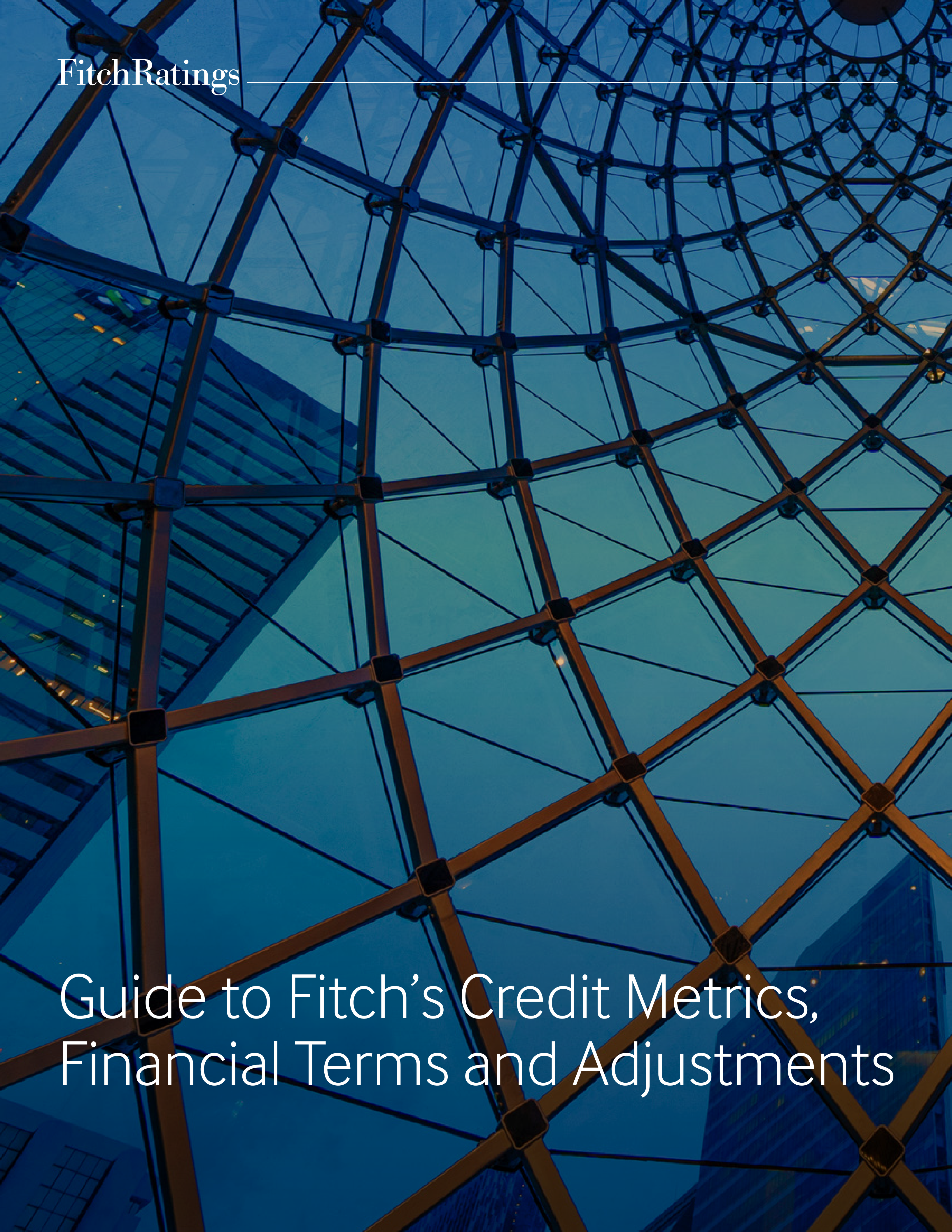
