Corporate Rating Methodology – Instruments

1. Framework & Rating

This document provides an overview of the approach taken by EthiFinance Ratings when assigning long-term instrument ratings.

This updated methodology presents only some minor changes.

None of the above modifications are expected to change any of EthiFinance Ratings' existing long-term instrument ratings.

EthiFinance Ratings' instrument ratings are derived from the entity rating with a differentiation between investment grade issuers and sub-investment grade issuers.

2. Investment Grade Issuers

The instrument rating is derived from issuer rating. Rated entities with an entity rating of BBB- (investment grade issuers) and above usually have senior unsecured instrument rating in line with their entity rating. This reflects the fact that recovery rates for unsecured debt for investment grades issuers is usually in the 40% area (see recovery Table 1 below). In general, instrument ratings for investment grade issuers depend on their debt structure and jurisdiction but typically follow the same pattern which is:

- One notch higher than the entity rating for senior secured debt.
- By default, equivalent to the issuer rating for senior unsecured debt, with possibilities for adjustments (+/- one notch) in case of structural subordination or seniority (i.e. significant amount of senior secured debt or subordinated debt in the debt structure).
- One or two notches lower than the entity rating for subordinated instrument.

3. Sub-Investment Grade Issuers

For entities rated BB+ and below (sub investment grade issuers), EthiFinance Ratings adopts a more tailored analysis with the instrument rating being a combination between the recovery rate and the entity rating.

For sub investment grade issuers EthiFinance Ratings performs an analysis which is based on 3 steps:

- Determining a post-restructuring enterprise value.
- Estimating creditors' claims.
- Distributing the value available for claims based on priority of claims.

3.1. Determining a post-restructuring enterprise value

It is market practice to assess the post restructuring value of an issuer based on two different methods which are the going concern approach and liquidation approach. The post-restructuring enterprise value retained for calculating the recovery rate is the greater of the two approaches.

In most cases there is a restructuring on a going concern basis since this generally results in greater value for all stakeholders. Liquidations are only assumed if we believe the business model cannot be sustained.

3.2. Going concern approach

For this approach we use an EBITDA multiple approach which is based on the combination of the following two steps:

Determining a distressed EBITDA.

Selecting a multiple reflecting the company's relative positioning within a sector. This multiple is generally based on historical multiples used for peer bankruptcy reorganizations.

Determining a distressed EBITDA

This distressed EBITDA represents the level of EBITDA that will force the company to seek bankruptcy protection or push the company creditors to enforce their rights. This distressed EBITDA is a fixed charge proxy, i.e., the level of EBITDA under which the company cannot face its fixed obligations. This EBITDA is based on the capital structure at the moment of default and is the sum of the following items:

- Interest expenses due in the hypothetical year of default.
- Principal amortizations due in the hypothetical year of default. Amortizations are capped at 5% of the original principal and do not factor in bullet and ballooning payments due at maturity.
- Minimum capex requirements to allow the company to continue as a going concern. This estimate should be relatively stable and should be below the company's ongoing capex but higher than minimum maintenance capex. If no information is available, we will generally assume that this level of capex is equal to the depreciation level of the company.

- EthiFinance Ratings also has the discretion to include in its calculation other selective cash items such as cash payments or effectively obligated to make and that are not already captured in our calculation of distressed EBITDA.

Selection of multiples

Multiples are taken from recent market transactions and/or historical distressed sales where available. We note however, that these data are more easily available in the US rather than in Europe. As such, EthiFinance will make appropriate adjustments when needed in their analysis. As an indication, the all-sector mean is 6.0x.

3.3. Liquidation value approach

The liquidation approach usually involves discounting the book value of balance sheet assets and summing the results. EthiFinance Ratings generally applies the following discount to the following key assets:

- Account receivables: 20%.
- Inventories: 50%.
- PPE: 50%.

These discount rates are not fixed for all companies and the analyst may deviate from these rates if he believes there is sufficient reason to do so.

3.4. Estimating creditors' claims

EthiFinance Ratings assumes that unused portions of committed lines of revolving credit facilities are fully drawn (this excludes capex lines and acquisition lines or other committed lines which need a specific event in order to be drawn).

- Administrative claims: These claims are typically assumed to be up to 10% of the distressed enterprise value (EV). These claims include costs and expenses involved in operating and preserving the estate (wages, salaries, taxes, professional fees for lawyers …).
- Concession assumption: The value distributed to senior creditor may be reduced by a certain amount (up to 5%) distributed to junior claims in order to secure their consent for the restructuring plan.
- Pension: The Agency will typically take into account in its creditor claims pension obligations.
- Other non-debt and contingent claims: Material lawsuit, environmental remediation obligations or employee claims will also be factored in our analysis depending on the level of information available.

3.5. Distribution value

After the valuation processes are completed, the resulting post-restructuring EV is allocated to creditors according to their seniority in the waterfall.

In a number of jurisdictions, the waterfall approach is subject to country cap reflecting the creditor-friendliness of certain jurisdictions and enforceability of security in the event of a default. Instrument ratings for a given jurisdiction are subject to these caps, according to the country groupings listed in the criteria report and reflect the assumption that average recoveries are likely to be lower in regime that are debtor-friendly and / or have weak enforceability, and higher in jurisdiction that are creditor-friendly and / or have strong enforceability.

3.6. Recovery rating scale

EthiFinance Ratings divides the spectrum of recovery percentages from 0% to 100% into 6 categories as shown in the table below in order to define recovery rating and then to derive the notching of individual instrument ratings from the entity rating of the issuer. The percentage range should be considered as an estimate and not as a precise potential recovery.

Table 1 – Recovery table

Recovery %	Description of recovery	Impact on instrument ratings from entity issuer ratings
91%-100%	Outstanding	+ 2 / + 3 notches
71%-90%	Superior	+ 1 / + 2 notches
61%-70%	Good	+ 0 / + 1 notch
31%-60%	Average	+ 0 notch
11%-30%	Below average	-1 notch
0%-10%	Poor	- 2 / - 3 notches

Unsecured debt recovery rates are generally capped at the 71%-90% range. Contractually, subordinated debt that ranks after senior secured debt and senior unsecured debt in priority of payment would typically be capped at the 31%-50% range.

As described above, recovery rates are also capped by the country in which the issuer mainly operates in order to take into account the creditor-friendly (or otherwise) environment in this country. We have used data from the World Bank (doing business dataset as well as the worldwide governance indicators). EthiFinance Ratings distinguishes two different groups with one having its recovery rate capped at 31% - 50%.

- Group 1: No cap.
- Group 2: Recovery rates are capped at 31% - 50%.

Below is an example of key countries included in the different groups:

- Group 1: Western Europe, US, Canada, UK, Australia, Japan, Hong Kong, Estonia, Poland, Slovakia, Cyprus, Luxembourg, Hungary.
- Group 2: Brazil, China, Greece, Russia, South Africa, and similar jurisdictions.

This recovery rate cap approach does not mean that higher recovery is impossible for issuers located in group 2, it means the outcome is less predictable. We would like to mention that recovery ratings are not intended to provide precise numerical estimates. There are several factors that we cannot capture in our recovery analysis, one being the composition of the lender pool, which we believe is outside of our scope. Concentration of the claims at a certain level of the capital structure, common ownership of claims at different levels in the capital structure, or even differing entry price of investors within the same creditor class will have profound impact which are not captured by this analysis.

This document updates the previous version while preserving its original methodological criteria; therefore, all existing ratings remain unchanged. In this version, the format has been updated and includes a higher level of detail.