Sector Navigators

Addendum to the Corporate Rating Criteria

This criteria report updates and replaces Sector Navigators, dated October 2022

Scope

Sector Navigators provide guidance for the application of the concepts of the **Corporate Rating Criteria** to the issuers in the sector covered by the Navigator. The Generic Navigator can be used if no appropriate sector Navigator exists. Certain issuers may straddle several sectors, in which case Fitch Ratings may choose to prepare one Navigator for each relevant sector or, when one sector is dominant, focus on this most relevant sector.

The list of factors looked at in the Navigator is not exhaustive and Fitch's research includes a Rating Derivation section which explains the positioning of the issuer's rating against its peers and/or the Navigator thresholds, and which describes additional considerations affecting the rating not included in the Navigator. These include cross-sector criteria considerations such as the Country Ceiling and the impact of parent-subsidiary relationships.

Key Rating Drivers

Qualitative and Quantitative Factors

Each Navigator includes a Sector-Risk Profile, an Operating Environment assessment, five Business Profiles (including Management and Corporate Governance) and three Financial Profile factors.

These Key Factors apply to each sector described by the Key Rating Factors in the **Corporate Rating Criteria.**

Key Rating Factors as per Corporate Rating Criteria

Sector risk profile	Financial profile
Country risk	• Cash flows and profitability
Management strategy/governance	• Financial structure
Group structure	• Financial flexibility
Business profile	

Source: Fitch Ratings

Three-Notch Band

We capture each key factor in the Navigator as a three-notch wide range rather than a notch-specific assessment, to provide a better reflection of the qualitative nature of the factor.

Relative Importance

We deem all factors to be important in determining the rating, but assign a relative importance indicator to each Navigator individually to show which factors exert greater or lesser influence on the final rating at the time of the analysis.

Related Criteria

Corporate Rating Criteria

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Sector Navigators

Addendum to the Corporate Rating Criteria

Variations from Criteria

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

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

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

Limitations

Please refer to the Corporate Rating Criteria.

Data Sources

Please refer to the Corporate Rating Criteria.

Rating Assumption Sensitivity

Please refer to the Corporate Rating Criteria.

Variations from Criteria

Please refer to the Corporate Rating Criteria.

Sector Navigators

Generic Navigator

Generic Approach

As the Generic Navigator applies across numerous sectors, business profile factors focus on defining the broad risk characteristics of the issuer's sector as well as the relative strength of the issuer within its sector rather than providing the more detailed analysis found in sector-specific Navigators.

Sector Competitive Intensity

This indicates the structural risks of the issuer's sector based on the industry's organization, its relative position in the value chain, its relative bargaining power with suppliers and customers as well as possible threats from new entrants.

Industry Profile

This factor assesses the long-term growth potential of the issuer's sector, its predictability and the susceptibility to short-term demand shocks. Declining industries are generally not consistent with investment-grade ratings. Sectors facing threats from substitutes with low switching costs are generally more difficult to predict.

Market Position and Diversification

These 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.

Financial Profile Key Factors

Profitability

The analysis focuses on the stability of earnings and 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 reliance on external funding.

Financial Structure and Flexibility

These factors use an array of predominantly cash-based metrics to measure the level of capitalisation of an issuer and other flexibility measures such as liquidity and exposure to foreign-exchange movements.

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Sector-Specific Key Factors — Generic Navigator

	Sector Competitive Intensity	Industry Profile	Market Position	Diversification
Rating	**Industry Structure**	**Long-Term Growth Potential**	**Market Share**	**Geographic Diversification**
aa	Oligopolistic industry.	Strong long term potential with gradual, steady growth.	Market leader in most of its segments.	Ideal balance between mature and growth markets. No reliance on any single region.
a	Reduced number of competitors with clear leader.	Strong long term potential with more volatile growth or very stable industry with moderate but predictable growth over the rating horizon.	Top-three participant in most markets or leader in a well defined and protected niche.	Strong diversification but balance between emerging and growth markets could be better.
bbb	Larger number of competitors with some record of price discipline in downturns.	Mature industry. Traditional markets may be under some pressure but opportunities arise in new markets.	Top-five participant in most markets or leader in a niche with some threats of substitution within the industry.	Some geographical diversification but imbalance between growth and mature markets.
bb	Highly competitive industry with multiple participants of comparable size.	Industry in slow decline.	Predominantly second-tier participant.	Modest geographical diversification.
b	Record of aggressive and opportunistic competitive behavior.	Industry in rapid decline. Participants will have to consolidate to survive.	Small participant.	Concentrated in one region.
ccc	Fragmented industry, participant landscape in aggressively disruptive phase with multiple company failures anticipated.	Industry in accelerated decline. Consolidation may slow failures, but secular resizing of sector likely to claim many companies.	Extremely small and or undifferentiated participant.	Concentrated in an especially disadvantaged region.
	Barriers to Entry/Exit	**Volatility of Demand**	**Competitive Advantage**	**Product/End-Market**
aa	Very high barriers to entry. Emergence of significant new entrants in the rating horizon close to impossible.	Highly stable demand even in economic downturns.	Strong competitive advantages in cost, technology or brand which cannot be replicated by competitors in the rating horizon.	Well balanced exposure to five or more business lines or markets with different sensitivity to the economic cycle.
a	Time and significant financial commitment required to enter the industry meaningfully.	Generally stable, somewhat more sensitive to economic cycles.	Strong competitive advantages but more at risk from competitors.	Well balanced exposure to at least three business lines or markets with different sensitivity to the economic cycle.
bbb	Moderate barriers to entry. Incumbents are generally strongly established but successful new entrants have emerged over time.	Demand volatility in line with economic cycles.	Some competitive advantages with reasonably good sustainability.	Exposure to at least three business lines or markets but with some performance correlation.
bb	Some barriers to entry but incumbents do not benefit from particularly strong positions that new entrants cannot replicate.	Demand volatility exacerbates economic cycles.	Modest competitive advantages. Long term sustainability questionable.	Focus on a couple of business lines/end markets.
b	No barrier to entry/exit. Number of industry participants follow the cycle.	Highly cyclical and difficult to predict.	No competitive advantage.	One product/market concentration.
ccc	No barriers to entry, and industry has a high and/or rapidly accelerating rate of attrition of market participants.	Highly cyclical and facing a sharp, near-term and secular decline in prospects.	Uncompetitive products, and may have a record of principal product failures.	Product line facing extinction.
	Relative Power in Value Chain	**Threat of Substitutes**	**Operating Efficiency**	
aa	Dominant position in the value chain with suppliers and customers significantly more dispersed. Retain most of the value added in the chain.	No substitute. Product is a must have for customers.	Best in class return on invested capital.	
a	Stronger bargaining power than suppliers and customers.	Substitutes exist but are of lower fundamental quality.	Higher than average return on invested capital.	
bbb	Balanced relative bargaining power with suppliers and customers.	Facing substitutes of comparable quality but switching costs are significant.	Return on invested capital in line with industry average.	
bb	Supplier and/or customer more concentrated with significant bargaining power.	Facing substitutes of comparable quality with modest switching costs.	Profitability below average. Struggles to generate appropriate returns for shareholders.	
b	Squeezed between powerful suppliers and customers. Can only retain a marginal share of the value added.	Facing substitutes with better fundamental characteristics or imminent technological change risk. Modest switching costs.	Poor profitability. Unable to generate return for its shareholders.	
ccc	The weakest position in a value chain, where the weakness of this position in itself puts strong downward pressure on the company's prospects.	Product line fundamentally uncompetitive, sustained only by legacy customer base, itself in rapid decline.	Poor and declining profitability, likely to remain materially below the cost of capital.	

