

CROSS-SECTOR RATING METHODOLOGY

Mapping National Scale Ratings from Global Scale Ratings Methodology

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This rating methodology replaces the *Mapping National Scale Ratings from Global Scale Ratings* methodology published in May 2016. We have simplified the methodology by using only one approach, previously called the Standard Approach, to mapping national scale ratings from global scale ratings. As a result, maps for any country can now be derived directly from this methodology based on the sovereign rating without needing to refer to the Compendia of National Scale Rating Maps by Country, which will no longer be updated. In Appendix 2, we added a map for an anchor point of Aaa for completeness. We have also made editorial changes to enhance readability.

Introduction

This rating methodology explains Moody's approach to mapping national scale ratings (NSRs) from our global scale ratings (GSRs). NSRs are relative measures of creditworthiness within a given country, generated via a country-specific mapping from the global scale. The methodology includes detailed guidelines for (1) the design of new maps and changes to existing maps and (2) the circumstances under which maps are amended.

The specific maps that will be used in each of the individual countries in which Moody's assigns NSRs are not part of the methodology itself but may be derived from this methodology.¹

¹ An archive of maps for specific countries in effect from August, 2018 through August 2, 2022 can be found in the "Index of Superseded National Scale Rating Maps By Country". For a link to this document, please see the "Moody's Related Research Publications" section.

NSRs: Definition, Purpose and Characteristics

NSRs reflect the same risk factors as GSRs. We typically assign NSRs in order to provide greater credit differentiation among credits than is offered by the global rating scale in countries where the country risk ceiling and/or sovereign rating are relatively low. In these countries, GSRs are clustered toward the bottom end of the rating scale and within few rating categories, because these credits' shared risks – particularly country risk – dominate their idiosyncratic risks. In such cases, domestic market investors can benefit from the added information provided by NSRs, which typically permit the use of the full range of 21 rating categories, from Aaa at the top to C at the bottom. NSRs may be assigned to any debt obligation offered within a given domestic capital market, whether or not denominated in the relevant local currency.²

Moody's global rating scale is intended to be comparable across industries, markets, type of obligation, and geography: For instance, the risk of default and loss associated with a Ba1 GSR on bonds issued by an industrial company in Korea is intended to be directly comparable to that of a Ba1 rating on the deposit obligations of a bank in Lebanon.

In contrast, national scales are not intended to rank credits across multiple countries. Rather, they provide a measure of relative creditworthiness within a single country. To distinguish an NSR from GSRs and from NSRs in other countries, we label it with a two-letter suffix that forms an abbreviation of the country name (e.g., Aaa.za for South Africa). For illustration purposes in this methodology we use the suffix .nn as a generic country modifier to refer to NSRs. Since the default likelihood of a Aaa.nn NSR may differ significantly from that associated with a global Aaa, or from a Aaa.nn on another national scale, NSRs should not be used for cross-country comparisons. A Aaa.nn rating simply represents the lowest range of credit risk in that particular country.

Some of the concepts that investors may associate with global scale ratings are not applicable to NSRs. There is no such thing as an "investment-grade" or "speculative-grade" NSR. A Baa3.nn NSR is simply one notch higher than a Ba1.nn NSR. In some countries, even Aaa.nn NSRs correspond to deeply speculative-grade credit GSRs with high credit risk. Definitions of our NSRs are provided in Appendix 1.

NSRs have no inherent absolute meaning in terms of default risk or expected loss; they are ordinal rankings of creditworthiness relative to other domestic issuers and issuances³ within a given country. A historical probability of default and/or expected loss consistent with a given NSR can be inferred from the GSR to which it maps back at that particular point in time. However, both the probability of default and the expected loss of an NSR may change if and when a country's national scale is remapped. To enhance transparency of the meaning of NSRs and to minimize the chances they will be misinterpreted, when we publish an issuer's NSR, we will always publish that issuer's corresponding GSR as well. In addition, we will provide a reference and/or link to historical probability of default data associated with GSRs in all public announcements of rating actions affecting an NSR.

