FitchRatings

Corporates
Global

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Feedback on the exposure draft. Fitch invites feedback from market participants on the proposed criteria. Comments should be sent to criteria.feedback@fitchratings.com by 27 September 2023.

Fitch will apply the existing criteria to existing ratings. Fitch will apply the criteria described in this exposure draft to new issuer/transactions rating assignments during the exposure draft period.

Fitch will publish on its website any written responses it receives, in full, including the name of the respondent, unless the response is clearly marked as confidential.

### Related Criteria

Corporate Rating Criteria (October 2022)

Country-Specific Treatment of Recovery Ratings Criteria (March 2023)

Third-Party Partial Credit Support Rating Criteria (June 2021)

Corporate Hybrids Treatment and Notching Criteria (November 2020)

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# Exposure Draft: Corporates Recovery Ratings and Instrument Ratings Criteria

Sector-Specific

## Scope

This report describes Fitch Ratings’ criteria for assigning and monitoring Recovery Ratings (RRs) and the notching effect of this approach to derive loan and bond instrument ratings for non-financial corporate issuers globally. The overall risk for a particular instrument comprises two components: the relative probability of issuer default (the Issuer Default Rating, or IDR), and the likely recovery of each instrument given default (the RR).

These criteria are used in conjunction with the *Corporate Rating Criteria*, which describe the analytical process underlying IDRs, and the *Country-Specific Treatment of Recovery Ratings Criteria*, which constrains the assignment of RRs and upward notching of instrument ratings to reflect a less predictable range of recovery outcomes in certain jurisdictions.

The notching approach described in these criteria does not apply to instruments that Fitch classifies as hybrids. For those, please refer to the *Corporate Hybrids Treatment and Notching Criteria*. Specific considerations also apply to real estate investment trusts (REITs), regulated utility companies and investment holding companies. These are described in the appendices of this report.

## Key Rating Drivers

These Key Rating Drivers generally have equal importance in Fitch’s analysis. Instrument ratings are notched from the IDR of the issuer or guarantor. The direction and number of notches are driven by the recovery prospects (the RR) of the specific instrument.

Fitch employs two distinct approaches to assign RRs and instrument ratings depending on the IDR, described in greater detail below.

**Bespoke Approach:** This applies to IDRs of ‘B+’ and below since recovery prospects are more meaningful to investors. For each instrument, Fitch calculates the estimated recovery upon default and assigns an RR band (graded ‘RR1’ to ‘RR6’). Each RR band has a corresponding instrument notching from the IDR. The *Recovery Ratings Scale with Notching for IDRs of ‘B+’ and Lower* table on page 14 maps the RR bands to the instrument notches.

**Post-Restructuring Enterprise Value**: In the Bespoke approach, Fitch estimates the value available to creditors through either a going concern (GC) or liquidation lens. We describe our approaches in greater detail on page 4.

**Collateral and Relative Ranking of Debt Claims**: We establish the ranking of the claims based on contractual and structural considerations affecting the issuer or a group of affiliated companies. Fitch’s recovery analysis will use the higher of the GC enterprise value (EV) or liquidation value (LV) and this value is distributed to the various creditor classes according to their order of priority. This drives the RR and, in turn, the instrument rating.

**RR Caps for Bespoke Approach:** Unsecured and second-lien instruments are capped at ‘RR3’ where the IDR is ‘B+’ and ‘RR2’ where the IDR is ‘B’ and below, except when issued by structurally senior operating subsidiaries in a multi-tier corporate structure. RRs in the Native American gaming sector cannot exceed ‘RR2’. Fitch applies country caps to RRs reflecting a less predictable range of recovery outcomes in certain jurisdictions in the event of a default per the

*Country-Specific Treatment of Recovery Ratings Criteria.* These are described on page 15 of this report.

**Generic Approach**: This applies to IDRs of 'BB-' and above where Fitch uses an approach that reflects generic assumptions about recoveries instead of issuer-specific recoveries. Under this approach, IDRs and unsecured debt instrument ratings are equalised when average recovery prospects are present. RRs and instrument ratings are assigned based on the *Notching for 'BB' Category Issuers (Excluding Uplift Sectors)* table on page 17. The assignment of RRs for issuers in the 'BB' IDR category is optional and is based on market demand.

**RR Caps for Generic Approach**: Category 2 first liens are capped at 'RR2' and all non-first liens at 'RR4'. As with the Bespoke approach, we also apply country caps as per the *Country-Specific Treatment of Recovery Ratings Criteria* and Native American gaming instruments are not rated above 'RR2'.

**Sector-Specific Treatment**: Regardless of IDR, some sectors may benefit from above-average recovery assumptions upon default and receive an uplift. We refer to these sectors as Uplift Sectors in this report and they currently include equity REITs and equivalent property investment companies (PICs), collectively referred to as REITs, and regulated utility companies. In addition, investment holding companies' instruments are treated differently and described in Appendix 3.

## Summary of Key Proposed Changes

Where the issuer IDR is 'B+' and the Bespoke approach applies, we propose capping the instrument ratings and RRs for unsecured and second-lien instruments at 'RR3'/+1, compared to 'RR2'/+2 currently. The 'RR2'/+2 cap for second-lien and unsecured remains unchanged for IDRs of 'B' and below.

We describe how we treat factoring and reverse factoring facilities in our recovery analysis, detailed in the *Corporate Rating Criteria.* We propose the following clarifications:

- Factoring: in deciding whether the factoring facility will persist in the event of default, we will consider the factual circumstances of the issuer, in addition to the factoring documentation.
- Reverse factoring: we view reverse factoring facilities as akin to ordinary corporate debt (unlike factoring) and therefore its seniority in the waterfall analysis may vary, unlike factoring, which benefits from senior priority in our recovery analyses.

Where the issuer IDR is in the 'BB' category and the Generic approach applies, we clarify that there may be other classes of super senior debt that may result in a first lien being viewed as a Category 2 first lien.

In addition, we have:

- Integrated the existing standalone 'frequently asked questions' section into the body of the criteria report.
- Described how we assign instrument and RRs to instruments of investment holding companies. This is detailed in the *Investment Holding Companies Rating Criteria.*
- For the regulated utilities sector, which is viewed as an Uplift Sector as described in Appendix 1, the application of the sector uplift for the senior unsecured debt rating of regulated utilities is not applied when this would result in the instrument rating exceeding the relevant country's sovereign IDR. In that case, the senior unsecured debt rating is aligned with the regulated utility's IDR. This is detailed in the *Country-Specific Treatment of Recovery Rating Criteria.*

### Rationale for Change

For the Bespoke approach, the cap for 'B+' IDR unsecured and second-lien instruments was lowered given that, at this IDR level, issuers are sufficiently close to the Generic territory where it is less meaningful to construct a Bespoke recovery analysis. The corollary is reduced rating volatility for unsecured and second-lien instrument ratings for a 'B+' or 'BB-' issuer that moves in or out of the Bespoke territory.

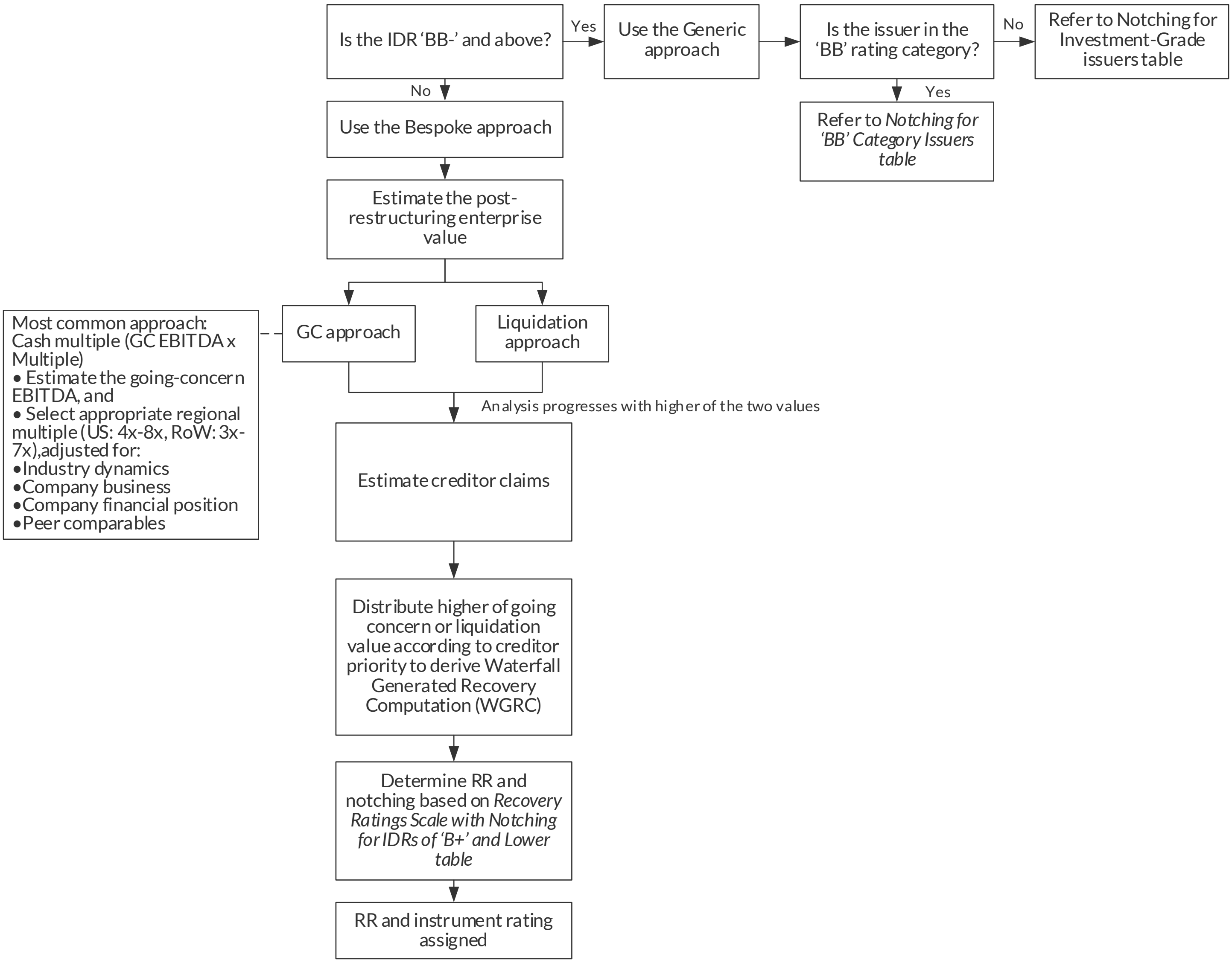
The remaining changes aim to improve clarity and analytical consistency.

