



Asset Portfolio Rating Methodology

Ancillary Services

21 March 2024

Contacts

Miguel Barata

Director

+34-919-034-101

m.barata@scoperatings.com

Antonio Casado

Managing Director

+49-162-259-8201

a.casado@scoperatings.com

David Bergman

Group Managing Director

+39-02-947-58-940

d.bergman@scoperatings.com

Sebastian Dietzsch

Senior Director

+49-30-27-891-252

s.dietzsch@scoperatings.com



Table of Contents

1	Areas of application	3
2	Asset portfolio rating characteristics	3
3	Overview of analytical framework	3
4	Quantitative analysis	4
4.1	Asset analysis	4
4.1.1	Portfolio expected loss and expected weighted average risk horizon	4
4.1.2	Portfolio concentration risk analysis	5
4.1.3	Analysis of granular portfolios	5
4.1.4	Recovery rate	5
4.2	Counterparty risk	5
4.2.1	Guarantees or other hedging mechanisms	6
4.3	Additional considerations	6
4.3.1	Assets with ratings under review for upgrade or downgrade	6
4.3.2	Equity	6
4.3.3	Revolving portfolios and portfolios in ramp-up phase	6
4.3.4	Asset manager analysis (applicable for managed asset portfolios)	6
5	Monitoring	7
	Appendix I Technical note on the expected loss framework	8
	Appendix II Portfolio probability of default vs. expected portfolio default rate	9
	Appendix III Debt fund asset portfolio rating	10



This is the annual update of Scope's asset portfolio rating methodology, which provides our analytical framework for the credit assessment of asset portfolios mainly comprised of fixed-income instruments. The update contains editorial changes and clarifications, which do not impact any of the outstanding asset portfolio ratings.

The main update provides more guidance on potential impacts on analytical assumptions derived from our asset manager analysis (see section 4.3.4).

Asset portfolio ratings are ancillary services as per our [Defined Term Glossary](#) available on www.scoperatings.com. These ratings reflect the credit risk stemming from a portfolio mainly comprised of fixed-income instruments.

1 Areas of application

This document describes our method for rating and monitoring asset portfolios. The methodology defines asset portfolios as earmarked¹ portfolios of credit exposures, such as in debt funds or bank-originated portfolios of mortgages or consumer loans. In certain cases, they may be actively managed. Assets are typically fixed-income instruments with a defined promise to pay, such as bonds or loans (secured or unsecured, leveraged or unleveraged) exposed to individuals, corporates, movable property, project finance and infrastructure projects, or a mix of assets. Assets can have a wide range of maturities and amortisation systems.

This methodology is not applicable to asset portfolios in which many assets lack a contractual promise to pay and do not benefit from highly predictable cash flows.

This document should be read, when relevant, in conjunction with other relevant Scope methodologies, including, but not limited to, our General Structured Finance Rating Methodology, General Project Finance Rating Methodology and Counterparty Risk Methodology, available on www.scoperatings.com.

2 Asset portfolio rating characteristics

The rating assigned to an asset portfolio reflects our forward-looking assessment of the portfolio's expected loss over its lifetime benchmarked against our idealised expected loss tables (see [Scope's idealised expected loss table](#), available on www.scoperatings.com). Our analysis considers the specific characteristics of both the individual assets and the portfolio as a whole. The rating is primarily driven by the credit quality of the asset portfolio and is expressed on a scale from AAA to D with additional '+' and '-' subcategories from AA to B, resulting in a total of 20 levels. The rating applies to the maximum committed amount of the portfolio, even if not yet fully drawn and invested.

We apply an 'AP' suffix to asset portfolio ratings to distinguish them from other ratings. For portfolios under ramp-up, we can have the ramp-up prefix (r). Both will be reflected in our rating action releases.

Our asset portfolio ratings address the weighted average credit quality of the assets and look at the cumulative expected loss stemming from the portfolio over its lifetime. They do not address the probability of default or the loss of a debt instrument that funds such a portfolio.

We also consider the impact that a portfolio manager or servicer may have on the evolution of portfolio credit quality, which is driven by its quality and capabilities. This can be an external asset manager (e.g. if the portfolio is owned by a fund) or other types of active management. Our analysis focuses on the portfolio investment strategy, and the manager's incentives and capabilities to successfully implement this strategy.

