Corporate Rating Methodology

Master Criteria

This report updates and replaces the version published on 4 April 2016.

Scope

Issuer Ratings: An Issuer Rating (IR) is an assessment of an issuer's relative vulnerability to default on financial obligations, and is intended to be comparable across industry groups. Issuers may often carry both Long-Term and Short-Term IRs. Because both types of IRs are based on an issuer's fundamental credit characteristics, a relationship exists between them (see Figure 2 and Related Criteria "Short-Term Ratings Criteria for Non-Financial Corporates").

The criteria apply to all corporate sector entities, including manufacturing, services and trading companies.

Instrument Ratings: The rating of an individual debt security can be different from the IR depending on the security's priority among claims, and other aspects of the capital structure.

Key Rating Drivers

Qualitative and Quantitative Factors: India Ratings and Research's (Ind-Ra) corporate ratings reflect both qualitative and quantitative factors encompassing the business and financial risks of fixed-income issuers and their individual debt issues.

Figure 1
Key Rating Factors

• Industry risk	• Financial profile
• Operating environment	○ Cash flow and earnings
• Company profile	○ Capital structure
• Management strategy/governance	○ Financial flexibility
• Group structure	

Source: Ind-Ra

Historical and Projected Profile: Ind-Ra's analysis typically covers at least one economic cycle of the issuer under review. The analysis should cover at least three years of operating history and financial data, as well as the agency's forecasts of future performance. These are used in a comparative analysis, through which the agency reviews the strength of an issuer's business and financial risk profile relative to that of others in its industry and/or rating category peer group.

Weighting of Factors Varies: This comparative analysis includes consideration, where appropriate, of the potential for changes in the issuer's operating environment or financial strategy relative to its ratings. The weighting between individual and aggregate qualitative and quantitative factors varies between entities in a sector as well as over time. As a general guideline, where one factor is significantly weaker than others, this weakest element tends to attract a greater weight in the analysis.

Related Research

Parent and Subsidiary Rating Linkage (April 2016)
Short Term Ratings Criteria for Non Financial Corporates (April 2016)
Treatment of Hybrids in Non-Financial Corporate and REIT Credit Analysis (September 2012)

Analysts

Sudarshan Shreenivas
+91 22 4000 1783
sudarshan.shreenivas@indiaratings.co.in

Sreenivasa Prasanna
+91 44 4340 1711
s.prasanna@indiaratings.co.in

Salil Garg
+91 11 4356 7244
salil.garg@indiaratings.co.in

Figure 2

Relationship Between Long-Term and Short-Term IRs

Long-Term IR	Short-Term IR
IND AAA	IND A1+
IND AA+	IND A1+
IND AA	IND A1+
IND AA-	IND A1+
IND A+	IND A1+ or IND A1
IND A	IND A1
IND A-	IND A1 or IND A2+
IND BBB+	IND A2+ or IND A2
IND BBB	IND A2 or IND A3+
IND BBB-	IND A3
IND BB+ to IND BB-	IND A4+
IND B+ to IND B-	IND A4
IND C	IND A4
IND D	IND D

Source: Ind-Ra's *Short-Term Ratings Criteria for Non-Financial Corporates*

SCF Reports

SCFs describe observations of how criteria factors from the master Corporate Rating Methodology have been applied to specific sectors including median summaries and are not criteria.

Related Research

Cash Flow Measures in Corporate Analysis (April 2016)

Investor Caution Required for India Corporate Perpetual Securities (September 2012)

Rating Indian Construction Companies (September 2012)

Treatment of Non-Recourse Debt (September 2012)

Rating Indian Steel Producers (September 2012)

Rating Indian Cement Producers (September 2012)

Rating Indian Mining Companies (September 2012)

Rating Indian Telecom Companies (September 2012)

Industry Profile and Operating Environment

Ind-Ra determines an issuer's rating within the context of each issuer's industry fundamentals. Industries that are in decline, highly competitive, capital intensive, cyclical or volatile are inherently riskier than stable industries with few competitors, high barriers to entry, national dominance, and predictable demand levels.

In assessing issuers from important industries, industry-specific factors are considered. Ind-Ra publishes Sector Credit Factors (SCF) for many important industries. These SCFs include those published for manufacturing sectors such as cement and steel and service sectors such as telecom and construction.