## Expected Rating Impact

We expect less than 1% of instrument ratings and RRs to be affected by the proposed ‘RR3’/+1 cap for senior unsecured and second-lien instruments where the IDR is ‘B+’. Ratings will likely be downgraded by a notch and/or one recovery band.

## Rating Approach

### RR Assignment and Instrument Notching Approach (Excluding Uplift Sectors)




Note: All RR assignments and notching are subject to the *Country-Specific Treatment of Recovery Ratings Criteria*. Native American gaming issuers are subject to an ‘RR2’ cap.
Source: Fitch Ratings

Rating Watches and Outlooks do not apply to RRs. However, individual instrument ratings on the ‘AAA’ scale may be placed on Rating Watch based on a heightened probability of a change in the RR, given the notching relationship between RRs and instrument ratings.

RRs do not apply to the following:

- Short-term ratings; and
- Point-in-time ratings for debtor-in-possession facilities.

Foreign currency obligations are not capped at the Country Ceiling since the Country Ceiling is a purely default-related concept. Theoretically, foreign-currency obligations may therefore be rated above the Country Ceiling even for issuers whose IDRs are constrained by the Country Ceiling. However, in practice, there is a large overlap between those countries where Country Ceilings constrain IDRs and those countries where country caps on the RR would apply and limit any upward notching to instrument ratings under the *Country-Specific Treatment of Recovery Ratings Criteria*.

## Recovery Analysis for Issuers Rated 'B+' or Below

For issuers with IDRs of 'B+' or below, Fitch performs a Bespoke recovery analysis for each class of obligations. There are three steps in this approach:

1. Estimate a post-restructuring EV or LV;
2. Estimate creditor claims; and
3. Distribute the greater of the EV or LV according to priority.

These steps are considered in detail below.

### Step 1. Estimate a Post-Restructuring EV or LV

Fitch uses one of two approaches to estimate the distributable value: a GC approach or a liquidation approach.

In deriving a consolidated EV, Fitch may also separate the company's operating units by segment or by region, in order to apply the most relevant valuation method to the various components.

#### *Approach 1: Going Concern*

Fitch calculates the GC post-restructuring EV in many ways. The most common approach is the Cash Multiple approach. Alternative methods include Discounted Cash Flow, Traded Asset Valuation, or any other valuation methods as the committee deems appropriate. These are also described below on page 7.

The Cash Multiple approach involves two elements:

1. GC EBITDA Analysis
2. Multiple Selection and Application

### GC EBITDA Analysis

This aims to establish the level of post-restructuring cash flow upon which it is most appropriate to base the valuation.

Fitch estimates a GC EBITDA, which assumes both depletion of the current position to reflect an assumed cause of distress that provoked default, and a level of corrective action assumed to occur during restructuring.

GC EBITDA is designed to be a conservative but realistic estimate of the EBITDA that would ultimately be used by creditors and potential buyers to value a company after both a default and rehabilitation period.

Our GC EBITDA estimate incorporates an understanding of the business risks that could reduce current cash flows, derived from our financial forecasting, and previous performance of the company and peers during a recession or other adverse circumstances. It includes the full-year pro forma cash flow impact of any recently completed acquisitions and divestitures, and may include agreed but not yet completed transactions based on analyst judgment.

In constructing an estimate of an issuer's GC EBITDA, we consider the influence that the potential causes of bankruptcy would have on the business. We provide a reasonable basis for our GC EBITDA assumption that reflects a company's risks. For example, the loss of a major customer, patent or contract; rising raw material costs; lower government reimbursement rates; a cyclical downturn that coincides with a period of capital market turbulence resulting in a liquidity crisis; or long-term secular change in markets or tastes (e.g. printed newspapers).

In scenarios where the likely cause of default is a failed business model, for example where technological or secular changes permanently reduce demand, we would expect GC EBITDA to be well below historical levels (or to lead to a liquidation outcome).

Fitch does not, however, set GC EBITDA based on breakeven coverage levels; a process that does not reflect future cash flows, and that fluctuates based on changes in debt, capex and interest expense. At IDRs of 'B-' and above we would nonetheless typically expect GC EBITDA to be less than latest 12 months (LTM) EBITDA, and analysts will disclose clearly in our rating action commentaries where this is not the case and why an alternative assumption is more appropriate.

Cyclical industries, with the exception of commodity businesses, reflect our observations of actual defaults by calculating GC EBITDA assuming revenue in line with pricing and production levels somewhat above trough points. In commodity industries, EV tends to be linked to a hypothetical price cycle and generally reflects asset and cash flow quality.

Bankruptcy regime is a further important consideration. In a bankruptcy or similar insolvency scenario, the valuation of a business reflects the GC EBITDA which can be generated from a business after it has restructured. Regimes such as the US's Chapter 11 protect a company from creditor enforcement for a potentially prolonged period, during which time owners can make meaningful changes, subject to court approval – such as rejecting lease portfolios or union bargains – to improve EBITDA post-emergence. In other regimes, insolvency and administration processes can be far less structured, leading to more value erosion as suppliers and others desert businesses and fewer operational restructuring opportunities are available.

Fitch is conscious of the many limitations of EBITDA, not least the lack of a constant accounting definition, and the potential for regional variations, but uses projected EBITDA in EV analysis as the most common metric referenced in external valuations. The EBITDA Fitch uses is typically pro forma for the full-year impact of any acquisitions or divestitures, albeit on a Fitch basis (i.e. omitting many of the add-backs and adjustments seen in much issuer-provided data).

Fitch will disclose the broad rationale for the GC EBITDA assumption in rating action commentaries (see *Transaction-Specific Disclosure* on page 19).

### Multiple Selection and Application

We apply a multiple reflecting a company's individual financial and operational characteristics, industry dynamics, and comparable peer data within the regional band.

a. US: 4.0x to 8.0x, with a 6.0x midpoint.

b. Rest of the world: 3.0x to 7.0x, with a 5.0x midpoint.

A Variation would be required to use a multiple above the regional ranges specified above and will be disclosed in the issuer's research (see *Transaction-Specific Disclosure* on page 19). Multiples below the regional range would not constitute a Variation.

The differential between regional ranges reflects lower transparency of insolvency valuation outside the US, historical public market trading multiple differentials and a generally less issuer-friendly process where liquidations immediately after default at trough-point valuations are more frequent.

Fitch uses a Multiple Assumption Tool to assume a reasonable GC EBITDA/EV multiple within the relevant regional ranges. The regional midpoint is the starting point.

The Multiple Assumption Tool has four key factors that guide analysts to a multiple assumption at or near the lower bound, midpoint or top of the regional range. The relative influence of each key factor varies based on an issuer's individual characteristics.

The outcome for each key factor is based on an assessment of its respective sub-factors. Analysts assign greater importance to any key factors or sub-factors that have more weight in the overall outcome.

The factors are as follows:

a. Industry Dynamics:

Sub-factors include whether the sector is in a growth phase or in secular decline, the degree of barriers to entry, the regulatory environment and supply-chain concentration levels.

b. Company Business:

This includes an issuer's competitive position and operating profile. Sub-factors that determine whether the multiple should be situated low, medium or high in the range include market share, customer churn rates, counterparty risk of customers, intangible value, the elasticity of end-market demand and asset quality.

c. Company Financial Position:

Sub-factors range from scale, historical and anticipated cash flow trajectory, to certainty of revenue, margins and operating leverage.

d. Peer Comparables:

This factor evaluates data for multiples applied in RR tools of close peers and for relatively large sectors, the sector mid-point, recent market M&A transaction multiples for comparable companies, public market trading multiples of close peers or historical distressed sales and reorganisations data from bankruptcy studies, to the extent available.

