



# General Corporate Rating Methodology

## Corporate Ratings

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### Call for comments

Scope welcomes market participants' comments on its proposed methodology.

Please send your comments by 14 August 2023 to [consultation@scoperatings.com](mailto:consultation@scoperatings.com)

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### 1. Introduction

This methodology provides our updated approach to assigning credit ratings to non-financial corporates. The update has no implications for existing corporate ratings assigned by Scope.

This document provides the methodological basis for our analysis of a corporate issuer independently of its geographical focus, encompassing assessments of general business risks and financial risks. Sector-specific corporate methodologies, which are published separately, expand on our business risk profile assessment and, in some cases, provide sector-specific rating thresholds related to credit metrics. This methodology defines credit metrics for determining financial risk irrespective of sector, except for several sectors with exceptional characteristics (page 10).

#### Key changes to the methodology

This methodology update contains the following adjustments:

- Harmonisation of our industry risk matrix, changing the applicable industry risk profile for industries with low cyclical and high entry barriers from AA/AAA to A/AA, thereby balancing the industry risk matrix
- Additional background on the factors that typically drive the assessment of a rated entity's market shares/position, diversification and operating profitability
- Guidance on the reflection of a country rating when a rated entity's issuer rating and the relevant sovereign rating are close to each other
- Clarification about the currency context for issuer, debt category/instrument ratings
- Clarification about the treatment of reverse factoring in Scope-adjusted debt
- Guidance on the assessment/weighing of our credit metrics for the determination of the financial risk profile
- Further guidance about the reflection of financial covenants within the financial risk profile
- Further guidance about the reflection of potential ratings adjustments in a peer context
- Clarification about the weighing of the business and financial risk profile for different rating categories
- Details regarding the perceived impact of rating-relevant ESG factors that we consider in our analysis of debt category/instrument ratings
- Finetuning of the definitions of Scope-adjusted EBITDA, Scope-adjusted funds from operations and Scope-adjusted free operating cash flow and the provision of a definition of Scope-adjusted EBITDA margin
- Editorial changes

### 2. Corporate rating framework

Our corporate rating methodology details the key principles and criteria we apply when assigning ratings to non-financial corporate issuers and their debt instruments. Ratings are assigned based on our [Credit Rating Definitions](#). In general, we do not perform a standalone analysis for corporate issuers that benefit from an effective guarantee provided by its parent or a public sponsor (see 3.1.3).

#### 2.1. Issuer ratings

The issuer rating is our long-term credit rating for corporate issuers. It indicates the issuer's relative credit quality, i.e. its ability relative to peers to meet contractual, financial debt obligations as a going concern, on time and in full. It does not consider the ranking and priority of debt payments upon a hypothetical default of the issuer.

When determining an issuer's rating, we perform a forward-looking analysis using qualitative and quantitative information. Alongside past financial data, the analysis considers the potential impact of likely future events on an issuer's credit risk profile (forecasts).

Issuer ratings are assigned to legal entities only. Depending on the legal and operational structure of a group, we can assign an issuer rating either to a holding company of a group on a consolidated basis or to individual entities within that group. For the latter, we look at legal ties, intercompany guarantees and interdependent operations (such as centralised group financing or cash-



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pooling) to determine the entity level at which we apply the issuer rating. Issuer ratings are not assigned to bankruptcy-remote vehicles.

Although we generally do not apply a country cap on our ratings, we typically see limited room for a positive rating differential to the sovereign rating for issuers domiciled in non-investment grade countries. The positive rating differential depends on our assessment of the transmission channels, the sovereign risk acuity (identifying the sovereign-level risk factors that would impact the issuer), and the risk sensitivity of the issuer.

### 2.2. Debt ratings

Our debt ratings reflect our credit opinion on the relative credit quality of the corporate debt instrument or a corporate debt category. Debt ratings can be issued on both short-term and long-term debt.

Long-term debt ratings are assigned to long-term debt instruments, taking into account the likely recovery of the debt instrument in a hypothetical default scenario.

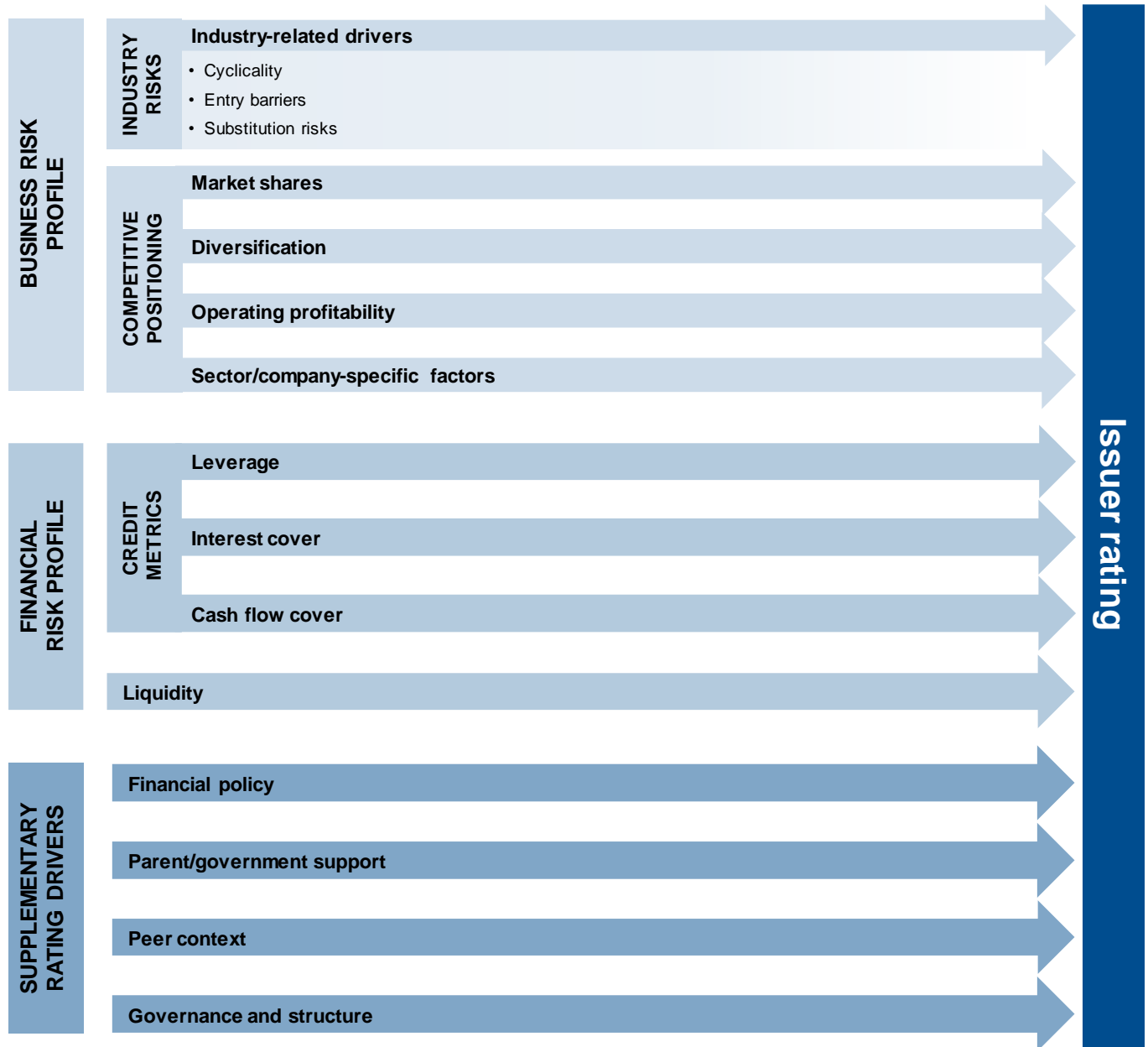
Short-term debt ratings express an opinion on debt instruments with a maximum term of 365 days, e.g. commercial paper. Short-term ratings correlate with the issuer's rating and liquidity position (see [Credit Rating Definitions](#)).

### 2.3. Local and foreign currency ratings

The issuer and debt ratings refer to the relative creditworthiness of the issuer and its debt in its local currency unless specified otherwise. If we assign a foreign currency rating, we note that due to transfer and convertibility risk, the foreign currency ratings may not exceed the foreign currency rating of the country the issuer is domiciled in unless there are mitigating factors that protect the issuer's ability to repay foreign currency payments regardless of government-imposed restrictions.