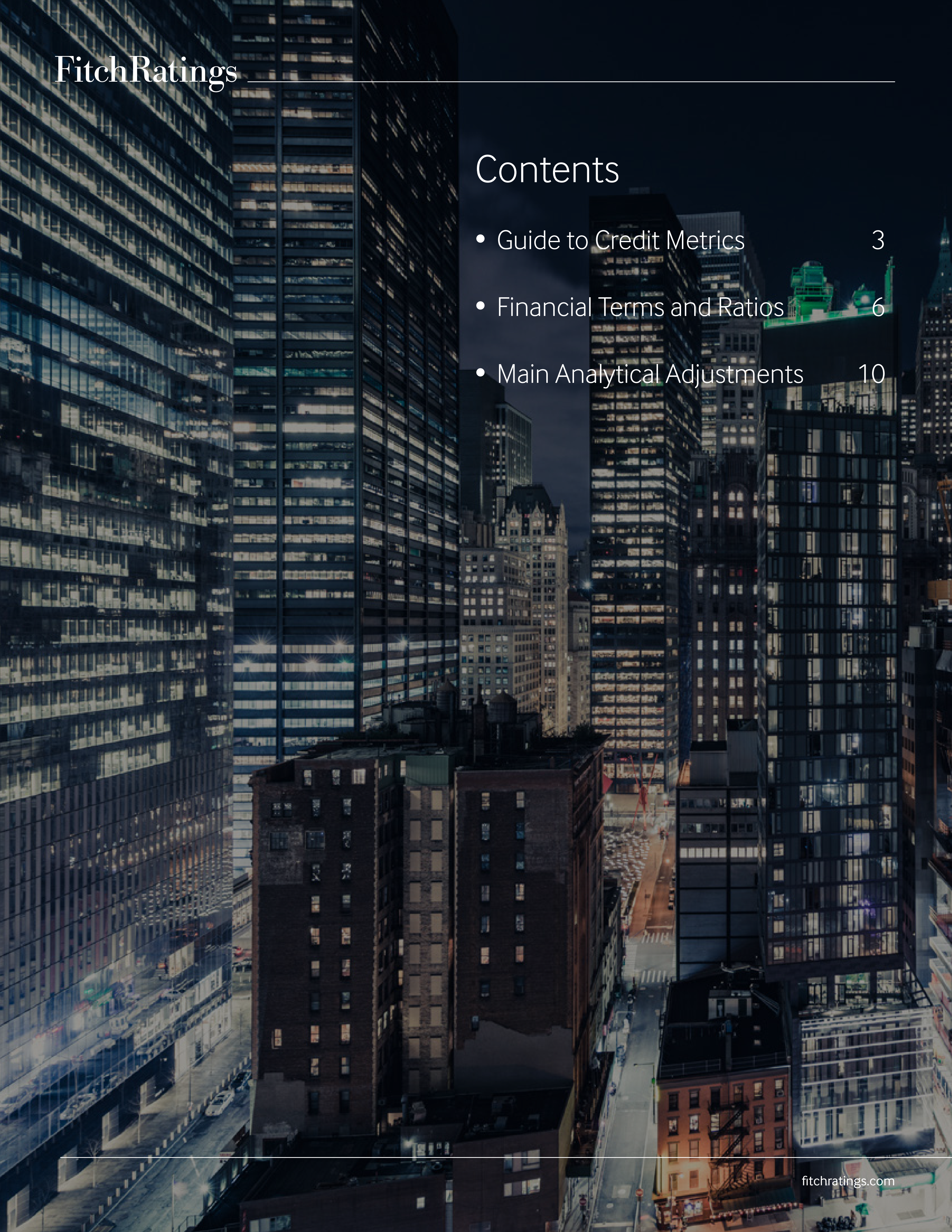