This is an extract of the sub-factors we consider in our Multiple Assumption Tool:

## Multiple Assumption Tool Extract

| Considerations | Low Multiple | Midpoint Multiple | High Multiple |
|---|---|---|---|
| **Industry Dynamics Sub-Factors** | | | |
| **Secular trends** | Secular decline, sunset phase, negative | Modestly positive long-term prospects | Rapid growth anticipated, favourable |
| **Barriers to entry** | Low barriers to entry | Some protection | High barriers to entry |
| **Regulation** | Adverse | Neutral | Constructive |
| **Supplier power** | Highly concentrated supplier base that has significant pricing-setting power. High dependence on one or few key suppliers | Some diversity and ability to negotiate prices for inventory and raw materials | Diverse supplier base. Suppliers lack pricing power and can easily be substituted for a lower-cost provider |
| **Company business sub-factors** | | | |
| **Market share** | Relatively small company competing against larger, better-capitalised companies | Medium-size company, niche business with few competitors | Strong, leader or top-tier |
| **Customer churn** | High due to lack of customer contracts or low switching costs | Medium | Low due to customer contracts or high switching costs |
| **Customer quality** | Speculative-grade trade counterparties, key customers operate in mature to declining sectors, material customer concentration, at risk of customer defections | Variable credit quality and business prospects | Investment-grade counterparties, key customers have stable to growing businesses, no significant concentration |
| **Intangibles value (IP, brands, patents)** | No real intangible value, easy-to-substitute products/services, commoditised | Modest intangible value | Significant value |
| **Demand** | Discretionary, fluctuates widely, subject to changing consumer preferences, i.e. fashion risk | Some volatility | Inelastic demand, stable to growing end-markets, critically needed product or service |
| **Asset quality** | High-cost producer, disadvantaged location of assets, poor operating record | Medium | Low-cost producer, well-located assets, top-quality operator |

| | | | |
|---|---|---|---|
| **Company financial sub-factors** | | | |
| **Overall scale** | Small company relative to regional critical mass | Average/medium-sized company relative to regional critical mass | Large player relative to regional critical mass |
| **Revenue and cash flow history and outlook** | Declining and expected to continue negative trajectory | Modestly positive | Strong growth history and prospects |
| **Revenue certainty** | Low, highly variable or uncertain revenue streams | Some visibility | High recurring revenues, consistent, strong |
| **EBITDA margins** | Weak, below peers, inadequate to sustain operations | Middling | Strong and/or consistently exceeds peers |
| **Operating leverage** | High fixed cost structure, little ability to adjust cost structure for demand swings | Moderately flexible cost structure | Flexible cost structure that can be readily adjusted for fluctuation in demand |
| **Peer Sub-Factors** | | | |
| **Peer trading multiples** | Company or close peers in same business trade at a discount to cross-sector medians | Company or close peer trades in line with cross-sector market | Company or close peers trading consistently rich multiples relative to the cross-sector index |
| **M&A precedent transaction comparables** | Company or close peers acquired at low multiple | Company or close peer acquired at multiple close to median for market or relative to large, homogeneous sector peer group | Company or close peers acquired at strong multiple compared with overall market |
| **Bankruptcy case study data** | Similar companies reorganised at relative low enterprise values and multiples compared to cross-sector median | Case outcomes close to cross-sector median multiple or there is a lack of comparable case data | Close peers reorganised at relatively high values and multiples compared with the cross-sector outcome |

Source: Fitch Ratings

### *Alternatives to the cash flow multiple approach*

Rating committees have the discretion to use analytically appropriate alternative valuation methods that are clearly articulated in RR rationales. We summarise two examples of alternative approaches to GC valuations below:

a. Discounted Cash Flow

Where sufficient information is available to derive a reasonable estimate of future cash flows, Fitch may use conventional discounted cash flow techniques to estimate the EV as the present value of future cash flows in addition to or instead of a multiple of stressed EBITDA. In practice, this is relatively rare, as is the case in actual restructuring resolutions.

b. Traded Asset Valuation

Some industries have sector-specific valuation approaches that reflect a market for assets owned or operated that are either actively traded on exchanges or frequently bought and sold. For example, oil and gas reserves may be valued on expectations of commodity prices, production levels, and development costs. This may be expressed as a total amount or normalised on some definition of reserves. Similarly, a value-per-unit approach may apply to other sectors including power generation (price per kilowatt), oil refining (daily capacity and complexity), or real estate companies (e.g. price per square foot, capitalisation rate).

### *Approach 2: Liquidation Value (LV)*

The LV approach usually involves discounting the book value of balance sheet assets and summing the results to estimate the total asset liquidation proceeds in a hypothetical liquidation process. In certain situations, an asset's book value may be lower than its liquidation value (for example, land or a building purchased 50 years ago and fully depreciated).

The following paragraphs detail Fitch's typical approach to common assets:

a. Accounts Receivable: Typically 20%

Fitch generally applies a 20% discount factor for accounts receivable. However, the factor may be adjusted based on a review of the historical performance of the company's receivables portfolio. Performance indicators include the percentage of non-performing receivables and historical charge-offs, the credit quality (rating) distribution where information is available (otherwise, assumed), and the portfolio concentration of customers. If a company employs some form of securitisation, Fitch considers the structure and proceeds that such programmes offer while also being sensitive to potential differences in asset quality (see *Corporate Rating Criteria*).

b. Inventory: Typically 50%

The discount to inventory is typically 50% but varies according to the assets' marketability and industry conditions. Larger discounts are appropriate for inventories with short shelf lives (e.g. perishables) or products that are customised or subject to fashion risk. Smaller reductions to book value are appropriate for easily valued, more readily marketable inventories, including commodities such as oil and gas reserves, steel, consumer staples and pharmaceuticals and some categories of retail assets. Consideration is also given to prevailing industry conditions Fitch will disclose the relevant discount rates in rating action commentaries (see *Transaction-Specific Disclosure* on page 19).

Analytical guidance can also be drawn from the history of asset-based loans (ABLs) in the sector. If typical advance rates on ABL credit facilities for sector borrowers are 80% on accounts receivables, 70% on finished goods, and 20% on property, plant and equipment, then discounts to these assets of 20%, 30%, and 80%, respectively, are a reasonable proxy for orderly liquidation value.

Fitch also takes into consideration non-core and non-operating assets that could be sold to satisfy claims.

In instances of ABL arrangements or over-collateralised borrowings secured by specific assets, where information is available, Fitch will deduct perfected claims (including the value of assets pledged for such facilities) from the overall valuation so that the remaining creditors' recoveries are assessed more realistically.

### *Choosing the Higher of Going-Concern Value versus Liquidation Value*

Fitch assumes that when an issuer's estimated GC value is greater than its LV, then the company would be expected to attempt to reorganise and continue to operate. We will apply the LV approach only when a liquidation results in a higher return to creditors.

This bias toward a GC valuation is consistent with insolvency regimes that broadly favour restructurings over liquidation where this demonstrably increases recoveries to claimants and preserves employment.

## Step 2. Estimating Creditor Claims

Fitch includes all debt claims in its calculation of creditor claims. The following warrant additional consideration.

a. Revolving Claims

Fitch assumes that undrawn portions of committed lines of credit (secured or unsecured) of cash flow-based revolving credit facilities (RCFs), including letter of credit commitments, are fully drawn to the extent permitted.

Any debt (or contingent liability) supported by letter of credit commitments (issued under the RCF) is implicitly included under the assumption of a full draw on the RCF.

Analyst judgment is exercised for facilities that can only be drawn for specific uses, such as those with limited use of proceeds, such as for funding of acquisitions and capital expenditure. Performance guarantee facilities (particularly in the industrials sector) will be assessed on a case-by-case basis to determine the extent to which the facility would likely be drawn in distress.

b. Delayed Draw and Incremental Term Loans

In general, if a new facility is allowed but not yet committed, such as permitted incremental debt, it is unlikely that Fitch would include the amounts in the creditor mass. If the facilities are committed but undrawn, such as a delayed-draw term loan, and access is not considered onerous, Fitch may include the undrawn amounts in the creditor mass when calculating recoveries. In this case, analysts would also consider a post-restructuring EV that captures the effect of the funds being drawn if specifically for an expansionary or acquisition plan.

c. Priority and Administrative Claims

Administrative claims are typically assumed to be 10% of EV. Administrative claims arise in different ways in various bankruptcy regimes, but typically include costs and expenses involved in operating and preserving the estate during the process (such as wages, salaries, taxes, professional fees for lawyers and accountants, rent payments on assumed leases).

In jurisdictions that recognise the debtor-in-possession concept, debt incurred by the company during the post-filing period is entitled to treatment as an administrative claim. This includes unsecured trade debt incurred in the ordinary course of business to suppliers or vendors as well as any new debt (secured or otherwise) incurred post-filing.

d. Lease-Related Claims

Other than where local practices indicate that ongoing costs should be added to senior unsecured claims, Fitch typically treats lease obligations as an element in the ongoing structure of the GC entity, rather than a crystallised obligation added to the creditor mass. While companies may have the ability to rationalise leases relating to non-residential real property in bankruptcy, a certain level must be maintained under the GC approach. A portion of these leases, varying by sector and company, of operating lease obligations (whether classified as operating or capital under accounting treatment) may be assumed to be rejected in a bankruptcy. The value of rejected leases is calculated consistent with the bankruptcy code applicable in each jurisdiction, where such concepts exist.

Capital leases are not usually listed as secured debt claims in the recovery waterfall unless we anticipate surrender of the leased asset. Capital (financing) lease rejection would typically result in surrender of the collateral to the lessor. If Fitch assumes a rejection of the capital lease, we would subtract the estimated collateral value from outstandings due under the crystallised asset's financing and add any unsecured deficiency claim to unsecured liabilities in recovery analysis if amounts due are considered material to the analysis.

In contrast, under the LV approach, 100% of non-residential leases are deemed rejected as the company ceases operations and related lease-rejection claims are added to the unsecured creditor mass.

e. Factoring

Please refer to *Appendix 1* of the *Corporate Rating Criteria* for a full description of how we treat factoring facilities.

We will treat the factoring facility as senior ranking debt given its importance to working capital funding thereby facilitating immediate replacement funding, regardless of whether it is secured or non-recourse funded and reconsolidated. Where the originator benefits from an alternative unsecured credit facility as a back-up, receivables factoring will not be treated as a super-priority claim.

For the purpose of the recovery analysis, "factoring funding" is defined as the highest amount authorised to be drawn in the 12 months preceding the analysis, or the latest drawn amount if this is the only information available.

*Case 1: Liquidation Approach*

If the receivables sold are off balance sheet without recourse to the originator, Fitch assumes that all of the receivables shown on the balance sheet (which exclude the sold receivables) are to be used for the recovery of the on-balance-sheet debt and no adjustment needs to be made to reflect the impact of the factoring programme.

In the less frequent case that the factoring is on balance sheet due to recourse to the originator, Fitch treats the factoring debt as super-senior and includes the impact of over-collateralisation. Fitch seeks details on the maximum over-collateralisation requirements that apply to receivable factoring to protect the factoring's lenders against losses and dilutions (such as credit notes) and to cover funding costs.