### 3. Corporate rating approach

Figure 1: Scope's corporate rating approach



### 3.1. Issuer rating

We assess an issuer's credit risk profile by analysing its business risk and financial risk profiles using a transparent, fundamental and forward-looking approach. This results in a rating that is objective and reproducible.

The rating committee determines the relative importance of each rating driver. In general, our analysis of investment-grade companies (rated BBB- and above) focuses on the business risk profile, while non-investment-grade (rated BB+ and below) ratings are usually assigned with a stronger focus on the financial risk profile. Depending on the size, outreach, cash flow volatility and vulnerability of the rated entity, we may give more weight to the weaker risk profile. For specific business models and markets, we may adjust the weighting between the business risk and financial risk profiles.

We combine business and financial risk factors with supplementary rating drivers (see page 12), which cover:

- Financial policy
- Parent/government support
- Peer context
- Governance and structure

We customise the rating process to incorporate features specific to both the sector and the issuer, evaluated in a local context.

Our analysis is based on historical and forecast data, typically for the next two to three years. We also derive forecasts for our rating analysis, which take into account an issuer's strategy and planning for the future. Our forecasts may deviate significantly from those of the issuer.

We ensure that our issuer ratings are applied consistently and transparently within and across sectors. Our analysis incorporates a peer comparison, i.e. an issuer's credit profile is compared with those of its rating peers. When considering peer context as part of the supplementary rating driver assessment, we consider the predictability and volatility/sustainability of a company's operational environment. Aspects such as emerging market risk or execution risk related to the transformation of a company's business model can result in considerable uncertainty and low transparency, which we also consider in our supplementary rating analysis.

#### 3.1.1 Business risk profile assessment

We adopt a forward-looking approach when analysing an issuer's business risk profile, taking into account the issuer's market and sector dynamics, as well as business drivers. The business risk profile is divided into an analysis of the industry and of the company's competitive positioning.

##### Industry risk

Industry-related drivers aim to capture the general drivers for the underlying industry and consist of three sub-categories:

- Cyclicity: risk of volatility in revenue and operating profits for the foreseeable future compared with past industry performance
- Entry barriers: level of protection for a company operating in an industry. These comprise high capital requirements, regulation, technological requirements, customer relationships, R&D requirements or distribution channels.
- Substitution risks: the risk and vulnerability of an industry to technological obsolescence/maturity. Here, we consider megatrends or transition risks (i.e. technological, ecological, or demographic) as well as structural shifts that can influence the industry's trajectory and increase risk and vulnerability.

All three industry drivers are classified as either high, medium or low risk, according to the following:

- Cyclicity (five-year compound annual growth rate of revenue and peak-to-trough dimension)
  - High risk: growth highly correlated with GDP or other macroeconomic indicators; high amplitude of change
  - Medium risk: growth closely linked with GDP or other macroeconomic indicators
  - Low risk: no negative change over time and higher average growth than GDP or other macroeconomic indicators
- Entry barriers
  - Opinion-based: e.g. based on the number of competitors

- Substitution risks
  - Opinion-based: from observations, technological developments, product features, impact on strategic decisions, budgets and product production (marketing, R&D, technology, innovation) affecting an entire sector. Specific substitution risks affecting a rated entity in a given industry are captured in the assessment of competitive positioning.

The industry matrix (Figure 2) shows how we derive the industry risk rating from our combined assessment of cyclical, entry barriers and substitution risk. The combination of cyclical and entry barriers yields an initial outcome, which is divided into two values, e.g. BB/BBB (see below). The value on the left is used when substitution risk is high; the value on the right when it is medium or low. For example, medium entry barriers and medium cyclical would yield an initial outcome of BB/BBB and incorporating a high substitution risk would result in a final industry risk rating of BB.

**Figure 2: Scope's industry risk matrix**

Cyclical / Barriers to entry	Low	Medium	High
High	CCC/B	B/BB	BB/BBB
Medium	B/BB	BB/BBB	BBB/A
Low	BB/BBB	BBB/A	A/AA

### Competitive Positioning

The analysis of competitive positioning aims to capture the individual drivers for the rated company.

For each company, we analyse:

- **Market shares** (historical and projected trends): high market shares often go hand in hand with better access to private and public tenders, the opportunity to benefit from economies of scale, and solid granularity of cash flow.
- **Diversification** (products, geographies, customers, suppliers, assets and sales channels): a high degree of diversification tends to reduce cash flow volatility by allowing the issuer to benefit from i) different demand patterns, ii) better resilience of supply and distribution chains, and iii) limited exposure to individual customers' payment behaviour and creditworthiness.
- **Operating profitability** (profitability margins and their volatility): the relative size of profitability margins compared to other companies in the industry indicates the extent to which future cash generation is protected, e.g. by patents, quasi-monopoly structures within the issuer's service territory, or the provision of goods/services for basic human needs, creating barriers to entry for competitors. We use the volatility of profitability margins to determine the stability of an issuer's internal financing capabilities.
- **Sector/company-specific factors**: the individual sector/company-specific drivers are detailed in the separate sector methodologies. For instance, the drivers in an innovation-driven industry might be R&D-to-sales or the number of patents correlating to sales growth; in a retail environment, a driver could be sales productivity. For diversified companies (which are more common in Europe), we give adequate weight to all key business units and the potential benefit that diversification may bring to a company's overall structure.

Competitive positioning factors represent the benchmarks for the rated company in its underlying industry. For example, we consider the industry margin to be the achievable operating margin for a rated company.

Crucially, industry and competitive positioning are assessed independently. For example, a very strong market leader in a low-rated industry can still achieve an investment-grade business risk profile.

Corporate strategy or management quality are not explicit rating drivers as these are: i) difficult to measure objectively; and ii) reflected indirectly in the company's competitive positioning and ultimately in its financial risk profile. We expect a very good company strategy to be reflected in higher margins and stronger competitive advantages. We do not look at these explicitly or in isolation, but as embedded qualitative factors that influence the aforementioned company-specific drivers.

Our corporate rating approach particularly aims to identify and capture rating drivers for diversified companies, often reflected in the family ownership structures that are a significant part of Europe's corporate landscape. The approach encompasses business

and financial risks. For a company's business risk profile, we examine its entire structure by assessing industry risk and competitive positioning for each key division and then apply a weighted average blend of underlying risks and ratings. This enables our business risk assessment to reflect a company's true drivers, rather than concentrating on the core division and then providing an uplift for diversification at a later stage.

### 3.1.2 Financial risk profile assessment

As part of our forward-looking analysis of the financial risk profile, we assess the issuer's financial leverage, cash flow generation, and ability to cover interest and principal payments (debt service).

We focus on cash-flow-based ratios such as leverage ratios, interest coverage and cash flow coverage. These are good indicators of credit risk as they tend to be less distorted by accounting policy than ratios based on P&L or balance sheet items. Liquidity considerations supplement our assessment of the financial risk profile.

#### Scope-adjusted debt (SaD)

We analyse the amount, structure and maturity of debt obligations using a forward-looking approach. Our definition of debt – Scope-adjusted debt or SaD – includes all of a company's capital market and bank debt, as well as adjustments that qualify analytically for full or partial debt treatment, including off-balance sheet debt. This commonly includes unfunded pension obligations and operating leases, but can also extend to guarantees/contingencies, hybrid debt instruments or other debt-like obligations, such as industrial provisions, debt-like payables and factoring.

Our adjustments include:

- Pensions: we believe that investment-grade companies, as well as some BB rated corporate credits, qualify for only a partial consideration of their 'pension gap', which is the unfunded part of pension obligations expressed as the difference between the projected pension obligations and the fair value of pension plan assets. The pension gap qualifies for partial consideration if a company's pension assets are able to cover pension contributions for several years of zero free cash flow in times of economic stress.

This is motivated by our view that unfunded pension obligations should not always receive the same (i.e. full) debt treatment as bank or capital markets debt. This reflects pension obligations' fundamentally different and typically very long-term repayment structure compared to financial debt, which is typically due at a defined date. As a proxy for our SaD calculation we consider pension obligations expected to be paid over the next 10 years. If this information is disclosed and the below conditions are met, pension obligations will only be included partially in SaD.

