar 4 is an issuer's capital adequacy and / or net-debt-to-EBITDA leverage ratios, depending on the nature of its business. For asset-intensive operating models, greater emphasis will be placed on capital adequacy, as measured by our definition of economic capital / tangible assets. For asset-light businesses, a higher weighting would be placed on net-debt-to-EBITDA leverage to evaluate their ability to service their debt via income generation. We then compare the applicable ratio(s) with the issuer's regulatory ratios to evaluate its existing buffers and constraints. This exercise would yield a preliminary score on capital adequacy.

The next layer of our analysis centers on an NBFI's asset quality, which may be one of the least transparent areas in the sector's financial reporting. For an entity with credit exposures, we perform an in-depth examination of its loans and receivables portfolio in order to quantify its sensitivity to stress scenarios. Similar exercises are performed on an NBFI's interest-rate, market, foreign-exchange, structured, and other positions.

Funding and liquidity comprise the remainder of our capital review. Our funding evaluation aims to measure the robustness of an NBFI's financing channels. From a shorter-term perspective, we assess an issuer's ability to cover its immediate obligations with liquid marketable instruments. These aspects of an entity's liability profile are captured by its interest-coverage ratio and liquidity coverage ratio. Longer-term, we also assess its ability to access readily-available external funding, such as the public securities markets and lines of credits. The final score on capital adequacy is a function of an NBFI's preliminary score on capital adequacy and any adjustments attributable to asset quality and funding and liquidity, as summarized in Exhibit 29.

Exhibit 29: Capital Adequacy Scorecard

Factors and Sub-factors		Score Range	Sub-factor Weighting	Factor Nature	Analytical Horizon / Considerations
A.	Capitalization / Leverage Ratios	1 – 11		Preliminary Score	
B.	Asset Quality	-3 to +3		Adjustments	
C.	Funding and Liquidity	-3 to +3		Adjustments	
A.	**Capitalization / Leverage Ratios**	**1 – 11**	**100%**	**Preliminary Score**	
1.	Pengyuan Capital Adequacy Ratio	1 – 11	0 – 100%		t- 2 to t+2*
2.	Net-debt-to-EBITDA Ratio	1 – 11	0 – 100%		t-2 to t+2*
3.	Regulatory Buffer	-1 to +1			Trend
B.	**Asset Quality**	**-3 to +3**		**Adjustments**	
1.	Credit Exposure				Trend / Stress Testing / Peer Comparison
2.	Other Exposures				Trend / Stress Testing / Peer Comparison
3.	Loss Provisioning / Impairments				Trend / Stress Testing / Peer Comparison
C.	**Funding and Liquidity**	**-3 to +3**		**Adjustments**	
1.	Interest Coverage Ratio				t- 2 to t+2*
2.	Liquidity Coverage Ratio				t- 2 to t+2*
3.	Access to Funding				Trend

* Calculated based on a 5-year time-weighted average. Standard weightings are as follows: t-2 (10%), t-1 (20%), t (35%), t+1 (25%), t+2 (10%), where t is the current year of analysis. Time weightings may be subject to rating committee adjustments on a case-by-case basis.

Capitalization / Leverage Ratios

Pengyuan Capital Adequacy Ratio (CAR)

For NBFIs with asset-intensive operations, the primary ratio we evaluate is our internal definition of CAR, which is equal to economic capital / tangible assets. Examples of asset-intensive operations may include consumer and commercial finance companies, financial leasing firms, securities companies with large proprietary investment positions, and investment managers that have large portions of their own capital at risk.

Shareholders' equity is the most permanent form of funding for an NBFI and the greater that capital buffer, the stronger the firm's ability to withstand potential funding shortfall at times of financial distress. We also recognize that certain forms of hybrid instruments have equity-like features. We may consider their permanence, convertibility into common shares, loss absorption, callability, and regulatory and structural subordination in assigning equity credit to these types of supplementary capital. Our definition of economic capita is shown in Exhibit 30.