Asset portfolio ratings do not cover risks originating from the funding of asset portfolios such as liquidity risks, interest rate, currency and other market and re-financing risks, as well as funding instrument redemption risks. Counterparty risk and operational risk are only captured to the extent they are intrinsically part of the asset's risk.

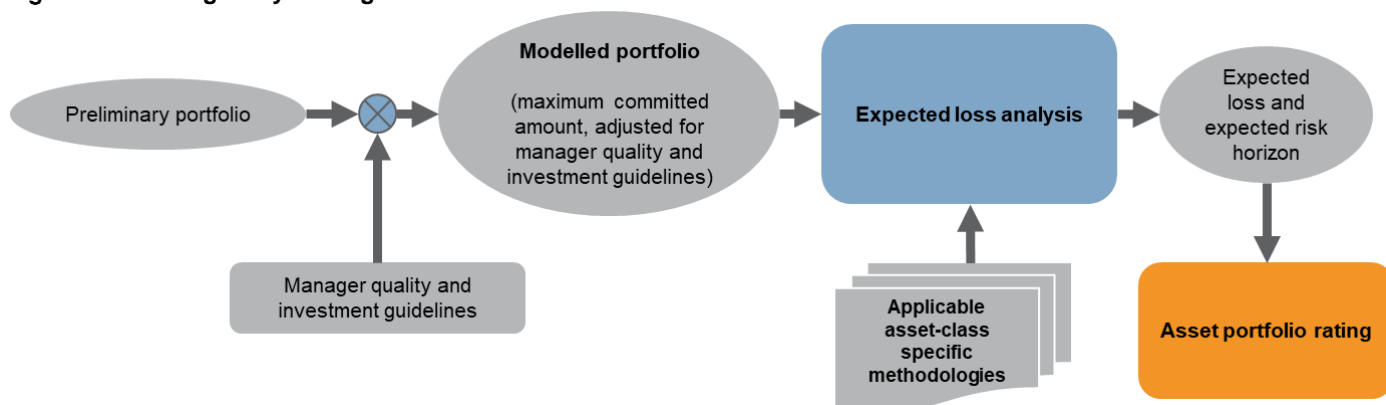
3 Overview of analytical framework

This methodology focuses on risk drivers commonly used to measure credit quality, which ensures a consistent and comparable analytical approach. We assess the default risk of portfolio assets and the associated expected severity by following the analytical considerations regarding the assets and, depending on the portfolio's composition, the principles and conceptual model outlined

¹ The concept of earmarking used in this methodology is broad. It refers to the precise identification of a set of credit exposures within the balance sheet of the fund(s), corporate(s) or, in general, SPV(s) where the portfolio is held, for the purpose of the credit risk analysis under this methodology.

in the respective asset-class-specific methodology. This allows us to compute the portfolio's expected loss over its lifetime. We benchmark the portfolio's expected loss and expected risk horizon against our idealised expected loss table. Both methodologies and the idealised expected loss table are available on www.scopeeratings.com.

Figure 1. Rating analysis diagram



Source: Scope Ratings

4 Quantitative analysis

Our approach to determine the portfolio's expected loss and expected weighted average risk horizon depends on the type of assets in the portfolio, the portfolio's granularity, the maturity of the portfolio assets, and available public information. As outlined in Figure 1, the determination of the asset portfolio credit risk should apply an approach consistent with the principles of the asset-class-specific methodology.

4.1 Asset analysis

4.1.1 Portfolio expected loss and expected weighted average risk horizon

The expected loss (EL) of the asset portfolio is equal to the weighted average expected loss of the portfolio assets. The expected loss of an asset is driven by the probability of the asset's default and the loss severity upon such a default as expected over the asset's life.

$$EL_{Asset\ portfolio} = \sum_{i=1}^n Portfolio\ weight_{Asset\ i} \times EL_{Asset\ i}$$

$$EL_{Asset\ i} = Expected\ lifetime\ default\ rate_{Asset\ i} \times (1 - Expected\ recovery\ rate_{Asset\ i})$$

The risk horizon of the portfolio results from the timing of cash flows under several scenarios². It is equal to the exposure-weighted average of the expected risk horizon of all the assets in the portfolio:

$$RH_{Asset\ portfolio} = \sum_{i=1}^n Portfolio\ weight_{Asset\ i} \times Expected\ RH_{Asset\ i}$$

The expected risk horizon of Asset i is the probability-weighted average of the risk horizons for the asset under all scenarios:

$$Expected\ RH_{Asset\ i} = \sum_{j=1}^m probability\{Scenario\ j\} \times RH_{Asset\ i}^{Scenario\ j}$$

² Scenario relates to a random state under which a portfolio asset could either default or survive.