The pension gap is partially considered as debt if an issuer keeps a sustainably sufficient amount of defined pension assets. In other words, if defined assets are at least three times the amount of annual pension payments, we consider two-thirds of the unfunded pensions; if defined assets are at least six times the amount of annual payments, half the pension gap is adjusted for.

We disregard any potential pension surpluses from a temporary or sustained overfunded coverage of pension obligations. This is because such a surplus is not seen as a cash equivalent and could be the mere result of current market valuations of dedicated pension assets.

- Operating leases (applicable for issuers not reporting under IFRS16): we use the net present value of operating lease payments for our debt adjustments, with a proxy calculated in the absence of nominal or net present value provided by the rated entity. We generally discount future operating lease payments by 5% for our debt adjustment (unless we have full transparency about the average interest rate applied to operating leasing obligations) and reclassify operating lease expenses to adjust EBITDA. Interest expense is increased by 5% of the present value of lease commitments for the respective period. The remaining amount is reclassified as depreciation expense.
- Industrial provisions such as contingent liabilities, unfunded obligations, decommissioning assets, and site remediation (net of associated assets)
- Factoring: we consider factoring lines (drawn amount) that are recourse to the company (issuer) to be debt-like because the factor has the right to collect the unpaid invoice amount – due to a default of or a merchandise return by the customer – from the transferor (issuer). We may also adjust for supplier financing such as reverse factoring. However, this depends on the

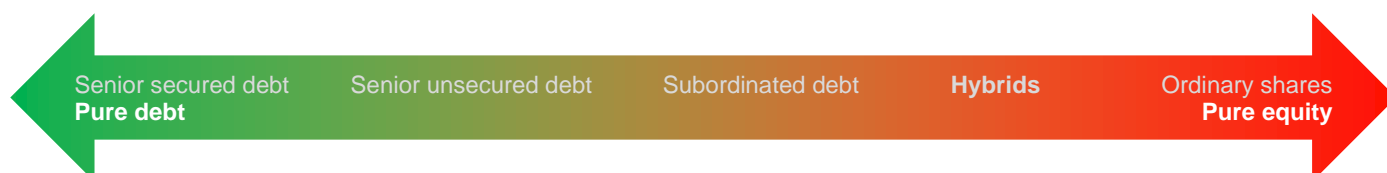


nature of the used factoring programme. The more frequently such funding is being deployed and the longer the payment terms from the funding provider of the factoring, the more likely we will reflect frequently drawn factoring volumes in SaD. This is particularly relevant for high-yield issuers that might not only use reverse factoring for working capital optimisation, but as a reliable means of financing. The amount considered in the SaD can include haircuts on the factoring amounts deployed as the factor usually is not required to cover the entire amounts.

- **Netting of cash:** generally, this is only applicable to ratings in the BB category or higher, and only if the cash is permanent and accessible. We often apply 'haircuts' to reported cash and marketable securities, reflecting for example restrictions imposed on offshore assets, joint-venture holdings, cash trapped in captive finance operations, or technical requirements (cash needs in the cash desks of retailers).
- **Captive finance:** we typically exclude captive finance operations as well as associated assets and liabilities from the corporate/industrial activities of an issuer. This follows our view of differences in business dynamics and economic characteristics, and the appropriateness of different financial measures. We typically exclude captive finance operations indifferent to the legal structure (i.e. whether or not the finance operations reside in a separate subsidiary). Depending on the materiality of captive finance operations the committee might deviate from this approach.
- **Classification of hybrid debt securities:** hybrid debt securities are instruments that have both debt and equity characteristics. They are generally complex and highly structured. A hybrid is the broad term used to describe an instrument that typically ranks behind senior (unsecured) debt but ahead of equity and in some cases can be converted into ordinary equity. However, it can incorporate numerous features that comprise either debt-like or equity-like characteristics. Such hybrid debt instruments can have multiple forms, most prominently as subordinated hybrid bonds but this could also include other debt instruments such as convertible shareholder loans etc.

Typically, hybrid debt instruments have a more complex structure than most fixed-income instruments and generally contain embedded options. These options typically allow the issuer to either redeem the security before its specified maturity, avoiding a step-up of coupon payments, or to convert the security into ordinary shares. Instruments that exclusively include a mandatory conversion at maturity, such as convertible shareholder loans, are not grouped under hybrid securities.

**Figure 3: Hybrids within the financial instruments spectrum**



Hybrid instrument features: a hybrid instrument must meet the criteria shown in Figure 4 to be granted an equity credit. If more requirements are met under a specific percentage category (i.e. 100% or 50%), we apply that percentage as the equity credit. If it meets no requirements under either 100% or 50% equity, the instrument is fully treated as debt. We also adjust interest paid on the hybrid debt instrument in proportion to the equity credit given. We may also deviate from the scale based on analytical judgement.

**Figure 4: Equity credit criteria**

Criteria	100%	50%
<b>1. Convertibility</b>	Conversion of hybrid debt instrument into equity for the rated entity is mandatory	Issuer has the right to convert the hybrid debt instrument
<b>2. Replacement</b>	Replacement with a similar debt instrument with equal maturity and rank (subordination) is mandatory	Replacement with a similar debt instrument with equal maturity and rank (subordination) is mandatory
<b>3. Coupon deferral and accumulation of payments</b>	Includes coupon deferral Non-accumulation of payments (issuer not required to pay missed obligations in a later period)	Includes coupon deferral Accumulation of payments (issuer pays missed obligations in later periods)
<b>4. Contractual subordination</b>	Yes – all other current and future instruments rank before the hybrid debt instrument; hybrid debt instrument ranks before equity	Yes – all other current and future instruments rank before hybrid debt instrument; hybrid debt instrument ranks before equity
<b>5. Remaining maturity</b>	More than 50 years or perpetual	More than 20 years

However, if hybrid debt includes at least two of these features, the hybrid debt instrument will be rated two notches below its respective issuer rating.

### Leverage

When analysing an issuer's debt protection, we assess its ability to service debt from ongoing cash flow. We evaluate the level, timeframe, certainty and volatility of expected internal cash flows relative to upcoming debt obligations.

Our analysis includes the issuer's historical financial performance as reflected in the audited financial accounts, as well as forecasts for at least two years.

We use cash flow items when calculating the credit ratio Scope-adjusted funds from operations (FFO)/debt, reflecting our cash-oriented approach. Scope-adjusted debt/EBITDA (hereafter EBITDA) is our second credit ratio for evaluating leverage.

### Interest cover

Interest cover reflects an issuer's operating profitability (EBITDA), degree of indebtedness (absolute value), prevailing interest rate environment, and risk spreads paid by an issuer. Interest cover ratios can deviate substantially from leverage and cash flow cover ratios if indebtedness and interest expense are both low in absolute terms (low interest expense could be due to the interest rate environment and low risk spreads payable). Therefore, when interest cover is better than the other two measures in the financial guidance table shown in Figure 5 (leverage and cash flow cover), it does not necessarily mean that we consider this building block of the financial risk profile to be better than the other building blocks.

### Cash flow cover

We also assess the issuer's ability to generate cash flow, including coverage ratios relating to free operating cash flow (FOCF).

### Other measures

Our analysis includes other industry-specific measures where appropriate.

Short-term, intra-annual changes in financial performance measures – quarterly, semi-annually or annually – only trigger rating changes if they are significant, expected to last for at least two years, and not already factored into the ratings. This is often the case when changes in industry dynamics lead to a structural deterioration in credit fundamentals, such as a change in pricing regulations that affects an issuer's cash flow.

We examine audited annual statements, which we supplement with more recent information such as interim reports, pro-forma data and issuer forecasts (when available). We determine whether unaudited data are reliable and plausible. Our forecasts may deviate significantly from those of the issuer.

Credit metrics calculated in line with the financial guidance table are neither weighted equally nor are they assigned a mathematical weight to derive the overall assessment of the credit metrics. Considerations may include industry-related drivers, interest rate risk, issuer-specific maturity schedules, visibility of future cash flows, and a track record of generating cash flows.