Major industry developments are considered in relation to their likely effect on future performance. The inherent riskiness and/or cyclicality of an industry may result in an absolute ceiling for ratings within that industry. Therefore, an issuer in such an industry is unlikely to receive the highest rating possible ('AAA') despite having a very conservative financial profile.

Equally, reflecting differences in financial and management profile, not all issuers in low-risk industries can expect high ratings. Instead, many credit issues are weighed in conjunction with the risk characteristics of the industry, to arrive at a balanced evaluation of credit quality.

Operating Environment

Ind-Ra explores the possible risks and opportunities in an issuer's operating environment resulting from social, demographic, regulatory and technological changes. The agency considers the effects of geographical diversification and trends in industry expansion or consolidation required to maintain a competitive position. Industry overcapacity is a key issue, because it creates pricing pressure and, thus, can erode profitability. Also important are the stage of an industry's life cycle and the growth or maturity of product segments, which determine the need for expansion and additional capital spending.

In rating cyclical companies, Ind-Ra's forecasts take a view on credit-protection measures and profitability "through the cycle" — to identify an issuer's equilibrium or mid-cycle rating. The primary challenge in rating a cyclical issuer is deciding when a fundamental shift in financial policy or a structural change in the operating environment has occurred that would necessitate a rating change. Even for less cyclical companies that are likely to suffer profit downturns in a recession, Ind-Ra's analysis focuses on the degree to which the resultant forecast of the financial profile and/or a decline in prospects for the business model may leave an issuer fundamentally weakened by the passage through a recession.

More information on Ind-Ra's approach for analysis of cyclicality in commodity prices on rating levels is contained in the special report "How Ind-Ra Uses Commodity Prices in its Projections".

Company Profile

Several factors indicate an issuer's ability to withstand competitive pressures, which can include, for example, its position in key markets, its level of product dominance, and its ability to influence price. Maintaining a high level of operating performance often depends on product diversity, geographical spread of sales, diversification of major customers and suppliers, and the comparative cost position.

Size may be a factor if it confers major advantages in terms of operating efficiency, economies of scale, financial flexibility, and competitive position. Size may not, however, always support higher ratings. For example, in commodity industries, size is not as important as cost position, since the ability of one participant to influence price in a global commodity is usually not significant.

Management Strategy and Corporate Governance

Ind-Ra's consideration of management strategy focuses on operating strategy, risk tolerance, financial policies and corporate governance. Corporate goals are evaluated, centring upon two main factors — strategy and track record. Key factors considered are the mix of debt and equity in funding growth, the issuer's ability to support higher levels of debt, and the funding requirement of new assets. The historical mode of financing acquisitions and internal expansion provides insight into management's risk tolerance.

Ind-Ra considers management's track record in terms of its ability to create a healthy business mix, maintain operating efficiency, and strengthen its market position. Financial performance over time provides a useful measure of management's ability to execute its operational and financial strategies.

Corporate governance – effective controls for ensuring sound policies and procedures in boardroom effectiveness, board independence, management compensation, related-party transactions, and integrity of accounting and audit – operates as an asymmetric consideration. Where it is deemed adequate or strong, it typically has little or no impact on the issuer's credit ratings, i.e. it is not an incremental positive in the rating calculus. Where a deficiency which may diminish bondholder protection is observed, the consideration may have a negative impact on the rating assigned. Refer to Ind-Ra's master criteria on *Evaluating Corporate Governance* in this regard.

Ownership, Support and Group Factors

Group Structure

Ind-Ra also considers the relationship between parents and their subsidiaries in assigning issuer and debt issue ratings. In most cases, separate issuers of debt within a corporate group are typically assigned separate (though potentially identical) IRs. The criteria report "Parent and Subsidiary Rating Linkage – Approach to Rating Entities within a Corporate Group Structure" explains Ind-Ra's linkage framework reflecting the multi-faceted relationships between group entities. These include legal jurisdiction, corporate structures, company by-laws, loan documentation, the degree of integration between the entities, and the strategic importance of each subsidiary.

Where the rated entity is the holding company of the group, analysis of the group structure determines the degree of connectivity that exists. Ind-Ra analyses the credit quality of material operating entities and their contribution (upstreaming dividends, parental access and control of subsidiaries' cash flows) to the holding company or relevant rated entities.