Net-debt-to-EBITDA Ratio

For issuers with asset-light business models – such as capital market firms with predominantly fee-based income and investment managers with third-party mandates – the anchor ratio we use is the net-debt-to-EBITDA ratio. In our view, the repayment capacity of firms with light asset usage is better captured using a leverage metric that is based on its recurring income. This is especially true for NBFIs that manage their businesses more similarly to a conventional corporate entity rather than a bank-like organization. The scorecard for capital adequacy ratios is shown in Exhibit 31.

From the score derived from the primary ratio, we may adjust an issuer's score upwards or downwards by up to two points, if we decide that the secondary indicator points to a stronger / weaker capital position than the primary ratio reflects.

Exhibit 30: Definition of Pengyuan Economic Capital

SHAREHOLDERS' EQUITY
(+) Minority interests
= TOTAL EQUITY
(-) Treasury stock
(-) Proposed shareholder dividends not on balance sheet
(-) Goodwill and intangible assets
(-) Deferred tax assets
(-) Positive cash-flow hedge reserve
(+) Negative cash-flow hedge reserve
(-) Shortfall of loan loss provisions
(-) Gains on sale related to securitization transactions
(-) Reciprocal cross-holdings in capital of banking, financial and insurance entities
(-) Investments in banking, financial and insurance entities outside the scope of regulatory consolidation
(-) Off-balance sheet defined-benefit pension deficits
(-) Contingent liabilities
(+) Hybrids with equity credit subject to a 25% cap on hybrid capital % total economic capital
(+) / (-) Other analytical adjustments
= PENGYUAN ECONOMIC CAPITAL

Exhibit 31: Capital Adequacy Ratios Scorecard

	Pengyuan Capital Adequacy Ratio*	Net-Debt-to-EBITDA Ratio*
Score	Range	Range
11	≥ 30.0%	≤ 1.50x
10	25.0 – 30.0%	1.50 – 1.75x
9	22.5 – 25.0%	1.75 – 2.00x
8	20.0 – 22.5%	2.00 – 2.25x
7	17.5 – 20.0%	2.25 – 2.50x
6	15.0 – 17.5%	2.50 – 3.00x
5	12.5 – 15.0%	3.00 – 3.50x
4	10.0 – 12.5%	3.50 – 4.00x
3	7.5 – 10.0%	4.00 – 4.50x
2	5.0 – 7.5%	4.50 – 5.00x
1	≤ 5.0%	≥ 5.00x

* Calculated based on a 5-year time-weighted average. Standard weightings are as follows: t-2 (10%), t-1 (20%), t (35%), t+1 (25%), t+2 (10%), where t is the current year of analysis. Time weightings may be subject to rating committee adjustments on a case-by-case basis.

Regulatory Buffer

Regulatory requirements dictate an NBFI's ability to operate as a going concern. Our assessment is based on an issuer's existing buffer above the relevant minimum levels. In our evaluation, we also assess pending regulatory changes that may affect an entity's capital and risk-weighted asset calculations. An important part of this process is to gain an understanding of the implementation horizon and a given entity's plans to achieve full compliance. In addition, we note that global and domestic systemically-important financial institutions may be subject to capital surcharges above the level required of all other market participants. We consider these surcharges in benchmarking an NBFI's relevant regulatory ratio. As a consequence, an issuer's inclusion in or exclusion from a particular year's list of systemically-important financial institutions may have an impact on its score.

Asset Quality

As asset quality disclosures at the market and individual NBFI levels may be opaque in many instances, we may employ an array of tools to form a view on an issuer's current exposures and expected performance under stressed scenarios. Our assessment on an entity's vulnerability under stress and loss provisioning / asset impairment practices may lead to an aggregate addition / deduction of up to three points to / from its preliminary capital adequacy score.

Credit Exposure

For firms with loans and receivables exposures, we analyze their non-performing loan (NPL) experience by loan type, industry and borrower classification etc., with an emphasis on problem loan designation and migration patterns. As a general rule, a consistently high level of special-mention loans combined with limited migration between NPL classes over time may indicate potential deficiencies in problem loan management. We also compare an issuer's reported NPLs with its overdue portfolio in 30-day increments (i.e. 30-day, 60-day, 90-day, etc.) to discern the robustness of management's impaired asset recognition. An equally relevant consideration is an entity's ability to dispose of distressed assets and their underlying collaterals through active primary and secondary markets. As such, pricing of distressed assets may have a role to play in our evaluation as well.