Financial Profile Key Factors — Generic Navigator

	Profitability	Financial Structure	Financial Flexibility
Rating	**EBITDA Margin or EBITDAR Margin**	**EBITDA Leverage or EBITDAR Leverage**	**Financial Discipline**
aa	25% or 25%	1.0x or 1.0x	Publicly announced conservative financial policy. Record of strict compliance.
a	22% or 22%	2.0x or 2.0x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	20% or 20%	3.0x or 3.0x	Financial policies less conservative than peers but generally applied consistently.
bb	18% or 18%	3.5x or 3.5x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
b	15% or 15%	5.5x or 5.5x	No financial policy or record of ignoring it. Opportunistic behavior.
ccc	Persistently and structurally break-even or loss-making at EBITDA/R level.	>7.0x or >7.0x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	EBIT Margin	**EBITDA Net Leverage or EBITDAR Net Leverage**	**Liquidity**
aa	17%	0.5x or 0.5x	Very comfortable liquidity; no need to use external funding, except for already committed facilities, in the next 24 months even under a severe stress scenario. Well-spread debt maturity. Diversified sources of funding.
a	14%	1.5x or 1.5x	Very comfortable liquidity. No need to use external funding, except for already committed facilities, in the next 12 months even under a severe stress scenario. Well-spread debt maturity schedule. Diversified sources of funding.
bbb	12%	2.5x or 2.5x	One year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
bb	10%	3.0x or 3.0x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
b	7%	5.0x or 5.0x	Liquidity ratio below 1.0x. Overly reliant on one funding source.
ccc	Persistently and structurally break-even or loss-making at EBIT level.	6.5x or 6.5x	No near-term prospect of recovery in liquidity score above 1.0x. All/most funding sources subject to material execution risk.
	FFO Margin	**FFO Leverage and FFO Adjusted Leverage**	**FX Exposure**
aa	17%	1.5x or 1.5x	No material FX mismatch.
a	14%	2.5x or 2.5x	Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flows well-matched.
bbb	12%	3.5x or 3.5x	Some exposure of profitability to FX movements and/or debt/cash-flow match. Effective hedging in place.
bb	10%	4.0x or 4.0x	Some exposure of profitability to FX movements and/or debt/cash-flow match. Some hedging in place but only partly effective.
b	7%	6.0x or 6.0x	Large FX exposure. No significant/ineffective hedging in place.
ccc	Persistently and structurally break-even or loss-making at FFO level.	>7.5x or >8.0x	FX exposure dominant in impairing the issuer's ability to service debt in cash terms.
	FCF Margin	**(CFO-Capex)/ Net Debt (%)**	**EBITDA Interest Coverage or EBITDAR Fixed Charge Coverage**
aa	7%	>25%	20.0x or 13.0x
a	3.50%	20%	15.0x or 7.0x
bbb	2.50%	12.5%	7.0x or 4.5x
bb	1%	7.5%	3.5x or 3.5x
b	Neutral to negative FCF margin.	2.5%	2.0x or 2.0x
ccc	Widening negative FCF margin, with limited/no flexibility on spending reduction and funding gaps.	Flat to Negative	<1.5x or <1.5x
	Volatility of Profitability	**Funding Structure (LBO only)**	**FFO Interest Coverage or FFO Fixed Charge Cover**
aa	Volatility of profits viewed as a positive outlier for the industry.	n.a.	15.0x or 10.0x
a	Lower volatility of profits than industry average.	n.a.	10.0x or 6.0x
bbb	Volatility of profits in line with industry average.	n.a.	4.0x or 4.0x
bb	Higher volatility of profits than industry average.	Moderately complex parity of debt creditor interests. Some flexibility for new funding to be obtained in a manner supporting existing debt creditors.	3.0x or 3.0x
b	Volatility of profits viewed as a negative outlier for the industry.	Complex interaction of debt creditor interests. Limited flexibility for new funding to be obtained in a manner supporting existing debt creditors.	2.0x or 2.0x
ccc	Volatility of profits exceeds normal bounds of volatility for corporate sector as a whole.	Highly complex interaction of debt-creditor interests. Additional funding challenging to obtain in a manner supporting existing debt creditors.	Net FCF debt service cover <1.0x. All/most funding sources subject to material execution risk.

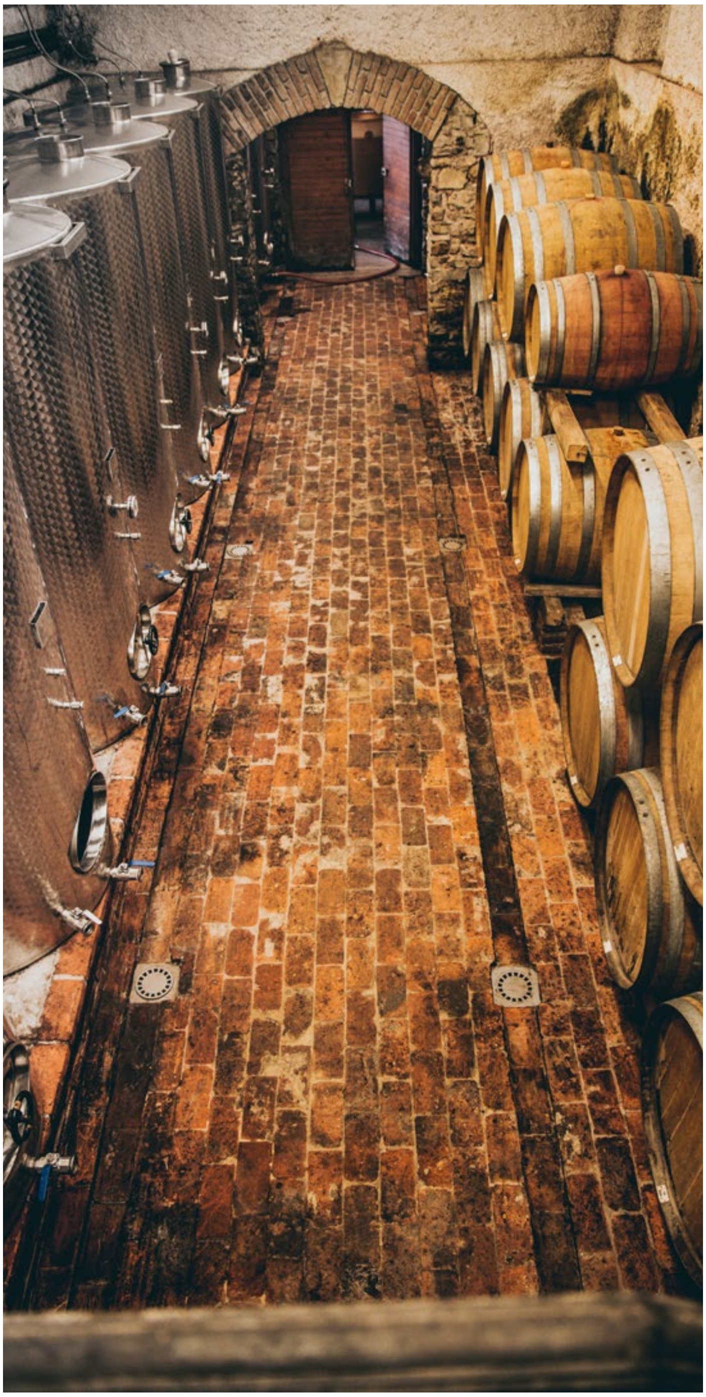
Alcoholic Beverages

Sector Risk Profile

Rating Range

Drinks companies, particularly the larger, diversified ones, have a lower-than-average risk profile. Smaller, less diversified market participants can display higher risk. The alcoholic beverages' risk profile reflects regular product consumption, the absence of technology and R&D risk or heavy and volatile investment cycles.

The volatility of input prices on profits varies across sub-sectors but is limited. Regulatory risks are also limited. However, governments' actions to curb consumption through excise duties can adversely affect demand. Ratings can be as high as 'A+' and are capped by a record of debt-funded M&A appetite among the larger participants.



Sector-Specific Key Factors

Industry Profile

The first way to look at a drinks company specifically is in relation to the profile of its sub-industry in terms of fragmentation of participants, growth potential, position within the value chain, and finally, its degree of exposure to any destabilizing effects from seasonality or cyclicality.

Market Position

This assesses the overall size and relative scale of the issuer, notably the degree of reach and effectiveness of its distribution network and its operating efficiency.

Diversification

This factor indicates an ability to mitigate the effects of economic cyclicality or risk of excise duty increases through its exposure to various end-markets, products, brands and price points. Concentration of sales on one or few categories can be a risk due to ever-changing consumer preferences and patterns.

Brand Strength

This captures the profile of the company's brand portfolio and the strength of its key brands. Fitch also assesses the company's record and potential to increase revenues from its pricing power and to innovation, as well as its effectiveness in successfully leveraging brands.

Financial Profile Key Factors

Financial Profile

The financial metrics are standard Corporate Rating Methodology ratios encompassing mid-point leverage and coverage ratios, and measures of profitability and cash flow, up to the 'A+' rating level.

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Alcoholic Beverages

Industry Characteristics

The industry's robustness is the result of consumer's regularity of consumption of the products, the absence of technology and R&D risks, or of heavy and volatile investment cycles, and the limited regulatory risks. Companies do however need constantly to innovate, as consumption experiences shift across categories, brands, pricing points and distribution channels over time. Governments can occasionally raise excise duties to curb consumption of these products, which are viewed as harmful to people's health. Consumption patterns can change as a result of fashion, the behavior of influential trend-setters, health consciousness and disposable income.

Companies with higher ratings therefore enjoy diversification in one or more of these areas, and are able to capture opportunities as they emerge, and protect their profits in the event of changes.