The risk horizon of Asset i under Scenario j is derived from all Asset i cashflows. This is equal to the duration of the asset under that scenario, assuming a 0% discount rate:

$$RH_{Asset\ i}^{Scenario\ j} = \frac{\sum_{t=1}^T t \times CF_{total}^{Asset\ i, Scenario\ j}(t)}{\sum_{t=1}^T CF_{total}^{Asset\ i, Scenario\ j}(t)}$$

Where cashflows to asset i under scenario j are the sum of all cash flows:

$$CF_{total}^{Asset\ i, Scenario\ j}(t) = CF_{principal}^{Asset\ i, Scenario\ j}(t) + CF_{interest}^{Asset\ i, Scenario\ j}(t) + CF_{recovery}^{Asset\ i, Scenario\ j}(t) + CF_{other}^{Asset\ i, Scenario\ j}(t)$$

We assess the credit risk of each asset in the rated portfolio, either through a Scope rating, a Scope credit estimate, the mapping of historical credit performance data, or based on public information, including external rating information from a regulated and supervised credit rating agency (CRA) mapped to credit quality steps – CQS – by the European Banking Authority (EBA) equivalent to those of Scope Ratings.

4.1.2 Portfolio concentration risk analysis

Asset portfolios may be exposed to idiosyncratic risks stemming from non-granular exposures to large obligors or to indirect risk presenters, such as real estate tenants or leases for CRE loans.

Scope's General Structured Finance Rating Methodology, available on www.scopeeratings.com, describes our standard approach for assessing and monitoring the credit risk of such exposures, which is subject to the size of the exposure. As an example, the credit quality of large obligors representing at least 25% of the portfolio balance is typically derived from public or private ratings issued by Scope, whereby for less concentrated exposures we may rely on credit estimates or on different types of external credit measures.

In case that asset-class-specific methodologies deviate from the considerations laid out under the Portfolio Concentration Risk section of Scope's General Structured Finance Rating Methodology, the asset portfolio concentration risk analysis should apply an approach generally consistent with the principles of the applicable asset-class-specific methodology.

4.1.3 Analysis of granular portfolios

In the case of a granular portfolio, we derive generic default and recovery assumptions from a mapping of historical performance data to Scope ratings or portfolio performance modelling-assumptions, or from asset and portfolio characteristics. These assumptions would apply to the entire portfolio.

Performance data considered in our analysis must be applicable to the particular asset in the respective jurisdiction. Granular data generally has the form of static vintage data for defaults/delinquencies and recoveries. The asset analysis section in the rating methodology applicable to a particular asset type outlines the process for calculating the expected default rate and the rating-conditional recovery rate.

The portfolio's expected loss for the respective target rating of a granular portfolio is equal to:

$$EL_{Asset\ portfolio} = Expected\ portfolio\ default\ rate \times (1 - Expected\ portfolio\ recovery\ rate_{Target\ rating\ scenario})$$

4.1.4 Recovery rate

We apply the relevant asset-class methodology to derive specific recovery rate assumptions when a recovery analysis is needed to capture the essential characteristics of certain secured exposures (e.g. project finance exposures). Otherwise, we would consider an idealised 50% recovery rate for Scope ratings or other credit assessments (internal or external)³.

4.2 Counterparty risk

This methodology considers counterparty risk only when the exposure is inherent to the portfolio assets. For example, we would consider the counterparty risk from a hedging agreement embedded in the contract substantiating the asset (see subsection 4.2.1),

³ These other credit assessments may be Scope's credit estimates or similar credit assessments, or external credit risk measures available to Scope, including ratings from other CRAs.

or a wrapper protecting an asset portfolio, when this is part of the ordinary business of the asset originator. In other words, this methodology only gives credit to forms of credit enhancement which are not structural add-ons.

A particularly relevant case is that of cash holdings. We will consider cash holdings to be risk-free when they result from the revolving nature of certain asset types and portfolios, irrespective of the creditworthiness of the holding counterparty. We would only consider the counterparty risk associated with cash deposits when they represent a financial asset in the portfolio being analysed (e.g. term deposits that are part of the portfolio because of the investment strategy).