Having formulated central estimates on an issuer's actual NPL experience, we would subject its credit portfolio to stress scenarios, the parameters of which may vary from market to market and over time. In our view, this principle-based and bespoke analysis of an entity's NPL experience may allow us to better evaluate its unique stress points and tolerance levels.

Other Exposures

An NBFI's other asset exposures may vary widely, ranging from equity, fixed-income, foreign-exchange, derivative, commodity and other structured finance positions. We evaluate each issuer's exposures with regards to its portfolios' concentration, risk limits, value-at-risk and other risk parameters in order to gauge its vulnerabilities under stress scenarios and adherence to its enterprise risk management guidelines. In particular, we attempt to identify positions that may not have active secondary-market pricing and, as such, are subject to a higher level of uncertainty on liquidity and potential impairments. These positions may include private equities, alternative investment holdings, complex structured finance exposures, and bridge loans related to corporate finance transactions.

Loss Provisioning / Impairments

As the first line of defense against emerging asset quality issues, an issuer's loss provisioning / impairment practices may serve to mitigate or exacerbate our concerns over its risk exposures. In the spirit of International Financial Reporting Standards (IFRS) 9 – Financial Instruments, we generally favor entities that book impairment losses on a forward-looking basis. Among others, such an approach would require management to quantify potential impairments as a present value of losses over the projected horizon. Our view on loss provision adequacy is also driven by our earlier assessment on asset quality. We compare current loss provisions against our estimate of the issuer's underlying exposure amount, as well as the minimum level required by regulators.

Funding and Liquidity

On the liability side of the balance sheet, we assess the stability and resilience of an NBFI's funding and liquidity sources, particularly in a challenging operating environment. Our funding and liquidity assessment may lead to a three-point adjustment to an issuer's preliminary capital adequacy score in either direction. In our view, the characteristics of an entity's funding and liquidity profile are best captured by its:

- Interest coverage ratio, which is defined as EBITDA / interest payments. This ratio compares a firm's annual interest payments with its recurring income generation capacity and may be most relevant for firms that are more asset-light. We regard a ratio of 2x as a general benchmark, beyond which an entity's interest service capacity would appear vulnerable;
- Liquidity coverage ratio, calculated as liquid assets / short-term liquidity needs. We may also consider a firm's liquidity requirements during a stress scenario that may result in a partial loss of funding facilities with certain counterparties and credit rating downgrade triggers, etc. We would regard a ratio of below 100% to be vulnerable;
- Access to funding, which reflects our qualitative view of an issuer's to ability to tap into readily-available funding as required. Such external funding sources may include unused bank credit facilities, funding from medium-term facilities, and general mandates that enable management to place new common shares without prior shareholder approvals.

Key Capital Adequacy Metrics

To summarize, our Pillar-4 analysis employs a number of quantitative metrics in deriving a preliminary score (Pengyuan capital adequacy ratio and / or Net-debt-to-EBITDA ratio) and a final score (asset quality and funding and liquidity) on adequacy. The key ratios used throughout this process are reproduced in Exhibit 32 for ease of reference.

Exhibit 32: Key Capital Adequacy Metrics

Sub-factor	Metrics
Pengyuan CAR	• Pengyuan CAR = Pengyuan Economic Capital / Tangible Assets
Net-Debt-to-EBITDA Ratio	• Net-Debt-to-EBITDA Ratio = (Debt – Cash and Liquid Assets) / EBITDA
Asset Quality	• NPL Ratio = NPLs / Gross Loans Outstanding • Special-mention Loan Ratio = Special-mention Loans / Gross Loans Outstanding • Overdue Loan Ratio = Overdue Loans / Gross Loans Outstanding • Provision Coverage Ratio = Loan Loss Provisions / NPLs • Loan Coverage Ratio = Loan Loss Provisions / Gross Loans Outstanding • Investment Leverage = Risky Investments / Shareholders' Equity
Funding and Liquidity	• Interest Coverage Ratio = EBITDA / Interest Payments • Liquidity Coverage Ratio = Liquid Assets / Short-term Liquidity Needs