FitchRatings

Guide to Fitch's Credit Metrics, Financial Terms and Adjustments



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Guide to Credit Metrics

Fitch 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. While it has many limitations, operating earnings before interest, taxes, depreciation and amortisation (EBITDA) is still the most commonly used measure globally of segmental cash flow, and is thus used frequently in Fitch's research commentary. EBITDA is also the most commonly used measure for going-concern valuations. As such, EBITDA plays a key role in Fitch's recovery analysis for defaulted securities (see the Criteria Report Corporates Notching and Recovery Ratings Criteria).

However, given the limitations of EBITDA as a pure measure of cash flow, Fitch 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.

Definitions of Cash-Flow Measures

	Revenues
–	Operating expenditure
+	Depreciation and amortisation
+	Long-term rentals[a]
=	**Operating EBITDAR**
+/–	Recurring dividends received from associates less cash dividends paid to minority interestsb
–	Cash interest paid, net of interest received
–	Cash tax paid
–	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
–	Ordinary dividends paid to shareholders of the parent company
=	**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. Includes IFRS16/ASC842 lease depreciation and interest.
[b] Associate Dividends may be excluded from EBITDA, FFO and CFO if 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: Fitch Ratings

Definitions of Key Concepts

Operating EBITDA and EBITDAR	Operating EBITDA is a widely used measure of an issuer's unleveraged, untaxed cash-generating capacity from operating activities. Fitch 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. Fitch would also exclude movements in fair value contained in operating profit. Fitch's operating EBITDA is computed after deducting estimated rental expense based on the depreciation of leased assets plus interest on lease liabilities. The use of operating EBITDA plus estimated rental expense (EBITDAR, including operating lease payments) improves comparability across industries (eg, retail and manufacturing) that exhibit different average levels of lease financing and within industries (eg, airlines) where some companies use lease financing more than others.
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 estimated rental expense, taxes and interest. FFO is measured after cash payments for taxes, cash received from associates, interest and preferred dividends paid, and after dividends paid to minority interests, but before inflows or outflows related to working capital. Fitch'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 is added back to the numerator.
Working capital	Fitch calculates the change in working capital through the annual swings in trade receivables, trade inventory, trade payables and any other relevant working-capital item. It also includes analytical adjustments that affect working capital, such as factoring, where sold receivables are added back to trade receivables to reverse the effects of factoring on working capital.
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, estimated rental expense, cash received from associates, dividends paid to minority interests, interest paid, interest received, 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.
Liquidity	Factors that contribute to financial flexibility are the ability to revise plans for capital spending, strong banking relationships, the degree of access to a range of debt and equity markets, committed, long-dated bank lines and the proportion of short-term debt in the capital structure. These issues are incorporated in the liquidity concept. The liquidity score is calculated as the amount of readily available cash to service or meet debt and interest obligations, including availability under committed lines of credit and after taking into account debt maturities within one year and also factoring expected free cash-flow generation over the coming year.
Committed bank facilities	In corporate analysis — and particular financial ratios — sources of liquidity include headroom, or undrawn funds, under committed bank facilities relevant for the period. Bank facilities which (i) are a contractual commitment to lend, (ii) have more than one year until maturity, and (iii) Fitch believes that the relevant bank will lend such amounts taking into account breach of covenant or other considerations, can be included as a source of liquidity. Not all countries have such long-term committed bank funding facilities.
Gross debt and net debt **Gross interest and net interest paid**	Debt represents total debt or gross debt, while net debt is total debt minus (freely available/unrestricted) cash based on Fitch's readily available cash. This "freely available cash" may be adjusted for restricted or blocked cash, operational cash requirements within the group, and other forms of cash not freely available for debt reduction. Recognising the cultural differences in the approach of analysts and investors worldwide, Fitch evaluates various debt measures on both a gross and net debt basis. Distinctions are also made between total interest and net interest paid.