Where the rated entity is a developer of projects being executed in Special Purpose Vehicles (SPVs), Ind Ra consolidates the debt of such SPVs if the debt is with recourse to the parent. If not, the relationship is assessed using PSL criteria and if necessary expected cash flow support is factored into the cash flows of the company. See the special report on "Treatment of non-recourse debt".

Where a consolidated approach is not taken – because of material minority interests or other considerations – Ind-Ra typically considers the sustainability and predictability of its income streams (including cash pooling within the group, and conditional dividends being upstreamed) used to service its debt, including the credit qualities of relevant entities and their contribution to the group's financial profile.

Financial Profile

The quantitative aspect of Ind-Ra's corporate ratings focuses on an issuer's financial profile and its ability to service its obligations from a combination of internal and external resources. The sustainability of these credit-protection measures is evaluated over a period of time – using both actual historical numbers but more importantly Ind-Ra's forecasts – to determine the

strength of an issuer's debt-servicing capacity and funding ability.

Those credit metrics with the greatest relevance are still not used in a determinate fashion to assign ratings, as the same ratio (if relevant) should be expected to vary among these different sectors. For example, an industry with low earnings volatility can tolerate higher leverage for a given credit rating than an industry with high earnings volatility. In the Sector Credit Factor series of reports, Ind-Ra has published observations of financial ratios per rating category for various sectors.

Cash Flow Focus

Ind-Ra's financial analysis emphasises cash flow measures of earnings, coverage and leverage. Sustainability of cash flow from operations provides an issuer with both internal debt-servicing resources and a stronger likelihood of achieving and retaining access to external sources of funding.

Ind-Ra regards the analysis of trends in a number of ratios as more relevant than any individual ratio, which represents only one performance measure at a single point in time. Ind-Ra's approach attributes substantially more weight to cash flow measures than equity-based ratios such as debt-to-equity and debt-to-capital. The latter rely on book valuations, which do not always reflect current market values or the ability of the asset base to generate cash flows to service debt.

Cash Flow and Earnings

Key elements in determining an issuer's overall financial health are profits and cash flow, which affect the maintenance of operating facilities, internal growth and expansion, access to capital, and the ability to withstand downturns in the business environment. While earnings form the basis for cash flow, adjustments must be made for such items as non-cash provisions and contingency reserves, asset write-downs with no effect on cash, and one-time charges. Ind-Ra's analysis focuses on the stability of earnings and continuing cash flows from the issuer's major business lines. Sustainable operating cash flow supports the issuer's ability to service debt and finance its operations and capital expansion without the reliance on external funding.

Capital Structure

Ind-Ra analyses capital structure to determine an issuer's level of dependence on external financing. Several factors are considered to assess the credit implications of an issuer's financial leverage, including the nature of its business environment and the principal funds flows from operations (see Figure 4: Definitions of Cash Flow Measures and Financial Ratios). Because industries differ significantly in their need for capital and their capacity to support high debt levels, the financial leverage in an issuer's capital structure is considered in the context of industry norms.

As part of this process, an issuer's level of debt is typically adjusted, where applicable, for a range of off-balance-sheet liabilities by adding these to the total on-balance-sheet debt level. Such items include the following:

- borrowings of partly owned companies or unconsolidated subsidiaries that may involve claims on the parent issuer;
- disclosed debt associated with receivables securitisations, if there is recourse to the issuer
- in cases where material amounts of debt are described as non-recourse to the rated entity, Ind-Ra typically forms a view on the economic incentives behind the non-recourse status before excluding the debt (and associated cash flows) in its calculations;
- operating lease obligations. Refer the criteria *Operating Leases: Implications for Lessee's Credit* in this regard

In situations where specific liabilities are excluded from the debt calculation, Ind-Ra may also exclude any related cash flow, income or assets. Where appropriate, the issuer's history in supporting off-balance-sheet investments with additional funds will also be a factor in

determining the appropriateness of including or excluding these amounts from total debt in the absence of a formal guarantee or commitment.

Preferred stock issues with fixed dividend payments or redemption dates may be considered as quasi-debt instruments, and may be granted a degree of “equity credit” of 50% or 100%, depending on their terms. As Ind-Ra’s corporate analysis is heavily cash flow-oriented, the level of equity credit which is granted only affects the quantum of debt in adjusted leverage ratios, and 100% of the coupons on hybrid instruments continue to be incorporated in coverage ratios used to measure the issuer’s debt-servicing ability. This reflects Ind-Ra’s view that hybrids predominantly offer protection to senior creditors by reducing loss given default, rather than decreasing default likelihood. For details of Ind-Ra’s approach to equity credit for these hybrid instruments, see the criteria report “Treatment of Hybrids in Non-Financial Corporate and REIT Credit Analysis”.