When applicable, we analyse counterparty risk in accordance with our Counterparty Risk Methodology, available at www.scoperatings.com.

4.2.1 Guarantees or other hedging mechanisms

We adjust the credit quality of assets when they embed protections such as asset-level guarantees or insurance. The adjustment reflects the strength of the guarantee or wrapper and the credit quality of the guarantor. In such cases, our analysis treats counterparty risk in the same manner as our Counterparty Risk Methodology, or as indicated in the relevant asset-class rating methodology.

We consider asset-level credit enhancement to be effective when it covers the full life of the asset through contractual obligations such as eligibility criteria, or through executed guarantees or insurance contracts with limited replacement options. We also account for the stability of such enhancements, for example, the availability and effectiveness of collateralisation and replacement mechanisms. This approach is consistent with our Counterparty Risk Methodology.

Our approach considers guarantees or other hedging mechanisms which cover either: i) individual assets within the portfolio; ii) portions of the asset portfolio; or iii) the entire asset portfolio.

4.3 Additional considerations

Our analysis of the credit risk of individual assets may also incorporate additional elements that depend on the nature and characteristics of the assets. The following sections cover the most relevant elements.

4.3.1 Assets with ratings under review for upgrade or downgrade

For the purpose of analysing the portfolio, we may adjust an asset rating that is under review for downgrade by one notch downwards, while no change is made to a rating under review for upgrade.

4.3.2 Equity

We assess how equity assets impact the portfolio's credit risk on a case-by-case basis. For example, certain types of qualifying infrastructure equity benefit from predictable cash flows and could warrant inclusion in the credit analysis.

4.3.3 Revolving portfolios and portfolios in ramp-up phase

At the inception of the asset portfolio (or during a warehousing phase), we will prepend an '(r)' modifier to the rating to inform investors that the portfolio is ramping up. This rating will be in place for as long as the asset balance is less than 80% of the committed or final amount. The (r) ratings assume that the asset composition will be in line with investment guidelines and eligibility criteria as well as account for the incentives, capabilities and objectives of the asset manager or lender (see Figure 1).

The '(r)' prefix signals to investors that the rating relies heavily on the successful implementation of the investment strategy, rather than on the credit performance of the actual assets already in the portfolio. When more than 80% of the assets are funded, we typically assign a final rating, which considers the actual assets in the portfolio and a manager quality adjustment (if any).

Asset portfolio ratings on portfolios subject to significant reinvestment also reflect our assessment of reinvestment guidelines, in addition to the actual portfolio assets and the manager quality.

4.3.4 Asset manager analysis (applicable for managed asset portfolios)

Our analysis of the portfolio's credit quality incorporates an ongoing assessment of its asset manager's quality, if applicable. The approach generally follows the considerations of our CLO Rating Methodology available on www.scoperatings.com for assessing the asset manager's quality (for further details see our CLO Rating Methodology under the Asset Manager Analysis section). The



assessment of the asset manager's quality is typically based on a critical and objective analysis of five key elements affecting a manager's ability to perform in the investor's interest: i) corporate overview; ii) financial strength and business continuity; iii) operations; iv) strategy; and v) track record.

Following our assessment of the five elements affecting a manager's ability to perform in the investor's interest, we will form a qualitative view on the asset manager's ability to ramp up and maintain a portfolio in line with portfolio criteria and origination/investment guidelines. We will reflect identified manager's weaknesses or strengths in the respective analytical assumptions that we take to assess the asset portfolio and potential portfolio migration over time. Therefore, the asset manager assessment may affect the default and recovery assumptions, as well as associated stresses that we apply on the expected asset portfolio, i.e. the portfolio for which we expect that the manager would use its discretion only to maintain or improve the portfolio. Also, in case of a strong asset manager, Scope may maintain a certain asset portfolio rating, based on the investment strategy, even though the managed portfolio is currently worse than expected and does not yet meet strategic objectives. For a weak portfolio manager, our analysis will focus more on the portfolio's actual performance and quality. This will also be the case for a strong asset manager, if we determine during our monitoring process that the portfolio has substantially and consistently deviated over time from the management strategy.

Our assessment of the manager's quality is independent of the portfolio's granularity. However, we acknowledge that it is more difficult to steer a granular portfolio away from its current status unless such assets have a short tenor. Our considerations also apply to asset portfolios (granular and non-granular) which are originated and serviced by a bank.