Owing to certain characteristics of national scale maps, NSRs are subject to more frequent and much larger movements than GSRs. The higher granularity of national scales means that changes in credit quality that are not sufficient to cause a change in the GSR may merit a change on the national scale. Similarly, the magnitude of change in an NSR could be considerably greater than for the corresponding global rating, particularly on those scales that offer higher degrees of enhanced differentiation, where a one-notch change in an issuer's GSR could result in up to a four-notch change in its NSR. Finally, an NSR may change because of a map revision, even if the issuer's creditworthiness has not changed.

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the issuer/deal page on ratings.moodys.com for the most updated credit rating action information and rating history.

² While most NSRs are assigned to domestic issuers, a non-domestic issuer may choose to issue in a local market where we assign NSRs, and this local market issuance, whether denominated in the domestic currency or another currency, would be eligible for an NSR.

³ For clarity, "domestic issuers" as used in this context represents the ratable universe of potential issuers within a given country.

Fundamental Principles Guiding the Design of NSR Maps

Three overarching principles relating to the meaning and purpose of NSRs are set forth below. These principles inform a rule set governing how NSR maps should be designed and under what circumstances they should be revised:

- » **NSRs are generated by mapping from GSRs using country-specific maps.** NSRs reflect the same risks as their corresponding GSRs, which are assigned using Moody's sector and asset-class specific methodologies. The difference between an NSR and its corresponding GSR does not indicate a difference in credit risk, but rather in the unit of measurement used along certain portions of the scale. Similar NSRs in different countries may indicate very different levels of risk, as reflected in the different global scale ratings to which each corresponds, while issuers in different countries with the same GSR may have very different NSRs. Moreover, the same NSR in a particular country (e.g., Aa2.nn) will not necessarily have the same meaning over time, because that country's NSR maps may change, thereby changing the correspondence between GSRs and NSRs.
- » **NSRs are intended to provide greater credit differentiation than is available on the global scale.** The application of the global scale can create ratings compression among domestic issuers in countries with low country ceilings and/or sovereign ratings. Through the use of a country-specific scale, however, the entire scale from Aaa.nn down can be used to differentiate creditworthiness. This typically enables the strongest credits in a given country to achieve the highest rating (Aaa.nn) on its national scale, regardless of how they compare to credits globally. Issuers and transactions with GSRs at or above the sovereign rating generally fall within this category, though there may be circumstances in which credits rated at the same level as the sovereign (or possibly even above it) do not qualify for Aaa.nn NSRs.⁴ Except for Aaa.nn NSRs, no NSR category corresponds to more than one GSR category.⁵
- » **NSRs are relative rankings.** As a result, NSRs reflect the relative creditworthiness of national peers. They do not reflect an absolute level of credit risk nor are they comparable with GSRs or NSRs for other countries. For clarity, there is no expectation that each of the possible NSRs corresponding to a particular GSR would be assigned to a specific percentage of issuers in each country. Thus, not every point on the NSR scale will necessarily be used in every country.

Guidelines for Designing Maps

- » **In mapping a national scale rating from the global scale, we select from a set of standard maps (Appendix 2).** There is one standard map for each "anchor point," which is the sovereign local currency GSR, subject to a floor of B1. In such cases, the standard map design anticipates the potential range and distribution of ratings that might be assigned in the future. In other words, whether or not there is a well-developed rated universe, the map design seeks to address the ratable universe.

⁴ As on the global scale, there is no upper bound to Aaa on national scales. Consequently, the Aaa category often includes a wider range of credit quality than other NSRs; some Aaa.nn NSRs – in particular those benefiting from foreign ownership – may be stronger, or more comfortably positioned at the Aaa.nn rating level than others. This may be reflected in higher global scale ratings, potentially by multiple notches. Nevertheless, within the context of the domestic rated universe, we believe it is more important to distinguish these Aaa.nn credits as a group from those of inferior quality than from one another.

⁵ As used in this document, the terms NSR category and GSR category refer to one of the 21 alphanumeric rating categories (e.g., Aa2, Baa3, B1).

- » **The first step in map design is to determine the anchor point GSR.** When a map is first established or subsequently modified, the sovereign local currency GSR will determine the anchor point. However, under no circumstances can any GSR below B1 map to Aaa.nn. Consequently, the anchor point will be B1 whenever the sovereign's local currency rating is B1 or below.⁶
- » **The design of the rest of the map, from Aa1.nn down, then follows.** Lower anchor points cause an increasing number of GSR categories to map to two or more points on the national scale. In other words, as GSRs within a country become more compressed into the lower rating categories, maps with lower anchor points provide progressively more opportunities for differentiation of NSRs relative to GSRs throughout the rating scale.

