Long-term corporate rating methodology and rating process

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1. Introduction

This document provides an overview of Qivalio (formerly Spread Research)'s rating process (including rating initiation and rating monitoring) and rating methodology.

With this updated review we present further refinements and clarifications in order to provide additional transparency and clarity regarding our methodology. Among other areas, this update gives further details on:

- IFRS 16: the introduction of IFRS 16 significantly impacts the financials of our rated companies by bringing operating leases onto their balance sheets. However, after 12 months of implementation of this new accounting rule and several reviews of quarterly results of companies we can conclude that the new rule has had very little impact on our ratings as Qivalio already factored lease liabilities into its debt calculations.
- We made some minor editorial changes in order to give further details on our methodology

None of the above is expected to change any of Qivalio's existing corporate ratings.

2. Framework and definition

2.1 Corporate issuer rating

Qivalio's corporate ratings indicate an issuer's credit quality, for which we assess the company's business profile (such as its positioning, the underlying market trends of its operations, its diversification, and other business-related criteria) and financial profile (cash flow generation, leverage profile, margins etc.).

When determining an issuer's rating we perform both an historical analysis of the financial data as well as a forward-looking analysis using qualitative and quantitative information. Our forward-looking analysis factors in the potential impact of risk factors which we have identified during our analysis and which may have an impact on the credit profile of the company.

Qivalio's corporate ratings are assigned assuming a single corporate entity and a single class of debt, regardless of structural or contractual considerations. Consequently, Qivalio's ratings apply to consolidated groups for which audited consolidated accounts are available for the ultimate consolidating holding company. Debt located at holding level (e.g. PIK), above the consolidated group, may be factored in on a case-by-case basis depending upon the degree of protection offered by group covenants against cash leakage to service such debt.

Our ratings are split using the following grid:

AAA	Highest credit quality and extremely low business and financial risk
AA+ AA AA-	Very large scale and very high level of diversification, very low risk business (proven resilience through economic crisis), very high FCF and very low leverage
A+ A A-	Large scale and high level of diversification, low-risk business (proven resilience through economic cycles), high FCF and very low leverage
BBB+ BBB BBB-	Large scale and high level of diversification, low-risk business (proven resilience through economic cycles), positive FCF and / or low leverage
BB+ BB BB-	Medium / low risk business (stable and predictable cash flows), positive FCF and / or low leverage
B+ B B-	High-risk business, negative FCF and / or high leverage
CCC+ CCC CCC-	Very high leverage, negative FCF, weak liquidity and / or restructuring / default likely
CC	Out-of-court consensual restructuring
C	In-court restructuring without failure to fulfill financial obligations
D	Missed payments on interest or principal (post-grace period)

Qivalio defines a default as either i) a missed payment (post-grace period) on a coupon or the debt principal, ii) an in-court restructuring with a failure to fulfil financial obligations, or iii) a liquidation.

2.2 Instrument rating

Qivalio may also assign instrument ratings. Instrument debt ratings reflect our assessment of the credit quality of the corporate debt instrument. These ratings can be assigned for both short-term and long-term debt instruments.

Our long-term ratings are assigned to long-term debt instruments and derive from the issuer's corporate rating and its recovery rate in a hypothetical default scenario, as well as case-by-case factors.

Our short-term ratings are assigned to short-term debt instruments such as commercial paper and other instruments with a maturity of between 12 and 15 months. Our short-term ratings derive from the issuer's corporate rating, its liquidity profile, and our assessment of its outlook.

2.3 Outlook

The outlook is Qivalio's indication of where the credit metrics of an issuer are heading within a 12-month period. Please note that Qivalio's outlook is not a measure of the likelihood of a rating change.

Qivalio's outlook can be Negative, Stable or Positive.

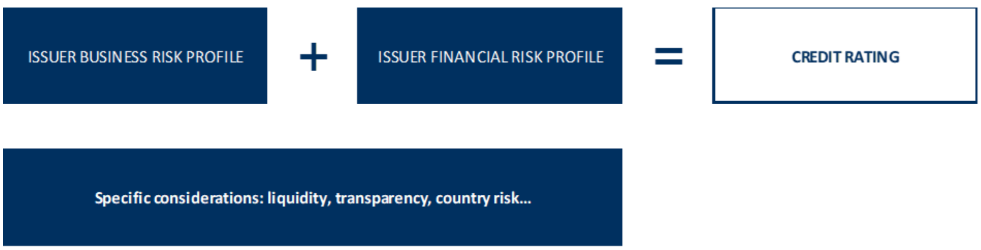
The outlook is based on Qivalio's own financial projections and forecasts relative to future credit metrics.