Drinks companies must also to some extent contend with the increasing volatility of agricultural commodity markets as well as packaging and energy costs. However, for brewers, for instance, which, after winemakers are the most exposed to input prices, agricultural commodities and packaging raw materials typically represent only approximately 25%-30% of sales value.

Spirits companies that have maturing products tend to suffer these effects to a more muted degree. In addition, to offset any cost or demand shocks they can, for short periods of time, reduce more discretionary cost components such as advertising and promotional expenses. These represent around 10%-20% of revenues for spirits makers.

Difference of Critical Success Factors for Spirits, Beer, Wine Companies

Market Position and Scale	Diversification	Contracted Income and Renewal Risk
Skillful and innovative marketing teams.	Established market position (>30%/-40% share) with very strong distribution.	Reliable availability of grapes or wine.
Strong global brands with high product volume on which advertising costs can be spread.	Mainly strong local brands, complemented by some imported brands.	Sufficient critical mass to negotiate with retailers.
Several product categories.	One of maximum two relevant participants in the country.	

Source: Fitch Ratings

Alcoholic Beverages

Beer

Compared to spirits and wine, the beer business is characterized by larger-scale production and higher operating leverage. The beer industry is heavily consolidated on a global and local level as its demonstrated ability to reap synergies from scale has encouraged M&A activity. Many beer markets are structured as oligopolies or quasi-monopolies, with high barriers to entry given the distribution networks that industry leaders have built over the years and the long-standing loyalty to locally branded products.

Beer is a low-ticket item and benefits from a high degree of consumption resilience. In developing markets, imported products typically sell at a premium, but purchases are more cyclical and account for a small proportion of industry sales.

Beer companies are unlikely to display the product category diversification of spirits companies, as their business is typically restricted to beer. At most, in some markets they may combine it with some carbonated soft drinks bottling activity. For brewers rated in the 'BBB' category or above, the lack of product or geographical diversification is compensated by their enjoyment of strong market shares in highly consolidated and stable markets.

Spirits

For spirits, production is often attached to the place of origin of the product but several truly global brands have emerged. Due to the more differentiated nature of products within spirits, several independent family-owned or former local monopoly spirits companies have so far survived in the world. Markets are far less consolidated than for beer.

Consequently, compared to brewers, spirits companies are less likely to enjoy the benefits of operating in highly consolidated markets. However, spirits companies rated in the 'BBB' category or above, are expected to display ample product category diversification (e.g. vodka, rum, gin) and strong brands.

Production requires limited investment in capacity, thus supporting high cash from operations. However, certain products (Scotch and bourbon whisky, cognac for instance) may require heavier investments in terms of working capital as maturing stocks need to be retained before the finished product can be marketed. Others, such as vodka or lower-priced whiskies, do not.

Products are less vulnerable to the cost of ingredients than beer, but since they tend to attract higher spending on branding and trade marketing promotions, profit margins are rarely as high as those of certain brewers that operate in a concentrated market.

Wine

The production of wine is heavily exposed to the vagaries of the weather which will determine, with little predictability, the quality and quantity of grapes in any given year. This more heavily affects mid-priced wine, which is not typically marketed on the basis of its vintage, leaving producers reliant on each year's grape crop. Conversely, fine wine typically requires a long production cycle, which involves the need to maintain large maturing inventories and bears a financial cost. Additionally, consumption of fine wine is highly correlated to the economic cycle.

In many parts of the world the wine industry tends to be heavily fragmented. It can be competitive and exposed to the strong buying power of retailers.

These characteristics place the natural ratings territory of wine producers typically in the 'B' and 'BB' rating categories.

Sector-Specific Key Factors — Alcoholic Beverages

	Industry Profile	Brand Strength	Market Position	Diversification
Rating	**Industry Structure**	**Brand Awareness**	**Market Share**	**Geographic Diversification**
aa	n.a.	n.a.	n.a.	n.a.
a	Majority of operations in oligopolistic markets.	Majority of established, globally known brands.	Market leader in most of its markets or segments.	Strong diversification across stable and growth markets. Limited exposure to declining markets. No reliance on any single region.
bbb	Reduced number of competitors with clear leader.	Globally known brands, with image consistent with product/consumers but available in selected countries.	Top-three participant in most markets.	Good geographical diversification but some imbalance between stable, declining and growth markets.
bb	Larger number of competitors with some record of price discipline in downturns.	Brands are well known in countries of operation. Image is consistent with targeted consumers.	Top-five participant in most markets.	Modest geographical diversification.
b	Highly competitive markets of operation with multiple participants of comparable size.	Weak, under-invested brands.	Small participant.	Concentrated on one region
ccc	Fragmented industry, participant landscape in aggressively disruptive phase with multiple company failures anticipated.	Life-expired brands, potentially with "negative value" through product liability or reputational crises.	Marginal participant with declining market share.	Concentrated in one region where cash flows are materially affected by severe recessionary or disruptive conditions.
	Relative Power in the Value Chain	**Pricing Power**	**Routes to Market**	**Product and Brands**
aa	n.a.	n.a.	n.a.	n.a.
a	Stronger bargaining power than suppliers and customers.	Strong record and potential of price mix benefits from price increases, premiumization and innovation.	Well developed, far reaching distribution network, capable of accessing all distribution channels and predominantly managed directly.	Well balanced exposure to five or more beverage categories with exposure to different consumption patterns and consumer groups.
bbb	Balanced relative bargaining power with suppliers and customers.	Good record of price mix benefits from price increases, product premiumization and innovation.	Good distribution network present in most distribution channels, partly managed directly.	Well balanced exposure to at least three beverage categories with exposure to different consumption patterns and consumer groups.
bb	Supplier or customer more concentrated with significant bargaining power.	Modest record of price increases, from product premiumization and innovation; price follower.	Average distribution network.	Focus on a couple of categories. Few brands.
b	Squeezed between powerful suppliers and customers. Can only retain a marginal share of the value added.	Inadequate record of price increases and product premiumization; unable to pass through excise increases.	Weak distribution network.	One category concentration and limited brand diversity.
ccc	The weakest position in a value chain leading to strong downward pressure on company's prospects.	Unable to control pricing policy and suffering severe price erosion on key products.	Distribution strategy in profound transition or experiencing severe, long-term operational disruptions, imparing cash flow from operations.	Concentrated on one product facing rapid decline.
	Organic Growth Potential	**Ability to Leverage Brands**	**Operating Efficiency**	**Price Points**
aa	n.a.	n.a.	n.a.	n.a.
a	Double-digit annual growth potential for company's products.	Strong "umbrella" brands allowing efficient use of brand marketing budget.	Superior gross margin. Flexible cost structure and consistent record of taking costs out.	Very wide breadth of pricing points.
bbb	Mid- to high single-digit annual growth potential for company's products.	Good record of adding new products under same brand.	Gross margin aligned with peers.	Good breadth of pricing points.
bb	Moderate, low single-digit annual growth potential for company's products	Moderate brand fragmentation.	Cost structure partly affects profitability.	Modest breadth of pricing points.
b	Declining, at best stable demand.	Highly fragmented brand portfolio.	Heavy and rigid cost structure weighs on profitability.	Focused on the low or high end of the market.
ccc	In secular multi-year double digit-organic decline.	A number of reputationally impaired brands in brand portfolio.	Persistently and structurally break-even or loss-making.	Focused on a pricing point facing rapid decline
	Seasonality/Cyclicality of Demand		**Size**	
aa	n.a.		n.a.	
a	Highly stable demand.		EBITDA > $1.5 billion	
bbb	Stable demand, subject to slow-downs.		EBITDA $500 million	
bb	Demand can suffer from seasonality.		EBITDA $250 million	
b	Demand can suffer from cyclicality linked to consumer spending.		EBITDA < $150 million	
ccc	Record of seasonal (and cyclical) fluctuations in earnings and cash flow exceeding management response capacities.		Insufficient scale to be competitive.	