The following table outlines the approach. Once the anchor point is established, the approach is very straightforward – we use the corresponding map in Appendix 2

Summary of National Scale Rating Approach	
Setting the anchor point	The anchor point will be the sovereign local currency GSR, subject to a floor of B1.
Aaa.nn to Caa3.nn	Standard maps (see Appendix 2)
Important Features of NSR Maps	<ul style="list-style-type: none"> » Each GSR category maps to at least one NSR category. » Each NSR category except for Aaa maps back to a unique GSR category. » No single GSR category maps to more than three NSR categories, except that, for maps with a B1 anchor point, a single GSR category may in some cases map to four NSR categories. » Ca and C GSR categories map exclusively to Ca and C NSR categories, respectively, across all maps.

Source: Moody's Investors Service

Revisions of Existing Maps

Upon the announcement of a change in ratings of a sovereign in a country where we issue NSRs, the relevant NSR mapping will change, if necessary, to reflect the new anchor point.⁷ As a result of the change in mapping, as well as any changes to corresponding GSRs,⁸ the position of the NSRs may need to be reassessed, and these ratings may change.

⁶ We believe the B1 map provides more than sufficient ability to differentiate and rank order credits in countries where the anchor point would otherwise be lower, even though the top of the national rating scale might be unavailable to even the highest rated domestic issuers. The very high rate of default among domestic issuers during sovereign crises means that maps with lower anchor points point (where the full complement of 21 NSRs would remain available) would give an inflated sense of credit differentiation in countries with an elevated risk of such a crisis. For instance, a shutdown of the banking/payment system within a country could put even the highest-rated credits at risk of temporary default. Note that the GSR for a local debt market issuance by a non-domestic issuer would typically have relatively low linkage to the sovereign rating of that country (provided the governing law is also outside the country); thus, that issuance may have a GSR above B1 and thus may retain a Aaa.nn NSR even if the local sovereign is rated B1 or lower. For more details, please see our methodology that discusses how we assess the impact of sovereign credit quality on other ratings.

⁷ For example, if we assign NSRs to issuers in Country X and the sovereign rating for Country X changes from Baa1 to Baa2 on April 30, 20xx, the map applicable to Country X would be the Anchor Point Baa1 map in Appendix 2 up to April 29, 20xx. Starting on April 30, 20xx, the map applicable to Country X would be the Anchor Point Baa2 map in Appendix 2 until the date (if any) that the sovereign rating changes again.

⁸ A change in a sovereign rating may affect the GSRs of other issuers in the country, as more fully described in our methodology that discusses how we assess the impact of sovereign credit quality on other ratings. A link to a list of our sector and cross-sector methodologies can be found in the "Moody's Related Publications" section.

Assigning and Revising NSRs and NSR Outlooks

Assigning NSRs When a GSR Maps to More Than One NSR

NSRs are assigned based on GSRs that have been determined using the methodologies for GSRs that are relevant to those issuers or transactions. Because 21 NSRs must be mapped from a smaller number of GSRs, in many cases, multiple notches on the NSR scale may correspond to just one GSR. This is consistent with the intent of NSRs to provide greater differentiation. In cases where the GSR maps to more than one option on the NSR scale, the rating committee determining the NSR will decide whether the issuer is relatively strongly or weakly positioned within its GSR category, using the same methodology as was used to determine the GSR itself.

Although maps are designed to offer opportunities for differentiation by mapping GSRs to multiple NSRs, assigned NSRs will not necessarily be evenly distributed across the available alternatives. For various reasons, rating committees may sometimes determine that a disproportionate share of issuers or instruments with the same GSR is either more strongly or more weakly positioned than the rest, or that it is not possible to differentiate among them; consequently, in certain cases, one or more of the available NSR alternatives may not be assigned to any issuers or instruments.

The issuer's GSR outlook status – positive, stable, negative or on review – is among the considerations likely to influence the NSR selected. If the GSR outlook directly mirrors the outlook on the sovereign, however, it is unlikely to be a significant factor for determining the relative positioning of the NSR within the available options.

