

Scope Hamburg GmbH

**Basic Principles for Assigning
Credit Ratings and
Other Services**

8 June 2022

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Introduction

Scope Hamburg GmbH (henceforth "SH") is publishing this document so that companies, investors and other interested members of the business community are able to understand SH's credit rating approach and processes that it uses.

Scope Hamburg GmbH is registered as a credit rating agency in the European Union pursuant to Regulation (EC) No 1060/2009 (as amended) (the "CRA Regulation"). SH is therefore subject to supervision by the European Securities and Markets Authority (ESMA) and is recognised as an external credit assessment institution (ECAI) under Regulation (EU) 575/2013 on prudential requirements for credit institutions and investment firms. The CRA Regulation contains provisions intended to prevent or mitigate actual and potential conflicts of interest and enhance the integrity, transparency, good governance and independence of credit rating activities.

Under the CRA Regulation, financial institutions, insurance companies and other market participants (i.e. institutional investors), may use credit ratings, which are issued or endorsed by EU registered credit rating agencies for regulatory purposes (i.e. for the specific purpose of complying with EU law or with EU law as implemented by national legislation of the EU member states). On the basis of its registration, SH can issue credit ratings that can be used for those regulatory purposes.

CREDIT RATINGS ISSUED BY SH ARE FORWARD LOOKING OPINIONS REGARDING THE RELATIVE CREDITWORTHINESS OF AN ISSUER, AN INSTRUMENT OR AN OBLIGATION. SH'S OPINIONS ON CREDITWORTHINESS ADDRESS THE TIMELY PAYMENT OR EXPECTED LOSS FOR FINANCIAL OBLIGATION, AS DEFINED IN SH'S CREDIT RATING METHODOLOGIES. CREDIT RATINGS DO NOT ADDRESS ANY OTHER RISK, INCLUDING BUT NOT LIMITED TO: LIQUIDITY RISK, MARKET VALUE RISK, OR PRICE VOLATILITY.

A SH Credit Rating is expressed by using an established and defined ranking system of Credit Rating Categories. Credit Rating are not recommendations to buy, sell or hold securities of any kind. SH currently assigns ratings in the asset class of corporate ratings including Issuer ratings and instrument ratings.

The analytical approach used in determining the rating level is described in the appropriate published Credit Rating methodologies (see www.scopehamburg.de/en/about-us/our-methods).

In addition to Regulated Credit Ratings, SH also offers other permissible services, including credit estimates and preliminary analyses. These are not regulated credit ratings and cannot be used for EU regulatory purposes.

Regulatory Distinction Between Ratings

One of the requirements for a Regulated Credit Rating is that it is disclosed on a non-selective basis and in a timely manner. SH's Regulated Credit Ratings are disclosed either on its website or distributed by subscription via SH's Rating Portal.

The CRA Regulation defines Private Credit Ratings as credit ratings "produced pursuant to an individual order and provided exclusively to the person who placed the order" that "are not intended for public disclosure or distribution by subscription" and are subject to a duty of confidentiality and limitations on distribution (as set out below). Private Credit Ratings may not be used for regulatory purposes in certain jurisdictions, including in the European Union. Customers are not authorised to publish Private Credit Ratings or distribute them by subscription. Customers may only use Private Credit Ratings for internal purposes and, with SH's consent, share them with a limited number of third parties on a strictly confidential basis as long as the sharing is not tantamount to public disclosure or distribution by subscription.

	RATING*		
Type	PUBLIC		PRIVATE
Disclosed on	SH website	Rating Portal	Only to customer
Regulation	REGULATED		EXEMPT
Methodology	Regulated methodology		(Regulated) methodology
Monitoring	Mandatory		Optional

SH carries out Credit Rating processes in which representatives of the rated entity directly or indirectly send SH a request to assign a Credit Rating. In this case, the ratings are considered solicited as defined in the CRA Regulation. Credit Ratings can also be issued without being initiated by the Rated Entity. In this case, the ratings are considered unsolicited as defined in the CRA Regulation.

Unsolicited Credit Ratings can sometimes be issued solely on the basis of publicly available information. In other circumstances, SH may also rely on the participation of the Rated Entity.