Financial Profile Key Factors — Alcoholic Beverages

	Profitability	Financial Structure	Financial Flexibility
Rating	**EBITDA Margin**	**EBITDA Leverage**	**Financial Discipline**
aa	n.a.	n.a.	Publicly announced conservative financial policy. Record of strict compliance.
a	25%	2.5x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	20%	3.5x	Financial policies less conservative than peers but generally applied consistently.
bb	15%	4.5x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
b	10%	6.5x	No financial policy or record of ignoring it. Opportunistic behavior.
ccc	Persistently and structurally break-even or loss-making at EBITDA level.	>8.0x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	FFO Margin	**EBITDA Net Leverage**	**Liquidity**
aa	n.a.	n.a.	Very comfortable liquidity; no need to use external funding, except for already committed facilities, in the next 24 months even under a severe stress scenario. Well-spread debt maturity. Diversified sources of funding.
a	14%	2.0x	Very comfortable liquidity. No need to use external funding, except for already committed facilities, in the next 12 months even under a severe stress scenario. Well-spread debt maturity schedule. Diversified sources of funding.
bbb	12%	3.0x	One year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
bb	10%	4.0x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
b	7%	6.0x	Liquidity ratio below 1.0x. Overly reliant on one funding source.
ccc	Persistently and structurally break-even or loss-making at FFO level.	>7.5x	Net FCF debt service cover below 1.0x. All/most funding sources subject to material execution risk.
	FCF Margin	**FFO Leverage**	**FX Exposure**
aa	n.a.	n.a.	No material FX mismatch.
a	5%	3.0x	Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flows well matched.
bbb	3.5%	4.0x	Some FX exposure on profitability and/or debt/cash flow match. Effective hedging in place.
bb	1%	5.0x	FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b	Neutral to negative FCF margin.	6.0x	Large FX exposure. No significant/ineffective hedging in place.
ccc	Accelerating negative FCF margin, with limited/no flexibility on spending reduction and funding gaps.	>8.0x	FX exposure dominant in impairing the issuer's ability to service debt in cash terms.
	Volatility of Profitability	**FFO Net Leverage**	**EBITDA Interest Coverage**
aa	Volatility of profits viewed as a positive outlier for the industry.	n.a.	n.a.
a	Lower volatility of profits than industry average.	2.5x	10.0x
bbb	Volatility of profits in line with industry average.	3.5x	6.5x
bb	Higher volatility of profits than industry average.	4.5x	4.0x
b	Volatility of profits viewed as a negative outlier for the industry.	5.5x	3.0x
ccc	Volatility of profits greater than normal bounds for corporate sector as a whole.	>7.5x	<1.0x
		(CFO-Capex)/Debt	**FFO Interest Coverage**
aa		>25%	n.a.
a		20%	8.5x
bbb		12.5%	6.0x
bb		7.5%	3.5x
b		2.5%	2.0x
ccc		Flat to Negative	<1.0x

Non-Alcoholic Beverages

Sector Risk Profile

Rating Range

Beverage companies, particularly the larger diversified ones, have a lower-than-average risk profile. Smaller, less diversified participants can display higher risk. Regional bottlers can benefit from tangible support from concentrate owners. The Sector Risk Profile reflects continuous product consumption, limited technology and R&D risk or heavy investment cycles, and modest regulatory risk. Ratings can be as high as 'A+' and are at times limited by the M&A record and larger participants' appetites, as large acquisitions may be financed with debt.

Sector-Specific Key Factors

Industry Profile

The first way to look at a non-alcoholic beverage company is in relation to the profile of segment or category in which it competes. Fragmentation of participants, relative value power in the value chain, growth potential, and finally, its degree of exposure to any destabilizing effects from cyclicality of demand all help ascertain its operating risk to the broader sector. Fitch evaluates how these together with its product portfolio and innovation capabilities combined with incremental bolt-on M&A, translate or not into potential to grow faster than the overall market.

Market Position

This assesses the overall size and relative scale of the issuer, notably the degree of reach and effectiveness of its distribution network and its operating efficiency. For bottlers only, a sub-factor is present to assess the relative strategic importance to the major concentrate owner.

Diversification

This indicates an ability to mitigate the effects of material sales volatility. Concentration of sales on one or few categories can be a risk due to ever-changing consumer preferences and patterns. Primary categories include carbonated soft drinks (CSD), bottled tea and coffee, juices, water, and sports and energy drinks.

Brand Strength

High brand awareness with meaningful market share across the sub-categories and a good record on pricing are key strengths. To address the structural shifts with CSD consumption from changing consumer preferences, the ability to successfully innovate has become more important across product, packaging and marketing of Non-Alcoholic Ready-to-Drink beverages.

Financial Profile Key Factors

Financial Profile

The financial metrics are standard corporate rating methodology ratios encompassing mid-point leverage and coverage ratios, and measures of profitability and cash flow, up to the 'A+' rating level.

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Non-Alcoholic Beverages

Industry Characteristics

The non-alcoholic beverage industry's robustness is the result of consumer's regularity of consumption of the products, limited technology and R&D risks or of heavy and volatile investment cycles, and relatively limited regulatory risks. The potential for volatility of input prices is generally limited, except for sweeteners and packaging materials such as PET for bottles and aluminum for cans. Volatility of commodity input prices can more negatively affect soft drink companies than alcohol, particularly lower rated entities due to tighter margins. In countries experiencing political or other risks, concentrate owners or bottlers could be exposed to volatility with certain raw material, currency or packaging.

Consumption of non-alcoholic beverages is relatively resilient throughout the economic cycle. Companies do however need to constantly innovate, as consumption experiences shift across categories, brands, pricing points and distribution channels over time. The sense of urgency to add new products has risen in North America, as declining CSD per capita consumption levels, which had been in structural decline for more than the past decade.

Pressure has increased in the past several years due to negative perceptions around cola CSDs and artificial sweeteners as consumers shift their spending to other sub-categories that are growing, driven by innovation that is adapting to evolving consumer preferences. Innovation is focused on the preference shift toward premium-based enhanced waters, teas, energy drinks, cold-pressed juices, smoothies, enhanced dairy, RTD coffees, plant protein and other value-added functional beverages. Demand has increased for ingredients that are fresh, flavoured, organic, non-GMO, minimally processed and no artificial sweeteners

During the past couple of years, global momentum has grown for excise taxes on CSDs as other countries or U.S. regions are in various stages of considering/implementing new tax regimes. Fitch expects this momentum to continue as fiscally challenged governments use the tax to address budget deficits or attempt to improve long-term health concerns due to increasing rates of obesity and diabetes. Consequently, global beverage companies are focused with more urgency to stem the structural changes by accelerating CSD portfolio transformation through reformulations, innovation (reduced/no calories) expansion of healthier brands across other regions and smaller/differentiated packaging size.

While the industry is stable, it is also mature, particularly for CSDs in developed markets, with modest organic growth rates and limited profitability upside. Slow growth has led companies to engage in M&A activity including long-term strategic partnership agreements in faster growing categories. Acquisitions, divestitures and restructuring have also been driven by companies' attempts to shift away from competitive, slower-growth developed markets and toward faster-growing developing and emerging markets.

Investment-Grade NARTD Beverage Companies

- Typically global-branded concentrate or brand owners with broadly diversified product portfolios or significant market shares.
- Possess strong brands and the ability to innovate as well as renovate older brands.
- Geographically well-balanced.
- For bottlers, key partner as an anchor bottler or servicing a strategic region of a concentrate owner, thus representing material market share and importance to the system. Concentrate owner may or may not hold equity interest and assists with strategies to improve operations. Concentrate owner has an established history of tangible support to the bottler.

Speculative-Grade NARTD Beverage Companies

- Typically smaller producer with a narrow product portfolio.
- Possess weaker brands, or mostly produce private label products.
- Heavy focus on one market or region.
- For bottlers, partner within a smaller region where major concentrate owner does not hold equity interest, a limited degree of importance and lack of history or unwillingness for support.