If no information is available, a standard rate of 125% of the factoring funding can be assumed for formally structured programmes. For non-structured factoring transactions, a 105% over-collateralisation rate can be used instead. Fitch would then determine an appropriate discount given the quality and diversity of the group's customer base and the value already taken out by the factoring creditors.

In the example below, it amounts to 50%. The value of the receivables after this haircut is assumed to be the value available at the time these assets are sold. We assume that the over-collateralisation of EUR13 million (EUR63 million-50 million) is all absorbed by funding costs and losses at the factoring level.

## Liquidation Valuation — Illustrative Asset Recovery, Separating Out a Receivables Factoring

| (Currency) | | Group | Factoring | Remaining group |
|---|---|---|---|---|
| Factoring programme amount | (A) | 0 | 50 | |
| Over-collateralisation rate (%) | (B) | | 125 | |
| Maximum level of receivables pledged | (C)=(A)x(B) | | 63 | |
| | | | | |
| Value of receivables before haircut | (D) | 85 | 63 | 22 |
| Haircut assumption (%) | (E) | | | 50 |
| Receivable value available for recovery net of haircut assumption | (F)= (D)x(1-(E)) | 11 | 0 | 11 |
| | | | | |
| Asset recovery for the group | | | | |
| Receivables | | 11 | 0 | 11 |
| PP&E | | 100 | | |
| Inventory | | 25 | | |
| Total available for debt recovery | | 136 | | |

Source: Fitch Ratings

*Case 2: Going-Concern Valuation*

In a going-concern scenario, Fitch assesses the elements below:

i Whether the entity and/or its creditors have ensured that the receivables factoring has remained available to the group. This may be achieved by increasing (if possible) or maximising the over-collateralisation, or ensuring that good-quality receivables have been routed through the factoring. This implies that the receivables of the group are, at best, of the same quality. Receivables could be left outside the factoring programme because of concentration reasons, i.e. over "per obligor" limits, beyond which the factoring would give no funding, lower quality (such as receivables in serious arrears), or because of location in jurisdictions where it is difficult to gain security over these assets.

ii Whether the receivables factoring is likely to close down. If so, replacement senior debt (likely to be super-senior debt) at the entity level has to be arranged to fund the remaining working-capital liquidity requirements of the group.

For the purpose of Fitch's analysis, unless it is clear from the factoring documentation or other factual circumstances (e.g. industry practice, nature of the issuer's business) that the factoring programme will continue to be available, the agency will assume a worstcase scenario, i.e. the factoring programme closes down and has to be replaced by an equivalent super-senior facility.

If the credit profile of the group were to deteriorate, it is likely that the quality and quantity of eligible receivables would start declining and therefore the amount of factoring would decline. Fitch assumes that the reduction in the volume of receivables would be of the same proportion as Fitch's EBITDA discount applied to calculate the distressed EV.

However, Fitch's analysts have the latitude to present logical recommendations that may increase or reduce the RRs suggested by the valuation and notching. This depends on views about the operating environment or a particular company. For instance, if the factoring is exposed to a part of the business that is more seasonal and/or cyclical, or if the company has high operating leverage, a minimal reduction in sales and receivables would have a very high impact on EBITDA.

f. Reverse Factoring

Unlike factoring facilities, we treat reverse factoring facilities as akin to ordinary debt facilities and therefore do not assign extraordinary priority status. Its treatment in our financial adjustments and recovery analysis will therefore depend on our assessment of its relative seniority, based on its structural, contractual or practical features.

Provided there is sufficient and reliably consistent disclosure, Fitch would adjust the debt for extension in payable days resulting from a reverse factoring transaction if the resulting payable days were materially longer than the normal industry practice.

For example, assuming an outstanding amount of confirming of CUR100 million, with an extension of payable days from 60 days to 180 days, Fitch would consider that the 120 days extension is akin to financial debt and would add to financial debt 120/180 of the outstanding amount, i.e. CUR67 million.

Fitch will reverse the accounting treatment and adjust the financial statements as set out below for its analytical purpose:

### Balance Sheet

i Liabilities: the relevant section of the balance sheet is decreased by the extension amount of factored liabilities at the closing date.

ii Liabilities: the relevant debt line (typically 'other unsecured debt') is increased by the same amount.

### Cash Flow Statement

i Working-capital cash movements are decreased (increased) by the year-on-year increase (decrease) in outstanding factoring funding at the closing date.

ii Cash flow from financing is increased (decreased) by an identical amount.

g. Concession Assumption

The value distributed to relatively senior creditors may be reduced by an amount that is redistributed to more junior claimants to secure their approval of the plan of reorganisation or liquidation. The amount of such settlement payments is highly dependent on circumstances, but in no case are assumed recoveries above those of higher priority creditors as a result of assumed settlement payments. Fitch typically allows up to 5% of the recovery value available to a relatively senior creditor to be allocated to concession payments to a more junior creditor.

h. Pension and Other Post-Employment Benefit Obligations

Under-funded pension plans can be significant claims on the bankruptcy estate although the claims may vary in priority depending on jurisdiction and issuer-specific inter-creditor agreements. Generally, pension plans that are terminated have an unsecured claim and rank equally with unsecured debt. However, in the US the Pension Benefit

Guarantee Corporation may exert its considerable bargaining power to improve recoveries to the pension plan at the expense of other unsecured creditors.

Other post-employment benefits (OPEB) claims can be equally as or even more important than pension claims, typically if the company has a unionised labour force or if there is a public interest in protection of retiree benefits (such as healthcare).

In other jurisdictions, such as the UK, the regulatory authorities have wide-ranging powers to protect pension schemes' interests, which could mitigate an otherwise favourable outcome for bondholders. More generally, Fitch includes a pension scheme's claims, where present, relevant and ascertainable, in its recovery analysis at an appropriate level of seniority, which will vary by case. The final amount of such a claim may differ from a company's accounting pension deficit measured under IFRS. While Fitch will use an IFRS valuation as a starting point in its analysis, where there is evidence that this differs significantly from the likely actual amount to be claimed, and this can be estimated with a reasonable degree of certainty, the more accurate measurement may be used.

i. Other Non-Debt and Contingent Claims

Other non-credit obligations such as mass tort or other legal claims resulting from material lawsuits, environmental remediation obligations or personal injury settlement claims and contingent liabilities (and guarantees) that are assumed to come due may be included as necessary in their relative position in the distribution waterfall. Fitch may also elect to include estimates for distributions to claims relating to non-debt liabilities, including trade claims. For claims that Fitch assumes will be paid over time by the reorganised entity, Fitch may reduce the GC EBITDA by the annual payment rather than include the total amount in the distribution waterfall.

### Step 3: Distribute the Greater of EV or LV According to Priority

After the valuation is complete, the total estimated amount is allocated to creditors according to the relative seniority of their claims (the "waterfall") with the surplus recovery over the most senior claim, if any, flowing down to the next priority.

The following factors may affect the distribution of value in Fitch's analysis:

a. Structural Subordination

Application of value is not only affected by relative priority of instruments for a particular issuer. Organisation structure can also affect priority in all jurisdictions. In instances where there are multiple operating entities with arguably independent operations, Fitch establishes valuation and claims at the entity level and considers the residual values available for creditors of parent or affiliated entities. In this regard, Fitch also incorporates factors that may partially offset or weaken the effect of structural subordination – such as the presence of upstream guarantees and pari passu inter-company obligations owed by the subsidiary to its parent.

b. Treatment of Cash Balances

The general assumption is that cash and cash equivalents on the balance sheet dissipate prior to bankruptcy or during the process. Fitch would include the value of the cash in estimating recoveries only in very limited circumstances. For example, cash held in a specific escrow account earmarked for debt repayment and ring-fenced from the rest of the cash on the issuer's balance sheet. Alternatively, when Fitch considers a bankruptcy to be imminent, cash balances are material, and Fitch has a high degree of visibility regarding distributable asset value in a liquidation process.

Some sectors, such as airlines and technology, carry large cash balances and could have large cash balances even in bankruptcy. In such industries, a portion of the cash balances may be incorporated into recovery analysis depending on the circumstances of the bankruptcy. Fitch may include a portion of the existing cash balance to the EV where it is in excess of operational cash needs to operate on a going-concern basis.

c. Considerations Primarily for US Issuers

i Absolute Priority

US bankruptcy courts generally follow the absolute priority distribution rule (namely post-petition secured debt, pre-petition secured debt, unsecured administrative claims, other priority claims, unsecured claims, subordinated claims and equity interests). The one exception to this rule is with respect to "unsecured" administrative claims which must be paid in full before secured claims in order for a Chapter 11 Plan of Reorganisation (or Plan of Liquidation) to be confirmed.

ii Guarantee Contributions

If debt is guaranteed on a joint and several basis by multiple guarantors, Fitch allocates the guarantee burden proportionally among the guarantors with sufficient liquidity and/or cash flow available to perform under the guarantee (unless contra-indicated by jurisdictional practice or provisions of the guarantee agreement).

iii Non-Domestic Subsidiaries

Often foreign subsidiaries do not follow the parent or its domestic subsidiaries into a bankruptcy filing. The distribution of the going-concern valuation of such overseas subsidiaries after satisfaction of any local obligations is an important consideration in Fitch's recovery analysis.

Value from foreign subsidiary guarantees of debt or residual equity value available from foreign subsidiaries, where identifiable, is factored into the recovery waterfall at the appropriate relative priority level of the claim.

iv Treatment of ABL Facilities

In the case of ABL facilities with credit-protective features (such as availability limited by a borrowing base formula, springing cash dominion, and frequent monitoring or reporting of collateral), Fitch assumes that ABL debt is senior in the recovery waterfall to other first-lien debt claims that do not share a first lien on the working capital asset collateral to the extent the value of the specific collateral securing the ABL fully covers the ABL debt.