**Figure 5: Financial guidance table\***

	Leverage		Interest cover	Cash flow cover
	Debt/EBITDA (x)	FFO/debt	EBITDA/interest cover	FOCF/debt
<b>AA and above</b>	< 1x	> 60%	> 10x	> 35%
<b>A</b>	1x-2x	45%-60%	7x-10x	25%-35%
<b>BBB</b>	2x-3x	30%-45%	4x-7x	15%-25%
<b>BB</b>	3x-4x	15%-30%	2x-4x	5%-15%
<b>B</b>	4x-6x	0%-15%	1x-2x	< 5%
<b>CCC and below</b>	> 6x	Negative	< 1x	Very negative

\* All these metrics are using Scope-adjusted inputs

The importance of leverage (Scope-adjusted debt/EBITDA, Scope-adjusted FFO/debt) and cash flow cover (Scope-adjusted FOCF/debt) in the assessment may depend on the issuer's business context. This includes, but is not limited to, leveraged buyouts undertaken, exposures to the sectors listed below, parent company links, and the inherent cyclical and vulnerability of the issuer's industries and business model.

When assessing a rated entity's credit quality, we consider the credit metrics that represent the rated entity's current and future creditworthiness, reflecting a sustained level of credit metrics and taking into account their volatility and seasonality.

The table in Figure 5 can be applied to all non-financial sectors that we cover except for the following (largely covered by sector methodologies):

- Real estate
- Airports
- Investment holdings
- Utilities

This is because we consider the financial drivers of the above sectors to be different to those of most production-focused industries, necessitating a different analytical approach. This can involve the use of different metrics (loan to value), or the assignment of rating implications to existing metrics (such as Scope-adjusted debt/EBITDA) that differ to the implications defined under this methodology.

### Liquidity

We assess liquidity separately from credit metrics, reflecting its different nature. We classify liquidity as either adequate or inadequate. Its implication for the ratings is ultimately subject to the rating committee's decision, as we believe liquidity can only be partially expressed by coverage ratios (see below).

**Definition:** liquidity consists of cash and near-cash assets (internal and external sources) plus committed bank and factoring lines with a tenor of over one year that are available for repaying short-term financial debt. Our liquidity assessment can influence the financial risk profile positively or negatively and can affect the final rating. Our analysis examines the following sources of cash that result from a company's central cash pooling at group level:

- Balance sheet cash (end of preceding year)
- Balance sheet marketable securities (end of preceding year)
- Committed bank lines (tenor exceeding one year)
- Committed factoring lines (tenor exceeding one year)
- Expected FOCF
- Liquid inventory (mainly for agricultural or trading companies).

All of the above, except for bank lines or factoring lines, may be subject to haircuts reflecting the assessment of restricted cash or cash equivalents. While expected FOCF may not be subject to a specific analytical haircut, the analytical forecast of FOCF may include additional conservative assumptions, in particular for issuers whose liquidity we judge to be low or vulnerable to unexpected impacts. In addition to the above, we might consider other factors, i.e. the use of reverse factoring lines to better capture liquidity risk, especially for companies with a non-investment-grade financial risk profile. This follows our view that access to reverse factoring can weaken liquidity at a time of stress, with the termination of existing reverse factoring lines potentially leading to sudden and significant working capital outflow over a matter of weeks or months.

As a general rule, available cash should be sufficient to cover all debt that will mature within one year. Coverage of below 110% could have a negative impact on the assessment based on credit metrics (Figure 5), but is not capped by this, by up to four notches in most cases. The magnitude of down-notching for liquidity classified as inadequate is subject to the time horizon over which liquidity risks could crystallise. If an issuer depends on external funding or asset disposals to cover operating expenses, capital expenditure, interest payments and negative fluctuations in working capital for a prolonged period, we could classify liquidity as inadequate even if a point-in-time calculation suggested coverage of above 110%. Coverage sustained at above 200%, as demonstrated by the company's track record, can result in a rating upside of up to two notches. This upside is captured in the financial risk profile assessment. Investment-grade financial risk profiles are highly unlikely to be up-notched due to liquidity, as such rating levels already assume adequate liquidity.

For our SaD calculation, centrally available cash, as defined above, can be netted against debt. There is no netting of cash for B category ratings, as cash in those situations is not deemed permanent. In addition, a company's liquidity needs to be seen in a regional context and non-mechanistically. For example, in certain European countries the provision of committed lines is not customary – even for investment-grade issuers – as fees are deemed too high. A too-narrow, numbers-based approach would assess liquidity as weak in this instance. Therefore, we also examine soft factors such as the company's reputation and support provided by its banking group, particularly in adverse conditions.

**Covenants:** We also assess liquidity by looking at debt covenants, which allows us to gauge the issuer's response to potential short-term calls on liquidity. To ensure that the issuer complies with financial covenants, we rely on information such as certificates of compliance and public statements by the issuer. In particular, we focus on the issuer's ability to comply with the financial covenants for leverage and debt service coverage over the next 12-18 months, including sensitivity analyses. Compliance with covenants is a critical element of our analysis in the event of a rating deterioration linked to a weaker financial risk profile. Depending on the covenant headroom or the time to the end of the grace period to restore covenant compliance, we may consider debt subject to acceleration as short-term debt in our liquidity analysis.

### 3.1.3 Supplementary rating drivers

Supplementary rating drivers complement our analysis of the factors and drivers of business and financial risks.

Our supplementary analytical aspects cover:

- **Financial policy:** this captures: i) management's risk appetite for discretionary spending (such as for acquisitions, dividends and share buybacks) and the extent to which these are funded by debt; and ii) management's ratings commitment, both credit positive and negative. For example, when a debt-funded acquisition causes short-term deviations from stated financial policies, we believe management's commitment to maintaining the rating level is usually stronger among family-owned companies than non-owner-managed companies. We reflect this in our financial policy assessment based on a company's track record and level of commitment.

**Family ownership:** our financial risk profile assessment examines whether cash on the balance sheet reflects a cautious financial policy – a common feature of family-owned businesses. Liquidity may also have positive implications in times of economic stress as excess cash can act as a cushion.

- **Parent/government support:** when assessing the credit quality of an entity that may benefit from parent/governmental support, we incorporate the owner's capacity and willingness to support the entity when under financial stress. We aim to capture potential support or even a malus from the ultimate owners, which may have both credit-positive and credit-negative implications. In terms of the rating impact, all options are possible, from the full equalisation of the rated entity's standalone credit assessment with that of the parent (name equality, debt guarantees or other supportive factors in the case of high strategic importance) to no notching from the parent's rating. An ownership malus can be incurred if a parent is unable to

provide financial support to its subsidiary and is instead extracting significant cash from its subsidiary through intercompany loans or dividends to shore up its own credit position or that of other group companies. We assess the subsidiary's strategic importance to the parent as either significant or less significant. We also consider the extent of a parent's support to its subsidiary, including explicit guarantees or letters of credit. More implicit forms of parent commitment could be provided by name equality, the use of the same banks, or common treasury operations. When assessing parent support related to a government shareholder, we apply our '[Rating Methodology: Government Related Entities](#)'.

- **Peer context:** We take into account peer group considerations at an early analysis stage, particularly with regard to a rated entity's business risk profile against direct industry peers. At a later stage of the assessment, we may reflect additional considerations in a peer group context with the aim of ensuring consistency across the rating spectrum pertaining to the issuer rating, with both credit-positive and credit-negative implications. Negative rating adjustments can be particularly important for rated entities that we deem non-investment-grade and whose standalone credit assessment without peer group considerations is positively impacted by a strong financial risk profile. Such negative adjustments reflect our view that financial positions and setups can quickly change for these companies.
- **Governance and structure:** corporate governance guidelines lay out rules for corporate behaviour and how companies monitor the enforcement of these rules. Corporate governance is a 'soft' rating factor reflecting a company's due diligence in meeting governance guidelines. To avoid double counting, our corporate governance assessment excludes factors covered elsewhere in our rating assessment. Our opinion of corporate governance will have either a neutral or negative rating impact on the issuer rating.

Although a company's governance structure cannot drive up the rating, it is nevertheless important when determining a credit rating. For example, adequate corporate governance is the minimum standard for rated issuers, while weak corporate governance is likely to put downward pressure on a rating.

Weak corporate governance could be reflected by a negative adjustment via supplementary rating drivers or directly reflected in the assessment of the company's business- and/or financial risk profile.

We review corporate governance guidelines and document any concerns regarding the structure, execution and enforcement of corporate governance as well as any inadequacies. We include any concerns in our publications and make comparisons with established standards. If we identify significant issues that would affect our ability to reach clear conclusions and form a measured opinion on corporate governance, we will decline to rate the issuer.