3. Corporate rating methodology

3.1 Methodological approach

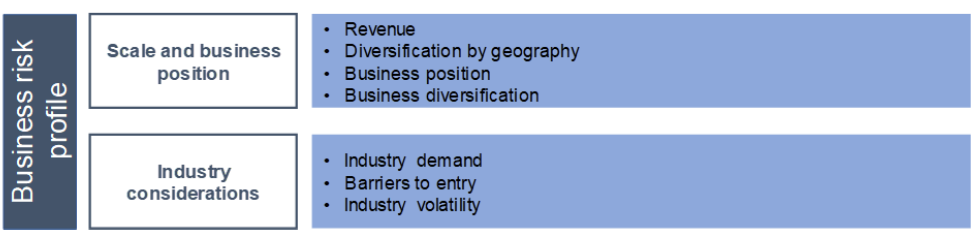
Ratings assigned by Qivalio are based on the analysis of a mix of qualitative factors (business risk profile, management strategy etc) and quantitative factors (historical and projected credit metrics, liquidity etc). More specifically, a rating is the weighted average of an issuer's business risk profile and its financial risk profile.

Certain specific credit considerations may subsequently cap such a rating at a lower level than originally envisaged. These include among others country risk, liquidity profile, and transparency.



a. <u>Rating Factors: Business Risk Profile</u>

We assess the business risk profile of an issuer based on a number of qualitative factors as per the chart below. Typically, our assessment is comprised of two layers of analysis, including (1) the scale and business position, and (2) industry-specific considerations (which encompasses the macro-economic environment).



Please note that although the factors shown below and discussed thereafter are the most commonly used, we may use other factors depending on the industry and the business model concerned. Also, the factors presented below may not be relevant for a specific issuer depending again on the industry in which it operates (e.g. competition may not be relevant in a regulated industry).

Scale and business position

Revenues: The larger the company, the more resilient it is likely to be. Our credit analysis factors in scale based on revenues as reported by companies. We may apply a discount to revenue or assess operating earnings rather than revenues for a certain industry (e.g. due to high volumes of sales on the food retail market, we usually apply a discount to the revenues of retailers for comparability purposes with other sectors).

Geographic split: The more diverse a company, the better it is from a risk perspective. Geographic split can be analyzed through revenues, the location of production sites etc. The highest grades are assigned to the companies whose revenues and/or location sites are split evenly between 4 continents.

Business position: Our business position factors in competition on the market and the position of the company with respect to competitors. Highest grades are assigned to companies which are leaders in their markets and drive trends in their sectors. Conversely, companies which are followers and have limited market share are assigned lower grades. Niche markets are considered to be in between. Companies can be leaders in niche markets and thus be more resilient but they will also be limited by the size of the niche.

Business diversification: We assign our highest grades to companies which have a diversified range of products in several industries. Conversely, single-product or niche market companies are more exposed in the event of a downturn of their market.

Industry considerations

Industry demand: Demand influences financial performance as it drives volumes and product/service prices. Our demand criterion factors in the existence of long-term contracts, growth in demand, correlation to GDP, and the risk of product substitution. Companies with long-term visibility and top products are more likely to have high ratings while companies which operate in sectors with declining demand or a high risk of product substitution are often assigned low ratings.

Industry barriers to entry: The higher the barriers, the more resilient the industry. High barriers to entry can relate to strong knowhow, high investments needed, and/or highly regulated markets with authorities' approval needed (e.g. pharmaceutical companies). Conversely, markets with little knowhow or low necessary investment are likely to be more competitive and drive ratings down.

Industry volatility: Stable markets where prices, volumes and track records are predictable and resilient over a long period of time, notably through the use of long-term contracts, generate high ratings. Conversely, markets with commodity price swings and where volumes vary widely in a short period of time, due to the discretionary spending of the end-user for instance, entail low ratings.