Capital Risk Score (CRS)

Our Pillar-3 and Pillar-4 assessments are combined to form a Capital Risk Score (CRS), which ranges from 'aa' to 'b-' for a total of 14 categories. The CRS is driven predominantly by our Pillar-4 (capital adequacy) assessment, with our Pillar-3 (capital formation) score being an adjustment factor. The CRS is determined by referencing the table in Exhibit 33. The calibration of the CRS scoring table reflects our view that if an issuer's capital formation capacity is average, the impact on its credit profile is marginal. However, as the entity's financial performance moves towards the strong / weak end of the spectrum, earnings may begin to have a significantly higher effect on prospective capital strength. For NBFIs that have a capital formation assessment score of between 4 to 8, our decision of whether to apply a one-point adjustment rests upon its business profile assessment. Issuers that have strong business profile assessment scores would typically receive a more favorable treatment on its capital risk score.

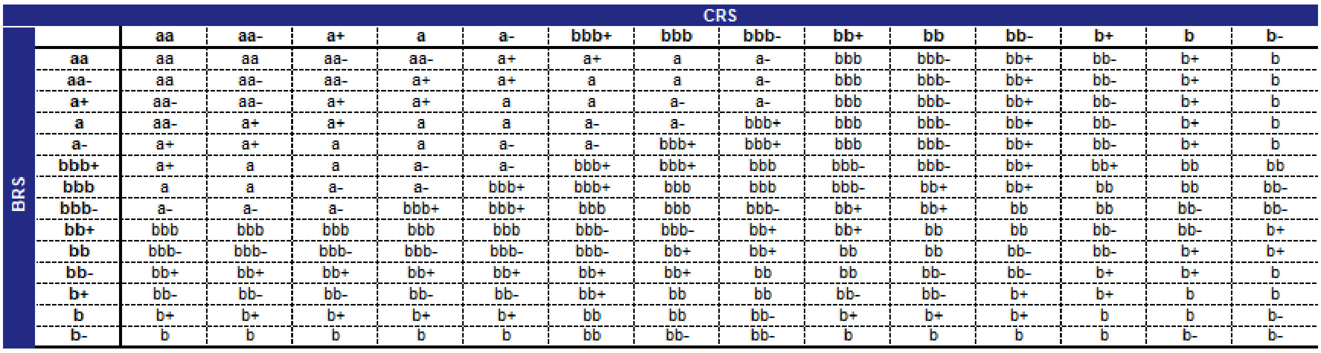
Exhibit 33: Determining the CRS

Pillar-3 Capital Formation Score	Adjustment to the Pillar-4 Capital Adequacy Score
11	+3
10	+2
9	+2
8	+1 / 0
7	+1 / 0
6	0
5	-1 / 0
4	-1 / 0
3	-2
2	-2
1	-3

Indicative Credit Score (ICS)

The final product of our four-pillar framework is an indicative credit score (ICS), which is a function of an NBFI's Business Risk Score (BRS) and Capital Risk Score (CRS). The ICS represents our preliminary assessment on an issuer's standalone creditworthiness. The ICS is determined by referring to the matrix in Exhibit 34.