Source: Fitch Ratings

Main Leverage and Coverage Ratios

FFO interest coverage	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 relative levels of interest rates in different jurisdictions, 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	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 (ie coverage ratios on debt-funded and lease-funded capital structure are not directly comparable), as the entirety of the rental expenditure (ie, the equivalent of interest and principal amortisation) is included in both the numerator and denominator.
FCF debt-service coverage	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.
FFO (net) adjusted leverage or total adjusted debt/operating EBITDAR	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 and other off-balance-sheet debt. Leases are capitalised as a multiple of estimated rental expnse, with the multiple depending on the industry and interest-rate environment as laid out in Appendix 1.1, except for in the transportation sectors where the IFRS16/ASC842 disclosed lease liability is used. EBITDAR based ratios are computed after recurring dividends received from associates/equity method investments and dividends paid to minorities (or, alternatively, net income attributable to minorities).
FFO (net) leverage or total debt with equity credit/operating EBITDA	These ratios are have a similar function as and are defined very similarly to the adjusted ratios, although they exclude lease-equivalent debt in the numerator and/or rental expense in the denominator. These ratios are especially relevant for issuers that operate in a sector that uses the leases-opex approach (see Appendix 1 for further details). Like EBITDAR, EBITDA is computed after recurring divdiends are received from associates/equity method investments and dividends paid to minorities (or, alternatively, net income attributable to minorities).
Pension-adjusted leverage	If, over a number of years, pension-adjusted ratios are significantly higher than their unadjusted counterparts, further investigation is performed to understand the broader risks posed to the company by its pension scheme, including a company's funding obligations in the jurisdictions in which it operates, the risks inherent in its funding strategy, and — importantly — the implications these have for the cash drain on the company's resources.

Source: Fitch Ratings

Financial Terms and Ratios

Main Terms

Fitch-defined term	Definition
Operating EBIT	Gross Profit - SG&A or O&M Expense - R&D Expense - Provision for Bad Debts - Depreciation of Tangible assets - Amortisation of Intangible Assets - -Depreciation of Leased Assets – Interest Charge on Lease Liabilities - Other Depreciation and Amortization excluded from SG&A – Impairments included in EBIT/DA - Pre-Opening & Exploration Expense - Regulatory Fees + Other Operating Income / (Expenses) - Securitisation Amortisation
Operating EBITDA	Operating EBIT + adjustment for Non-Recurring/Non-Recourse items +non-lease depreciation & amortisation + analyst adjustments to EBITDA
Operating EBITDAR	Operating EBITDA + estimated Operating Lease Expense
Cash Flow From Operations (CFO)	Net Income + Total Adjustments to Net Income + Change in Working Capital + Recurring Cash Dividends Received from Associates/Equity Method Investments + Investing & Financing Cash Flow deemed as Operating - Dividends Paid to Preferred Shareholders - Distributions to Non-Controlling Interests
Fitch defined working capital	Change in Receivables + Change in trade payables + Change in Accrued Expenses + any other changes in w/cap
Funds From Operation (FFO)	Cash Flow From Operations (CFO) - Change in Fitch-defined Working Capital
Free Cash Flow (FCF)	Cash Flow from Operations - Capital Expenditures - Common Dividends + Total Non-Operating & Non-Recurring Cash Flow before business acquisition, business divestments and share buyback/special dividends.
Total debt	Total Secured Debt + Total Unsecured Debt + Total Subordinated Debt + Preferred Stock+ Short-term non-recourse Debt + Long-tern non-recourse Debt + Securitisation Debt + Net Derivative (assets)/liabilities Hedging Principal Borrowings
Total debt with equity credit	Total Debt - Equity Credit
Total adjusted debt with equity credit	Total Debt with Equity Credit + Lease equivalent Debt + Other off Balance Sheet Debt
Readily available cash & equivalents	Cash + Marketable Securities - Cash reported as Restricted or Blocked - Cash deemed by Fitch as not readily available (including adjustments for minimum cash required for ongoing operations such as seasonality, Working Capital fluctuations and Cash Held by not Wholly Owned or Non-Recourse Subsidiaries or in Offshore Holdings)
Net adjusted debt with equity credit	Total Adjusted Debt with Equity Credit - Readily Available Cash & Equivalents
Interest paid/received	Cash interest is used in coverage ratios, but if Interest Paid or Interest Received equal zero then Interest Expense and Interest Income as per the P&L is used instead.