Sector-Specific Key Factors — Non-Alcoholic Beverages

	Industry Profile	Brand Strength	Market Position	Diversification
Rating	**Industry Structure**	**Brand Awareness**	**Scale and Market share**	**Geographic Diversification**
aa	n.a.	n.a.	n.a.	n.a.
a	Limited competitors with clear leader.	Well established globally known brands. Image is consistent with targeted consumers.	Substantial scale with EBITDA > $1.5 bil., share leader in most markets/segments with number one or two brand position.	Strong diversification across stable and growth markets. Limited exposure to declining markets. No reliance on any single region.
bbb	Larger number of competitors with some record of price discipline in downturns.	Some global brands, others well known in countries of operation. Image is consistent with targeted consumers.	Good scale with EBITDA >$500 mil., top-three share in most markets with leading brand position.	Good geographical diversification but some imbalance between stable, declining and growth markets.
bb	Highly competitive industry with multiple participants of comparable size.	Some brands are well known in countries of operation but may not be well established although good potential.	Weak scale with EBITDA > $250 mil., predominantly second-tier participant with weaker share and lagging brand position.	Meaningful geographical diversification but may be limited to one region of the world.
b	Record of aggressive and opportunistic competitive behavior.	Weak, under-invested brands, private label focus.	Substandard scale with EBITDA < $150 mil., small participant with weak/declining share, unbranded or niche position.	The majority of revenues, profits or cash flows are concentrated in one country or region.
ccc	Fragmented industry, participant landscape in aggressively disruptive phase with multiple company failures anticipated.	Life-expired brands, potentially with "negative value" through product liability or reputational crises.	Marginal participant with declining market share.	Concentrated in one region where cash flows are materially affected by severe recessionary or disruptive conditions.
	Relative Power in the Value Chain	**Pricing Power**	**Routes to Market**	**Product**
aa	n.a.	n.a.	n.a.	n.a.
a	Strong bargaining power than suppliers and customers.	Good record and potential of price mix benefits from price increases, premiumization and innovation.	Well developed, far reaching distribution network, capable of accessing all distribution channels resulting in competitive advantage.	Well balanced exposure to multiple beverage categories, different consumption patterns and consumer groups.
bbb	Balanced bargaining power relative to suppliers and customers.	Satisfactory record of price mix benefits from price increases and premiumization although may be lacking for some products.	Good distribution network with presence in most distribution channels and competitive with peers	Good exposure to at least a couple of beverage categories, different consumption patterns and consumer groups.
bb	Supplier and/or customer more concentrated with significant bargaining power.	Modest record of price increases from product premiumization and innovation; price follower.	Less developed average distribution network that hinders competitive position relative to peers.	Focus on a couple of categories.
b	Squeezed between powerful suppliers and customers. Can only retain a marginal share of the value added.	Inadequate record with limited ability for price increases and product premiumization. Price taker.	Weak distribution network causing competitive disadvantage.	One category concentration.
ccc	Weak position in the value chain, which exerts strong downward pressure on company's operating prospects.	Unable to control pricing policy and suffering severe price erosion on key products.	Distribution strategy in transition or experiencing severe, long-term operational disruptions, impairing cash flow from operations.	Concentrated on one product facing rapid decline.
	Growth Potential	**Ability to Leverage Brands**	**Operating Efficiency**	**Price Points**
aa	n.a.	n.a.	n.a.	n.a.
a	Above market average growth capability of revenues and profit, supported by strong innovation record and M&A.	Strong "umbrella" brands that are wide ranging. Good innovation record for product-line extensions.	Superior gross margin. Flexible cost structure and consistent record of taking costs out.	Wide breadth of pricing points.
bbb	Organic growth capability and pace of innovation aligned with market supported by M&A.	Good range of strong brands. Moderate innovation record for product-line extensions	Gross margin aligned with peers. Good record of reducing costs to reinvest into the business.	Good breadth of pricing points.
bb	Growth capability predominantly reliant on M&A. Weak innovation capabilities.	Modest range of good brands. Weaker innovation record for product-line extensions.	Cost structure partly affects profitability.	Modest breadth of pricing points.
b	Growth capability is below market rate.	One, weak brand. Poor innovation record.	Heavy and rigid cost structure weighs on profitabiity.	Focused on the low or high end of the market.
ccc	Sustained decline in organic growth rate, with little visibility of a turnaround.	A number of reputationally impaired brands in brand portfolio features.	Cost structure burdensome resulting in operating losses.	Focused on a pricing point facing rapid decline.
	Seasonality/Cyclicality of Demand		**Strategic Importance (Bottlers only)**	
aa	n.a.		n.a.	
a	Highly stable demand even in economic downturns.		Key strategic bottling partner in important markets. Concentrate owner provides support, holds equity interest and assists with key strategies.	
bbb	Generally stable, modestly more sensitive to economic cycles.		Bottling partner with material regional share. Concentrate owner provides support, typically holds equity interest with influence on certain decisions.	
bb	Demand volatility in line with economic cycles.		Partner within bottling group in a smaller region. Concentrate owner may or may not hold equity interest but has provided past support.	
b	Demand volatility exacerbated in economic cycles or business model changes in major markets		Partner within bottling group in a small region. Concentrate owner does not hold equity interest. No external support.	
ccc	Demand in secular decline.		Marginal bottler. High likelihood of losing contract with concentrate owner.	

Financial Profile Key Factors — Non-Alcoholic Beverages

	Profitability	Financial Structure	Financial Flexibility
Rating	**EBITDA Margin**	**EBITDA Leverage**	**Financial Discipline**
aa	n.a.	n.a.	Publicly announced conservative financial policy. Record of strict compliance.
a	20%	2.5x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	16%	3.5x	Financial policies less conservative than peers but generally applied consistently.
bb	12%	4.5x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
b	8%	6.5x	No financial policy or record of ignoring it. Opportunistic behavior.
ccc	Mid-single digits or lower.	>8.0x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	FFO margin	**EBITDA Net Leverage**	**Liquidity**
aa	n.a.	n.a.	Very comfortable liquidity; no need to use external funding, except for already committed facilities, in the next 24 months even under a severe stress scenario. Well-spread debt maturity. Diversified sources of funding.
a	14%	2.0x	Very comfortable liquidity. No need to use external funding, except for already committed facilities, in the next 12 months even under a severe stress scenario. Well-spread debt maturity schedule. Diversified sources of funding.
bbb	12%	3.0x	One year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
bb	10%	4.0x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
b	7%	6.0x	Liquidity ratio below 1.0x. Overly reliant on one funding source.
ccc	Break-even or loss-making at FFO level.	>7.5x	No near-term prospect of recovery in liquidity score above 1.0x. All/most funding sources are subject to material execution risk.
	FCF margin	**FFO Leverage**	**FX Exposure**
aa	n.a.	n.a.	No material FX mismatch.
a	5.0%	3.0x	Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flows well matched.
bbb	3.5%	4.0x	Some FX exposure on profitability and/or debt/cash flow match. Effective hedging in place.
bb	1%	5.0x	FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b	Neutral to negative FCF margin	6.0x	Large FX exposure. No significant/ineffective hedging in place.
ccc	Break-even or loss-making at FCF level.	>8.0x	FX exposure dominant in impairing the issuer's ability to service debt in cash terms.
		FFO Net Leverage	**EBITDA Interest Coverage**
aa		n.a.	n.a.
a		2.5x	10.0x
bbb		3.5x	6.5x
bb		4.5x	4.0x
b		5.5x	3.0x
ccc		>7.5x	<1.0x
		(CFO-Capex)/ Debt	**FFO Interest Coverage**
aa		>25%	n.a.
a		20%	8.5x
bbb		12.5%	6.0x
bb		7.5%	3.5x
b		2.5%	2.0x
ccc		Flat to Negative	<1.0x.

Consumer Products

Sector Risk Profile

Rating Range

Consumer product issuers generally have a low risk profile. Excluding specific niches, above-average business resilience is a key component in assessing this industry's risk. Revenue performance is generally positive, excluding foreign exchange impacts, with stable or modestly improving margins and robust operating cash flow. The sector is large and with the latitude to meet a myriad of specific consumer needs; smaller participants can have defensible and profitable operations alongside industry giants.

The sector risk profile can be naturally as high as the 'AA' rating level and as low as 'B'. Issuers at the high end tend to have strong brand awareness and market share, scale, high geographical and product diversification, and possess significant financial flexibility. The three key traits that characterize the lower end of the spectrum are high leverage, material and/or concentrated operations in weak operating environments, or the presence of secular disruptions in a key product line or distribution channel.

Sector-Specific Key Factors

Industry Profile

This factor analyzes the nature of the participating industries of the company, including competition, demand volatility, and seasonality.

Market Position

Scale assesses a company's overall size, market share, and presence across various distribution channels.

Product Portfolio Profile

This factor considers a company's organic growth potential, brand strength, quality of product innovation and level of price leadership in the marketplace.

Diversification

The diversification factor assesses a company's presence across geographies, product categories, and price points.

Financial Profile Key Factors

Financial Profile

The financial metrics are standard Corporate Rating Methodology ratios encompassing midpoint leverage and coverage ratios, and measures of profitability and cash flow, up to the 'AA' rating category. The financial profile factors show ranges of size, profit margins and leverage and coverage metrics within the relevant rating categories.

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Consumer Products

Industry Characteristics

The industry is widely diversified and highly fragmented. Global branded producers exist in both developed and emerging markets. Most produce solid results through periods of economic slowdown with broad pricing tiers from value to super-premium, some ability to reformulate products to cope with rising commodity costs and consumer preferences, and continual cost reduction programs to support stable-to-improving operating margins.

The sector risk profile is assessed by Fitch as low. Consumer product companies tend to be very strong marketers, typically having leading market shares in specific categories. Margins and operating cash flow generation are generally high and steady. Major risk factors are a change in financial strategy towards more shareholder-friendly behavior, competition at higher than normal levels in certain categories, and periodic volatility in commodity cost inflation and foreign exchange. Risks include ineffective marketing, unsuccessful product launches, or product quality issues that cause brand erosion over time.