Again, Qivalio may include additional considerations which are not included above but which may have an impact on the business profile of the company such as:

Ownership of the company: Qivalio assesses the level of support that may be provided by an issuer's shareholders based on their track record, willingness and ability to respond, as well as appetite for risk, including financial policy, dividends and share buybacks.

Management: Qivalio assesses the quality of a management team based on its skills at running the business as well as track record in executing and delivering a business plan and for meeting guidance.

Strategy: Qivalio assesses the strategy of an issuer based on its business perspectives as well as the level of risk that management is looking to run in the context of its development plans (e.g. organic growth/M&A), execution risk etc.

b. Rating Factors: Financial Risk Profile

We assess the financial risk profile of an issuer based on a number of key credit metrics. We look at both historical (we usually try to go back as far as possible to analyze the performance of the company through the latest financial crisis – if this is not possible we generally focus on the last three years) and projected metrics, although ultimately projected metrics carry more weight as long as there is sufficient confidence in them.

Financial risk profile	**Financial policy**	• Dividend payout ratio, share buyback, management's guidance • Debt-funded M&A
	Leverage	• Net adjusted debt / adjusted EBITDAR • FFO adj lease dep / Net adjusted debt
	Coverage	• Adjusted EBITDAR / interest adjusted lease interest • Adjusted EBIT / interest

As illustrated above we look at a number of ratios. However, we have a cash-oriented approach and we tend to focus on metrics which give an overview of the cash flow generation of the company, its debt protection and its credit risk.

Please note that although the ratios cited below are the most common metrics used, we may use others depending on the industry concerned. Also, ratios presented below may not be relevant for a specific issuer depending again on the industry in which it operates.

In order to capture the best picture of a company's credit risk we tend to operate a number of adjustments, especially at the debt and EBITDA levels:

Adjusted Debt

We capture in our definition of adjusted debt all capital markets debt and bank debt, in order to have a more accurate picture of a company's liabilities. Based on the issuer's disclosures we also include in our adjusted debt off-balance sheet items such as unfunded pensions deficit, operating leases for companies which do not report under IFRS, hybrid capital, and other debt-like items (such as deferred payment).

We explain below the rationale for treating these items as debt:

Employee benefits (pensions…): Companies which have underfunded defined benefit pension plans have to record pension liabilities on their balance sheet. Qivalio adds to the debt 100% of the pension deficit (computed as projected benefit obligation or PBO less fair market value of plan assets - i.e. the amount required, if any, for pension plans to be fully funded).

Operating leases: Operating leases do not transfer ownership of the underlying asset; payments are made for usage of the asset and as such both the assets and liabilities are not reported on the balance sheet despite the fact that entities are using the assets and contractually obligated to pay the lease. Qivalio adjusts the balance sheet with the debt associated with operating leases by using i) for sectors where leases are an intrinsic part of the business/financing model (e.g. transportation, services), a capitalization multiple of the annual lease payment (generally between 3x and 8x); and ii) for other sectors, the higher of net present value (NPV) of commitments relative to future operating lease payments as of the latest balance sheet date, based on a notional discount rate of 7% and industry capitalization multiple. Accordingly, we compute EBITDAR by adding back to EBITDA the annual lease payment; and adjusted interest by adding to interest the portion of the annual lease payment that relates to interest (33%).

With the introduction of IFRS 16, companies reporting under IFRS standards now have to disclose on their balance sheet their lease liabilities. This is having a significant impact on the reported financial profile of the companies as these liabilities were off-balance sheet before the change of rule. However, the introduction of IFRS 16 is not materially impacting on our ratings as our adjusted credit metrics already factored in operating leases.

Hybrid capital/convertible bonds: Hybrid capital are instruments that have both equity and debt characteristics. This type of instrument is generally complex and ranked junior to debt in the capital structure but senior to classic equity instruments. We will generally retreat these capital instruments as debt if interest payments are in cash, if there is no conversion option, if the maturity of the hybrid capital falls before a senior debt, or if there is a steep step-up clause for the interest rate.

Off-balance sheet and other debt-like items: Qivalio may adjust the debt of the company with other off-balance sheet items which are considered debt-like such as debt guarantees, securitization, and deconsolidated factoring. Furthermore, Qivalio may adjust net debt for hedging assets/liabilities.