Source: Fitch Ratings

Main Ratios

Ratio	Numerator	Denominator
Profitability/cash flow ratios		
EBIT margin	Operating EBIT	Revenues
EBIT margin - Group	Operating EBIT including financial services operations	Consolidated revenues
EBIT margin - Industrial	Operating EBIT excluding financial services operations	Industrial operation revenues
Operating EBITDAR margin	Operating EBITDAR	Revenues
FFO margin	FFO	Revenues
FCF margin	Free Cash Flow	Revenues
Capex/CFO	Capital Expenditure	Cash Flow from Operations
CFO margin	Cash Flow From Operations	Revenues
Leverage ratios		
Total adjusted debt/op. EBITDAR (x)	Total Adjusted Debt with Equity Credit	Operating EBITDAR + Recurring Dividends received from Associates and Equity Method Investments - Dividends paid to Minorities (or, alternatively, net income attributable to non-controlling interests)
Total adjusted net debt/op. EBITDAR (x)	Net Adjusted Debt with Equity Credit	Operating EBITDAR + Recurring Dividends received from Associates and Equity Method Investments - Dividends paid to Minorities (or, alternatively, net income attributable to non-controlling interests)
FFO adjusted leverage (x)	Total Adjusted Debt with Equity Credit	Funds From Operations [FFO] + Interest Paid - Interest Received + Preferred Dividends (Paid) + Operating Lease Expense for Capitalised Leased Assets
FFO adjusted net leverage (x)	Net Adjusted Debt with Equity Credit	Funds From Operations [FFO] +Interest Paid - Interest Received + Preferred Dividends (Paid) + Operating Lease Expense for Capitalised Leased Assets
FFO leverage (x)	Total Adjusted Debt with Equity Credit – Lease Equivalent Debt	Funds From Operations [FFO] + Interest Paid – Interest Received + Preferred Dividends (Paid)
FFO net leverage (x)	Total Adjusted Debt with Equity Credit – Lease Equivalent Debt – Readily Available Cash & Equivalents	Funds From Operations [FFO] + Interest Paid – Interest Received + Preferred Dividends (Paid)
(CFO – CapEx)/Total Debt with Equity Credit (%)	Cash Flow from Operations [CFO] – Capital (Expenditures)	Total Adjusted Debt with Equity Credit - Lease Equivalent Debt
(CFO – CapEx)/Total Net Debt with Equity Credit (%)	Cash Flow from Operations [CFO] – Capital (Expenditures)	Total Adjusted Debt with Equity Credit – Lease Equivalent Debt – Readily Available Cash & Equivalents
FCF/total adjusted debt (%)	Free Cash Flow	Total Adjusted Debt with Equity Credit

Source: Fitch Ratings

Main Ratios (Cont.)

Ratio	Numerator	Denominator
Total debt with equity credit/ op. EBITDA (x)	Total Adjusted Debt with Equity Credit – Lease Equivalent Debt	Operating EBITDA + Recurring Dividends received from Associates and Equity Method Investments - Dividends paid to Minorities (or, alternatively, net income attributable to non-controlling interests)
Total net debt with equity credit/operating EBITDA	Total Adjusted Debt with Equity Credit – Lease Equivalent Debt - Readily Available Cash & Equivalents	Operating EBITDA+ Recurring Dividends received from Associates and Equity Method Investments - Dividends paid to Minorities (or, alternatively, net income attributable to non-controlling interests)
Total adj. debt/(CFO before lease expense - Maint. CapEx) (x)	Total Adjusted Debt with Equity Credit	Cash Flow From Operations [CFO] + Operating Lease Expense for Capitalised Leased Assets- Maintenance Capex (total capex used if maintenance capex unavailable)
Coverage ratios		
FFO fixed-charge coverage (x)	FFO + Interest paid - interest received + Preferred Dividends paid + Operating Lease Expense for Capitalised Leased Assets	Interest Paid + Preferred Dividends Paid + Operating Lease Expense for Capitalised Leased Assets
FFO interest coverage (x)	FFO + Interest paid minus interest received + Preferred Dividends paid	Interest Paid + Preferred Dividends Paid
Operating EBITDAR/gross interest paid + rents (x)	Operating EBITDAR + Recurring Dividends received from Associates and Equity Method Investments - Dividends paid to Minorities (or, alternatively, net income attributable to non-controlling interests)	Interest Paid + Operating Lease Expense for Capitalised Leased Assets
Operating EBITDAR/net interest paid + rents (x)	Operating EBITDAR + Recurring Dividends received from Associates and Equity Method Investments - Dividends paid to Minorities (or, alternatively, net income attributable to non-controlling interests)	Interest Paid - Interest Received + Operating Lease Expense for Capitalised Leased Assets
Op. EBITDA/interest paid (x)	Operating EBITDA+ Recurring Dividends received from Associates and Equity Method Investments - Dividends paid to Minorities (or, alternatively, net income attributable to non-controlling interests)	Interest Paid

Source: Fitch Ratings

Main Ratios (Cont.)