We review three key governance areas during the rating process:

- i) **external governance (company control):** this covers, but is not limited to, the quality of public governance, transparency of local financial markets and financing sources, accounting frameworks, property law, bondholder rights, as well as any past, pending or upcoming issues with regulatory authorities and tax offices or other legal issues. We only review company behaviour relative to the appropriate regulatory and legal frameworks.
- ii) **internal governance (clarity and transparency):** this covers, but is not limited to, the makeup and functions of the board of directors, the existence of committees tasked with governance, the effectiveness of management and the corporate culture, as well as the quality of both internal financial reporting and internal control mechanisms.
- iii) **transparency of ownership and control (corporate structure):** this covers, but is not limited to, ownership structure and transparency, independence from and transactions with related parties, the relationship with independent auditors, and mechanisms in place to address issues, if any.

### 3.1.4 Issuer rating

The final issuer rating is based on our analysis of the business risk profile, financial risk profile and supplementary rating drivers. The rating committee decides on the relative importance of each rating driver. The business risk profile and financial risk profile are generally weighted equally for companies perceived as crossovers between investment grade and non-investment grade. The business risk profile is typically emphasised for investment-grade companies, while the financial risk profile is mostly the focus of ratings assigned to companies that are perceived as having high yield credit profiles. However, the latter also depends on the financial risk profile. Less focus is granted to strong financial risk profiles of companies showing a weak/vulnerable business risk profile (in the B or low BB category) since for such companies, the financial risk profile is subject to higher volatility. This takes into account that the credit rating of companies with business risks that reflect weak or moderate credit quality should not be

bolstered by a temporary strong financial risk profile. Hence, the weighting between the business risk and financial risk profiles is adapted to each issuer's business model and market(s).

### 3.2. Specific considerations for small and medium-sized enterprises (SMEs)

We apply the same analytical approach to SMEs as to large corporates, i.e. we focus on cash flow and liquidity.

While the corporate rating methodology applies to all corporates, we recognise that SMEs have specific characteristics, which we incorporate into our rating analysis. These characteristics can be observed in their market position, management quality and corporate governance.

For SMEs, cash flow can be more volatile than for larger peers due to their smaller scale, making them more vulnerable to adverse market effects. We account for this by focusing more on liquidity when rating SMEs. Depending on the SME's market positioning and sensitivity to economic cycles and/or external/internal business disruptions, we also conduct a prudent and conservative assessment of an entity's financial risk.

However, despite their size, SMEs may benefit from strong positions in their key markets, which can provide some cash flow stability. Therefore, we examine SMEs' positioning in their core markets in addition to their size.

Management quality and governance are particularly important when rating SMEs. Contrary to large entities, which are often listed and highly scrutinised by shareholders, SMEs' management quality and governance are generally less tightly controlled. Therefore, a specific rating driver we apply for SMEs is a record of solid strategy and management quality, as these can stabilise cash flow.

Although governance structure cannot drive the ratings upward, it is important when determining an SME's issuer rating. Adequate corporate governance is the minimum standard for rated entities; weak corporate governance, on the other hand, is likely to put downward pressure on the rating. We conduct an explicit corporate governance assessment for all corporate ratings (page 11).

## 4. Rating Outlook

A rating is accompanied by an Outlook that can be Stable, Positive or Negative. This indicates the most likely direction of the rating if it were to change in the next 12 to 18 months. A rating change is not automatic, however.

A rating change may occur if the issuer's business risk and financial risk profiles reach above or below our expectations. For example, if the issuer's financial profile is better than anticipated and we expect the improvement to be sustainable.

A Positive Outlook indicates that if a rating were to change, it would entail an upgrade; a Negative Outlook indicates a potential downgrade; and a Stable Outlook implies that we do not anticipate the rating to change over the next 12 to 18 months.

Outlooks apply to all long-term issuer ratings. There are no Outlooks on short-term or long-term debt instrument ratings.

## 5. Debt ratings

### 4.1. Long-term debt rating

Long-term debt instrument ratings reflect our opinion on an issuer's creditworthiness with respect to its long-term debt instruments. These ratings are linked to the issuer rating and are determined through an upward or downward adjustment relative to the issuer rating.

For the ratings of guaranteed debt instruments, we take into account unconditional and irrevocable guarantees and the capacity of guarantors to accommodate the guaranteed debt instrument on a timely basis.<sup>1</sup> Subject to committee decision, we might rate a specific debt instrument of an unrated issuer (i.e. an unrated subsidiary), if the timely payment of debt service (interest and principal payments) of the former is guaranteed by the rated entity as the quasi-issuer of that specific debt instrument.

Our rating approach depends on whether the issuer rating is: i) investment grade; or ii) non-investment grade.

<sup>1</sup> A guarantee will not change the seniority of a debt instrument. A senior unsecured obligation that benefits from a guarantee will retain its classification and not become a (senior) secured instrument.



### 4.2. Debt ratings for investment grade-issuers

The ratings on senior unsecured debt and its investment-grade issuer typically correspond, with recovery rates on the debt averaging 30% to 50%. This reflects the tendency among investment-grade issuers to rank senior unsecured debt below material secured debt.

Instrument ratings for investment-grade issuers depend on their debt structure and jurisdiction. In general:

- Senior secured debt: one notch higher than the issuer rating
- Senior unsecured debt: equal to the issuer rating
- Subordinated debt: one to two notches lower than the issuer rating, and two notches lower for hybrid securities

The above are only guidelines, which we may deviate from if: i) the issuer's characteristics support the assumption that the enterprise value upon default could be materially different from historical levels; or ii) the issuer's debt structure is atypical, and we judge that the debt instrument rating requires a different approach.

### 4.3. Debt ratings for non-investment grade issuers

We perform a customised recovery analysis when rating the long-term debt instruments of non-investment grade issuers and assume a hypothetical default situation.

This analysis establishes the recovery rates of debt instruments by taking into account the estimated value of claims available for creditors at the point of default (VCD), as well as the size and ranking of claims in the debt waterfall.

#### 4.3.1 Estimated value of claims at default

In order to determine the VCD, we take whichever value is higher: i) the estimated enterprise value at default, assuming operations are a going concern after the default; or ii) the estimated enterprise value at default in a liquidation scenario (estimated liquidation value) with post-default operations that are not a going concern. This assumes that the preferred scenario is the one creating the most value for bondholders.

The value for the first scenario (going concern) is estimated by multiplying the likely EBITDA at default with the EBITDA multiple considered realistic at default. This multiplier is based on our assessment of the company's competitive positioning and the industry in which it operates. The adequacy of an estimated proxy at a simulated hypothetical point in the future is therefore closely linked to the business risk profile assessment. The adequacy of the multiplier is likewise subject to the hypothesized prevailing multiples for issuers assumed to be defaulted in the future as well as investor appetite for distressed assets at the point of emergence from a default-driven situation such as through restructuring.

The value for the second scenario (liquidation) is estimated by aggregating asset values and assuming asset haircuts reflecting the liquidation status, thus assuming a similar asset structure to the one at default. Our calculation may include accounts receivables, inventory, and property, plant and equipment. Haircuts are based on, but not limited to, the issuer's industry, the ability to convert certain assets into cash and counterparty credit quality. Haircuts also reflect analytical judgment on the marketability of assets.

A haircut is then applied to the higher of the two values, reflecting the estimated costs related to the administration of the default. This discounted value is the VCD.

#### 4.3.2 Allocation of VCD to the waterfall of debt obligations

We determine the likely recovery rate for a defaulted debt instrument by allocating the VCD to the debt instruments according to the waterfall of claims at the time of the rating.

Recovery rates are categorised from 0% to 100% as follows:

- Excellent: 90%-100%
- Superior: 70%-90%
- Above average: 50%-70%
- Average: 30%-50%
- Low: 10%-30%
- Very low: 0%-10%

The instrument ratings are determined by adjusting the issuer rating upwards or downwards based on these recovery rates. This is applied as follows:

- Excellent (90%-100%): up to three notches above the issuer rating (limited to two notches for unsecured debt instruments)
- Superior (70%-90%): up to two notches above the issuer rating
- Above average (50%-70%): up to one notch above the issuer rating
- Average (30%-50%): instrument rating corresponds to the issuer rating
- Low (10%-30%): up to one notch below the issuer rating
- Very low (0%-10%): up to three notches below the issuer rating

The above guidelines apply to the large majority of non-investment grade issuers. However, we may deviate from these based on the issuer's circumstances, the debt issue, or bankruptcy proceedings in the issuer's jurisdictions. In addition, we take into account the sensitivity of the expected recovery to changes in underlying assumptions, particularly regarding the application of advance rates. The more sensitive the expected recovery rate, the more conservative the notching. We also cap the rating at BBB for senior secured debt of non-investment grade issuers and BBB- for senior unsecured debt of non-investment grade issuers.