Adjusted EBITDA/adjusted EBITDAR

Qivalio adds back rental payments to EBITDA to calculate EBITDAR. We may also include in our adjustments, and based on the issuer's disclosures, other adjustments such as exceptional costs that we deem recurring in nature, restructuring costs needed for the business, retreatment of non-cash items such as gains from financial instruments or asset sales, and add backs of capitalized R&D expenses.

When determining the rating of a company we analyze in detail four key credit ratios which are:

- Net adjusted debt/adjusted EBITDAR: This is the standard and most commonly used measure of an issuer's ability to repay or refinance its outstanding adjusted debt.
- Adjusted FFO/net adjusted debt: With respect to the ratio above, FFO includes cash interest expenses, taxes, as well as some other cash items (dividends to minority interests, dividends received from associates, payment of lease liabilities etc).
- Adjusted EBITDAR/adjusted interest: This is the standard and most commonly used measure of the issuer's ability to service its debt.
- Adjusted EBIT/interest: Compared to the above ratio this ratio excludes D&A from the computation. As a consequence, this ratio takes into account the capital intensity of the issuer's business as D&A is usually used as a proxy for sustaining the actual amount of a company's PP&E.

Whilst these ratios are important for assessing the corporate profile and the rating of an issuer, Qivalio also uses other credit ratios in its rating process. Please see Appendix I for a brief overview of the other ratios and how we use them in our analysis.

Financial policy

Qivalio captures in this element management's risk appetite for discretionary spending such as acquisitions, dividends, share buybacks and the extent to which these are funded via debt. Qivalio also takes into account management's guidance and its track record with respect to following stated financial policy.

c. Rating Factors: Specific Considerations

After having assessed the business risk profile and the financial risk profile of an issuer, Qivalio looks at certain key rating factors the presence of which could cap the final rating at a lower level than that resulting from the risk profile assessments.

This is because such rating factors are seen as necessary for the company to survive on a going-concern basis, are key to monitor the performance of the issuer (transparency), or expose the issuer to material event risks which are tougher to quantify through a grid and thus cannot be factored in otherwise (country risk). This denotching applied to the rating originally envisaged can be up to three notches, although it is generally closer to one or two notches.

Transparency

Qivalio measures the degree of transparency of an issuer based on the quality of the information and the level of details provided to investors, including quarterly financial statements, market data, KPIs, operational and financial guidance etc. Listed companies tend to score higher on this metric relative to privately-owned companies. It is measured by Qivalio on a scale of “0” to “5”

Transparency is key for investors to monitor the operating and financial performance of an issuer. Whilst a high level of transparency would not raise a rating, the material lack of sufficient transparency may cause us to cap a rating at a level lower than normally envisaged to capture the risks associated with poor disclosure, including that of unforeseen events coming up without pre-warning. Ultimately, an extremely low level of transparency may not be commensurate with the ability to maintain a public rating, and could cause us to withdraw such a rating (subject to the Rating Committee’s approval).

Liquidity

Liquidity is key for an issuer to operate both in good times and even more importantly in time of stress. Qivalio applies a liquidity assessment as an overlay to the initial rating. Thus the absence of sufficient liquidity as defined below may cause an issuer’s rating to be lower than that resulting from the combination of the business and financial risk profiles of such issuer.

- Liquidity is Qivalio’s measure of how long an issuer can finance its operations assuming that access to both equity and debt capital markets is closed. It is measured on a scale of ‘0’ to ‘3’ years:
    - 0 year: the issuer has insufficient liquidity to face its debt obligations in the coming years, and/or may run out of liquidity due to cash burn;
    - 1 year: the issuer can meet its debt obligations for the coming year;
    - 2 years: the issuer can meet its debt obligations for the coming two years;
    - 3 years: the issuer can meet its debt obligations for at least the coming three years.

The liquidity analysis is based on Qivalio’s own forward-looking covenant computations and financial forecasts that allow us to assess the balance between an issuer’s projected sources and uses of funds.

- Sources of funds considered by Qivalio include unrestricted cash, undrawn committed credit facilities with expiry > 1 year and FFO (post-working capital). Qivalio typically excludes from its assessment restricted cash, the minimum level of cash required to run the business (when available, alternatively we may use the historically lowest quarterly cash level exhibited or a percentage of turnover), uncommitted credit facilities, and asset disposals (unless already agreed upon).