For Solicited Credit Ratings, the rated entity generally provides its internal information as well. SH will only assign a Credit Rating if it believes the information base is of sufficient quality and from reliable sources.

Rating Process

Overview

The following table describes the usual steps of the SH Credit Rating process.

Rating process	
A	Receipt of documentation and analysis
B	Site visit or conference call where applicable
C	Creation of draft rating report and proposed rating
D	Rating committee meeting and determination of Credit Rating
E	Submission of Credit Rating and the rating rationale to the rated entity and, where applicable, the customer
F	Rated entity points out any factual errors that may have been made and/or inadvertent inclusion of confidential information, if applicable
G	Possible consideration of comments on factual errors or inadvertent inclusion of confidential information submitted by rated entity
H	Completion and submission of the Credit Rating report to the rated entity and the customer where applicable
I	Publication/dissemination
J	Monitoring

The credit analysis is the same for both Solicited and Unsolicited Credit Ratings.

The Credit Rating process at SH is organised by an appointed lead analyst. If the rating has been solicited, the Rated Entity and/or its agent must also name a contact person who will be available during the rating process.

Once the requested documents have been received, they are analysed by the lead analyst or project team (if applicable). Additional information is requested as needed. The lead analyst, or project team (if applicable), may also draw up a list of questions for individual aspects of the analysis that can be given to the entity to be rated and/or customer to prepare for a site visit or conference call.

Once the available information has been analysed, the lead analyst or project team (if applicable), prepares the draft report and rating committee memo which includes the proposed rating level. The rating committee is the sole forum for assigning Credit Ratings and Outlooks.

The draft rating report is submitted to the Rated Entity and/or its agent after the rating committee. The Rated Entity or its agent must be notified at least 24 hours in advance (within the Rated Entity's business hours) of the possible publication/dissemination of the rating and its rationale. During this period, the Rated Entity has an opportunity to point out any factual

inaccuracies and/or inadvertent inclusion of confidential information to SH. The Rated Entity's submissions on factual inaccuracies perceived by the Rated Entity are given consideration. When relevant, a modified report will have to be submitted to the rating committee for determination whether submissions made by the Rated Entity justify a change to the Credit Rating. A statement explaining whether the Credit Rating was amended due to the Rated Entity's input is included in the rating report. The final rating report is submitted to the Rated Entity and/or its agent and the Credit Rating is published/disseminated along with the rating rationale.

The Regulated Credit Rating can be disclosed to the public at large or disseminated to subscribers. In the former case, the rating and its rationale are published on the SH website. In the latter case, the Credit Rating is disseminated on the Rating Portal that is only accessible to registered subscribers for a fee.

Once a Credit Rating is published/disseminated on the website/portal, it is subject to Monitoring.

The purpose is to ensure that Credit Ratings are constantly monitored in order to identify any material changes that might impact the Credit Rating/Outlook and ensure the continued validity of the published rating level. The Rated Entity and/or its agent is obligated to disclose any developments that might impact the Credit Rating/Outlook during the monitoring period.

Where required, the lead analyst will individually determine the information to be provided on a regular basis and the deadlines for providing this information.

A Credit Rating can be upgraded, downgraded, have its Outlook status changed, put on under review¹ or withdrawn during the monitoring period. All such decisions are made by a rating committee.

If a Credit Rating or a rating Outlook is changed during the monitoring process, the action will also be communicated to the Rated Entity or, where applicable, customer for comment at least one full business day in advance during business hours. After expiry of the notification period, the Credit Rating and/or Outlook action will be disclosed as described above.

SH has the discretionary right and/or duty to withdraw Credit Ratings, including in circumstances where SH determines to be unable to maintain the rating. Reasons why SH might withdraw a Credit Rating include:

- i) the instrument having reached its final maturity or the debt having been redeemed prior to its final maturity, called, prefunded or cancelled;
 - ii) a business decision taken by Scope Ratings;
 - iii) the lack of sufficient information required to maintain the rating;
- or

¹ For such rating actions the status was placed on the "watch list" until the 1st May 2022 and on "under review" status from 2nd May 2022 onwards.

- iv) default of the rated entity, following the realisation of the default.

In this case, the Rated Entity and/or its agent will be notified at least one full business day in advance about the withdrawal of the rating.