Two generic examples of our approach on the recovery analysis of non-investment grade issuers are provided in [7.2. Recovery Analysis \(examples\)](#).

#### 4.4. Short-term debt rating

##### 4.4.1 Short-term debt rating

Short-term ratings usually apply to commercial paper or Billets de Trésorerie and to unsecured debt instruments maturing within 365 days in the European commercial paper market or 270 days in the US commercial paper market. Many large European non-financial corporates issue commercial papers in both markets.

When rating short-term debt that is guaranteed by another entity, Scope takes into account whether the issued short-term debt is unconditionally and irrevocably guaranteed and assesses the capacity of the guarantor to accommodate the guaranteed short-term debt on a timely basis.

Among the drivers of the short-term rating are the issuer's fundamental long-term credit quality as reflected by its issuer rating, the issuer rating's stability (see section 4.4.3), and the issuer's liquidity (see section 4.4.4). Unlike our long-term issue ratings, short-term debt ratings do not incorporate the likely recovery of the debt instruments in a hypothetical default scenario.

##### 4.4.2 General relationship between short-term and long-term rating scales

The issuer rating not only indicates the issuer's relative credit quality, it is also a long-term measure of its fundamental credit quality. It only implicitly reflects short-term credit quality, i.e. within the longer-term assessment of the issuer's fundamental credit quality.

Although an issuer's short-term rating correlates with its issuer rating, the relation between the two is not fixed. Low credit quality in the short term generally reduces long-term credit quality, whereas high short-term credit quality does not necessarily increase the issuer's long-term credit quality.

When assigning short-term ratings, we assess the issuer's fundamental long-term credit quality (as reflected in the issuer rating), the issuer's liquidity position, and the stability of the long-term rating as reflected in the rating Outlook. The latter is particularly important for issues rated borderline around S-2, S-3 or S-4.

Downgrades from S-2 or S-3 might significantly worsen or even preclude access to capital markets (short-term funding). This makes issuers of these short-term debt instruments more reliant on liquidity.

For further details, see [Credit Rating Definitions](#).

##### 4.4.3 Liquidity

In addition to the issuer rating and its stability, the short-term rating is also driven by the issuer's liquidity, which indicates its ability to refinance its upcoming short-term debt from both internal and external sources. It consists of the following:



- i) Internally provided liquidity cover (%): coverage of short-term debt by the sum of internally generated cash flow, available unrestricted cash and marketable securities, and predictable proceeds from asset disposals;
- ii) The issuer's externally and internally provided liquidity cover (%): coverage of short-term debt by internally provided liquidity and contractually committed credit lines; and
- iii) The issuer's banking relationships and standing in the capital markets.

An issuer's liquidity indicates its resilience to refinancing or liquidity risk. Most commercial paper investors hold the securities until maturity and then roll over with new issues by the same issuer. Therefore, maturing commercial paper is often refinanced by new issues.

Liquidity risk arises if investors are no longer willing to refinance maturing short-term debt. This situation could be unrelated to the issuer such as a general market contraction or market disruption; or be specific to the issuer, such as negative publicity, a deterioration of its credit quality, a deterioration of confidence in the issuer, expected downgrades, or lawsuits. If an issuer cannot refinance maturing commercial paper with new issues, it has to seek other ways to fulfil short-term debt obligations.

When assigning a short-term rating, we aim to minimise short-term rating fluctuations. We therefore focus on an issuer's sustainable liquidity position, for example, by excluding one-off effects such as cash proceeds from unusual asset disposals. This analysis also incorporates an issuer's financial policy and how well this has been implemented.

While we consider 'externally and internally provided liquidity cover' as the most important driver in our assessment of the liquidity position, there is no fixed weighting applied for the three key analytical elements listed above:

We assess an issuer's liquidity position as:

- adequate, i.e. neutral in the overall assessment of short-term credit quality
- better than adequate, i.e. a positive rating driver for short-term ratings considered borderline between two short-term ratings (crossover credits) or
- worse than adequate, i.e. a negative rating driver for crossover credits

#### 4.4.3.1 Internally provided liquidity cover

This measure indicates an issuer's ability to repay its short-term debt (defined as debt maturing within 12 months, including commercial paper). The calculation includes: internally provided liquidity, i.e. free operating cash flow and the issuer's unrestricted cash and marketable securities. We consider internally provided liquidity cover of 40% to 50% to be adequate, cover below 40% to be worse than adequate, and above 50% to be better than adequate. In general, a short-term debt issuer is rated S-2 or better if we expect a significant share of short-term debt to be covered by internal proceeds rather than external bank lines.

**Figure 6: Internally provided liquidity cover (%)**

Internally provided liquidity cover (%)
$\frac{\text{Scope-adjusted FOCF (t) + unrestricted cash/cash equivalents (t-1) + marketable securities (t-1) + liquid inventories (t-1)}}{\text{Short-term debt (t-1)}^3}$

#### 4.4.3.2 Externally and internally provided liquidity cover

This measure indicates an issuer's ability to repay short-term debt using liquidity from both internal and external sources. This includes contractually committed bank lines specific to the commercial paper, or other bank lines for general business purposes.

The existence of external bank lines does not, however, guarantee that drawings can be made. For example, covenants could limit drawings in the event of a material adverse change. We therefore analyse the covenants for the committed credit lines and regularly monitor 'covenant headroom'. We also consider an issuer's short-term financial policy as well as its track record in implementing this. We only include bank lines in our calculation if these are available to cover short-term debt.

Externally and internally provided liquidity cover of about 100% is considered adequate for the overall assessment of liquidity; below 100% is a negative driver; above 100% is seen as positive.

**Figure 7: Externally and internally provided liquidity cover (%)**

$$\frac{\text{Scope-adjusted FOCF (t) + unrestricted cash and cash equivalents (t-1) + marketable securities (t-1) + unused committed bank facilities (t-1) + committed unused factoring lines (t-1) + liquid inventories (t-1)}}{\text{Short-term debt (t-1)}^2}$$

\* We may apply discounts to the book or market value of such sources of liquidity depending on the asset type.

### 4.4.3.3 Banking relationships and standing in the capital markets

In terms of refinancing, issuers with well-established banking relationships are better placed than those with no such relationships. In addition, issuers with a high standing in the capital markets are more able to re-issue commercial papers, even upon a contraction of a specific market. Indicators of a company's standing in the capital markets could be credit-default swap spreads or share price movements. Signs of good market access – and thus a high standing in the capital markets – include a historically high frequency and volume of debt issuances, and the diversity of market access.

Our assessment of the liquidity position is outlined below.

**Figure 8: Components of an issuer's liquidity position**

Liquidity position	Better than adequate (positive analytical driver)	Adequate (neutral analytical driver)	Worse than adequate (negative analytical driver)
Internally provided liquidity cover	Above 50%	About 40% to 50%	Below 40%
Internally and externally provided liquidity cover	Above 100%	About 100%	Below 100%
Banking relationships and standing in the capital markets	More than five well-established bank relationships with highly reputable banks of strong credit quality; strong standing in capital markets	Four to five well-established bank relationships with highly reputable banks of strong credit quality; medium standing in capital markets	Fewer than four well-established bank relationships with highly reputable banks of strong credit quality; weak standing in capital markets

## 6. Environmental, social and governance assessment

We implicitly capture general environmental, social and governance factors during the rating process with the sole criteria of their material impact on the credit quality of a rated entity. We only consider an ESG factor relevant to our credit rating process if it has a ubiquitously discernible and material impact on key rating factors (e.g. the rated entity's cash flow profile) and, by extension, its overall credit quality. If material, we explicitly highlight any such factor. Contrary to ESG ratings, which are largely based on quantitative scores for different rating dimensions, credit-relevant ESG drivers are mostly of a qualitative nature. Hence, identified ESG rating factors are based on an opinion in a relative context (factors are ordinal rather than cardinal).