Financial Flexibility

Financial flexibility allows an issuer to meet its debt-service obligations and manage periods of volatility without eroding credit quality. The more conservatively capitalised an issuer, the greater its financial flexibility. In general, a commitment to maintaining debt within a certain range allows an issuer to cope better with the effect of unexpected events on the balance sheet.

Other factors that contribute to financial flexibility are the ability to redeploy assets and revise plans for capital spending, strong banking relationships, and the degree of access to a range of debt and equity markets. Committed, long-dated bank lines provide additional support. A large proportion of short-term debt in the capital structure can indicate reduced financial flexibility, except in cases where overall gross leverage is very modest — as is the case for a small number of very highly-rated issuers whose very moderate debt burdens are predominantly based on Commercial Paper funding with liquidity back-up. Refer to “Short Term Ratings Criteria for Non-Financial Corporates” for Ind-Ra’s methodology for calculation of sufficient CP back-up coverage for corporates.

Contingent Liabilities and Pensions

Financial flexibility can also be diminished by significant contingent obligations such as guarantees, collateral requirements for derivative exposures, and legal liabilities. Each of these can cause substantial drains on cash flow, which can severely reduce or even eliminate financial flexibility.

In incorporating pension risks into its analysis, Ind-Ra's key focus is on the cash flow implications of pension obligations over the rating horizon. If the issuer has a defined benefits plan for employees, and actuarial valuation of investments made under the plan reveal that there is a shortfall between market value of investments and quantum of defined benefits, then the unfunded portion will have to be added to the debt for the purpose of analysis. Similarly if there is a shortfall in the provision for gratuity, the same would also be treated as debt for computation of adjusted leverage ratios.

Accounting

Ind-Ra’ rating process is not and does not include an audit of an issuer’s financial statements. The issuer’s choice of major accounting policies may inform Ind-Ra’s opinion on the extent to which an issuer’s financial statements reflect its financial performance. Relevant areas include consolidation principles, valuation policies, inventory-costing methods, depreciation methods, income recognition and reserving practices, and treatment of off-balance-sheet items. As part of its rating analyses, Ind-Ra will restate figures, where necessary, to enhance the comparability of financial information across issuers.

Because different accounting systems can affect an issuer’s assets, liabilities and reported income, Ind-Ra may on occasion make adjustments as appropriate to increase comparability with other companies in the peer group. Such adjustments include those made for revenue

recognition, asset values, leased property, contingency reserves, and treatment of tax and off-balance-sheet liabilities. The general principal Ind-Ra applies in its adjustments is to get back to measurements of cash: cash balances, cash flow, and cash needs.

Ind-Ra analysts typically use audited accounts that are prepared according to Local Generally Accepted Accounting Principles, International Financial Reporting Standards or US Generally Accepted Accounting Principles. If such statements are not available, Ind-Ra will use other statements provided, and published management comments to make appropriate adjustments for comparative analysis, if appropriate and provided the quality of the auditors or other reviewing parties employed – and disclosure – is adequate.

Project Risk

In analysing expansion projects within a corporate structure, Ind-Ra analyses its impact on both the financial and business risks of the issuer. The impact on the capital structure of the company and the risks associated with the cash flow generation after the expansion in the overall context of the business environment is analysed. The expansion may be for producing more of the existing product or for new ones or in fields unrelated to the existing lines of business. It may be implemented in several phases spread over several years and may be funded with no borrowings or entirely through external borrowings. In analysing the associated risks of these different scenarios, Ind-Ra focuses on the cash flow impact of these projects and its impact on the ability to service debt.

Limitations of Corporate Methodology

This Corporate Rating Methodology is a Master Criteria used in rating non-financial corporates. Since non-financial corporates consist of a broad universe of entities, additional reports – including those specific to a sector, to a class of liability, to a particular form of cross-sector risk, or to a particular form of corporate structure – provide additional background to the application of this Master Criteria piece. This Master Criteria identifies factors that are considered by Ind-Ra in assigning ratings to a particular entity or debt instrument within the scope of the Master Criteria. Not all rating factors in these criteria may apply to each individual rating or rating action. Each specific rating action commentary or rating report will discuss those factors most relevant to the individual rating action.