However, analysts may use their discretion to assume a less than full drawdown of an ABL revolving facility based on factors such as expected borrowing base availability at the point of default, and the operation of the springing cash dominion clause (the right to assume full control of the borrower's cash deposit accounts upon breach of specified event triggers and the application of cash proceeds towards partial repayment of ABL prior to bankruptcy).

### Recovery Ratings Scale

Fitch divides the spectrum of recovery percentages from 0% to 100% into six categories or RRs, as shown in the table below.

Fitch would typically expect recovery rates to fall within these bands for a particular RR on a diverse portfolio basis, across multiple cycles, although there could be large deviations on individual issues.

The waterfall analysis generates a Waterfall Generated Recovery Computation (WGRC), which is used to relate issuer- and instrument-specific analysis from the waterfall analysis described above to an RR band.

## Recovery Ratings Scale with Notching for IDRs of ‘B+’ and Lower

| RR | Description | WGRC (%) | Notching from the IDR |
|---|---|---|---|
| RR1 | Outstanding | 91-100 | +3 (first-lien debt only) |
| RR2 | Superior | 71-90 | +2 (caps apply for second-lien and unsecured[a]) |
| RR3 | Good | 51-70 | +1 |
| RR4 | Average | 31-50 | +0 |
| RR5 | Below average | 11-30 | -1 |
| RR6 | Poor | 0-10 | -2 to -3[b] |

[a] Where the IDR is ‘B+’, second-lien and unsecured instruments are capped at ‘RR3’/+1. Where the IDR is ‘B’ and below, second-lien and unsecured instruments are capped at ‘RR2’/+2. Analysts may exceed the cap when the issuer is a structurally senior subsidiary issuer in a multi-level corporate group structure.
[b] As many junior debt instruments may be rated ‘RR6’, varied notching enables differentiation in subordination of the debt within this category. Where there is only one ‘RR6’ instrument, it will be notched down from the IDR by two notches.
Source: Fitch Ratings

Second-lien and unsecured debt RRs are capped at ‘RR3’ where the IDR is ‘B+’, and ‘RR2’ where the IDR is ‘B’ and below, with exceptions for debt instruments of an issuer that is in a structurally senior position within a multi-level corporate group. In these circumstances, separate valuations and waterfalls are completed for the subsidiary and the parent. For example, the unsecured debt at the structurally senior subsidiary could be rated ‘RR1’ if subsidiary cash flows and funding plans support this rating.

RRs on subordinated debt that ranks after senior secured debt and senior unsecured debt in the priority of payment would typically be capped at ‘RR4’.

‘RR6’ issues are typically notched down from the IDR by two to three notches in Bespoke analysis. Where there are multiple ‘RR6’ issues, individual instrument features decide the scale of the notching. For example, while some instruments with differing terms may theoretically both receive nothing in a stress recovery analysis (junior secured and deeply subordinated debt, for example), contractual features of the obligations can support differentiation at the ‘RR6’ level. A sustained Negative Outlook may imply wider notching for weaker-placed instruments in the capital structure.

Fitch also applies caps in a number of jurisdictions. Please see *Country-Specific Treatment of Recovery Ratings Criteria* for further details. Where a jurisdiction cap applies, Fitch will quote the highest RR allowed under the criteria. For instance, a 95% WGRC (i.e. ‘RR1’ band) for an instrument in a Group C country will be ‘RR3’ (i.e. the 50%-70% band). In this instance, the WGRC will be the upper band of the assigned range, i.e. 70% in the present example. In addition, an ‘RR2’ cap is applied to the Native American gaming sector in the US given the limited precedent for enforceability of creditor claims in this sector.

Where documentation exclusions have an obvious and clear current impact on the collateral analysis being analysed, they will be taken into account. For example, if brands were explicitly excluded from the security package, Fitch analysts would adjust down the GC EBITDA in the recovery analysis (and/or the distressed EV/EBITDA multiple) to reflect the lack of EBITDA-generating power of a weaker asset base.

More broadly, however, there is no general impact in the recovery analysis due to the presence or absence of documentation that relates to prevention of event risks. As with issuer ratings, changes in capital structure (including incurring more debt), changes in collateral availability and acquisitions are all choices an issuer can make, which will be reflected on an issuer- and instrument-specific basis at the time the change is anticipated to occur (or where evidence is strong that an event of the nature will occur and the scale can be estimated). Similarly, our approach to estimating recoveries is not changed based on the presence or absence of financial maintenance covenants.

### Debt Instrument Mapping

The table below shows the relationship between the IDR, RR, and security-specific instrument rating for issuers with IDRs of 'B+' or lower. For example, subordinated bonds (with an 'RR6' expected recovery) of a 'B-' rated issuer may be rated the same as senior secured bonds (with an 'RR1' expected recovery) of a defaulted issuer. It is possible for a non-performing issuer (IDR of 'D'/'RD'), to have an instrument that is rated as a performing instrument. Under an 'expected loss' oriented approach, the risk is considered similar between a non-performing security with very strong expected recoveries, and a performing security with high default risk and low expected recoveries.

### Debt Instrument Mapping

| IDR | B+ | B | B– | CCC+ | CCC | CCC- | CC | C/RD/D |
|---|---|---|---|---|---|---|---|---|
| RR1 | BB+ | BB | BB– | B+ | B | B- | CCC+ | CCC |
| RR2 | BB | BB– | B+ | B | B– | CCC+ | CCC | CCC– |
| RR3 | BB– | B+ | B | B- | CCC+ | CCC | CCC– | CC |
| RR4 | B+ | B | B– | CCC+ | CCC | CCC- | CC | C |
| RR5 | B | B– | CCC+ | CCC | CCC– | CC | C | C |
| RR6 | B–/CCC+[a] | CCC+/CCC[a] | CCC/CCC–[a] | CCC-/CC | CC/C[a] | C | C | C |

[a] Differentiation in notching between two instruments at the 'RR6' level depends on structural and contractual features.
Source: Fitch Ratings

The notching for debt instruments at the lowest end of speculative-grade is compressed. The debt instruments assigned to bonds of issuers who have defaulted, or are very close to default, show little distinction between 'RR4' and 'RR6' recoveries. At this point, it is generally useful for the reader to refer to the published RR in addition to the instrument rating, as a defaulted instrument rated 'C' may imply an expected loss anywhere between 50% (if it is rated 'C'/'RR4') and 100% (if it is rated 'C'/'RR6').

Please refer to *Appendix 3: Distressed Debt Exchange* in the *Corporate Rating Criteria* where a distressed debt exchange is present.

### Type of Creditor Distributions

Fitch's RRs do not address the form of creditor distributions in a restructuring process (any combination of cash, new debt, reinstated debt, new common equity or via a borrower's surrender of collateral). While Fitch recognises that the value of non-cash distributions is less certain until monetised and may be less liquid, predicting a form of recovery is well beyond the scope of credit rating analysis. The form of distribution is subject to inter-creditor negotiations and claimholder preferences.

## Recovery Analysis for Issuers Rated 'BB-' or Above

Fitch applies a Generic approach to rate and assign RRs to instruments for issuers rated 'BB-' or above. The process of establishing ratings for the obligations of issuers rated between 'AAA' and 'BB-' refers, for the most part, to aggregate recoveries in the market as a whole, and not to issuer-specific recovery analysis.

Issuers rated 'BB-' and above are too far from default for a credible default scenario analysis to be generated, and would likely generate RRs that are too high across all instruments. Where an RR is assigned, the Generic approach reflects the relative instrument rankings and their recoveries, as well as the higher EV of 'BB' ratings in a generic sense for the most senior instruments.

As in the Bespoke territory, Fitch applies caps in a number of jurisdictions. Please see *Country-Specific Treatment of Recovery Ratings Criteria* for further details.

Similarly, an 'RR2' cap is applied to the Native American gaming sector in the US given the limited precedent for enforceability of creditor claims in this sector.

### Recovery Assumptions Based on Generic Assumptions, Not Bespoke Analysis

For corporate entities rated 'BB-' and above, the rating assigned to a senior unsecured debt instrument assumes an average recovery in the event of bankruptcy, corresponding to the 31%–50% range, 'RR4'. When average recovery prospects are present, IDRs and unsecured debt instrument ratings are equal with no notching.

### Uplift Sectors

In addition to these average recovery expectations across all industry groups, some specific industries referred to as Uplift Sectors have above-average recovery prospects that can afford a one-notch uplift to the debt instrument ratings. Please see *Appendix 1* for a discussion on equity REITs, including property investment companies, and *Appendix 2* for utilities.

### Rating Approach for Debt of Issuers Rated 'BBB-' or Above

Recovery analysis plays little role in analysing investment-grade issuers, if only because secured debt is usually immaterial. There are exceptions, such as industrial revenue bonds and first mortgage bonds, and these instruments may be rated above the IDR as appropriate for the additional security. But investment-grade issuers are so far from default and so well collateralised relative to their funded debt and other obligations that the computation of Bespoke recovery is meaningless.

Fitch notches from investment-grade IDRs according to the table below:

#### Notching for Investment-Grade Issuers (Excluding Uplift Sectors)

| | |
|---|---|
| Secured | 0/+1[a] |
| Unsecured | 0[b] |
| Subordinated | -1 |

[a] Zero notching is appropriate where the collateral quality is poor, e.g. through security over only fractional or impaired collateral
[b] Further notching subordination is possible. Please see below.
Source: Fitch Ratings

Analysts can denote contractual or structural subordination that is detrimental to even senior unsecured debt by rating it lower than the IDR.

The determination of the notching of unsecured debt from the IDR may be informed by the potential distressed multiple appropriate for the issuer in a given sub-sector, total leverage and prior-ranking level of leverage. In regions or sectors where historical bankruptcy/receivership data is less evident, prior-ranking debt constituting EBITDA of 2.0x-2.5x may indicate a material possibility of subordination and lower recoveries for unsecured debt.