- Uses of funds considered by Qivalio include capex, acquisitions already agreed upon, dividends, and debt maturities.
- The liquidity score is adjusted for the potential impact of a covenant breach.
- Until Q3 in a fiscal year; the liquidity score captures the remaining quarters left during that year as well as the two following fiscal years. In Q3, the starting point of the assessment shifts to the beginning of the following fiscal year and captures the three fiscal years thereafter.
- Changes to the liquidity score are made by the lead analyst upon revision of the debt structure and/or financial forecasts, or in the event of significant news.

Country risk

Whilst the absence of country risk does not enhance a rating, the presence of an issuer in an unstable operating environment is likely to weigh negatively on its rating, and could cause it to be lower than if the issuer had similar operations in a more stable environment – such as an OECD country.

Risks concerned include among others political risk (risk of civil war, riots, etc.), risk of expropriation/nationalization, regulatory risk, fiscal risk, currency control, as well as safety issues. Qivalio uses a number of measures to track country risk; including the ratings of French credit insurer Coface.

Generally, the corporate rating will be capped by the country of operation rating, which reflects the fact that a company's credit risk is a function of its country of operation risk. Additionally, as we describe in more detail in our recovery analysis, a recovery rate is capped by the country of operation of a company in order to take into account the creditor-friendliness, or otherwise, of jurisdictions and enforceability of security in the event of a default.

Other events

Other specific considerations may relate to potential M&A operations which may not have been analyzed through the financial risk profile. Likewise, financially stressed companies may not always be easily identified through standard credit metrics, which may justify additional denotching.

4. Instrument rating approach

This methodology is mostly used for issuers of subordinated debts with several layers of debt, typically having a corporate rating below BBB. The instrument rating is derived from the corporate rating on which a notching is applied (up, down or neutral). The notching depends mainly on the capital structure of the issuer and the recovery rate for the relevant instrument or class of debt (e.g. senior secured term loan and senior secured bond that are pari passu are in the same class of instruments). The capital structure of the issuer is analysed from a quantitative and qualitative perspective. The qualitative perspective is based on the review of the documentation of the different layers of debt to determine structural and contractual seniority or subordination as well as the structure and quality of the security package. The quantitative perspective relates to the size of the rated instrument relative to the total amount of debt (e.g. its percentage of total debt). Recovery rates are assessed in a way that neutralizes short term evolution that could be linked to seasonality of the business of the issuer or other variables bringing volatility.

Instrument notching may go between +2 and -3 notches based on the debt structure, instrument specific features and recovery rate. The final decision about the assignment of the instrument rating remains subject to the Rating Committee's decision based on a case by base specific assessment if needed.

5. Short-term instrument rating

Qivalio has developed its own proprietary methodology, the details of which can be found here: https://www.spreadratings.com/wp-content/uploads/2019/12/SrShortTermCorporateRatingMethodology.pdf

6. Rating process

At the beginning of each rating process, Qivalio designates a lead rating analyst to be responsible for conducting the fundamental credit analysis, formulating a rating recommendation based on Qivalio's relevant criteria and methodology, as described later, and presenting sufficient and relevant information to the Rating Committee.

Ratings can be assigned to a company and an instrument only if Qivalio has access to sufficient information on the company and the instrument. Information required comprises:

- The three most recent annual reports and their audit certification (if available).
- The latest interim report if any (either quarterly or semi-annual report) and management presentations on operating results, including the review of competition and market developments.
- The documentation on debt instruments.
- At least one access to management during the last twelve months, either through an earnings call or a one-to-one call between Qivalio's rating analyst and the company's management or investor relations department.

In the event Qivalio has access to non-public information, we will require obtaining in addition the main terms and conditions of credit facilities agreements, including financial covenants.

The rating production process is organized through the following steps:

- Step 1: Review of annual reports (at least the three most recent) and their audit certification; Review of the quarterly results and all information available.
- Step 2: Review of competition and market developments. This can be done thanks to the company's information on its market position, or information available from its competitors, industry associations, or the regulator's database.
- Step 3: Review of the debt prospectus when available.