1. General Limitations

In common with other IRs, general limitations relevant to the issuer credit rating scale include:

- the ratings do not predict a specific percentage of default likelihood over any given time period;
- the ratings do not opine on the market value of any issuer’s securities or stock, or the likelihood that this value may change;
- the ratings do not opine on the liquidity of the issuer's securities or stock;
- the ratings do not opine on the possible loss severity on an obligation should an issuer default;
- the ratings do not opine on the suitability of an issuer as a counterparty to trade credit

The ratings do not opine on any quality related to an issuer’s business, operational or financial profile other than the agency’s opinion on its relative vulnerability to default.

2. Specific Limitations – “Event Risk”

“Event Risk” is a term used to describe the risk of a typically unforeseen event which, until the event is explicit and defined, is excluded from existing ratings. Event risks can be externally triggered – a change in law, a natural disaster, a hostile takeover bid from another entity – or internally triggered, such as a change in policy on capital structure, a major acquisition, or a strategic restructuring.

Merger & acquisition risk is statistically the single most common event risk, and can serve as an example of how event risk may be included or excluded from ratings.

Figure 3

Event Risk Example – Treating Merger & Acquisition Risk in Ratings

Event	Rating incorporation
Company announces opportunistic acquisition, against previously declared strategy of organic growth.	Event excluded from prior rating. Event typically generates a rating review based on materiality and impact, depending on funding mix and cost.
Company announces opportunistic acquisition, in line with previously declared intent to undertake sizeable debt-funded acquisitions over three years in the company’s current sector.	Event largely included in prior rating. Event nonetheless generates a rating review to ensure parameters of current acquisition consistent with expectations already incorporated in the rating.
Company announces intention to expand through acquisitions. No clear indication of cost or anticipated funding mix.	Event excluded from prior rating. Event typically generates a rating review which will adjust the issuer’s Outlook or make a change in the rating, depending on Ind-Ra’s assessment of likely targets, bid sizes, valuations, and the company’s track record in funding mixes.

Source: Ind-Ra

3. Factors Affecting Information Usage by Ind-Ra

The primary source of information behind ratings remains the public information disclosed by the issuer, including its audited financial statements, strategic objectives, and investor presentations. Other information reviewed includes peer group data, sector and regulatory analyses, and forward-looking assumptions on the issuer or its industry. Ind-Ra, in common with other credit rating agencies, has no power to compel information disclosure by rated entities, nor would it seek any such power.

The exact composition of data-points required to assign and maintain ratings will vary over time. Amongst other factors, this variation reflects that:

- the operational and financial profiles of rated issuers evolve constantly and this evolution may require greater or lesser emphasis on specific information elements in the rating calculus;
- different and fresh challenges from macroeconomic, financing or other environmental factors will arise for rated issuers over time, which in turn each require greater or lesser emphasis on specific information elements;
- Ind-Ra's own rating criteria will evolve over time, and with them, the relative emphasis placed on specific information elements

In most cases, the public disclosure of a major capital markets issuer will permit, at a minimum, that an experienced rating agency analyst, with access to significant market intelligence from the rest of their portfolio, may reach a grounded rating judgement. Where the aggregate information level nonetheless falls below an acceptable level for any reason, Ind-Ra will withdraw any affected ratings.

Direct participation from the issuer can on occasion add information to the process. The level, quality and relevance of direct participation itself, however, vary between all issuers, and also vary for each individual issuer over time. Information flow may dip or lapse entirely (for example at a time of financial stress for the rated entity, or in advance of a corporate merger or restructuring), irrespective of the nature of the relationship between Ind-Ra and the rated entity. Where the aggregate information level falls below an acceptable level for any reason, Ind-Ra will withdraw any affected ratings.

Appendix I: Guide to Credit Metrics

Ind-Ra uses a variety of quantitative measures of cash flow, earnings, leverage and coverage to assess credit risk. The following sections summarise the key credit metrics used to analyse credit default risk and compare them to measures based on operating earnings before interest, taxes, depreciation and amortisation (EBITDA). While it has many limitations, EBITDA is still the most commonly used measure globally of segmental cash flow, and is thus used frequently in Ind-Ra's research commentary. EBITDA is also the most commonly used measure for going-concern valuations. However, given the limitations of EBITDA as a pure measure of cash flow, Ind-Ra utilises a number of other measures for the purpose of assessing debt-servicing ability. These include funds flow from operations (FFO), cash flow from operations (CFO) and free cash flow (FCF), together with leverage and coverage ratios based on those measures – which are more relevant to debt-servicing ability and, therefore, to default risk than EBITDA-based ratios.