Customer needs and replenishment factors are the cornerstones of the sector's stability. Substitutes exist for many products but are generally of lower quality. The demand for packaged consumer products rises with global urbanization trends, population growth, and per-capita income levels. These are all positive long-term industry drivers.

While the industry is stable, most categories are mature and have high rates of household penetration in developed markets. Organic growth rates in these regions are typically in the flat to +2% range, sometimes leading to increased promotional behavior and dampening top-line prospects. Given this, most issuers have increased their exposure to faster-growing categories and geographies.

Emerging markets account for well over 20% of revenues for most large companies and represent a key growth opportunity as rising income levels grant access to better-quality consumer products. Many large companies are conducting portfolio reviews, which often lead to acquisitions of higher-growth-potential brands, but may also lead to brand disposals. Ongoing cost savings programs and large intermittent restructuring programs are being executed to optimize cost structure. In short, absent foreign exchange impacts, organic revenue growth is generally in the low single digits with modestly improving margins.

Investment-Grade Consumer Product Companies

- Branded producers and marketers, with broadly diversified product portfolios or significant market shares in a few sizeable and growing categories or markets
- Stronger-than-average brands, with the ability to innovate as well as renovate older brands
- Adequate geographical diversity of end-markets

Speculative-Grade Consumer Product Companies

- Heavy focus on one region, product category, or distribution channel
- Weak brand positioning and/or market share in participating categories
- Key product line or business model undergoing secular challenges
- Sustained high leverage, often due to recent M&A activity

Sector-Specific Key Factors — Consumer Products

	Diversification	Market Position	Product Portfolio Profile	Industry Profile
Rating	**Geographic**	**Scale**	**Organic Growth**	**Competition**
aa	Highly diversified across mature and developing economies.	EBITDA >$5 billion	Majority of product categories enjoy strong, sustainable growth from shifts in consumer preferences.	Minimal or no competition.
a	Diversified regionally (for large economies) and/or across developing and emerging economies	EBITDA >$2.5 billion	Majority of product categories enjoy sustainable growth.	Healthy competition with rational participant behavior. Limited private label presence.
bbb	Moderate geographical diversification.	EBITDA >$1 billion.	Portfolio of products characterized by stable to low organic growth.	Generally healthy competition with periodic irrational promotional activity pressuring sector profits. Some product categories have material private label presence.
bb	Limited geographical diversification.	EBITDA <$500 million.	Products characterized by stagnating demand.	Active competition with ongoing promotional activity. Some product categories could have material private label presence.
b	Concentrated in one country or region (large economy).	EBITDA <$100 million	A major portion of operating profit and cash flow is generated from sales in declining categories.	Fierce competition leading to potential and permanent erosion of market share and profitability over time. Private label may be a serious threat to market share.
ccc	Concentrated in one region where cash flows are materially affected by severe recessionary or disruptive conditions.	Insufficient scale to be competitive.	Sustained decline in organic growth rate, with little visibility of a turnaround.	Aggressive and irrational competition yields permanent market share or margin decay.
	Products	**Market Share**	**Brand Strength**	**Volatility of Demand**
aa	Well diversified portfolio across multiple products and categories.	Market leader with number one or number two share in most of its categories, with proven ability to grow share.	Outstanding portfolio of global and local brands which enjoy high awareness and cannot be replicated by competitors in the rating horizon.	Highly stable demand even in an economic downturn.
a	Well diversified portfolio across products and categories.	Market leader in many categories, with proven ability to maintain or grow share.	Very strong brand portfolio and high awareness.	Generally stable, modestly sensitive to the economic cycle.
bbb	Moderate portfolio diversity.	Number one or number two market share in some categories, with overall brand portfolio maintaining market share.	Strong brand portfolio with good awareness.	Demand volatility in line with the economic cycle.
bb	Narrow portfolio.	Predominantly secondary or tertiary brands with low market shares, and stable to declining share.	Skewed toward weaker or smaller brands.	Demand volatility somewhat higher than the economic cycle.
b	Single or very limited product focus.	Small participant in niche or narrow category, with low or declining market share.	Skewed toward weaker or smaller brands with declining relevance.	Demand volatility higher than the economic cycle or business model changes in major markets.
ccc	Concentrated on one product facing material decline.	Marginal participant with declining market share and low visibility of a turnaround.	Long-term sustainability of brands questionable.	Demand in secular decline.
	Price Points	**Distribution Channels**	**Innovation**	**Seasonality**
aa	Well-balanced portfolio across numerous price points.	Highly diversified presence and positioning across relevant distribution channels, including physical retail and online formats.	Consistent history of innovation. Generates meaningful revenue and/or pricing power from new product introductions	No seasonality to revenue, profit or cash flow.
a	Portfolio exposure to a variety of price points.	Diversified presence and positioning across relevant distribution channels, including physical retail and online formats.	Strong innovation pipeline to maintain or increase share and command premium pricing.	Limited seasonality to revenue, profit or cash flow.
bbb	Good breadth of price points providing sufficient flexibility to manage portfolio favorably through different points in the economic cycle.	Good presence and positioning across relevant distribution channels, including physical retail and online formats.	Innovation pipeline of new products allows stable market share and offsets declines in other parts of the portfolio.	Moderate seasonality to profit or cash flow.
bb	Focused on only a couple of price points.	Reliance on limited distribution channels or weak positioning relative to direct peers.	Below average ability to generate innovative products.	Average seasonality to profit or cash flow.
b	Focused only on low or high-end price points, with narrow consumer appeal.	Reliance on channels that are in decline.	Limited innovation.	High seasonality to profit or cash flow.
ccc	Focused on pricing point facing material decline.	Weak positioning relative to direct peers and reliance on channels that are in decline.	Lack of financial flexibility to enable new product launches.	Majority of profit or cash flow generated in one season.
			Price Leadership	
aa			Strong ability to command premium pricing or lead price increases in most categories.	
a			Good ability to command premium pricing or lead price increases in most categories.	
bbb			Lead pricing in a few categories, follow pricing actions in others.	
bb			Mostly a price follower on price changes.	
b			Always a price follower. Little ability to command premium prices.	
ccc			No ability to command premium prices.	

Financial Profile Key Factors — Consumer Products

	Profitability	Financial Structure	Financial Flexibility
Rating	**EBITDA Margin**	**EBITDA Leverage**	**Financial Discipline**
aa	22%	1.0x	Publicly announced conservative financial policy. Record of strict compliance.
a	18%	2.0x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	15%	3.0x	Less conservative policy but generally applied consistently.
bb	10%	4.0x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
b	7%	6.0x	No financial policy or record of ignoring it. Opportunistic behavior.
ccc	Mid-single digits or lower.	>7.5x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	FFO Margin	**EBITDA Net Leverage**	**Liquidity**
aa	16%	0.5x	Very comfortable liquidity; no need to use external funding, except for already committed facilities, in the next 24 months even under a severe stress scenario. Well-spread debt maturity. Diversified sources of funding.
a	12%	1.5x	Very comfortable liquidity. No need to use external funding, except for already committed facilities, in the next 12 months even under a severe stress scenario. Well-spread debt maturity schedule. Diversified sources of funding.
bbb	10%	2.5x	One-year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
bb	8%	3.5x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
b	6%	5.5x	Liquidity ratio below 1.0x. Overly reliant on one funding source.
ccc	Break-even or loss-making at FFO level.	>7.0x	No near-term prospect of recovery in liquidity score above 1.0x. All/most funding sources are subject to material execution risk.
	FCF Margin	**FFO Leverage**	**FX Exposure**
aa	7%	1.5x	No material FX mismatch.
a	5%	2.5x	Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flows well-matched.
bbb	3%	3.5x	Some FX exposure on profitability and/or debt/cash flow match. Effective hedging in place.
bb	2%	4.5x	FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b	1%	5.5x	Large FX exposure. No significant/ineffective hedging in place.
ccc	Break-even or loss-making at FCF level.	>7.5x	FX exposure dominant in impairing the issuer's ability to service debt in cash terms.
	Volatility of Profitability	**FFO Net Leverage**	**EBITDA Interest Coverage**
aa	Stable or consistent profit generation.	1.0x	11.0x
a	Volatility of profit lower than industry average.	2.0x	10.0x
bbb	Volatility of profit in line with industry average.	3.0x	6.5x
bb	Volatility of profit higher than industry average.	4.0x	4.0x
b	High volatility of profit relative to the industry.	5.0x	3.0x
ccc	Exceptionally high volatility of profit relative to the industry.	>7.0x	<1.0x
		(CFO-Capex)/Debt	**FFO Interest Coverage**
aa		>25%	10.0x
a		20%	8.5x
bbb		12.5%	6.0x
bb		7.5%	3.5x
b		2.5%	2.0x
ccc		Flat to Negative	<1.0x

Gaming

Sector Risk Profile

Rating Range

Gaming issuers usually have a higher-than-average risk profile. This reflects the industry's cyclicality, maturity in certain markets, capital intensity and exposure to potentially volatile regulatory regimes. In the U.S., corporate gaming issuers have managed capital structures historically in the context of below investment grade, while financial policies are more varied globally. Certain markets benefit from low available capacity relative to demand, often coupled with high barriers to entry. Relatively high operational and financial risks mean that gaming issuers' ratings are clustered in the 'B'/'BB' rating categories, although strong credit characteristics can lift ratings to the 'BBB' rating category.