ESG-related factors can be credit-positive, credit-negative or credit-neutral. Such factors need be assessed through either qualitative judgement or through quantitative measures. Credit-positive and credit-negative ESG factors primarily relate to our view that rated entities are considered either best-in class or lagging on factors that relate to ESG risks, thus proving either tailwinds to a rated entity's business and financial risks or signalling major risks regarding cash flow generation, developments in the broader industry or the rated entity's competitive position. As such, ESG-related factors would also reflect our assessment of a rated entity's business strategy that could address ESG-related risks in a stronger or weaker dimension.

ESG-related rating factors can directly or indirectly affect all key rating factors that make up our assessment of an issuer's business risk profile, financial risk profile and supplementary rating drivers. The importance/relevance of certain ESG factors is specific to each rated entity, industry and region, except for governance, which is universally applicable across all industries. In

<sup>2</sup> We may include long-term debt in the cash uses of our liquidity calculation when it could be subject to accelerated repayment due to limited headroom under maintenance covenants (see also 3.1.2).



## General Corporate Rating Methodology

### Corporate Ratings

contrast, environmental and social variables capture risks and opportunities that are often specific to the activities of a company and the industry in which it operates.

Moreover, ESG factors may materially impact our view on the recovery of debt in a default scenario and the corresponding debt category or debt instrument rating. An issuer's ESG profile may affect the recoverability of debt positions as it can impact the value of claims at the time of a default that either relates to a liquidation value or an enterprise value under a going concern scenario. This is also displayed by a higher likelihood of more interest bidders – either for specific assets or a distressed corporate as a whole – and consequently achievable prices.

In particular, the recoverable value under a liquidation scenario can be negatively affected if ESG risks could lead to stranded assets or lower advance rates on assets. Conversely, rated entities with little ESG risk could likely achieve higher sales prices in a liquidation scenario, thereby enhancing coverage for creditors. Likewise, under a going concern scenario, the enterprise value could positively or negatively be affected by the company's ESG profile as potential acquirers would price in potential transition and/or stranded asset risk, reinvestment needs etc.

Relevant ESG factors would likely be reflected by higher or lower advance rates on recoverable assets or higher/lower multiples applied in our estimation of liquidation or multiple-based enterprise values. Naturally, we would expect higher recoveries for corporates with solid ESG profiles compared to companies with substantial ESG risk, and hence higher debt ratings, all other things being equal. We conduct an explicit corporate governance assessment during the corporate rating process (see 3.1.3). For environmental factors, we review factors such as resource management, product innovation, physical risks or efficiencies in production processes.

For social factors, we review factors such as labour management, health and safety, client relationships and supply chains, and regulatory/reputational risks.

Although our credit analysis incorporates ESG factors, they are often not an important risk driver of the actual rating. Therefore, in cases where ESG considerations are a significant driver of the rating assigned, we would only disclose the relevant risk and how our analysis accounted for it. An absence of such disclosures indicates that ESG considerations were not relevant to credit risk.

## 7. Appendix

### 7.1. Key value and metrics definitions

We use the following key ratios in our fundamental quantitative analysis to assess an issuer's financial risk profile. Other financial ratios, in addition to those based on cash flow, are also used in the analysis if appropriate. This could include the loan-to-value ratio (x) for issuers in the real estate industry and the debt-to-regulated asset value ratio (x) for issuers in the utilities industry.

More information on definitions of key financial items is provided in Figure 9 below.

**Figure 9: Our key value and metrics definitions<sup>3+4</sup>**

<table border="1"> <thead> <tr> <th>EBITDA</th> </tr> </thead> <tbody> <tr> <td>Cash flow measure</td> </tr> <tr> <td>Reported EBITDA</td> </tr> <tr> <td>± Rental payments</td> </tr> <tr> <td>± One-off items</td> </tr> <tr> <td>= EBITDA</td> </tr> </tbody> </table>	EBITDA	Cash flow measure	Reported EBITDA	± Rental payments	± One-off items	= EBITDA	<p>Reported earnings before interest, taxes, depreciation and amortisation, plus rental payments for the year adjusted for material one-off items (cash and non-cash), subject to analytical judgment.</p> <p>One-off items could typically be provisions or release of provisions, non-cash relevant income/expenses, valuation effects, non-recurring restructuring expenses or gains/losses on disposal of at-equity holdings or fixed assets. Moreover, we can adjust for capitalised expenses if deemed material.</p>			
EBITDA										
Cash flow measure										
Reported EBITDA										
± Rental payments										
± One-off items										
= EBITDA										
<table border="1"> <thead> <tr> <th>FFO</th> </tr> </thead> <tbody> <tr> <td>Cash flow measure</td> </tr> <tr> <td>EBITDA</td> </tr> <tr> <td>- Interest paid (net) on financial debt</td> </tr> <tr> <td>- 50% interest paid on subordinated (hybrid) debt</td> </tr> <tr> <td>- Tax paid</td> </tr> <tr> <td>+ Associate dividends received</td> </tr> <tr> <td>± Other non-operating charges before FFO</td> </tr> <tr> <td>= FFO</td> </tr> </tbody> </table>	FFO	Cash flow measure	EBITDA	- Interest paid (net) on financial debt	- 50% interest paid on subordinated (hybrid) debt	- Tax paid	+ Associate dividends received	± Other non-operating charges before FFO	= FFO	<p>FFO represent operating cash flows before changes in working capital and after dividends received, interest paid (including interest on lease obligations as well as accrued interest on positions, which we treat as debt-like, such as pensions, asset retirement obligations) and other non-recurring income or expenses.</p>
FFO										
Cash flow measure										
EBITDA										
- Interest paid (net) on financial debt										
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<table border="1"> <thead> <tr> <th>FOCF</th> </tr> </thead> <tbody> <tr> <td>Cash flow measure</td> </tr> <tr> <td>FFO</td> </tr> <tr> <td>± Working capital changes</td> </tr> <tr> <td>± Non-operating cash flow</td> </tr> <tr> <td>- Capex (net)</td> </tr> <tr> <td>- Lease amortisation (if applicable)</td> </tr> <tr> <td>= FOCF</td> </tr> </tbody> </table>	FOCF	Cash flow measure	FFO	± Working capital changes	± Non-operating cash flow	- Capex (net)	- Lease amortisation (if applicable)	= FOCF	<p>An issuer's free operating cash flow represents its operating cash flow after changes in working capital and non-operating cash flow (including items such as change in assets/liabilities held for sale, cash flow from discontinued operations) and reported capital expenditures (netted with fixed-asset divestitures). Acquisitions do not count as capex. For all issuers with lease obligations, we deduct the amortisation element of lease obligations<sup>5</sup>. FOCF represents the cash flow available for discretionary spending such as for dividends, acquisitions, share buybacks, or the reduction of financial debt.</p>	
FOCF										
Cash flow measure										
FFO										
± Working capital changes										
± Non-operating cash flow										
- Capex (net)										
- Lease amortisation (if applicable)										
= FOCF										

<sup>3</sup> All these metrics are using Scope-adjusted inputs.

<sup>4</sup> For most companies reporting under IFRS, no adjustments will be required for operating leases regarding the calculation of: i) Scope-adjusted EBITDA; ii) FFO; iii) SaD; and iv) Scope-adjusted interest.

<sup>5</sup> For companies reporting under IFRS, these are mostly cash repayments for lease liabilities that are recognised in the company's statement of cash flows; for companies that do not prepare their accounts in accordance with IFRS, the amortisation element reflects the difference between the lease expense recognised in the company's income statement and the interest on lease liabilities calculated by Scope (see section 3.1.2).



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### Discretionary cash flow

#### Cash flow measure

FOCF

- Dividends paid
- The other 50% of interest paid on subordinated (hybrid) debt
- = Discretionary cash flow

This measures FOCF after dividends that is available for discretionary spending such as for acquisitions, share buybacks, or the reduction of financial debt.

### SaD

#### Debt measure

Reported financial debt

- ± Adjustments such as operating leases (if applicable), unfunded pensions, guarantees, provisions (if applicable), hybrid debt instruments (equity credit), off-balance sheet debt, debt-like payables (interest bearing)
- Unrestricted cash and cash equivalents
- = SaD

SaD is a key determinant for many credit metrics. We make adjustments based on a company's annual reports (reported financial debt), which typically consist of bank loans, capitalised leases and capital market debt such as bonds but also interest-bearing shareholder loans. The main adjustments relate to unfunded pension obligations, debt-like interest-bearing payables, operating lease obligations, debt of captive finance and guarantees given. For specific industries (such as utilities) debt-like provisions are included if material, for example, for the decommissioning of power plants.