The following definitions are only an introduction to the cash flow measures and credit metrics used by Ind-Ra in its analysis. Detailed definitions and sample calculations are provided in the report "Cash Flow Measures in Corporate Analysis". Specific industries may have industry-accepted definitions and practices that differ from the terms described below. These are highlighted in other sector-specific reports.

Figure 4
Definitions of Cash Flow Measures

	Revenues
–	Operating expenditure
+	Depreciation and amortisation
+	Long-term rentals
=	**Operating EBITDAR**
–	Cash interest paid, net of interest received
–	Cash tax paid
+	Associate dividends[b]
–	Long-term rentals[a]
+/–	Other changes before FFO[c]
=	**Funds flow from operations (FFO)**
+/–	Working capital
=	**Cash flow from operations (CFO)**
+/–	Non-operational cash flow
–	Capital expenditure
–	Dividends paid
=	**Free cash flow (FCF)**
+	Receipts from asset disposals
–	Business acquisitions
+	Business divestments
+/–	Exceptional and other cash flow items
=	**Net cash in/outflow**
+/–	Equity issuance/(buyback)
+/–	Foreign exchange movement
+/–	Other items affecting cash flow[d]
=	**Change in net debt**
	Opening net debt
+/–	Change in net debt
	Closing net debt

[a] Analyst estimate of long-term rentals
[b] May be excluded from FFO and CFO as non-operational or non-recurring
[c] Implied balancing item to reconcile operating EBITDAR with funds flow from operations
[d] Implied balancing item to reconcile free cash flow with change in net debt
Source: Ind-Ra