Assigning NSR Outlooks

If Moody's has assigned an outlook to a GSR, we may assign an outlook to its corresponding NSR as well. If the GSR has a positive or negative outlook, the outlook on the NSR would typically be the same, except when the GSR outlook directly mirrors the sovereign. If the GSR has a stable outlook, however, and the GSR maps to multiple options on the national scale, the rating committee may decide on a different outlook for the NSR.

Short-Term NSRs

Just as with short-term GSRs, short-term NSRs are assigned to obligations with an original maturity of 13 months or less. Short-term NSRs are assigned based on the long-term NSRs in a manner similar to that used to map short-term GSRs from long-term GSRs. We use a different nomenclature for our scale of national short-term ratings to accentuate its difference from the global scale. NSRs replace the four-category "prime" system used in the global scale with a four-category scale from NN-1 for the safest credits to NN-4 for the riskiest, where the letters change to indicate the country in which the obligor is located, e.g., KE-1 for Kenya. The definitions of Moody's short-term NSRs are provided in Appendix 1. Note that as with long-term NSRs, short-term NSRs are not directly comparable to their global scale equivalents, or to similar short-term NSRs in other countries. They are simply relative rankings of ability to repay short-term debt obligations within a given country.

Long-Term NSR	Short-Term NSR
Aaa.nn to A2.nn	NN-1
A3.nn to Baa1.nn	NN-2
Baa2.nn to Baa3.nn	NN-3
Ba1.nn to C.nn	NN-4

Source: Moody's Investors Service

Appendix 1: NSR Definitions

National Scale Long-Term Rating Definitions

Moody's long-term National Scale Ratings (NSRs) are opinions of the relative creditworthiness of issuers and financial obligations within a particular country. NSRs are not designed to be compared among countries; rather, they address relative credit risk within a given country. Moody's assigns national scale ratings in certain local capital markets in which investors have found the global rating scale provides inadequate differentiation among credits or is inconsistent with a rating scale already in common use in the country.

In each specific country, the last two characters of the rating indicate the country in which the issuer is located (e.g., Aaa.ke for Kenya). The rating definitions are as follows, with a ".nn" signifying a generic country modifier.

Aaa.nn

Issuers or issues rated Aaa.nn demonstrate the strongest creditworthiness relative to other domestic issuers.⁹

Aa.nn

Issuers or issues rated Aa.nn demonstrate very strong creditworthiness relative to other domestic issuers.

A.nn

Issuers or issues rated A.nn present above-average creditworthiness relative to other domestic issuers.

Baa.nn

Issuers or issues rated Baa.nn represent average creditworthiness relative to other domestic issuers.

Ba.nn

Issuers or issues rated Ba.nn demonstrate below-average creditworthiness relative to other domestic issuers.

B.nn

Issuers or issues rated B.nn demonstrate weak creditworthiness relative to other domestic issuers.

Caa.nn

Issuers or issues rated Caa.nn demonstrate very weak creditworthiness relative to other domestic issuers.

Ca.nn

Issuers or issues rated Ca.nn demonstrate extremely weak creditworthiness relative to other domestic issuers.

C.nn

Issuers or issues rated C.nn demonstrate the weakest creditworthiness relative to other domestic issuers.

Note: We apply numerical modifiers 1, 2, and 3 in each generic rating classification from Aa to Caa. The modifier 1 indicates that the obligation ranks in the higher end of its generic rating category; the modifier 2 indicates a mid-range ranking; and the modifier 3 indicates a ranking in the lower end of that generic rating category.

⁹ For clarity, the term "domestic issuers" as used in this appendix represents the ratable universe of potential issuers within a given country.

National Scale Short-Term Rating Definitions

Moody's short-term NSRs are opinions of the ability of issuers in a given country, relative to other domestic issuers, to repay debt obligations that have an original maturity of 13 months or less. Short-term NSRs in one country should not be compared with short-term NSRs in another country, or with Moody's global ratings.

There are four categories of short-term NSRs, generically denoted NN-1 to NN-4.

In each specific country, the two letters will change to indicate the country in which the issuer is located, e.g., KE-1 to KE-4 for Kenya. South Africa is an exception, using the symbols P-1.za, P-2.za, P-3.za and NP.za. "Issuers" as used below include not just currently rated issuers, but the "ratable universe" of all potential issuers of fixed-income securities within a given country.