Withdrawn ratings are denoted by a "WD"² identifier and remain published on SH's website and/or Rating Portal.

Where the solicitation with respect to a given Credit Rating has been withdrawn, the Solicited Credit Rating can be converted into an Unsolicited Credit Rating if SH believes that the rating has a sufficient information base and might be of interest to market participants.

A status change to "Under Review"³ is communicated to the rated entity and/or its agent and published on the SH website or disseminated on the Rating Portal. Adding "Under Review" to a Credit Rating does not necessarily imply that the rating level will change. In addition, Credit Ratings can be upgraded, downgraded, or withdrawn without first being placed on "Under Review".

² Withdrawn ratings, prior to 2nd May 2022, were identified as "withdrawn, and as of 2nd May 2022, are identified as "WD".

³ For such rating actions the status was placed on the "Watch List" until the 1st May 2022 and on "Under Review" status from 2nd May 2022 onwards.

Appendix 1: Definitions

SH operates as a registered credit rating agency on the basis of the CRA Regulation, other regulations, directives and other EU legislation that has been transposed into national legislation where applicable. For that reason, our definitions correspond to the definitions used in these instruments.

Credit Rating

Credit Ratings issued by SH are forward-looking opinion regarding the relative creditworthiness of an Issuer, an instrument or an obligation and is assigned using an established and defined ranking system of Credit Rating categories.

Scope Hamburg's opinions on creditworthiness address the timely payment or expected loss for financial obligations, as defined in Scope Hamburg's respective Credit Rating methodologies.

Credit Ratings do not address any other risk, including but not limited to: liquidity risk, market value risk, or price volatility. Credit Ratings are not statements of current or historical fact. Credit Ratings are neither a prospectus nor a substitute for information assembled and presented by companies or Issuers for investors regarding the purchase of a security or for assessing the creditworthiness of a Rated Entity. Credit Ratings do not constitute or provide investment or financial advice, and do not provide recommendations to purchase, sell, or hold particular securities. Credit Ratings do not comment on the suitability of an investment for any particular investor. SH issues its Credit Ratings and publishes its publications with the expectation and understanding that each investor will, with due care, conduct its own independent analyses, credit assessments and other verifications and evaluations of each security that is under consideration for purchase, holding, or sale.

Unsolicited Credit Ratings (color coded)

According to regulatory requirements, "Unsolicited Credit Ratings" must be colour coded to indicate whether the rating was issued with the participation of the Rated Entity or a related third party and whether the credit rating agency has access to internal information. SH colour codes unsolicited, non-participating ratings using orange.

	RATING LEVELS*					
Application	Issuer ratings, issuance ratings, project ratings, structured finance ratings					
Type	PUBLIC			PRIVATE		
Regulation	REGULATED			EXEMPT		
Solicitation status	SOLICITED	UNSOLICITED		SOLICITED	UNSOLICITED	
Information basis, participation of rated entity or related third party	Internal and public information	With participation: Access to internal documents or to management	No participation: Only public information	Internal and public information	With participation: Access to internal documents or to management	No participation: Only public information
Rating notation (example)	BBB	BBB unsolicited	BBB unsolicited	BBB _{PR}	BBB _{PR} unsolicited	BBB _{PR} unsolicited

* Various prefixes and suffixes might be added to the notations (see table below).

Credit Estimate

A Credit Estimate is an unpublished, point-in-time (unmonitored), opinion of the approximate credit quality of an Issuer. A Credit Estimate is not equivalent to and does not represent a formal Credit Rating and is not assigned by a rating committee. Credit Estimates are assigned using a more limited analysis than that involved in a Credit Rating. Had SH conducted an analysis commensurate with a full Credit Rating, the result may have been significantly different. Credit Estimates are provided on a strictly confidential basis.

Assessments issued as Credit Estimates are denoted in lowercase letters with corresponding suffixes (CE for credit estimates), e.g. bbb_{CE}.

Monitoring

A Credit Rating is monitored after it is assigned. During the monitoring period, a Credit Rating can be confirmed, changed, put on “Under Review⁴ or withdrawn.