Figure 5

Definitions of Cash Flow Measures and Financial Ratios

Cash flow measures	
Funds flow from operations Post-interest and tax, pre-working capital	FFO is the fundamental measure of the firm's cash flow after meeting operating expenses, including taxes and interest. FFO is measured after cash payments for taxes, interest and preferred dividends but before inflows or outflows related to working capital. Ind-Ra's computation subtracts or adds back an amount to exclude non-core or non-operational cash inflow or outflow. FFO offers one measure of an issuer's operational cash-generating ability before reinvestment and before the volatility of working capital. When used in interest coverage and leverage ratios, net interest paid is added back to the numerator.
Cash flow from operations Post-interest, tax and working capital	CFO represents the cash flow available from core operations after all payments for ongoing operational requirements, interest, preference dividends and tax. CFO is also measured before reinvestment in the business through capital expenditure, before receipts from asset disposals, before any acquisitions or business divestment, and before the servicing of equity with dividends or the buyback or issuance of equity.
Free cash flow Post-interest, tax, working capital, capital expenditures and dividends	FCF is the third key cash flow measure in the chain. It measures an issuer's cash from operations after capital expenditure, non-recurring or non-operational expenditure, and dividends. It also measures the cash flow generated before account is taken of business acquisitions, business divestments, and any decision by the issuer to issue or buy back equity, or make a special dividend.
Operating EBITDA and EBITDAR	Operating EBITDA is a widely used measure of an issuer's unleveraged, untaxed cash-generating capacity from operating activities. Ind-Ra usually excludes extraordinary items, such as asset write-downs and restructurings, in calculating operating EBITDA — unless an issuer has recurring one-time charges which indicate the items are not unusual in nature. The use of operating EBITDA plus gross rental expense (EBITDAR, including operating lease payments) improves comparability across industries (e.g. retail and manufacturing) that exhibit different average levels of lease financing and within industries (e.g. airlines) where some companies use lease financing more than others.
Short-term liquidity measures	
CFO or FFO to debt service	This measures cash generation (CFO or FFO) relative to short-term debt service of gross interest expense and debt due within one year.
FCF + available cash + committed facilities/ debt service	This measures FCF, plus period-end available cash and period-end undrawn headroom under committed bank facilities (see above) relative to short-term debt service of gross interest expense and debt due within one year.
Committed bank facilities	In a corporate analysis – and particularly for financial ratios – sources of liquidity include headroom, or undrawn funds, under committed bank facilities relevant for the period. The bank facilities for which (i) the banks are under a contractual commitment to lend to a company and which (ii) have more than one year until maturity; and for which (iii) Ind-Ra believes that the relevant bank will lend such amounts to the company after taking into account a breach of covenant by the company or other considerations, can be included as a source of liquidity.
Coverage ratios	
Debt and net debt **Gross interest and net interest expense**	Debt represents total debt or gross debt, while net debt is total debt minus (freely available/unrestricted) cash and equivalents on the balance sheet. Ind-Ra evaluates various debt measures on both a gross and net debt basis. Distinctions are also made between total interest and net interest expense. The following definitions include only gross interest and gross debt to illustrate the concepts. For a detailed explanation of net debt and net interest calculations, see the report *"Cash Flow Measures in Corporate Analysis"*.
FFO interest coverage FFO plus gross interest paid plus preferred dividends divided by gross interest paid plus preferred dividends.	This is a central measure of the financial flexibility of an entity. It compares the operational cash-generating ability of an issuer (after tax) to its financing costs. Many factors influence coverage, including the mix of fixed-rate versus floating-rate funding, and the use of zero-coupon or payment-in-kind (PIK) debt. For this reason, the coverage ratios should be considered alongside the appropriate leverage ratios.
FFO fixed-charge coverage FFO plus gross interest plus preferred dividends plus rental payments divided by gross interest plus preferred dividends plus rental payments	This measure of financial flexibility is of particular relevance for entities that have material levels of lease financing. It is important to note that this ratio inherently produces a more conservative result than an interest cover calculation (i.e. coverage ratios on debt-funded and lease-funded capital structure are not directly comparable), as the entirety of the rental expenditure (i.e. the equivalent of interest and principal amortisation) is included in both the numerator and denominator.
FCF debt-service coverage FCF plus gross interest plus preferred dividends divided by gross interest PLUS preferred dividends plus prior-year's debt maturities due in one year or less.	This is a measure of the ability of an issuer to meet debt service obligations, both interest and principal, from organic cash generation, after capital expenditure – and assuming the servicing of equity capital. This indicates the entity's reliance upon either refinancing in the debt or equity markets or upon conservation of cash achieved through reducing common dividends or capital expenditure or by other means.

Source: Ind-Ra

Figure 5

Definitions of Cash Flow Measures and Financial Ratios (cont.)

Leverage measures	
FFO adjusted leverage Gross debt plus lease adjustment minus equity credit for hybrid instruments plus preferred stock DIVIDED by FFO plus gross interest paid plus preferred dividends plus rental expense.	This ratio is a measure of the debt burden of an entity relative to its cash-generating ability. This measure uses a lease-adjusted debt equivalent, and takes account of equity credit deducted from hybrid debt securities that may display equity-like features. Ind-Ra capitalises operating leases as the net present value of future obligations where appropriate and when sufficient information is available. Otherwise, leases are capitalised as a multiple of rents,
Total adjusted debt/operating EBITDAR Total balance sheet debt adjusted for equity credit and off-balance-sheet debt divided by operating EBITDAR.	This ratio is a measure of debt burden relative to the operating profits a company generates. This measure uses a lease-adjusted debt equivalent, and takes account of equity credit deducted from hybrid debt securities that may display equity-like features.
Leverage adjusted for unfunded retirement benefits/gratuity/pensions	Ind-Ra will adjust debt for the unfunded portion of defined benefits plan as disclosed under contingent liabilities and if it is material. Adjustment to debt will also be made in case of any shortfall in the provision for gratuity.

Source: Ind-Ra

ALL CREDIT RATINGS ASSIGNED BY INDIA RATINGS ARE SUBJECT TO CERTAIN LIMITATIONS AND DISCLAIMERS. PLEASE READ THESE LIMITATIONS AND DISCLAIMERS BY FOLLOWING THIS LINK: HTTP://WWW.INDIARATINGS.CO.IN/UNDERSTANDINGCREDITRATINGS.JSP IN ADDITION, RATING DEFINITIONS AND THE TERMS OF USE OF SUCH RATINGS ARE AVAILABLE ON THE AGENCY'S PUBLIC WEBSITE WWW.INDIARATINGS.CO.IN. PUBLISHED RATINGS, CRITERIA, AND METHODOLOGIES ARE AVAILABLE FROM THIS SITE AT ALL TIMES. INDIA RATINGS' CODE OF CONDUCT, CONFIDENTIALITY, CONFLICTS OF INTEREST, AFFILIATE FIREWALL, COMPLIANCE, AND OTHER RELEVANT POLICIES AND PROCEDURES ARE ALSO AVAILABLE FROM THE CODE OF CONDUCT SECTION OF THIS SITE.