### Rating Approach for Debt of Issuers Rated 'BB+' to 'BB-'

Under its Generic approach for rating instruments of companies in the 'BB' rating category, Fitch notches instruments against the IDR and assigns RRs according to the table below.

Differences may arise based on jurisdiction (see *Country-Specific Treatment of Recovery Ratings Criteria* for further information), IDR, and instrument type. The assignment of RRs for issuers in the 'BB' IDR category is optional and is based on market demand. The instrument notching described below will still apply where no RRs are assigned.

The table is designed to manage the transition between the 'B+' and lower IDR rating categories, for which bespoke RR analyses are performed, and the 'BB' category, which assigns RRs based on generic recovery assumptions derived from historical performance data.

Non-first lien debt (second lien, unsecured and subordinated debt) are capped at 'RR4'/+0. For these instruments, analysts will assign an RR according to their relative priority, reflecting each instrument's relative call on EV due to structural or legal subordination, or weaker collateral coverage relative to other non-first lien debt in the capital structure. For example, if there is unsecured debt and subordinated debt in the capital structure, all else being equal, the unsecured debt will receive 'RR4'/+0 and the subordinated debt will receive 'RR5'/-1.

### Notching for 'BB' Category Issuers (Excluding Uplift Sectors)

| | BB+ | BB | BB- |
|---|---|---|---|
| Super senior revolving credit facility | RR1 / +1 | RR1 / +2 | RR1 / +2 |
| Asset-backed loan facility | RR1 / +1 | RR1 / +2 | RR1 / +2 |
| Category 1 first lien | RR1 / +1 | RR1 / +2 | RR1 / +2 |
| Category 2 first lien | RR2 / +1 | RR2 / +1 | RR2 / +2 |
| Second lien/unsecured | RR4 / +0 | RR4 / +0 | RR4 / +0 |
| Subordinated | RR5 / -1 | RR5 / -1 | RR5 / -1 |
| Deeply subordinated | RR6 / -2 | RR6 / -2 | RR6 / -2 |

Note: Notching and RR prescribed are subject to the *Country-Specific Treatment of Recovery Ratings Criteria*. Source: Fitch Ratings

Category 1 first liens, which are assigned RR1 ratings, are reserved for first liens of US-based borrowers which do not feature any of the limitations in Category 2 on a current or projected basis.

Category 2 first liens include the following:

i First liens ranked contractually, structurally or practically junior to ABL facilities, accounts receivable securitisation and other similar super senior instruments;

ii First liens with excessive fully-drawn secured gross leverage, measured as secured gross debt of all liens greater by 50% than the midpoint of 'BB' category leverage expectations for that sector (e.g. the *Generic Navigator* places 3.5x gross debt/EBITDAR as the midpoint for issuers analysed under that template; the relevant secured leverage threshold is 5.25x);

iii First liens for enterprises with a projected EV of less than USD250 million using the sector's median multiple (sourced from Fitch's RR tools) for that region;

iv First liens secured only by a subsidiary equity pledge and where there is material subsidiary level debt;

v First liens for financial investment vehicles or similar entities where the collateral is composed of minority equity holdings;

vi First liens secured on collateral composed of assets with unusually speculative or hard to verify valuations, such as art work, musical performance rights or purchased litigation claims;

vii First liens that otherwise exhibit capital structure or EV characteristics detrimental to the first-lien loan recovery prospects sufficient to preclude the likelihood of an ultimate recovery rating better than 'RR2';

viii All first-lien instruments issued by non-US-based borrowers, or where the majority of EV is outside the US. First lien instruments issued by non-US based borrowers but secured by assets that are predominantly in the US could still be eligible for Category 1 treatment.

In applying the table above, where the committee determines that multiple levels of debt have relative rankings that do not differ sufficiently to warrant a full RR category of difference, instruments and debt levels may be conflated. Deeply subordinated refers to deeply subordinated instruments in multi-tier capital structures, such as holding company (holdco) level PIK notes. Where any other instrument is, in practical terms, structurally or legally subordinated, relative to its nominal instrument type, or otherwise enjoys lower collateral, analysts may opt to assign a lower RR than that shown in the table to reflect a lower relative call on EV. Where an 'RR3' is appropriate, the instrument will be notched by +1.

## Variations from Criteria

Fitch's criteria are designed to be used in conjunction with experienced analytical judgment exercised through a committee process. The combination of transparent criteria, analytical judgment applied on a transaction-by-transaction or issuer-by-issuer basis, and full disclosure via rating commentary strengthens Fitch's rating process while assisting market participants in understanding the analysis behind our ratings.

A rating committee may adjust the application of these criteria to reflect the risks of a specific transaction or entity. Such adjustments are called variations. All variations will be disclosed in the respective rating action commentaries, including their impact on the rating where appropriate.

A variation can be approved by a ratings committee where the risk, feature, or other factor relevant to the assignment of a rating and the methodology applied to it are both included within the scope of the criteria, but where the analysis described in the criteria requires modification to address factors specific to the particular transaction or entity.

## Limitations

RRs are not intended to provide precise numerical estimates. Fitch has provided bands of percentage recoveries as an indicator of the typical recovery expectations for instruments rated within those bands, across a diverse portfolio, over multiple cycles. Given the inherent unpredictability of both default scenarios and the restructuring process, there will be potentially large deviations on single issues, and so RR percentage bands should only be used for the analysis of diverse portfolios.

Percentages generated in the analytical process reflect either:

i The WGRC: the output of the waterfall analysis described in our Bespoke analysis, or

ix Average recovery rates for the specific debt class in the Generic approach.

This output in turn informs in which RR band an obligation is ranked as a relative measure.

Many factors will affect the actual percentage recovery, some of which are outside the scope of the rating process. Chief among these is creditor composition. Concentration of claims at a certain level of the capital structure, common ownership of claims at different levels in the capital structure, or even differing entry prices of investors within the same creditor class, can have a profound effect on the actual recovery percentage. Analysis of the creditor mass also requires multiple assumptions around the terms of financing achieved by the issuer, transparency on which may be limited at different points in time, and which may be subject to rapid change.

Other idiosyncratic factors that exert a strong influence on recoveries also remain outside the scope of the rating, and will further limit the utility of RRs as predictors of precise recovery rates. Event risk is present in the capital structure as it is in other elements of an issuer's rating profile, and issuers will change the proportion or collateral of secured obligations within a structure over time, leading to changes in our recovery assumptions and migration of recovery and instrument ratings, both independently of and in correlation to the IDR.

In relation to the utilities sector uplift described in *Appendix* 2, the approach incorporates sparse statistical experience of historical utility defaults and recoveries over the past 20 to 30 years. To the extent that historical examples exist, they are largely concentrated in the US, while many jurisdictions in the world may have few or no relevant precedents.

Rating levels discussed in this report relate to Fitch's international credit rating scale and reflect standalone creditworthiness without considering external credit enhancement or government support. Ratings, including Rating Watches and Outlooks, assigned by Fitch are subject to the limitations specified in Fitch's *Ratings Definitions* and available at https://www.fitchratings.com/site/definitions.

## Data Sources

The key rating assumptions for the criteria are based on analytical conclusions drawn from Fitch's analysis of financial and non-financial information for non-financial corporate issuers and their debt issues. This may include private and public information, such as historical and projected financial reports, transaction documents, restructuring proposals, peer market and transaction multiples, bankruptcy plan valuations in disclosure statements and other documents for industry peers, industry and economic data, discussions with and information received from issuers and other market participants, third-party appraisals, and data included in Fitch bankruptcy case studies.

## Rating Assumption Sensitivity

Below is a non-exhaustive list of primary sensitivities that can influence recovery ratings.

i RRs are notched from the IDR of the issuer and are therefore subject to upgrades or downgrades of the underlying entity's rating.

ii Enterprise valuations play a key role in the allocation of recoveries across creditor classes. The above methodology often assigns these based on cash flow multiples (for a GC analysis), and advance rates (for a liquidation analysis). The analysis that determines an RR is driven by subjective forecasts by Fitch analysts that include GC EBITDA, assumed exit multiples, and appropriate advance rates, all of which are subject to substantial variability before default and during a restructuring process.

iii Changes in issuers' capital structures affect the composition of the creditor mass and the relative ranking of creditor claims such that issue recovery outcomes vary substantially over time as the capital structure evolves.

iv Changes made to country groups under its Country-Specific Treatment of Recovery Ratings Criteria.

v Legal decisions, which play a strong role in recoveries, can sharply affect recovery expectations.

vi Information flows for companies close to default can become diminished, which may reduce Fitch's visibility on its recovery analysis. When insufficient information is available, Fitch may withdraw the recovery rating.

## Transaction-Specific Disclosure

In its initial rating reports and rating action commentaries, Fitch will disclose, as applicable, the rationale for the assumptions it has made on:

i GC EBITDA assumption in a going-concern scenario; and details of the basis for this cash flow assumption.

ii Cash flow multiple in a going-concern scenario; and the basis for the choice of multiple based on the Multiple Assumption Tool factor outcomes.

iii Asset valuation assumptions in a liquidation scenario.

iv Additional EV from any affiliate or minority interests.

v Any alternative valuation method other than the Cash Multiple approach.

vi The size of creditor claims listed in the *Estimating Creditor Claims* section on page 8.

vii Any variations from the criteria.

In many cases, Fitch uses the assumptions that it derived in its initial rating analysis in its subsequent review analyses. Fitch will comment on whether the initial assumptions have changed and, when applicable, disclose the rationale for these changes.

## Appendix 1: Notching and RR Criteria for REITs

### Scope

This appendix outlines Fitch's criteria for the sector recovery uplift, details on Bespoke RR assumptions, and the notching effect of these approaches on the secured debt, unsecured bond, bank debt and preferred stock instrument ratings for REITs and PICs (collectively REITs), globally.

The criteria apply to new and ongoing rating reviews.