Exhibit 34: Determining the ICS



		CRS													
		aa	aa-	a+	a	a-	bbb+	bbb	bbb-	bb+	bb	bb-	b+	b	b-
BRS	aa	aa	aa	aa-	aa-	a+	a+	a	a-	bbb	bbb-	bb+	bb-	b+	b
	aa-	aa	aa-	aa-	a+	a+	a	a	a-	bbb	bbb-	bb+	bb-	b+	b
	a+	aa-	aa-	a+	a+	a	a	a-	a-	bbb	bbb-	bb+	bb-	b+	b
	a	aa-	a+	a+	a	a	a-	a-	bbb+	bbb	bbb-	bb+	bb-	b+	b
	a-	a+	a+	a	a	a-	a-	bbb+	bbb+	bbb	bbb-	bb+	bb-	b+	b
	bbb+	a+	a	a	a-	a-	bbb+	bbb+	bbb	bbb-	bbb-	bb+	bb+	bb	bb
	bbb	a	a	a-	a-	bbb+	bbb+	bbb	bbb	bbb-	bb+	bb+	bb	bb	bb-
	bbb-	a-	a-	a-	bbb+	bbb+	bbb	bbb	bbb-	bb+	bb+	bb	bb	bb-	bb-
	bb+	bbb	bbb	bbb	bbb	bbb	bbb-	bbb-	bb+	bb+	bb	bb	bb-	bb-	b+
	bb	bbb-	bbb-	bbb-	bbb-	bbb-	bbb-	bb+	bb+	bb	bb	bb-	bb-	b+	b+
	bb-	bb+	bb+	bb+	bb+	bb+	bb+	bb+	bb	bb	bb-	bb-	b+	b+	b
	b+	bb-	bb-	bb-	bb-	bb-	bb+	bb	bb	bb-	bb-	b+	b+	b	b
	b	b+	b+	b+	b+	b+	bb	bb	bb-	b+	b+	b+	b	b	b-
	b-	b	b	b	b	b	bb	bb-	bb-	b	b	b	b	b-	b-

Adjustment Factors

Our indicative credit score (ICS) captures the key drivers of an NBFI's standalone credit profile, using a framework that is calibrated for the vast majority of institutions. However, idiosyncratic risks may call for a more in-depth examination of credit issues that are specific to an issuer. Furthermore, to enhance the granularity of our analysis, our rating committees may decide to refine our ICS results based on our holistic assessment of an entity's credit characteristics. Typical examples of such modification to the ICS may include those listed in Exhibit 35. Cumulatively, we expect such ICS adjustments to be limited to two notches in either direction.

As individual organizations may have unique attributes that require close examination, the list below is not meant to be exhaustive. When evaluating other factors for potential adjustments to the ICS, our emphasis is on the strongest / weakest link of an issuer's credit profile which may result in an under- / overestimation of our preliminary assessment.

After our analysis on an entity's idiosyncratic features, we arrive at its standalone credit profile (SACP), which reflects our opinion on its viability as a going-concern in the absence of external support.

Exhibit 35: Typical Examples of ICS Adjustments

Factors	Examples
Management and Corporate Governance	We first assess this factor in Pillar 2 of our analytical framework. However, for extreme cases where a significant lapse in management judgement or governance procedures is observed, we may consider lowering an entity's ICS further.
Track Record and Size	For issuers that have short track records either as a result of their recent establishment, mergers and acquisitions, or spin-offs, we may consider notching down their ICS to reflect the execution risks involved. Should we determine that an entity's asset size is sub-scale relative to peers in the same market, we may also adjust its ICS downwards to account for its potential competitive disadvantages.
Cumulative Effect of Rating Factors	Our analytical framework is designed such that each factor is assessed and scored individually, before being aggregated to arrive at pillar scores. In the process, an entity which consistently scores on the high / low end of the indicative ranges may receive an ICS that is under- / overestimated on an aggregate basis. Should we decide that these cumulative effects are material, we may adjust an issuer's ICS upward or downward.
Peer Comparison	Peer comparative analyses provide valuable insights into the relative ranking of an issuer's standalone creditworthiness. If an entity consistently out- / underperform its peers on key credit metrics, we may consider notching up / down its ICS to ensure sufficient differentiation between issuers. We usually define a peer group as entities with comparable size and credit characteristics in the same or similar markets.