Copyright © 2017 by Fitch, Inc., Fitch Ratings Ltd. and its subsidiaries. 33 Whitehall Street, NY, NY 10004.Telephone: 1-800-753-4824, (212) 908-0500. Fax: (212) 480-4435. Reproduction or retransmission in whole or in part is prohibited except by permission. All rights reserved. In issuing and maintaining its ratings, Fitch relies on factual information it receives from issuers and underwriters and from other sources Fitch believes to be credible. Fitch conducts a reasonable investigation of the factual information relied upon by it in accordance with its ratings methodology, and obtains reasonable verification of that information from independent sources, to the extent such sources are available for a given security or in a given jurisdiction. The manner of Fitch's factual investigation and the scope of the third-party verification it obtains will vary depending on the nature of the rated security and its issuer, the requirements and practices in the jurisdiction in which the rated security is offered and sold and/or the issuer is located, the availability and nature of relevant public information, access to the management of the issuer and its advisers, the availability of pre-existing third-party verifications such as audit reports, agreed-upon procedures letters, appraisals, actuarial reports, engineering reports, legal opinions and other reports provided by third parties, the availability of independent and competent third-party verification sources with respect to the particular security or in the particular jurisdiction of the issuer, and a variety of other factors. Users of Fitch's ratings should understand that neither an enhanced factual investigation nor any third-party verification can ensure that all of the information Fitch relies on in connection with a rating will be accurate and complete. Ultimately, the issuer and its advisers are responsible for the accuracy of the information they provide to Fitch and to the market in offering documents and other reports. In issuing its ratings Fitch must rely on the work of experts, including independent auditors with respect to financial statements and attorneys with respect to legal and tax matters. Further, ratings are inherently forward-looking and embody assumptions and predictions about future events that by their nature cannot be verified as facts. As a result, despite any verification of current facts, ratings can be affected by future events or conditions that were not anticipated at the time a rating was issued or affirmed.

The information in this report is provided "as is" without any representation or warranty of any kind. A Fitch rating is an opinion as to the creditworthiness of a security. This opinion is based on established criteria and methodologies that Fitch is continuously evaluating and updating. Therefore, ratings are the collective work product of Fitch and no individual, or group of individuals, is solely responsible for a rating. The rating does not address the risk of loss due to risks other than credit risk, unless such risk is specifically mentioned. Fitch is not engaged in the offer or sale of any security. All Fitch reports have shared authorship. Individuals identified in a Fitch report were involved in, but are not solely responsible for, the opinions stated therein. The individuals are named for contact purposes only. A report providing a Fitch rating is neither a prospectus nor a substitute for the information assembled, verified and presented to investors by the issuer and its agents in connection with the sale of the securities. Ratings may be changed or withdrawn at anytime for any reason in the sole discretion of Fitch. Fitch does not provide investment advice of any sort. Ratings are not a recommendation to buy, sell, or hold any security. Ratings do not comment on the adequacy of market price, the suitability of any security for a particular investor, or the tax-exempt nature or taxability of payments made in respect to any security. Fitch receives fees from issuers, insurers, guarantors, other obligors, and underwriters for rating securities. Such fees generally vary from US$1,000 to US$750,000 (or the applicable currency equivalent) per issue. In certain cases, Fitch will rate all or a number of issues issued by a particular issuer, or insured or guaranteed by a particular insurer or guarantor, for a single annual fee. Such fees are expected to vary from US$10,000 to US$1,500,000 (or the applicable currency equivalent). The assignment, publication, or dissemination of a rating by Fitch shall not constitute a consent by Fitch to use its name as an expert in connection with any registration statement filed under the United States securities laws, the Financial Services and Markets Act 2000 of the United Kingdom, or the securities laws of any particular jurisdiction. Due to the relative efficiency of electronic publishing and distribution, Fitch research may be available to electronic subscribers up to three days earlier than to print subscribers.