### Key Rating Drivers

**Uplift Applicability:** The sector recovery one-notch uplift to the instrument ratings can apply to multi-asset REITs with issuer IDRs of 'BB-' and above where the majority of assets (i) are investment properties (not speculative development), (ii) are identifiable, standalone assets, (iii) have regularly updated independent valuations, and (iv) are located in established property investment markets with depth, transparency and liquidity even in poor market conditions.

**Limiting Factors:** This uplift mainly pertains to REITs operating in countries in Groups A, B and C, according to Fitch's *Country-Specific Treatment of Recovery Ratings Criteria*. In addition, issuers that have utilised, or Fitch believes may utilise, their unencumbered pools as a source of contingent liquidity to avoid default would not typically be afforded the sector recovery uplift. Debt covenants and an issuer's financial policies should also be consistent with a minimum 2x unencumbered assets/unsecured debt coverage ratio and low levels of secured debt.

**Benefit to IDR or Recovery:** US, APAC and LatAm REITs tend to have senior unsecured ratings at the same level as the IDR given the record of encumbering assets to manage liquidity issues and lower default risk, which could reduce unsecured recoveries. Some REITs in relevant investment markets in EMEA have unsecured ratings rated one notch above the IDR, since the practice of encumbering assets is not viewed in the same manner but is used for recovery upon default.

**Senior Secured Instrument Ratings:** In certain instances, Fitch may rate senior secured obligations a single notch above the senior unsecured instrument ratings when the issuing vehicle is not bankruptcy-remote and secured bond investors have recourse to both the collateral pledged and a senior unsecured claim upon the parent REIT (amongst other factors).

### REIT Sector Recovery Uplift ('BB-' IDR and Above)

Fitch believes that in certain developed investment property markets in creditor-friendly countries (as detailed above), unsecured REITs' debt can, upon default, realise a higher level of recovery than the average 31%-50% range assumed for the bulk of investment-grade corporates.

Reflecting this, the REIT sector recovery uplift of one notch above the entity's IDR can apply to multi-asset REITs (whether a REIT or a real estate operating company) with a diverse tenant base, where the majority of its assets have the following characteristics:

i Stable commercial property investment (as opposed to speculative development);

ii Identifiable, distinct and standalone assets;

iii Regularly updated, independent "Red Book" (or equivalent national standard) valuations supported by long-term rental income; and

iv Located in an established property investment market with a record of liquidity even in poor market conditions.

In addition, the company covenants, or its financial policy are consistent with:

i A minimum 2.0x unencumbered assets/unsecured debt coverage ratio and a maximum secured debt/total debt (adjusted on a regional basis) ratio of 20% for investment-grade ratings.

ii A minimum of 1.5x unencumbered assets/unsecured debt coverage ratio and a maximum secured debt/total debt (adjusted on a regional basis) ratio of 40% at the 'BB' rating category.

The 2.0x unencumbered assets/unsecured debt coverage ratio is a significant ratio, since using a basic calculation of historical peak-to-trough valuation decline of 50% (see table below for the actual figures) would result in an 80%-90% recovery after administrative cost deductions, which is well above the average corporate recovery range of 31%-50%.

### UK Peak-to-Trough in Valuation Movement

| | Largest decline period | Decline (%) | Second-largest decline period | Decline (%) |
|---|---|---|---|---|
| Office | July 2007 – July 2009 | 44.7 | 1989-1992 | 40.2 |
| Industrial | June 2007 – July 2009 | 40.8 | 1989-1992 | 17.8 |
| Retail | May 2007 – June 2009 | 45.7 | 1989-1992 | 19.9 |

Source: Fitch Ratings, IPD

## REIT Bespoke RRs (‘B+’ IDR and Below)

While real estate values increase and decrease over time, commercial real estate is a capital-intensive investment and real estate values are a function of replacement cost, as well as a claim on future cash flows generated by the investment over time.

Given the cyclical nature of real estate fundamentals, Fitch considers (when determining net recoverable value) a stressed range of real estate values based on historical peak-to-trough changes in value, as well as expectations for future results.

Fitch’s data on US property values goes back to the early 1980s, which captures the full peak-to-trough period of two major industry downturns (the early 1990s and 2007-2009). Fitch’s UK data is based on Investment Property Databank (IPD) data which go back to 1985. Data for other countries go back fewer years. For markets and regions where historical data is insufficient or unavailable, Fitch utilises the most stringent assumptions, globally.

Fitch may choose to assess the EV of the issuer based on a GC EBITDA if it believes the issuer will be reorganised. If higher proceeds are expected from the sale of properties the LV approach is used.

### *Recoveries of Operating Real Estate Portfolio*

The method for determining the recovery value of the operating real estate portfolio depends on the valuation method by which assets are accounted for (book or market valuation) by the REIT.

### *APAC & EMEA REITs: Open-Market Value Basis*

In EMEA and APAC, REIT’s financial statements that use valuations based on the RICS Red Book (or market equivalent) are based on fair market value: the market value determined by a professionally qualified external valuer.

Similar to the approach used for US REITs, Fitch would adjust this balance sheet valuation for any changes in market conditions since the last valuation. Similarly, Fitch applies discount rates to the book value of non-stabilised real estate assets such as land and development in process (and other balance sheet assets), to determine the residual value of these assets.

### *US REITs: Net Operating Income Capitalisation Basis*

For US REITs that prepare their financial statements based on historical cost accounting, Fitch establishes a net operating income (NOI) estimate by targeting a post-restructuring cash flow to establish the level of cash flow upon which it is most appropriate to base the valuation.

Once the NOI from stabilised real estate is established, Fitch applies a capitalisation rate to determine a GC valuation. Fitch reviews a variety of sources to determine the capitalisation rates, beginning with rates utilised by Fitch’s US CMBS group. The CMBS capitalisation rate ranges are listed in the table below:

## US CMBS Cap Rate Ranges Based on Property Type

| Property type | Range |
|---|---|
| Multi-family | 8.00-9.50 |
| Office | 8.00-10.0 |
| Industrial | 8.25-9.75 |
| Retail | 8.25-11.50 |

Source: Fitch Ratings

These rates are meant to reflect rates historically seen during stressed market environments. Using these ranges as guidelines, Fitch applies a capitalisation rate (based on Fitch' view on asset quality and current market conditions) to determine the recoveries of the operating portfolio. Fitch performs a sensitivity analysis illustrating the outcome of cap rates above and below the target cap rate.

### *Recovery Estimate Adjustments to a REIT's Other Assets*

Fitch applies discount rates to the book value of non-stabilised real estate assets such as land and development in process (and other balance sheet assets), to determine the residual value of these assets.

In very limited circumstances, where there is some certainty and specificity as to the use of cash (completion of property or refurbishment, or the amount is ring-fenced for debt reduction), rating committees may include the value of this cash in estimating recoveries. Fitch generally applies a 50%-75% discount to other balance sheet assets depending on the asset's marketability and industry conditions.

The expected value of the real estate and the value of other non-stabilised assets are aggregated to determine the gross recoverable value (GRV) of a REIT's assets.

### Rating Senior Secured Bonds

Fitch does not currently rate any US REIT secured property-level mortgage debt due to the typical borrower structure (bankruptcy-remote special purpose entity) and the lack of implied corporate support demonstrated by REITs transferring properties to lenders through deed-in-lieu-of-foreclosure transactions.

In certain instances, Fitch rates senior secured obligations when the issuing vehicles are subsidiaries of the parent REIT, which means these are not bankruptcy-remote vehicles. These secured investors thus have recourse both to the specific collateral pledged and a general senior unsecured claim upon the parent REIT.

The senior secured ratings could attract an additional single notch above an issuer's senior unsecured ratings and the issuer's IDR. This reflects protective features usually seen in secured bonds such as security over, and control of, the assets' realisation process, minimum asset cover of secured debt and other covenants.

The ratings for these secured bonds will be derived from the REIT existing issuer IDR and senior unsecured rating. Typically, secured bonds allow substitution of value-like-for-like property. However, Fitch may decrease the one-notch uplift if adverse selection takes place, particularly if the secured pool is no longer representative of the wider property company's portfolio. Consistent with considering these bonds as a staple form of financing for the company, rather than securing its assets ahead of distress, Fitch expects the parent REIT's IDR to remain unchanged having issued the secured bond.

To obtain the additional notching for senior secured bonds, Fitch expects the bond to have a regularly reported minimum asset cover of secured debt covenant of at least 1.5x and a satisfactory rental-derived interest cover of at least 1.5x. If required or if the issuer is exposed to currency or interest-rate risk, Fitch expects the issuer will use hedges or other mechanisms to reduce exposure. In line with Fitch's REIT-specific credit factors post-issuance of the secured bond, Fitch would expect an investment-grade REIT to have unsecured asset cover of at least 2.0x and minimum unencumbered assets of EUR500 million.

The additional notching for recovery will also be dependent on the nature and quality of the properties and their underlying property market. In terms of quality, the pledged properties should be representative of the wider group portfolio and not specialised assets. With investment-grade issuers, these are usually located in investment markets with a strong transaction track record which affords liquidity at all points of the cycle, and a reliable, transparent, independent valuation methodology.

### Influence of Secured Financings on Recoveries

Where secured financings exist within the rated group and they are sufficiently ring-fenced so that upon default of the wider group these prior-ranking creditors are not contractually forced to subsequently realise their collateral, there could be some delay in post-secured debt residual value or post-senior debt service excess cash flow flowing to the unsecured pool. As a result, Fitch's calculation of the unencumbered pool may not include the immediate benefit of that surplus value or cash flow.

### Potential Notching Down of Senior Unsecured

In an environment where secured assets are financed with non-recourse to the rest of the structure, Fitch sees limited risks that could drive unsecured creditors' recovery expectation low enough (recovery below 31%) to require a notch-down. Fitch would nevertheless emphasise liquidity of relevant investment markets or potential adverse selection of assets when unencumbered asset cover decrease below 1.0x. When secured debt holders benefit from both security on defined assets and recourse to the rest of the structure effectively impacting recovery expectation of senior unsecured holders, Fitch estimates that up to 30% of secured debt to total investment properties is unlikely to lead to lower-than-average recovery expectation.