For each of the previous steps, the rating analyst assesses historical data available, including financial statements, the breakdown of group's revenues, operating margin, debt structure, and financial covenants which have been disclosed to Qivalio if any.

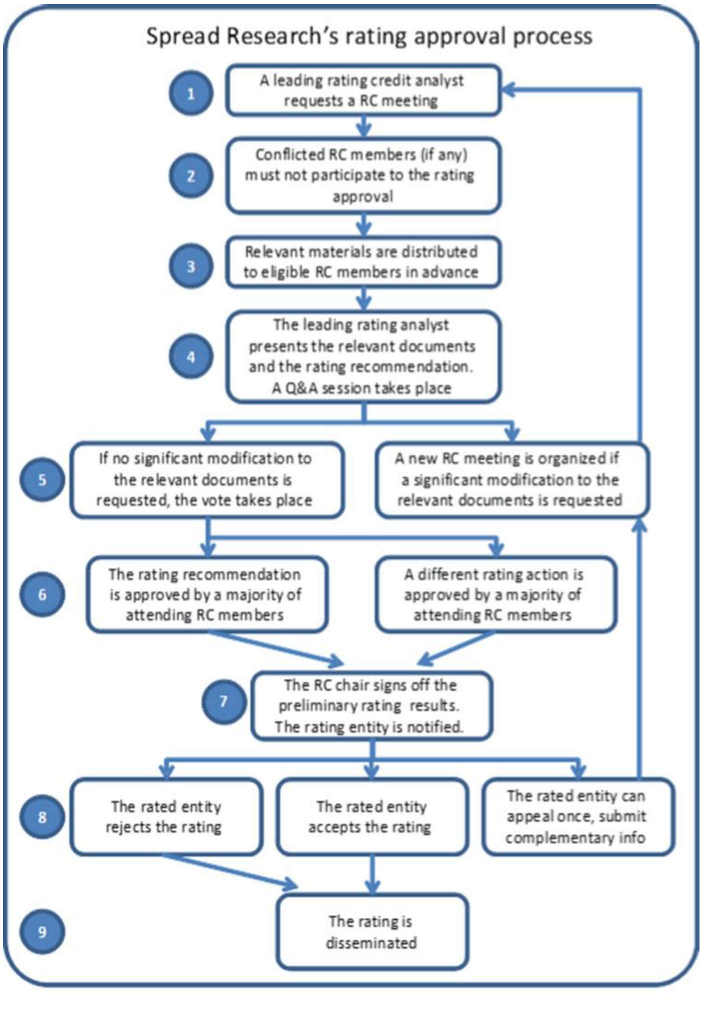
- Step 4: Call with management; in particular, the lead rating analyst assesses the company's strategy, its acquisition and dividend policies, as well as its financial leverage target (if any). The quality of information received and used through the rating process is summarized in the "Transparency Index" issued by Qivalio's analysts. This index gives a fair assessment of the quality of the information used in the rating process. Qivalio uses a proprietary model to analyse the data collected and to highlight credit metrics which are then used to determine the rating.

- Step 5: Once the analysis is complete, the lead rating analyst requests a Rating Committee meeting as a result of (1) a rating initiation, or (2) a rating recommendation as part of its monitoring responsibilities (See Rating Monitoring section later in this document). Before relevant materials are distributed to Rating Committee members, the rating committee chair asks Rating Committee members to disclose any conflicts of interest situations, in order to prevent any such member from having access to the vote and information. Please note that the lead rating analyst is required to disclose any conflict of interest before starting to work on a rating. Rating Committee members being conflicted must not attend the Rating Committee meeting and they must not receive (or have access to) any relevant materials. Remaining Rating Committee members are eligible to attend the Rating Committee meeting and vote for a rating action. All relevant materials are distributed to eligible Rating Committee attendants in advance. Materials must at least include the following documents on a specific rated entity:
    - The "credit profile". A full fundamental credit analysis that is done at rating initiation.
    - The financial model.
    - The rating recommendation that has been prepared by the leading rating analyst. The rating recommendation describes the rationale for the rating action he/she recommends, the credit outlook. and the rating sensitivity.
    - Step 6: The relevant materials are presented by the lead rating analyst during the Rating Committee meeting, and evaluated by rating committee members. A Q&A session follows the presentation of the documents. If a significant modification to the relevant document is requested by a Rating Committee member and deemed appropriate by the Rating Committee chair, the lead rating analyst is required to update the relevant documents and a new Rating Committee meeting must be arranged. If not, the vote takes place. The rating recommendation is validated by the Rating Committee if it is approved by a simple majority of attending Rating Committee members. A different rating from the recommendation can be validated by the Rating Committee if a majority of attending Rating Committee members vote for it. One Rating Committee member is entitled to one vote only. In case of a tie in votes, the Rating Committee chair has the final decision on the rating.
- Step 7: The lead rating analyst prepares a Rating Committee meeting report that is reviewed and signed off by the Rating Committee chair. The Rating Committee meeting report must include:
    - the date on which the rating action is approved by the Rating Committee;
    - the key rationale for the rating action plus the name and job title of the attendees, including lead rating analyst and Rating Committee chair;
    - the main topics which were discussed during the Rating Committee meeting;
    - the name and the number of Rating Committee members and their votes;
    - information as to whether the rating was solicited or unsolicited;
    - information as to whether the rated entity participated in the rating decision (e.g. by supplying information or discussing credit-related issues); and
    - information as to whether the rated entity has appealed the preliminary rating result.