Ratio	Numerator	Denominator
Op. EBITDAR/(interest paid + lease expense) (x)	Operating EBITDAR + Recurring Dividends received from Associates and Equity Method Investments - Dividends paid to Minorities (or, alternatively, net income attributable to non-controlling interests)	Interest Paid+ Operating Lease Expense for Capitalised Leased Assets
CFO/capital expenditures (x)	Cash Flow from Operations [CFO]	Capital (Expenditures)
Capex/CFO (%)	Capital (Expenditures)	Cash Flow from Operations [CFO]
Liquidity ratios		
FFO debt service cover	FFO + Interest paid minus interest received + Preferred Dividends + Operating Lease Expense for Capitalised Leased Assets	Interest Paid + Preferred Dividends + Current Debt Maturities
Liquidity (liquidity ratio)	Available cash + undrawn portion of committed facilities + FCF	12-month debt Maturities

Source: Fitch Ratings

Main Analytical Adjustments

Fitch encourages an analytical climate where financial statements are regarded as a source material, providing broad indications of the financial position, rather than as a comprehensive register of immutable facts. The limitations of the source material – corporate group financial statements –are many and varied.

For example, it is not unusual for major groups to be composed of hundreds of legal entities. Financial statements present a high-level consolidated picture, but material differences will exist in the precise financial position – income, expense, obligations and cash-generating ability – of different legal entities within a consolidated group, which may be swept up and masked by the process of accounting consolidation.

Similarly, the apparently smooth and orderly sequential flow of the published income and cash flow does not reflect an actual linear flow of payments through a company's hands or a legal waterfall of priorities, but rather aggregates a theoretical flow. In practice, the company does not write a cheque for its entire annual operating expenditure, followed the next month by one amount for its annual interest bill, followed by one instalment for its tax bill, followed only then by one payment for its annual capital expenditure bill and so on.

Furthermore, financial statements present only a snapshot of assets and liabilities and are subject to often very broad and subjective decisions on accounting treatments.

Reflecting the aggregated and approximatenature of the source data, Fitch applies a series of common adjustments, outlined below. Adjustments that are not material to the credit analysis do not have to be made.

A detailed review of Fitch's financial adjustments can be found in appendix 1 of Fitch's criteria report for non-financial corporates https://www.fitchratings.com/research/corporate-finance/corporate-rating-criteria-01-05-2020

Adjustments	Description
Leases	Creating an equivalence in debt metrics for financing undertaken using leases, in selected sectors
Hybrids	Measuring the degree to which an issuance with hybrid features may qualify for treating as 50% of 100% equity in our leverage metrics
Pensions	Measuring the impact of pension exposures on our leverage and cash flow analysis
Debt Factoring	Adjustments to reflect the sale of receivables in our debt metrics and recovery given default analysis
Cash Adjustments	Adjustments to reflect different qualities of cash and other liquid assets
Adjusting Consolidated Profiles for Group Structures	Adjustments to reflect the degree of ownership and control of cash flows from varying levels of ownership or legal/operational separation
HoldCo PIK and Shareholder Loans	Measuring the degree to which shareholder loans and Payment-in-Kind notes would be treated as part of the rated entity's leverage burden.
Debt Fair-Value Adjustments	Adjustments to ensure debt reviewed is the debt which will be payable on the instrument's maturity, assuming an entity remains a going concern.
Adjustments for Financial Services Activities	Adjustments to financial services ('FS') operations within corporates to reflect Fitch's assumption that debt allocated to the FS operations is repaid using the cash flow of the FS operations, including assumptions for any imputed additional capital for the FS business which Fitch may assume to be added to the industrial entity's debt burden.

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