NN-1

Issuers rated NN-1 have the strongest ability to repay short-term senior unsecured debt obligations relative to other domestic issuers.¹⁰

NN-2

Issuers rated NN-2 have above-average ability to repay short-term senior unsecured debt obligations relative to other domestic issuers.

NN-3

Issuers rated NN-3 have an average ability to repay short-term senior unsecured debt obligations relative to other domestic issuers.

NN-4

Issuers rated NN-4 have below-average ability to repay short-term senior unsecured debt obligations relative to other domestic issuers.

¹⁰ For clarity, the term "domestic issuers" as used in this appendix represents the ratable universe of potential issuers within a given country.

Appendix 2: Standard NSR Maps

The Anchor Point is the Local Currency Global Scale Rating (GSR) of the Sovereign, Subject to a Floor of B1

Anchor Point Aaa		Anchor Point Aa1		Anchor Point Aa2		Anchor Point Aa3	
Global Scale Rating	National Scale Rating	Global Scale Rating	National Scale Rating	Global Scale Rating	National Scale Rating	Global Scale Rating	National Scale Rating
Aaa	Aaa	Aaa	Aaa	Aaa	Aaa	Aaa	Aaa
Aa1	Aa1	Aa1	Aaa to Aa1	Aa1	Aaa	Aa1	Aaa
Aa2	Aa2	Aa2	Aa2	Aa2	Aaa to Aa1	Aa2	Aaa
Aa3	Aa3	Aa3	Aa3	Aa3	Aa2 to Aa3	Aa3	Aaa to Aa1
A1	A1	A1	A1	A1	A1	A1	Aa2 to Aa3
A2	A2	A2	A2	A2	A2	A2	A1 to A2
A3	A3	A3	A3	A3	A3	A3	A3
Baa1	Baa1	Baa1	Baa1	Baa1	Baa1	Baa1	Baa1
Baa2	Baa2	Baa2	Baa2	Baa2	Baa2	Baa2	Baa2
Baa3	Baa3	Baa3	Baa3	Baa3	Baa3	Baa3	Baa3
Ba1	Ba1	Ba1	Ba1	Ba1	Ba1	Ba1	Ba1
Ba2	Ba2	Ba2	Ba2	Ba2	Ba2	Ba2	Ba2
Ba3	Ba3	Ba3	Ba3	Ba3	Ba3	Ba3	Ba3
B1	B1	B1	B1	B1	B1	B1	B1
B2	B2	B2	B2	B2	B2	B2	B2
B3	B3	B3	B3	B3	B3	B3	B3
Caa1	Caa1	Caa1	Caa1	Caa1	Caa1	Caa1	Caa1
Caa2	Caa2	Caa2	Caa2	Caa2	Caa2	Caa2	Caa2
Caa3	Caa3	Caa3	Caa3	Caa3	Caa3	Caa3	Caa3
Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca
C	C	C	C	C	C	C	C

Anchor Point A1		Anchor Point A2		Anchor Point A3	
Global Scale Rating	National Scale Rating	Global Scale Rating	National Scale Rating	Global Scale Rating	National Scale Rating
Aa3 and above	Aaa	Aa3 and above	Aaa	Aa3 and above	Aaa
A1	Aaa to Aa1	A1	Aaa	A1	Aaa
A2	Aa2 to Aa3	A2	Aaa to Aa1	A2	Aaa
A3	A1 to A2	A3	Aa2 to Aa3	A3	Aaa to Aa1
Baa1	A3 to Baa1	Baa1	A1 to A2	Baa1	Aa2 to Aa3
Baa2	Baa2	Baa2	A3 to Baa1	Baa2	A1 to A2
Baa3	Baa3	Baa3	Baa2 to Baa3	Baa3	A3 to Baa1
Ba1	Ba1	Ba1	Ba1	Ba1	Baa2 to Baa3
Ba2	Ba2	Ba2	Ba2	Ba2	Ba1 to Ba2
Ba3	Ba3	Ba3	Ba3	Ba3	Ba3
B1	B1	B1	B1	B1	B1
B2	B2	B2	B2	B2	B2
B3	B3	B3	B3	B3	B3
Caa1	Caa1	Caa1	Caa1	Caa1	Caa1
Caa2	Caa2	Caa2	Caa2	Caa2	Caa2
Caa3	Caa3	Caa3	Caa3	Caa3	Caa3
Ca	Ca	Ca	Ca	Ca	Ca
C	C	C	C	C	C