Credit Rating Preliminary analysis

The preliminary analysis is an assessment of the creditworthiness of a fund that is exclusively derived from a pre-established statistical model providing different scenarios. Assessments issued as part of preliminary analyses are denoted in lowercase letters with the corresponding suffix “PRA” (= Portfolio Risk Assessment), e.g. bbb_{PRA}.

⁴ For such rating actions the status was placed on the “watch list” until the 1st May 2022 and on “under review” status from 2nd May 2022 onwards.

Private Credit Rating

Private Credit Ratings are provided exclusively to the entity requesting the Credit Rating. Private Credit Ratings are not intended for public disclosure or distribution by subscription. Private Credit Ratings may not be used for regulatory purposes. SH's Private Credit Ratings may either be monitored or point-in-time (unmonitored).

Rated entity or Issuer

According to the CRA Regulation, the Rated Entity can be a company, debt or financial obligation, debt security, preferred share or other financial instrument, or the Issuer of such a debt or financial obligation, debt security, preferred share or other financial instrument, regardless of the solicitation status or information base.

Rating Portal

The SH's Rating Portal is a portal in which investors can access public ratings solely on a subscription basis.

Regulated Credit Ratings

Regulated Credit Ratings are Credit Ratings that are: (a) assigned and disseminated by a Credit Rating agency registered in accordance with the CRA Regulation; and (b) not Private Credit Ratings.

Regulated methodology

Regulated methodologies are made available to the public, including their effective date, on SH's website following a request for comments. SH also references the applicable version of the relevant methodology in its rating reports. SH provides prompt notification of any Credit Rating changes that may result from the introduction of new or updated methodologies.

Solicited or unsolicited Credit Ratings

Solicited Credit Ratings are ratings carried out under a contract between the Credit Rating agency and the rated entity or a related third party. Related third parties are originators, arrangers, sponsors, servicers or any other parties that interact with a Credit Rating agency on behalf of a rated entity, including any person directly or indirectly linked to that rated entity by control.

Unsolicited Credit Ratings are ratings carried out without a direct or indirect contract between the Credit Rating agency and the rated entity or a related third party. Ratings are also considered unsolicited if SH has a contract with a third party that is not acting on behalf of the rated entity. The solicitation status does not change through the participation of the rated entity in the Credit Rating process, e.g., by the submission of internal documents and/or interviews of representatives of the rated entity.

Appendix 2: Rating Categories

Rating Categories and Identifiers

This section presents SH's Credit Rating terms and definitions.

These terms apply to Credit Ratings produced by SH including the asset classes of Corporates.

1. Main Credit Rating definitions

Scope Hamburg's opinions on creditworthiness addresses timely payment, or expected loss, of financial obligations, as defined in the respective Credit Rating methodology.

1.1 Credit Ratings assigned to an Issuer

Credit Rating terms:

- Issuer Rating
- Short-Term Issuer Rating
- Issuer Rating (foreign currency)
- Short-Term Issuer Rating (foreign currency)

Note: Credit Ratings refer to the relative creditworthiness of the Issuer in its local currency unless mentioned otherwise.

Credit Rating definitions

- Issuer Ratings assigned on the long-term Credit Rating scale are forward-looking opinions on the relative creditworthiness of an Issuer's ability and willingness, to repay its financial obligations when due and with an original maturity of one year or more. For the long-term credit rating scale see Appendix 4.
- Short-Term Issuer Ratings assigned on the short-term Credit Rating scale are forward-looking opinions on the relative creditworthiness of an Issuer's ability and willingness, to repay its financial obligations when due, typically within 12 months. For the short-term credit rating scale see Appendix 4.

1.2. Credit Ratings assigned to debt instruments

The **Credit Rating term** describes the type of debt rated by Scope Hamburg. Common Credit Rating terms are:

- Debt Rating
- Debt Issuance Program Rating
- Senior Secured Debt Rating
- Senior Unsecured Debt Rating
- Subordinated Debt Rating
- Subordinated Debt (Hybrid) Ratings
- Short-Term Debt Rating

Note: *Credit Ratings refer to the relative creditworthiness, as further defined in the relevant Credit Rating methodologies, of the Issuer and debt instrument in its local currency unless mentioned otherwise.*

Credit Rating definitions:

- **Debt Ratings** are assigned on Scope Hamburg's **long-term** Credit Rating scale to a debt instrument.
- **Debt Issuance Program Ratings** are assigned to Issuers issuing ratings under a pre-established debt issuance program.
- **Senior Secured Debt Ratings** are assigned to debt, secured by a lien against collateral, that has priority over unsecured debt in case of resolution or insolvency.
- **Senior Unsecured Debt Ratings** are assigned to debt, that has priority over other unsecured debt in case of an insolvency and does not benefit from security over a collateral.
- **Subordinated Debt Ratings** are assigned to unsecured subordinated debt which ranks lower to senior debt in case of resolution or insolvency.
- **Subordinated Debt (Hybrid) Ratings** are assigned to hybrid subordinated debt which ranks lower to senior debt in case of resolution or insolvency.
- **Short-Term Debt Ratings** assigned on Scope Hamburg's **short-term** Credit Rating scale are forward-looking opinions on the relative creditworthiness of debt instruments. Short-Term Debt Ratings are assigned to short term debt instrument with a maturity of not more than 12 months.

Other:

- **Recoveries** address amounts to be recovered following a default or a default-like event. Recovery definitions are specific to the different sectors as described, where relevant, in Scope Hamburg's respective methodologies.

2. Ratings in default

Default definition

Default – Scope Hamburg considers the following events to constitute a default:

- failure to pay a coupon or principal payment on the due date and after a grace period specified under the instrument's terms and conditions⁵,

⁵ Typically, not longer than 30 days

- as applicable, supervisory action such as bank resolution, liquidation, insolvency proceedings of the debt Issuer or moratorium resulting in debt non-payment or debt restructuring, and
- any distressed debt exchange, restructuring or debt swap, which i) leads to less favourable terms or a loss of value compared to the original terms of the debt, including unilateral or coercive currency redenomination , and ii) has the effect of avoiding a likely default.

For the avoidance of doubt, Scope Hamburg does not consider the following to constitute a default: i) technical default triggered by force majeure, or ii) the non-payment of interest if such deferral is permitted under the terms and conditions of the securities.

Default status – Upon the occurrence of a default, as per the above, the Credit Rating is in a default status and will be reported as such. The following sections indicate Credit Ratings assigned upon this status.

Credit Rating of Issuers in default

Scope Hamburg assigns a ‘D’ or ‘SD’ Credit Rating to Issuer Credit Ratings in a default status and b) debt categories with at least one instrument in a default status in that debt category.

D	Default Credit Ratings.
SD	Selective Default Credit Ratings are assigned at Issuer level and debt category level if one specific class or currency of several but not all issuances of an Issuer is defaulted. A ‘SD’ Issuer Credit Rating is assigned, when an Issuer has selectively defaulted on certain debt obligations but not all. Such selective default can be the consequence of a forced debt restructuring (e.g. a distressed debt exchange or creditor bail in). An SD at Issuer level is not automatically triggered by the write-down or conversion of bank capital instruments that have a hybrid role in a bank’s capital structure.

Credit Rating of debt instruments in default

Debt instruments in default are generally rated at the lower end of the rating scale according to the long term and short term Credit Rating scales defined above. Recovery expectations for each of these debt instruments, when in default, are provided in, depending on the amount and degree of certainty of expected recoveries, see table below.

B-	Default with extremely high level of expected recovery with extremely high certainty.
CCC	Default with very high level of expected recovery with very high certainty.
CC	Default with average to high level of expected recovery and high certainty.
C	Default with above average expected recovery and/or average certainty.
D	Default with average to low or no expected recovery and/or high uncertainty.

Typically, only secured debt instruments with high quality collateral, or debt instruments experiencing non-payment on a relatively minor amount are expected to be rated above D while in default. Scope Hamburg may assign a credit rating higher than B- to a debt instrument in default under exceptional circumstances and in instances where a default is likely to be temporary and is associated with exceptionally high recovery expectations with an extremely high degree of certainty.

The above section must be read in conjunction with Scope Hamburg's respective methodologies.