Netting of cash is generally only applicable to ratings in the BB category or higher, and only if the cash is permanent and accessible

### Scope-adjusted FFO/debt (%)

#### Debt measure

FFO

debt

This measures an entity's cash flow compared with its debt. It uses a lease-adjusted debt equivalent and deducts equity credit resulting from hybrid debt securities that display equity-like features. The long-term operating lease charge is capitalised as a multiple of rents.

### Scope-adjusted debt/EBITDA (x)

#### Debt measure

debt

EBITDA

This ratio compares an issuer's debt payment obligations with its ordinary, unleveraged, untaxed cash flow before operating rent payments (EBITDA(R)). The measure uses a long-term operating, lease-adjusted debt equivalent and deducts equity credit resulting from hybrid debt securities that qualify as equity-like. Long-term operating lease charges are capitalised as a multiple of rents. This multiple is typically 8 but may vary depending on the specific industry the entity operates in and the location of the leased assets.

### Scope-adjusted FOCF/debt (%)

#### Debt measure

FOCF

debt

This ratio compares an entity's cash flow generation with debt levels.

### Scope-adjusted EBITDA interest cover (x)

#### Interest cover

EBITDA

Net cash interest paid plus the interest element of operating leases

This ratio compares ordinary, unleveraged, untaxed cash flow generation with its cost of financing.

The ratio illustrates an entity's ability to cover its cost of adjusted debt. It is predominantly applied to non-investment grade cases. The ratio is defined as EBITDA/net cash interest cover (Scope-adjusted EBITDA over net cash interest paid) and often modified for the lower range of the non-investment grade segment. It illustrates a company's ability to pay its cash interest expenses.



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### Liquidity (%)

#### Liquidity measure

Free operating cash flow (t) + unrestricted cash and marketable securities (t-1) + unused committed bank facilities (t-1) + committed unused factoring lines (t-1) + liquid inventory (t-1)

Short-term debt (t-1)

This ratio indicates a company's ability to pay its short-term debt (excl. short-term leases) using free operating cash flow (which already reflects lease payments), unrestricted cash and marketable security positions, unused committed bank facilities, unused committed factoring lines, and liquid inventory.

We may include long-term debt in the cash uses of our liquidity calculation when it could be subject to accelerated repayment due to limited headroom under maintenance covenants.

### Scope-adjusted EBITDA margin (%)

#### Profitability measure

EBITDA excluding any dividend contribution from associated companies

Revenue

This ratio indicates a company's operating profitability, which provides an objective measure to compare companies, particularly within their relevant industries, stripping out their funding structures and taxation.

The measure typically strips out non-recurring/one-off items as well as gains/losses from asset disposals or the release/build-up of provisions. Moreover, if material, Scope would adjust for capitalised expenses which have improved reported EBITDA in order to ensure comparability between companies with a different approach on capitalisation. Income from associates, which typically is shown below the EBITDA level, is not included in the Scope-adjusted EBITDA for the computation of the Scope-adjusted EBITDA margin.

## 7.2. Recovery analysis (examples)

### Going concern scenario

all figures in EUR m

(A) Estimated enterprise value at default assuming going concern		Year:	2024
Cash interest 2024			50.0
add: margin step-up 100 bp			25.0
add: amortisation secured debt			50.0
add: maintenance capex			20.0
EBITDA at default (implied discount)	40%		145.0
Enterprise value multiple (business risk profile: BB+)			4.50
<b>Distressed enterprise value</b>			<b>652.5</b>

#### COMMENTS

3x to 5x depending on the company's business risk profile

(B) Estimated enterprise value at default assuming liquidation			
	Advance rate	Available to creditors	
Property, plant and equipment	250.0	30%	75.0
Investment properties	0.0	65%	0.0
Inventories	250.0	50%	125.0
Goodwill	25.0	0%	0.0
Financial investments	25.0	50%	12.5
Receivables	475.0	90%	427.5
Tax assets	0.0	0%	0.0
Other assets, e.g. intangibles	100.0	0%	0.0
Cash and equivalents	1.2	0%	0.0
<b>Total liquidation value (excluding cash reserve)</b>			<b>515.0</b>

#### COMMENTS

Indicative advance rates (can vary greatly depending on nature of assets and business):

20% to 80% depending on recoverability and liquidity of main assets  
 40% to 75% depending on market volatility and target rating  
 around 50%  
 0%  
 0% to 90% depending on liquidity of underlying investment  
 80% to 90% depending on counterparty's credit quality  
 0%  
 0%

<b>Higher value of (A) going concern scenario or (B) liquidation scenario</b>	<b>652.5</b>
less: administrative claims	10%
<b>Adjusted value for distribution to creditors</b>	<b>587.3</b>

652.5

65.3

587.3

Waterfall of debt by priority in payment					
	Obligations	Liquidation value	of which unencumbered	Recovered	Recovery rate (%)
<b>TOTAL</b>		<b>587.3</b>			
Obligations ranking prior to all debt	20.0	587.3		20.0	100%
Secured bank debt	450.0				
		567.3		490.0	100%
Secured capital market debt	40.0				
<b>Insolvency estate after secured bank debt positions</b>		<b>=</b>	<b>77.3</b>		
Senior unsecured debt	250.0	77.3		77.3	31%
Subordinated debt	50.0	0.0		0.0	0%
<b>Insolvency estate after senior unsecured debt positions</b>		<b>=</b>	<b>0.0</b>		

#### COMMENTS

includes e.g. tax payables, social security payments

taking into consideration collateral provided in case of liquidation and fully drawn committed, secured revolving credit facility

taking into consideration collateral provided in case of liquidation

including unsecured committed lines fully drawn, etc.

### Liquidation scenario

all figures in EUR m

(A) Estimated enterprise value at default assuming going concern		Year:	2024
Cash interest			15.0
add: margin step-up 100 bp			5.0
add: amortisation secured debt			25.0
add: maintenance capex			20.0
EBITDA at default (implied discount)	35%		65.0
Enterprise value multiple (business risk profile: B)			3.00
<b>Distressed enterprise value</b>			<b>195.0</b>

#### COMMENTS

3x to 5x depending on the company's business risk profile

(B) Estimated enterprise value at default assuming liquidation			
	Advance rate		Available to creditors
Property, plant and equipment	2.5	30%	0.8
Investment properties	1,250.0	65%	812.5
Inventories	25.0	50%	12.5
Goodwill	0.0	0%	0.0
Financial investments	5.0	50%	2.5
Receivables	5.0	90%	4.5
Tax assets	0.0	0%	0.0
Other assets e.g. intangibles	100.0	0%	0.0
Cash and equivalents	1.2	0%	0.0
<b>Total liquidation value (excluding cash reserve)</b>			<b>820.2</b>

#### COMMENTS

Indicative advance rates (can vary greatly depending on nature of assets and business):

20% to 80% depending on recoverability and liquidity of main assets  
 40% to 75% depending on market volatility and target rating  
 around 50%  
 0%  
 0% to 90% depending on liquidity of underlying investment  
 80% to 90% depending on counterparty's credit quality  
 0%  
 0%  
 0%

Higher value of (A) going concern scenario or (B) liquidation scenario	820.2
less: administrative claims	10%
<b>Adjusted value for distribution to creditors</b>	<b>738.2</b>

820.2

82.0

738.2

#### Waterfall of debt by priority of payment

	Obligations	Liquidation value	of which unencumbered	Recovered	Recovery rate (%)
<b>TOTAL</b>		<b>738.2</b>			
Obligations ranking prior to all debt	20.0	738.2		20.0	100%
Secured bank debt	400.0	450.0		400.0	100%
Secured capital market debt	40.0	42.2		40.0	100%
<b>Insolvency estate after secured bank debt positions</b>		<b>= 278.2</b>			
Senior unsecured debt	250.0	278.2		250.0	100%
Subordinated debt	50.0	28.2		28.2	56%
<b>Insolvency estate after senior unsecured debt positions</b>		<b>= 0.0</b>			

#### COMMENTS

includes e.g. tax payables, social security payments

taking into consideration collateral provided in case of liquidation and fully drawn committed, secured revolving credit facility

taking into consideration collateral provided in case of liquidation

including unsecured committed lines fully drawn, payables, etc





# General Corporate Rating Methodology

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