The Anchor Point is the Local Currency Global Scale Rating (GSR) of the Sovereign, Subject to a Floor of B1

Anchor Point Baa1

Global Scale Rating	National Scale Rating
A3 and above	Aaa
Baa1	Aaa to Aa1
Baa2	Aa2 to Aa3
Baa3	A1 to A2
Ba1	A3 to Baa1
Ba2	Baa2 to Baa3
Ba3	Ba1 to Ba2
B1	Ba3 to B1
B2	B2
B3	B3
Caa1	Caa1
Caa2	Caa2
Caa3	Caa3
Ca	Ca
C	C

Anchor Point Baa2

Global Scale Rating	National Scale Rating
A3 and above	Aaa
Baa1	Aaa
Baa2	Aaa to Aa1
Baa3	Aa2 to Aa3
Ba1	A1 to A2
Ba2	A3 to Baa1
Ba3	Baa2 to Baa3
B1	Ba1 to Ba2
B2	Ba3 to B1
B3	B2 to B3
Caa1	Caa1
Caa2	Caa2
Caa3	Caa3
Ca	Ca
C	C

Anchor Point Baa3

Global Scale Rating	National Scale Rating
A3 and above	Aaa
Baa1	Aaa
Baa2	Aaa
Baa3	Aaa to Aa1
Ba1	Aa2 to Aa3
Ba2	A1 to A2
Ba3	A3 to Baa1
B1	Baa2 to Baa3
B2	Ba1 to Ba2
B3	Ba3 to B1
Caa1	B2 to B3
Caa2	Caa1 to Caa2
Caa3	Caa3
Ca	Ca
C	C

Anchor Point Ba1

Global Scale Rating	National Scale Rating
Baa3 and above	Aaa
Ba1	Aaa to Aa2
Ba2	Aa3 to A1
Ba3	A2 to A3
B1	Baa1 to Baa2
B2	Baa3 to Ba1
B3	Ba2 to Ba3
Caa1	B1 to B2
Caa2	B3 to Caa1
Caa3	Caa2 to Caa3
Ca	Ca
C	C

Anchor Point Ba2

Global Scale Rating	National Scale Rating
Baa3 and above	Aaa
Ba1	Aaa
Ba2	Aaa to Aa2
Ba3	Aa3 to A2
B1	A3 to Baa2
B2	Baa3 to Ba1
B3	Ba2 to Ba3
Caa1	B1 to B2
Caa2	B3 to Caa1
Caa3	Caa2 to Caa3
Ca	Ca
C	C

Anchor Point Ba3

Global Scale Rating	National Scale Rating
Baa3 and above	Aaa
Ba1	Aaa
Ba2	Aaa
Ba3	Aaa to Aa2
B1	Aa3 to A2
B2	A3 to Baa2
B3	Baa3 to Ba2
Caa1	Ba3 to B2
Caa2	B3 to Caa1
Caa3	Caa2 to Caa3
Ca	Ca
C	C

Anchor Point B1

Global Scale Rating	National Scale Rating
Ba3 and above	Aaa
B1	Aaa to Aa2
B2	Aa3 to A2
B3	A3 to Baa2
Caa1	Baa3 to Ba3
Caa2	B1 to B3
Caa3	Caa1 to Caa3
Ca	Ca
C	C

Source: Moody's Investors Service

Moody's Related Publications

Cross-sector credit rating methodologies are typically applied in tandem with sector credit rating methodologies, but in certain circumstances may be the basis for assigning credit ratings. A list of sector and cross-sector credit rating methodologies can be found [here](#).

The "Index of Superseded Compendia of National Scale Rating Maps by Country", in effect from August, 2018 through August 2, 2022 can be found [here](#).

For data summarizing the historical robustness and predictive power of credit ratings, please click [here](#).

For further information, please refer to *Rating Symbols and Definitions*, which is available [here](#).

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