Appendix 3: Indicators and suffixes

Preliminary Credit Ratings prefix (P)

Preliminary Credit Ratings are identified with the prefix (P) and assigned in advance of the issuance of the debt. Scope Hamburg will only assign a preliminary Credit Rating on future issues where it expects to assign a new Credit Rating. Once the debt issuance is final and in line with the provisional terms and conditions used to assign the preliminary Credit Ratings, the Preliminary Credit Rating is withdrawn, and a new Credit Rating is assigned. If the final terms and conditions of the debt differ materially from the provisional terms and conditions, the new Credit Rating may differ from the Preliminary Credit Rating. Scope Hamburg generally expects a Preliminary Credit Rating to be converted into a new Credit Rating or withdrawn within six months of it being assigned.

Withdrawn (WD)

Withdrawn (WD⁶) indicates a Credit Rating assigned by Scope Hamburg which has subsequently been withdrawn due to i) the instrument having reached its final maturity or the debt having been redeemed prior to its final maturity, called, prefunded or cancelled or ii) a business decision taken by Scope Hamburg or iii) the lack of sufficient information required to maintain the rating.

⁶ Withdrawn ratings, prior to 2nd May 2022, were identified as “withdrawn, and as of 2nd May 2022, are identified as “WD”.

Appendix 4: Credit Rating Actions

Overview of Credit Rating actions

A Credit Rating Action is any one of the items below:

Preliminary: Preliminary (P) Credit Ratings are assigned in advance of an instrument issuance.

New: The assignment of a new Credit Rating (may or may not be preceded by a Preliminary Credit Rating).

Upgrade: The upgrade of a Credit Rating.

Downgrade: The downgrade of a Credit Rating.

Default: The assignment or removal of a default status.

Under Review⁷: The placement of a Credit Rating 'Under Review' for a possible upgrade or downgrade, or for a developing outcome.

Confirmation: If a Credit Rating is removed from Under Review without an upgrade or downgrade.

Affirmation: If a Credit Rating is affirmed following a rating committee.

Withdrawal: If a Credit Rating is withdrawn.

Assignment of a new Outlook or a changed Outlook to a Credit Rating.

Credit Rating Under Review⁸

A Credit Rating can be placed Under Review for upgrade, downgrade or a developing outcome. The Under Review status indicates that this Credit Rating is under consideration for a change with further analysis needed to determine the Credit Rating outcome. Scope Hamburg intends to resolve the status of a Credit Rating placed Under Review as soon as practicable and over a period not exceeding three months. The Under Review status will be resolved with a Credit Rating being upgraded, downgraded, or confirmed by a rating committee. However, the latter can decide to maintain the Under Review status if more time is required to complete the analysis (this is not a rating action). The direction of the Under Review status can also be changed (which constitutes a rating action). A Credit Rating Under Review is generally only taken off Under Review after the review has been concluded. Not all rating changes are preceded by an Under Review status.

⁷ For such rating actions the status was placed on the "watch list" until the 1st May 2022 and on "under review" status from 2nd May 2022 onwards.

⁸ For such rating actions the status was placed on the "watch list" until the 1st May 2022 and on "under review" status from 2nd May 2022 onwards.

Outlook

A Credit Rating can be accompanied by a Credit Rating Outlook, which can be Stable, Positive or Negative. The positive and negative Outlooks normally refer to a period of 12-18 months. These Outlooks provide an indication of the most likely direction of a potential rating change. However, they do not necessarily signal that an upgrade or a downgrade of a Credit Rating will automatically follow.

Appendix 5: Rating Categories for Ratings and Other Services

Long-term Credit Rating scale

The long-term Credit Rating scale for Issuers, debt instruments and their debt instrument categories, is the following:

Category	Explanation	
AAA	Credit Ratings at the AAA level reflect an opinion of exceptionally strong credit quality.	
AA	Credit Ratings at the AA level reflect an opinion of very strong credit quality.	
A	Credit Ratings at the A level reflect an opinion of strong credit quality.	
BBB	Credit Ratings at the BBB level reflect an opinion of good credit quality.	
BB	Credit Ratings at the BB level reflect an opinion of moderate credit quality.	
B	Credit Ratings at the B level reflect an opinion of weak credit quality.	
CCC	Credit Ratings at the CCC level reflect an opinion of very weak credit quality.	Debt instruments in default: These Credit Ratings may also be assigned to debt categories and debt instruments in default*
CC	Credit Ratings at the CC level reflect an opinion of extremely weak credit quality.	
C	Credit Ratings at the C level reflect an opinion of exceptionally weak credit quality.	
D/SD	Credit Ratings at the D or SD level reflect a default* situation with average to low or no recoveries.	