The lead rating analyst then prepares a draft release report that is reviewed by the Rating Committee chair.

- Step 8: Qivalio provides the rated entity with the preliminary rating result and an electronic copy of the draft release report. According to ESMA regulation, the rated entity has a limited time period during which it can send a written request to accept the preliminary rating result or appeal for re-evaluation by mentioning factual errors or submitting additional information. This response may prompt the rating analyst to:
  - disseminate the rating result;
  - request another Rating Committee in the event that the preliminary rating results have to be reconsidered due to (1) significant factual errors, (2) material complementary information given by the rated entity, or (3) an appeal for re-evaluation of a solicited rating.
- Step 9: Qivalio (1) has not received a written request from the rated entity within the limited time period, (2) the rating entity accepts the preliminary rating results, or (3) the credit rating has been reconsidered following an appeal, the preliminary rating result is then considered final, and the release report can then be disseminated on Qivalio's websites (for solicited and unsolicited ratings), as well as on other financial media (for solicited ratings only).

Please note that in the event that the rated entity contests the preliminary rating result (in the case of a solicited rating), the credit rating will nevertheless be published and only withdrawn thereafter.



7. Rating monitoring

7.1 Frequency

Once a credit rating has been published, Qivalio will monitor it on an ongoing basis. The lead analyst in charge of the rating will submit a rating recommendation to the Rating Committee accordingly in order to factor in the evolution of the creditworthiness of the issuer.

The Rating Committee must assess the rating of a rated entity at least every 12 months, even if the lead analyst recommends maintaining the existing rating.

7.2 Responsibilities

After a rating initiation, the lead rating analyst is in charge of monitoring developments on an ongoing basis:

The lead rating analyst is in charge of collecting and analyzing relevant fresh information on the rated entity.

The lead rating analyst reviews the consolidated financial statements and financial forecast of rated entities within his/her coverage on a regular basis. The timing of such reviews will depend on the frequency of financial reporting by rated entities (in most cases on a quarterly or semi-annual basis, and at least on an annual basis).

The lead rating analyst shall have access to the rated entity's management or investor relations department at least every 12 months, through participation in investor call/meetings, or the organization of one-to-one meetings.

The lead rating analyst may request a Rating Committee meeting, and formulate a new rating recommendation whenever he or she believes that a change in the rating is appropriate. The lead rating analyst initiates a rating review (even if he/she recommends maintaining the rating) at least annually.

The lead rating analyst continues to apply all of Qivalio's relevant criteria and methodology.

7.3 Monitoring process

a. Collection of information

The monitoring process is primarily based on the following pieces of information:

- Rated entity's financial information. Public information is released by the rated entity on its website, or sent to investors and other interested parties by e-mail. Public financial information includes financial press releases, financial reports, and results presentations. The lead rating analyst must ensure that Qivalio has signed up for e-mail alerts sent by the rated entity, when the service is available. The lead rating analyst or the backup rating analyst listens to the company's investor calls where management discusses the latest results (either by attending the meeting or listening to the phone call/webcast/replay). If there are no regular investor calls, the lead rating analyst organizes a physical or a telephone meeting with the rated entity's management (or the rated entity's investor relations department) at least every 6 months. In the event that the rated entity's financial information is private, the lead rating analyst ensures that financial information/reports are disclosed in a timely fashion by the rated entity.