5 Monitoring

Asset portfolio ratings are monitored on an ongoing basis and reviewed at least once a year, except for point-in-time ratings.

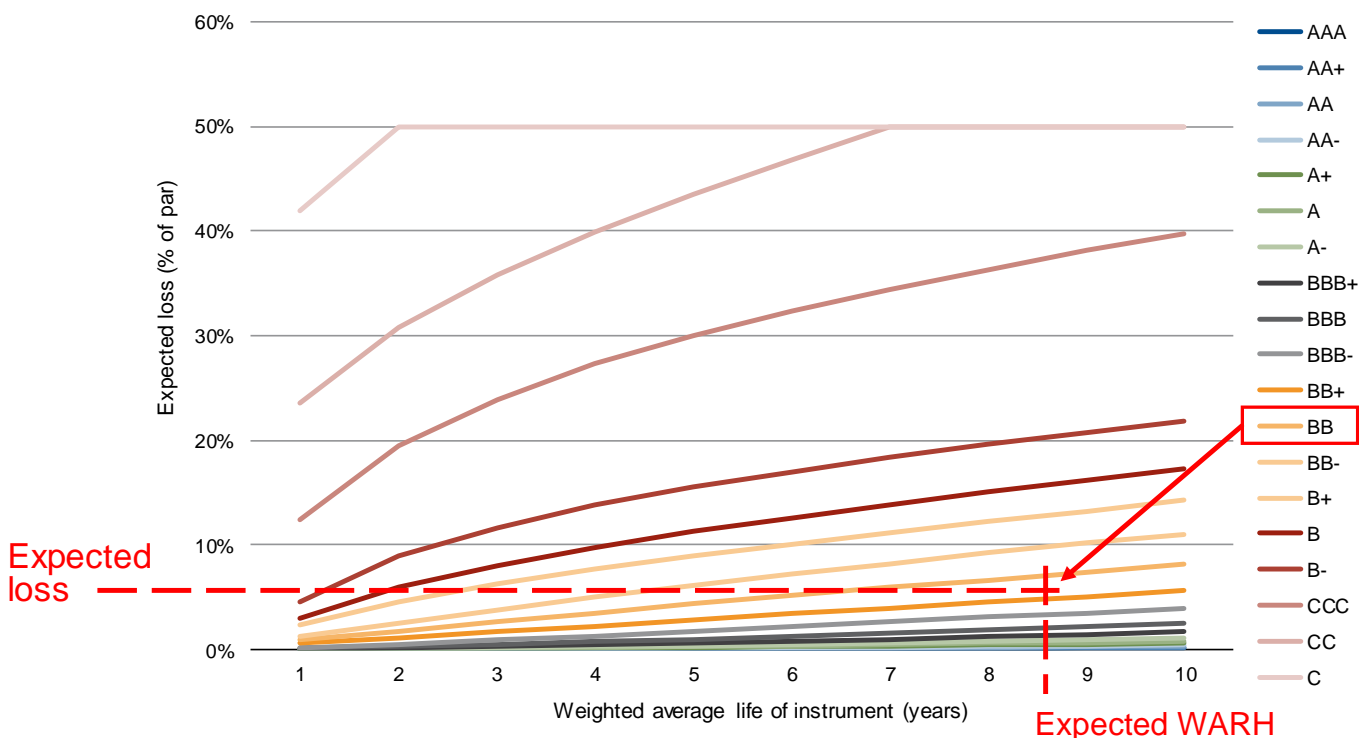
We expect to receive at least quarterly portfolio updates and information with regard to any performance events, material changes in the portfolio's investment or origination strategy or any changes at asset manager level. Concentrated exposures may need to be monitored more frequently and/or closely. This is determined in the rating process and approved by a committee.

Appendix I Technical note on the expected loss framework

We analyse the probability-weighted average loss, i.e. the expected loss, and the probability-weighted average risk horizon (WARH), i.e. the expected risk horizon, for any given exposure to asset credit risk. We compare the expected loss and the expected WARH to our idealised expected loss table (see [Scope's idealised expected loss table](#), available on www.scoperatings.com) to derive a rating indication for the rated credit exposure.

The weighted average risk horizon differs from the weighted average life (WAL). The WARH considers the cash flows from principal and interest, while the WAL only considers principal cash flows.