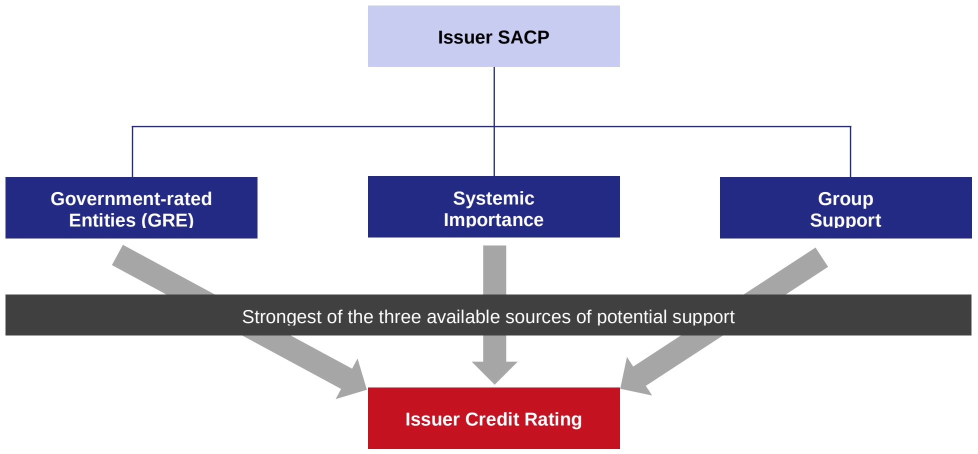
External Support Analysis

While an NBFI's standalone credit profile (SACP) largely determines its viability as a going concern, its access to external capital and liquidity resources may provide creditors with an additional layer of protection, especially in times of need. Our assessment of support is based on our understanding of an issuer's strategic importance to its various public- and private-sector stakeholders, as well as the financial capacity of potential emergency funding providers.

In our analysis, we make a clear distinction between on-going and extraordinary support. On-going support refers to capital and liquidity facilities an NBFI may receive over the course its normal operation, such as interbank funding arrangements and share placements in public markets. These types of support, while important, are considered throughout our four-pillar analytical framework. Similarly, we would generally exclude the impact of industry protection funds on potential recoveries when we assess an issuer's overall creditworthiness.

By contrast, extraordinary support occurs infrequently and only when an entity experiences severe distress. Potential support packages of this nature may include public-sector bailouts, government-led reorganizations, and explicit guarantees by majority shareholders. In general, extraordinary support that may be available to an NBFI may be attributable to its status as a government-related entity (GRE), its systemic importance to the financial sector, and its membership of a broader business organization. For each rated entity, we evaluate the potential for support from each of these three avenues. Where we believe more than one source of support is likely to materialize under stress scenarios, we would base our analysis on the strongest potential capital and funding channel (Exhibit 36).

Exhibit 36: External Support Analysis


Issuer SACP
Government-rated Entities (GRE)
Systemic Importance
Group Support
Strongest of the three available sources of potential support
Issuer Credit Rating

Government-related Entities (GREs)

Consistent with our applications in other corporate sectors, we view GREs as entities that have demonstrable ties with and importance to the government. In assessing an NBFI's GRE status, we consider, among other factors, its ownership, the composition of its board of directors and management, its policy and support track record, replaceability, and the financial and social impacts it may create in the event of a failure. Typically, majority ownership by the government is a strong, but not the only, indicator of whether we could consider an institution a GRE.

We classify an NBFI's GRE status in 1 of 7 categories based on our view of the relevant government's willingness to provide support. These categories are: Almost Certain, Extremely Strong, Very Strong, Strong, Moderately Strong, Moderate, and Low. At the same time, we form an opinion on the supporting government's capability to lend assistance to the entity should the need arise. The willingness and capability factors, along with the issuer and the government's starting credit profiles, determine the potential uplift to the NBFI's SACP.

Systemic Importance

Despite regulators' efforts to reduce the negative externalities incurred by financial institutions deemed "too big to fail", we believe public-sector bailouts remain a possible policy response of last resort in many jurisdictions. We assess an issuer's systemic importance by referring to its official domestic systemically important financial institution (D-SIFI) designation, if available. Otherwise, we evaluate an entity's size, complexity, substitutability, and interconnectedness with the rest of the financial system. In our view, the higher an issuer's systemic importance, the more likely it is to receive public-sector bailout in a crisis scenario, other things being equal. Exhibit 37 provides a brief overview of how we classify NBFIs by systemic importance.