## Appendix 2: Notching and RR Criteria for Utilities

### Scope

This Appendix outlines Fitch's criteria for the sector recovery uplift applied to debt instrument ratings for utilities, power and gas (UPG) corporates globally. It also includes Bespoke recovery analysis details specific for the UPG sector.

UPG spans economic-regulated (also known as rate-regulated or regulated networks) and integrated utilities, parent holdcos, affiliated or independent generation companies, competitive energy retailers, and pipeline midstream energy companies providing electric power, natural gas, and water services. The sector one-notch recovery uplift for senior unsecured debt is primarily applied to entities with significant, identifiable economic-regulated assets in countries in Groups A, B and C, according to Fitch's *Country-Specific Treatment of Recovery Ratings Criteria*.

### Key Rating Drivers

**Recovery Uplift for Debt Instruments**: For certain utilities rated 'BB-' and above, Fitch applies a standard, one-notch uplift to the ratings of senior unsecured debt instruments relative to the IDR, representing expected above-average recoveries upon default. Secured debt instruments can attract wider notching. A Bespoke approach is used for companies with IDRs of 'B+' and below.

### Utilities' Unique Features

Fitch considers economic-regulated utilities that provide an essential service to customers to possess some financing features and analytical considerations that are unique in corporate finance and affect the assignment of RR and the notching of instruments relative to the IDR.

### Rationale for Sector Recovery Uplift

The recovery uplift for economic-regulated utilities reflects the fact that in a sufficiently robust regulatory framework, valuations of regulated utility companies, or of their underlying assets, vary less over the course of the business cycle than is typical of other corporate business sectors. The higher expected recovery values for economic-regulated utilities are based on observations of actual defaults and bankruptcies in this sector and their outcomes, though relatively sparse, as well as the common economic characteristics of regulated utility services in many parts of the world.

These characteristics include natural-monopoly-style asset bases and franchises with formidable cost, planning, and investment barriers to entry for competitors (where competition is permitted); regulated tariffs and customers' high dependence on the services; the essential nature of services; little or no exposure to commodity price and volume risks; only modest cash flow and capital structure changes over the course of a business cycle; a deep pool of potential bidders on distressed assets; and stronger asset values that are more easily determined. These same attributes also support utilities' low default experience.

### Utility Holding Companies

Fitch analysts assess utility holdcos and integrated parent utilities on the basis of their overall earnings stream and their business portfolio of economic-regulated utility and other activities. Holdcos may be passive investors (with or without an additional significant layer of debt) or operationally integrated with their operating subsidiaries (which may or may not issue significant external debt), providing centralised treasury activities and operational or administrative services.

Fitch's notching of utility holdco and integrated parent debt considers the capital structure, the legal, regulatory and bankruptcy framework applicable in the jurisdiction, including whether the business and financial affairs of utility parent companies are subject to regulatory supervision, ring-fencing or charter limitations, and the possibility of bankruptcy consolidation of the debts of the regulated utility subsidiary (opco), if any, and its parent holdco.

Holdcos that operate higher risk, mostly nonregulated businesses or contain a material amount of incremental leverage (and/or have intermediate holding subsidiaries with additional leverage) usually have financial and business risk profiles inconsistent with those typically associated with economic-regulated utilities, and would not be considered for the sector recovery uplift.

In considering whether the sector recovery uplift should apply to an integrated parent utility, especially where external debt is almost exclusively issued by the parent with a mixture of economic-regulated and other activities, Fitch pays particular attention to the proportion and quality of regulated cash flows and non-regulated cash flows, the relative robustness of earnings streams and how that affects recovery prospects.

The one-notch uplift from the IDR may be given to the unsecured debt of a structurally unsubordinated integrated utility parent with a dominant portion of regulated cash flows, i.e. around 50% or more of total EBITDA, including a maximum 5%-10% contribution from qualifying quasi-regulated businesses, with the remainder from regulated network businesses subject to limited or no volume and price risk.

Qualifying quasi-regulated businesses may include long-term power purchase agreements (PPA)-based power sales, power sales from renewable generation capacities supported by feed-in tariffs (or a similar support mechanism with limited price risk) in robust regulatory frameworks or regulated heat sales. All would be after an appropriate discount reflecting the individual historical volatility of such earnings, PPA-nature (fixed capacity and/or price) and quality of counterparties, and other factors that may affect valuation multiples.

### When Sector Recovery Uplift Is Not Applicable

Entities without economic-regulation in the electricity generation or natural gas sectors have demonstrated variance in asset valuation or corporate valuation over the business cycle or commodity cycle, and are considered to have average recovery prospects at the unsecured debt level. Included in this average recovery group are utility holdcos with material unregulated subsidiaries or a significant amount of incremental leverage; diversified energy companies; independent and merchant power providers; pipelines (other than those subject to the same regulation and regulatory authority as utilities); midstream gathering and storage assets, oil, and gas exploration and production, marketing and trading; and companies with unusual asset concentrations resulting in potentially greater than average volatility in valuations.

Utility holdcos and integrated utility parent companies with only limited regulated cash flow or utilities in less robust regulatory frameworks are more akin to other industrial companies or diversified energy companies integrated across the value chain for which Fitch does not apply any recovery uplift. This remains the case where the utility group as a whole is nominally subjected to a regulatory framework but where only a minority of cash flows are ultimately subject to the terms of formal economic regulation of specific revenues.

For entities which are not subject to formal economic regulation, default may be provoked by a wide range of reasons, including investment risk in competitive generation, operational risk on large-site generation complexes, fuel mix and process, trading mismatches, trading counterparty risk and changing environmental priorities and taxation policies.

Debt of utilities subject to formal economic regulation may be subordinated to, for example, sizeable and very long-dated super-senior derivative liabilities. In such cases, Fitch may not apply a sector recovery uplift as debt recovery is unlikely to be above-average.

Country-specific recovery considerations may also influence the application of the recovery uplift for debt instruments of utilities. Fitch believes higher rates of recoveries for utilities' senior debt are less predictable in a weaker sovereign environment than in an idiosyncratic default of any single utility. The one-notch uplift for higher expected recoveries on senior unsecured debt instruments issued by economic-regulated utilities is not applied when this would result in the instrument rating exceeding the relevant country's sovereign IDR. In that case, the senior unsecured debt rating is aligned with the regulated utility's IDR.

Within the above groupings, senior unsecured debt rating is generally the same as the IDR.

## Instrument Ratings

### *Utility Secured and Unsecured Obligations*

Secured obligations are rarely issued by highly rated investment-grade companies in the corporate portfolio and are not a customary funding tool for utilities in most parts of the world.

By contrast, electric and gas utilities in the US frequently issue secured obligations, particularly first mortgage bonds or secured general and refunding bonds with a spreading lien on nearly all hard assets that may represent a significant component of the debt structure. There are also a number of regulated utilities in EMEA issuing secured debt with additional covenanted features. These regulated utilities typically have two classes of debt – a senior tranche and a subordinated tranche – with both secured on shares. In cases where sizeable super-senior derivative liabilities substantially increase subordination of the secured debt issued by these EMEA regulated utilities, Fitch does not apply sector recovery uplift as the recovery of these instruments is unlikely to be above-average.

Instruments of economic-regulated utilities with IDRs in the ‘BB’ category to which this sector recovery uplift applies are capped at ‘BBB’. This is one notch above Fitch’s general corporate policy of capping ratings of secured instruments issued by entities with IDRs below investment grade at no higher than ‘BBB-’.

### Bespoke Recovery Analysis for UPG

Fitch performs a Bespoke recovery analysis for issuers with IDRs of ‘B+’ and below to arrive at an RR following the standard methodology. Fitch analyses the cash flow generation prospects of generation companies or midstream gas companies under alternative price scenarios and performs individual enterprise or asset valuations of these issuers. This analysis is supported by standardised valuation measures and data from recent sales of individual assets or asset portfolios.

UPG companies’ EBITDA varies due to weather and catastrophic outages but estimated recovery valuations assume normal weather and operating conditions if the catastrophic outages are considered temporary or reparable.

As is the case in Fitch’s general corporate analysis, RRs are based on the greater valuation from either a GC recovery approach or liquidation. However, in the utilities sector, issuers are expected to reorganise, based on the critical nature of the services provided and embedded value of the franchise or business lines.

In this sector, the discounted present value of projected future net cash flow can be employed in addition to, or instead of, multiple of stressed EBITDA, especially for power generation portfolios or other types of infrastructure assets. For energy retailers, price per customer is a customary valuation method.

## Appendix 3: Notching and RR for Investment Holding Company Instruments

In general, Fitch will rate senior investment holding company (IHC) debt — including debt secured by the equity of investments — at the same level as the IDR across the rating spectrum. Fitch will assign an 'RR4', reflecting average recovery expectations, for IHCs with IDRs of 'BB+' or below.

Instrument-level ratings are capped at the IDR to reflect the lower predictability of recovery prospects given the volatility of investments' equity valuations, which can deteriorate rapidly when an investment approaches financial distress, as well as the absence of control over investments.

Similarly, Fitch views below-average recovery prospects of below 31% as difficult to predict given the conservative loan-to-value thresholds set for IHCs, and the volatility of investments' equity valuations approaching financial distress.

Subordinated IHC debt will be rated one notch below the IDR, i.e. RR of 'RR5'. IHC hybrid debt will be rated per the *Corporate Hybrids Treatment and Notching Criteria.*

A criteria variation would be required for a rating committee to rate a senior IHC instrument above or below the IDR. The rationale for the rating and the details of the assumptions behind this assessment would be disclosed in the relevant Rating Action Commentary.

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