Figure 2. Example of the determination of the indicative rating level from expected loss and expected WARH



Source: Scope Ratings

Appendix II Portfolio probability of default vs. expected portfolio default rate

Scope does not constrain asset portfolio ratings because of the portfolio's probability of default or credit impairment. The probability that at least one of the assets in the portfolio will default or go through a restructuring process over a portfolio's lifetime is generally very high and rises, the more granular a portfolio gets.

The portfolio probability of default or credit impairment is independent of whether the investor will suffer any sizeable loss. The probability only refers to the likelihood of losing the first monetary unit. This probability lacks relevance for Scope's credit analysis because it increases with the number of assets in the portfolio, to the point that the probability tends to 100% as the portfolio's granularity increases, e.g. it is virtually certain that at least one of the assets that a large bank holds in its balance sheet will be in default or undergoing restructuring at any point in time.

A more informative measure is however the expected portfolio default rate, as it provides the share of the portfolio which Scope expects to default and to which the expected portfolio recovery rate applies.

$$\text{Expected lifetime default rate}_{\text{Asset portfolio}} = \sum_{i=1}^n \text{Portfolio weight}_{\text{Asset } i} \times \text{Expected lifetime default rate}_{\text{Asset } i}$$



Appendix III Debt fund asset portfolio rating

A particular application case of this asset portfolio rating methodology is a debt fund, i.e. a portfolio of debt instruments financed through the issuance of a single, untranched, first-loss liability instrument (typically shares). Debt funds are typically managed and are therefore exposed to dynamic asset portfolios.

The asset portfolio ratings of debt funds address the weighted average credit quality of the fund's assets and consider the quality of the asset manager. We consider the characteristics of the various assets included in the fund's portfolio, as well as the asset manager's investment guidelines and track record, for which we may adjust the rating of the asset portfolio upwards or downwards.



Asset Portfolio Rating Methodology

Ancillary Services

Scope Ratings GmbH

Headquarters Berlin

Lennéstraße 5
D-10785 Berlin
Phone +49 30 27891-0

Oslo

Karenslyst allé 53
N-0279 Oslo
Phone +47 21 09 38 35

Frankfurt am Main

Neue Mainzer Straße 66-68
D-60311 Frankfurt am Main
Phone +49 69 66 77 389-0

Madrid

Paseo de la Castellana 141
E-28046 Madrid
Phone +34 91 572 67 11

Paris

10 avenue de Messine
F-75008 Paris
Phone +33 6 6289 3512

Milan

Via Nino Bixio, 31
20129 Milano MI
Phone +39 02 30315 814

Scope Ratings UK Limited

London

52 Grosvenor Gardens
London SW1W 0AU
Phone +44 20 7824 5180

info@scoperatings.com
www.scoperatings.com

Disclaimer

© 2024 Scope SE & Co. KGaA and all its subsidiaries including Scope Ratings GmbH, Scope Ratings UK Limited, Scope Fund Analysis GmbH, and Scope ESG Analysis GmbH (collectively, Scope). All rights reserved. The information and data supporting Scope's ratings, rating reports, rating opinions and related research and credit opinions originate from sources Scope considers to be reliable and accurate. Scope does not, however, independently verify the reliability and accuracy of the information and data. Scope's ratings, rating reports, rating opinions, or related research and credit opinions are provided 'as is' without any representation or warranty of any kind. In no circumstance shall Scope or its directors, officers, employees and other representatives be liable to any party for any direct, indirect, incidental or other damages, expenses of any kind, or losses arising from any use of Scope's ratings, rating reports, rating opinions, related research or credit opinions. Ratings and other related credit opinions issued by Scope are, and have to be viewed by any party as, opinions on relative credit risk and not a statement of fact or recommendation to purchase, hold or sell securities. Past performance does not necessarily predict future results. Any report issued by Scope is not a prospectus or similar document related to a debt security or issuing entity. Scope issues credit ratings and related research and opinions with the understanding and expectation that parties using them will assess independently the suitability of each security for investment or transaction purposes. Scope's credit ratings address relative credit risk, they do not address other risks such as market, liquidity, legal, or volatility. The information and data included herein is protected by copyright and other laws. To reproduce, transmit, transfer, disseminate, translate, resell, or store for subsequent use for any such purpose the information and data contained herein, contact Scope Ratings GmbH at Lennéstraße 5 D-10785 Berlin.