Exhibit 37: Indicative Classification of Systemic Importance

Willingness of Authorities to Support	Systemic Importance
Extremely Strong	The issuer is either officially recognized as a highly important D-SIFI or has traits that suggest that it will be in the near term. The NBFI is typically among the largest in its sub-sector, such that its potential failure would lead to catastrophic consequences for the financial system and the real economy.
Very Strong	The issuer is either officially recognized as an important D-SIFI or has traits that suggest that it will be in the near term. The NBFI has a well-entrenched presence in its sub-sector, such that its potential failure would lead to significant impacts on the financial system and the real economy.
Strong	The issuer is either officially recognized as a D-SIFI or has traits that suggest that it will be in the near term. The NBFI has a strong presence in its sub-sector, such that its potential failure would lead to material impacts on the financial system and the real economy.
Moderate	While the issuer may not be recognized as a D-SIFI, it has an established presence in its sub-sector and its potential failure would lead to adverse impacts on the financial system and the real economy.
Low	The issuer is unlikely to be recognized as a D-SIFI in the near future. It has a limited presence in its sub-sector and its potential failure would lead to marginal impacts on the financial system and the real economy.

Group Support

If an NBFI belongs to a broader financial services or corporate group, it may benefit from potential extraordinary support, depending on its strategic role within the organization. In our evaluation, we assess a wide range of qualitative and quantitative factors to ascertain an operating entity's importance within a group structure. In our view, core or highly strategic subsidiaries are typically those that:

- are wholly- or majority-owned and controlled by the group;
- share a common brand name with the group;
- feature prominently in the group's long-term plans;
- operate in the group's key geographical and product markets;
- possess a long track record of success within the group;
- contribute a significant amount of group earnings, assets and capital;
- represent a considerable portion of group's capital and liquidity needs;
- have inseparable management teams with the group; and
- may irreparably tarnish the group's reputation if they fail.

If an NBFI's parent organization itself is a highly regulated financial services company, we evaluate its ability to downstream capital under challenging market conditions. The fungibility of capital across subsidiaries is also one of our key considerations. Exhibit 38 demonstrates how we typically classify group support.

Exhibit 38: Indicative Classification of Strategic Importance

Willingness of Group to Support	Strategic Importance
Extremely Strong	The NBFI is a core member of the group. Group control is close to 100% and there is a well-recognized common brand identity. The issuer has a long track record of success and accounts for a substantial portion of the group's financial profile. Potential failure may entail major franchise contagion risks.
Very Strong	The NBFI is a strategic member of the group. Group control is greater than 50% and there is a common brand identity. The issuer accounts for a sizable portion of the group's financial profile. Potential failure may entail material franchise contagion risks.
Strong	The NBFI is an important member of the group. There is effective board control and there may be some brand association. The issuer accounts for a meaningful portion of the group's financial profile. Potential failure may entail moderate franchise contagion risks.
Moderate	The NBFI is a relatively small member of the group. There may be board control, but brand association may not be strong. The issuer accounts for a limited portion of the group's financial profile. Potential failure may entail manageable franchise contagion risks.
Low	The NBFI is an immaterial member of the group. There may not be board control and brand association is weak. The issuer accounts for a negligible portion of the group's financial profile. Potential failure may entail limited franchise contagion risks.

Treatment of Captive Finance Companies

Captive finance companies refer to firms whose primary purpose is to provide financing to the customers of their parent organizations. The parents are typically corporates engaged in the production and / or distribution of products such as automobiles, household appliances, and manufacturing equipment. Captive finance company have the following common characteristics:

- They share a common brand identity with their parents;
- Their management and board of directors are appointed and controlled by their parents;
- While they might have peripheral customer sources, the lion's share of their business is sourced and distributed through their parents' client networks;
- There is a high degree of integration with their parents in both their front- and back-office infrastructure and functions;
- Funding and liquidity are managed holistically with their parents' finance functions;
- Although they may be insignificant in terms of revenue and profit contribution to their parent organizations, their failures would cause irreparable damage to the groups' brand names and operations.

Owing to these traits, finance companies that are deemed to be captive firms would be highly likely to be rated on par with their parents, as per the external support guidelines described above. However, captive finance companies still deserve a special mention as we recognize that we may not be able to derive a standalone credit profile on these entities either due to their inability to operate as a truly standalone entity or a lack of standalone financial data if they are part of a broader rating exercise on their parent companies.

Related Criteria

General Principles of Credit Ratings

Government-Related Entities Rating Criteria

Global Bank Rating Criteria

Global Insurance Rating Criteria

Sovereign Rating Criteria

Chinese Local Government Rating Criteria

DISCLAIMER

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