Sector-Specific Key Factors

Industry Profile

This captures regulatory-imposed barriers to entry and the stability of the regulatory framework within the jurisdictions where a company operates, as well as the supply/demand dynamics and the intensity of the promotional environment within the relevant gaming markets.

Project Pipeline & Funding Strategy

This measures the planned development spending relative to a company's resources, including cash flow generation and available liquidity. It also captures the equity versus debt-funding mix and the return on investment (ROI) prospects of the development.

Market Position

This captures an operator's competitive positioning, brand and/or loyalty program strength, product quality, opportunities to enter new attractive markets and ability to successfully leverage emerging sale channels, including online gaming.

Diversification

This captures the number of markets, jurisdictions and possibly countries in which the company operates, as well as the diversification through the number of properties operated and profit generated by non-gaming amenities.

Financial Profile Key Factors

Financial Profile

The financial metrics include standard corporate rating methodology ratios encompassing mid-point leverage and coverage ratios – and measures of profitability and cash flow – up to the 'BBB+' rating level. The report also includes EBITDAR-based leverage and profitability ratios categories.

Profitability

Gaming analysts use their analytical judgement when analyzing capex and shareholder distributions to reflect what is more recurring in nature and/or discretionary. If issuers have the flexibility of reducing their cash outflow, analysts will adjust their assessment of the FCF margin under this sub-factor to reflect the true amount of FCF generation that is available for discretionary decisions such as M&A, growth projects, volatile shareholder distributions, etc. Recurring capex that must be incurred is primarily maintenance capex to keep casino properties fresh and relevant, or digital technologies state-of-the-art. Growth capex can be often delayed or abandoned in the event of a cyclical downturn. Common dividends that are explicitly paid on a recurring basis (ex. publicly-defined fixed amount per share each quarter) are likely to be captured in the FCF margin assessment, given their less discretionary nature, while distribution strategies such as a percentage of net profit after tax (NPAT) could be excluded.

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Gaming

Industry Characteristics

Cyclicality

Gaming is discretionary, and demonstrates significant cyclicality in the more mature markets. Less penetrated, capacity-constrained markets are less prone to cyclicality.

Regulatory Regimes

Gaming operations are prone to adverse regulatory changes. Notable regulatory changes that can have a negative impact on gaming operators include issuance of additional gaming licenses, bans on smoking, increases in the gaming tax, or related fees and restricting operations through imposing measures such as placing limits on gaming positions or limiting the ability to market/ advertise.

Capital Intensity

Gaming operations, especially resort-style casinos, require considerable maintenance capex to ensure the product remains competitive. Development capex in the industry could also be significant relative to cash flows, with the potential to put a strain on the gaming operators' financial profiles and liquidity. The development timing and phasing hinges largely on when new gaming licenses become available, and could be outside of the operators' control.

Balance-Sheet Management

U.S.-based gaming operators have generally felt comfortable in recent years in managing the balance sheet at around 5x gross debt/EBITDA, which provides some equity cushion but is more consistent with speculative-grade ratings in light of the business risk. Outside the U.S., gross debt/EBITDA of 3x or less is more standard, which can potentially support investment-grade ratings.

Barriers to Entry

Many gaming jurisdictions limit the number of gaming licenses issued, and at times may also limit the number of gaming positions permitted per license or for the market in aggregate. Where licenses or positions are not limited, other restrictions could be in place – including the availability of land for casino development.

These considerations over barriers to entry are more meaningful for less penetrated markets, and have to be considered in concert with the barriers to entry in surrounding jurisdictions.

Sector-Specific Key Factors — Gaming

	Industry Profile	Project Pipeline & Funding Strategy	Market Position	Diversification
Rating	**Barriers to Entry**	**Growth Appetite**	**Market Share**	**Geographic and Channel**
aa	n.a.	n.a.	n.a.	n.a.
a	n.a.	n.a.	n.a.	n.a.
bbb	High non-regulated and regulated barriers to entry. Low likelihood of new entrants in core markets.	Growth investments minimal relative to discretionary FCF and liquidity profile. Investments have good ROI prospects or strategic benefits, and/or the issuer has a strong record of execution.	A leading participant across most land-based and online segments, and/or only participant in competitively protected markets.	Exposure to several markets/jurisdictions, potentially including international exposure. Strong diversification between online and physical channel.
bb	High non-regulated barriers to entry. Modest potential that new entrants could emerge.	Growth investments modest relative to discretionary FCF and liquidity profile. Investments have decent ROI prospects or strategic benefits, and/or the issuer has solid record of execution.	Significant participant in most markets and segments, including online.	Exposure to more than one market/jurisdiction, but still highly concentrated. Some revenue diversification between online and physical channel.
b	Exposure to markets easily susceptible to new competition. High likelihood that new entrants could emerge.	Growth investments exceeding discretionary FCF and pressuring the liquidity profile. Investments may have poor ROI prospects or strategic benefits, and/or the issuer has weak or no record of execution.	Small participant in most markets and segments, including online.	Exposure to single market, single jurisdiction. Minimal revenue diversification between online and physical channel.
ccc	No barriers to entry, and industry has a high and/or rapidly accelerating rate of attrition of market participants.	Group cash flow profile negatively dominated by the failure or expected failure of high-profile projects, or the issuer has record of poor project execution.	n.a.	Concentrated in an especially disadvantaged region experiencing severe recessionary or other disruptive conditions.
	Supply/Demand	**Funding**	**Competitive Advantage; Brand Recognition**	**Business and Customer Segment**
aa	n.a.	n.a.	n.a.	n.a.
a	n.a.	n.a.	n.a.	n.a.
bbb	Exposure to markets that have minimal gaming supply growth prospects and/or robust demand from an underpenetrated customer base.	Growth is likely to be funded by a balanced mix of debt, equity and/or existing cash flow.	Effective brand(s), loyalty program(s) and/or market segmentation. Supported by frequent property improvement programs.	Strong diversification across business lines, or strong diversification into non-gaming business
bb	Exposure to markets that have modest gaming supply growth prospects, which can be absorbed by stable growth in demand.	Growth funding is likely to skew materially toward debt relative to equity and/or existing cash flow.	A level of brand building and loyalty programs, but less sophisticated/established. Supported by regular property improvement programs.	Some diversification across business lines, or some diversification into non-gaming business
b	Heavy exposure to markets that are largely saturated and/or facing material gaming supply growth in core local or broader regional markets.	Growth spending is likely to be funded largely by debt.	Little brand or property identification. Gaming value proposition is largely commodity-based. Intermittent brand maintenance.	Weak diversification of products/services, no diversification into non-gaming business
ccc	Dominant exposure to over-saturated markets in sharp secular decline. Progress towards consolidation dependent on multiple closures.	Growth funded exclusively with full-recourse debt	Negative brand identification. Major reputational challenges, with limited funds available to correct.	No diversification of products/services
	Promotional Environment		**Property Quality**	
aa	n.a.		n.a.	
a	n.a.		n.a.	
bbb	Exposure to markets where product quality and customer loyalty are more meaningful drivers of demand than promotional activity.		Outstanding product quality and consistent reinvestment to maintain product freshness.	
bb	Exposure to markets with a rational competition where promotional activity does not necessarily result in direct competitive responses.		Average product quality, sporadic reinvestment to maintain stable appeal.	
b	Exposure to markets susceptible to aggressive promotional activity that drives competitive responses or revenue share losses.		Below average product quality, consistent lack of reinvestment resulting in notable disadvantage relative to peers.	
ccc	Dominant exposure to market or markets where promotional activity has become irrational, failing to stem sharp revenue declines.		Product quality a back-marker for industry, seen as driver for revenue declines, with very limited scope for reinvestment.	
	Gaming Regulatory Environment		**Market Exposure/Opportunities; Multi-Channel Offering**	
aa	n.a.		n.a.	
a	n.a.		n.a.	
bbb	Exposure to jurisdictions with long histories of stable policies regarding gaming regulations and tax regimes.		Attractive opportunities in underserved markets or new distribution channels (eg online) and/or strong position in stable markets.	
bb	Exposure to jurisdictions that have short or volatile histories of regulating gaming and tax regimes.		Some opportunities in underserved markets or new distribution channels (eg online) and/or solid position in stable markets.	
b	Concentration in jurisdictions where there are notable concerns with the regulatory framework, such as potential conflict of interests.		Few or no opportunities in underserved markets or new distribution channels (eg online) and/or weak position in stable markets.	
ccc	Concentration in jurisdictions where regulatory framework is largely compromised and enforcement weak or non-existent.		Product offering fundamentally uncompetitive, sustained only by legacy customer base, itself in rapid decline.	