- Relevant press articles.
- Market indicators, where available.
- Available documentation on bond and bank debt; either final or preliminary. This information can be of a private nature.
- Information on the web from sector research firms providing market and competition analysis, or from regulators.

b. Analysis and assessment of information

The analysis of information could be either qualitative or/and quantitative:

- Qualitative analysis – the lead rating analyst conducts SWOT analysis (strengths, weaknesses, opportunities and threats), assesses management's track record and potential shareholder support, plus pays special attention to the company's competitive position and its strategy.
- Quantitative analysis – the lead rating analyst assesses ratios that determine the financial position of the rated entity, and assesses the evolution of the operating performance on a sequential or year-over-year basis.

Qivalio's ratings are forward-looking, and historical data as well as market forecasts are used in a way to determine the rated entity's credit trend and relative default risk in the near future.

7.4 Trigger for a rating review

- The lead rating analyst may recommend a change in rating when he or she becomes aware of any financial, business, economical or operational information that he or she thinks might result in a rating action, consistent with Qivalio's relevant criteria and methodology, such as:
- News that is deemed as significant such as a material acquisition;
- the publication of financial results that differ materially from expectations;
- announcement of a change in the capital structure of the rated entity, following an event in the history of the rated entity (merger, divestment, debt repayment, equity issuance, debt restructuring, failure to pay a coupon, etc…);
- a macroeconomic event capable of affecting the operations of a rated entity, whether directly or indirectly;
- a change to some financial measures (for example, interest rates), having a direct or indirect effect on the credit worthiness of the rated entity;
- a change in regulation;
- any other significant change.

Appendix 1: Additional credit metrics

Earnings

- Revenue growth: This is a helpful measure used by Qivalio to assess the ability of a company to expand and/or to outperform (or conversely underperform) its market. We tend to focus on like-for-like measures to better assess the underlying performance of the business and to eliminate the distortions created for example by M&A activity and FX. When revenues are comprised of a mix of volumes and prices, we will look at both and try to separate the impact of both in order to analyze each separately.

- Revenue volatility: For companies which operate in seasonal industries we analyze the quarterly volatility of earnings in order to analyze the potential cash impact.

Profitability

- Gross margin: Computed as revenue less cost of goods sold divided by revenue. We find it useful for tracking trends in the profitability of a business.

- EBITDA margin: Computed as EBITDA divided by revenue. This is the standard and most commonly used measure of profitability. It is nevertheless more relevant to asset-light businesses vs. capital-intensive businesses (see EBIT margin below).

- EBIT margin: Computed as EBIT divided by revenue. Compared to the EBITDA margin, this ratio is more useful for capital-intensive businesses (e.g. airlines, oil and gas) that have substantial amounts of depreciation and amortization.

Cash Flow

- EBITDA – capex/interest: Computed as EBITDA less capex divided by gross interest. Compared to the EBIT interest cover, this ratio factors in the actual amount of capex spending which can be different from the annual level of D&A depending where the issuer stands in its investment cycle.

- CFO/net debt: Computed as cash flow from operations post-working capital divided by net debt. Compared to the standard leverage ratio (net debt-to-EBITDA), this ratio captures the ability of an issuer to service its debt after it has funded its working capital needs as well as tax and interest payments.

- FCF/net debt: Computed as free cash flow (pre- or post-capex and dividends) divided by net debt. Qivalio uses this ratio to assess the ability of an issuer to generate positive free cash flow, excluding exceptional or non-recurring items such as share buy-backs, acquisitions or disposals.

Capitalization

- Net debt/equity: Computed as net debt divided by equity. This is a common measure of static leverage, which allows us to assess the availability of sufficient equity cushion to support the business.

- Debt/book capitalization: Computed as total debt divided by total debt plus equity. This is another common measure of static leverage.

- LTV (or loan-to-value): Computed as total debt divided by asset value. This is a ratio mostly used when there is a readily available and transparent market value for the assets of the issuer. This is commonly used in the real estate and financial holding sectors.

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