*See definition of default above.

Notches – Scope Hamburg’s long-term Credit Ratings are expressed with symbols from AAA to D/SD, with '+' and '-' as additional sub-categories for each category from AA to B (inclusive). There are 20 levels in total.

Short-term Credit Rating scale

The short-term Credit Rating scale for Issuers, debt instruments and their debt instrument categories, is the following:

Category	Explanation
S-1+	Credit Ratings at the S-1+ level reflect an opinion of the lowest credit risk with the highest capacity to repay short-term obligations.
S-1	Credit Ratings at the S-1 level reflect an opinion of very low credit risk with high capacity to repay short-term obligations.
S-2	Credit Ratings at the S-2 level reflect an opinion of low credit risk with good capacity to repay short-term obligations.
S-3	Credit Ratings at the S-3 level reflect an opinion of acceptable credit risk with fair capacity to repay short-term obligations.
S-4	Credit Ratings at the S-4 level reflect an opinion of moderate-to-high credit risk with modest to very low capacity to repay short-term obligations.
D/SD	Credit Ratings at the D or SD level reflect a default* situation.

*See definition of default above.

Short term/long term Credit Rating correspondence

Short-term Credit Ratings can be derived from the long-term Issuer Credit Ratings. They can be mapped as follows:

	Scope Ratings				
	S-1+	S-1	S-2	S-3	S-4
AAA					
AA+					
AA	S-1+				
AA-					
A+		S-1			
A					
A-			S-2		
BBB+					
BBB					
BBB-					
BB+				S-3	
BB					
BB-					
B+					S-4
B					
B-					
CCC					
CC					
C					
D					

Appendix 5: Disclaimer

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CREDIT RATINGS ISSUED BY SH ARE SH’S CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES, AND SH’S PUBLICATIONS MAY INCLUDE SH’S CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES. SH DEFINES CREDIT RISK AS THE RISK THAT AN ENTITY MAY NOT MEET ITS CONTRACTUAL, FINANCIAL OBLIGATIONS AS THEY COME DUE AND, IN THE CASE OF ISSUANCE-LEVEL CREDIT RATINGS, ANY ESTIMATED FINANCIAL LOSS IN THE EVENT OF DEFAULT. CREDIT RATINGS DO NOT ADDRESS ANY OTHER RISK, INCLUDING BUT NOT LIMITED TO: LIQUIDITY RISK, MARKET VALUE RISK, OR PRICE VOLATILITY. CREDIT RATINGS AND SH’S OPINIONS INCLUDED IN SH’S PUBLICATIONS ARE NOT STATEMENTS OF CURRENT OR HISTORICAL FACT. CREDIT RATINGS AND SH’S PUBLICATIONS ARE NEITHER A PROSPECTUS NOR A SUBSTITUTE FOR INFORMATION ASSEMBLED AND PRESENTED BY COMPANIES OR ISSUERS FOR INVESTORS REGARDING THE PURCHASE OF A SECURITY OR FOR ASSESSING THE CREDITWORTHINESS OF A RATED ENTITY. CREDIT RATINGS AND SH’S PUBLICATIONS DO NOT CONSTITUTE OR PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. NEITHER CREDIT RATINGS NOR SH’S PUBLICATIONS COMMENT ON THE SUITABILITY OF AN INVESTMENT FOR ANY PARTICULAR INVESTOR. SH ISSUES ITS CREDIT RATINGS AND PUBLISHES ITS PUBLICATIONS WITH THE EXPECTATION AND UNDERSTANDING THAT EACH INVESTOR WILL, WITH DUE CARE, CONDUCT ITS OWN INDEPENDENT ANALYSES, CREDIT ASSESSMENTS AND OTHER VERIFICATIONS AND EVALUATIONS OF EACH SECURITY THAT IS UNDER CONSIDERATION FOR PURCHASE, HOLDING, OR SALE.

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