Financial Profile Key Factors — Gaming

	Profitability	Financial Structure	Financial Flexibility
Rating	**EBITDAR Margin**	**EBITDAR Leverage or EBITDA Leverage**	**Financial Discipline**
aa	n.a.	n.a.	Publicly announced conservative financial policy. Record of strict compliance.
a	n.a.	n.a.	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	20% with minimal volatility through average downturn	3.5x or 3.5x	Less conservative policy but generally applied consistently.
bb	15% with medium volatility through average downturn (approx. 13% margin at trough)	5.0x or 5.0x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines
b	10% with higher volatility through average downturn (approx. 7% margin at trough)	7.0x or 7.0x	No financial policy or record of ignoring it. Opportunistic behavior.
ccc	Persistently and structurally break-even or loss-making at EBITDAR level.	>9.0x or >9.0x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	EBIT Margin	**EBITDAR Net Leverage or EBITDA Net Leverage**	**Liquidity**
aa	n.a.	n.a.	Very comfortable liquidity; no need to use external funding, except for already committed facilities, in the next 24 months even under a severe stress scenario. Well-spread debt maturity. Diversified sources of funding.
a	n.a.	n.a.	Very comfortable liquidity. No need to use external funding, except for already committed facilities, in the next 12 months even under a severe stress scenario. Well-spread debt maturity schedule. Diversified sources of funding.
bbb	12% with medium volatility through average downturn (approx. 11% margin at trough)	3.0x or 3.0x	One year liquidity ratio above 1.25x. Well-spread maturity schedule of debt and a level of funding diversification.
bb	10% with medium volatility through average downturn (approx. 8% margin at trough)	4.5x or 4.5x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
b	7% with higher volatility through average downturn (approx. 4% margin at trough)	6.5x or 6.5x	Liquidity ratio below 1.0x. Overly reliant on one funding source.
ccc	Persistently and structurally break-even or loss-making at EBIT level.	>8.5x or >8.5x	No near-term prospect of recovery in liquidity score above 1.0x. All/most funding sources subject to material execution risk.
	FFO Margin	**FFO Adjusted Leverage**	**FX Exposure**
aa	n.a.	n.a.	No material FX mismatch.
a	n.a.	n.a.	Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flows well-matched.
bbb	12%, with minimal volatility at the trough.	3.5x	Some FX exposure on profitability and/or debt/cash flow match. Effective hedging in place.
bb	10% with some volatility at the trough.	5.0x	FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b	7% with a low of 4% at the trough.	7.0x	Large FX exposure. No significant/ineffective hedging in place.
ccc	Persistently and structurally break-even or loss-making at FFO level.	>9.0x	FX exposure dominant in impairing the issuer's ability to service debt in cash terms.
	FCF Margin	**FFO Adjusted Net Leverage**	**EBITDAR Fixed Charge Coverage**
aa	n.a.	n.a.	n.a.
a	n.a.	n.a.	n.a.
bbb	Double-digit margin, with minimal volatility through average downturn	3.0x	4.5x
bb	Mid- to high single digit margin, with medium volatility through average downturn	4.5x	3.5x
b	Neutral to negative FCF margin.	6.5x	2.0x
ccc	Accelerating negative FCF margin, with limited/no flexibility on spending reduction and funding gaps.	>8.5x	1.0x

Food Retail

Sector Risk Profile

Rating Range

Food retailers have an average risk profile. The sector's risk profile reflects its correlation to economic indicators and social trends and its exposure to numerous regulations, including food safety and environmental requirements. The food retail sector is also exposed to some political interference in certain countries, extreme pricing pressure and a complex supply chain, including fluctuating commodity and basic foods prices. Captive financial services also play an increasing role in the sector.

With moderate operational and financial risks, food retailers' ratings are clustered in the 'BB'/'BBB' rating categories, although a strong revenue profile and financial characteristics can lift ratings into the 'A' rating category. Conversely, a weak market position, negative comparable sales trends, and high financial leverage can result in ratings in the 'B' category.

Sector-Specific Key Factors

Market Position

This key factor assesses the overall market position of the food retailer and its relative scale. The assessment of market position looks in particular at whether brands are premium or mass-market.

Diversification

This factor indicates the food retailer's ability to mitigate the effects of geographical and/or food sector concentration through its exposure to different regions and states, and diverse product and service offerings. Diversification by way of different store formats and online offerings provides other ways to diversify risk and keep pace with changing consumer shopping patterns. Brand relevance and appeal across various demographic groups also add to diversification.

Brand Strength

This captures the brand's reputation, value and recognition. Food retailers' brand strength is also assessed through appeal across the demographic spectrum and resilience to falls in purchasing power.

Property Management

The quality of the stores, their location, and productivity linked to specific demographic factors and traffic through the stores are important in rating food retailers. The flexibility of property ownership structure, lease terms, and the amount of maintenance and improvement or growth capex are also important determinants of a food retailer's ratings.

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Financial Profile Key Factors

Financial Risk Profile

The financial metrics are standard corporate rating methodology ratios encompassing mid-point leverage and coverage ratios, and measures of profitability and cash flow up to the 'A+' rating level. Using lease-adjusted debt and coverage ratios enables peer analysis between different models of outlet ownership with a focus on the food retailer's core operations. The financial ratios of captive financial services entities are assessed separately.

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Food Retail

Industry Characteristics

Representative companies rated in this sector generally span the rating categories of 'A' and lower. This reflects an overall average risk profile that demonstrates good defensive qualities, populated by companies that offer products considered essential to everyday life with relatively stable (but low) operating margins and inherent cash-generating ability. Although the sector is susceptible to price pressure from commodity price swings, food retailers are to a certain extent able to preserve operating margins by passing on commodity inflation or deflation to consumers and constantly improving productivity through cost-efficiency programs. However, these positive factors are offset by the intense competition in the food retail market due to the homogeneous and commodity nature of food. An integral part of the business model is to optimize volumes to achieve (and pass on) efficiencies, thereby also securing protective market shares.

The strongest companies (typically mid-'BBB' or mid-to-low 'A') are larger, geographically well-diversified (by country and/or by state), possess a strong retail brand in attracting customer loyalty, and present a wide store and format network to extend customer reach. Lower-rated entities are typically smaller and less diversified in terms of retail channels, geography/state penetration and product range, or are burdened by higher debt levels.

In developed economies with the existing large food retailers (usually the top five) holding a market share typically greater than 50% in their respective core markets. These markets can constitute a barrier to entry, protecting established groups from the arrival of new competition. In recent years, these barriers to entry have weakened, allowing new business models (such as heavy price discounters and "dollar" stores) to establish themselves.

The food retail sector has been prone to some accounting manipulation, in particular related to vendor allowances paid to retailers by their suppliers, for example when sales reach a certain volume or in return for a prominent position on the retailers' shelves. This reduces the effective cost of goods for the retailer. But the opaque nature of these deals and flexibility over when they are recognised in financial statements create potential problems. Early recognition of promotional allowances or over-optimistic accruals of volume discounts could temporarily mask weak results. The extent of vendor allowances in Europe is uncertain, but if they were as widespread as they are in the U.S., they could approach, or even exceed, the entire operating profit of some supermarkets.

Sector-Specific Key Factors — Food Retail

	Market Position	Diversification	Brand Strength	Property Management
Rating	**Market Share Trend**	**Geographic Diversification**	**Brand Recognition of Stores**	**Store Ownership/Lease Terms**
aa	n.a.	n.a.	n.a.	n.a.
a	Consistent market share gains over competitors.	Highly diversified across developed economies and emerging economies.	Strong brands with broad range of food and non-food products and services.	High level of store ownership and/or favorable lease terms.
bbb	Steady market share or modest gains relative to competitors.	Highly diversified regionally (for large economies) or across developed markets.	Good brands with reasonable range of food and non-food products and services.	Moderate degree of store ownership and/or favorable lease terms.
bb	Steady market share or modest losses relative to competitors.	Good geographical diversification.	Moderate brands with limited non-food products and services.	Low degree of store ownership and adequate lease terms.
b	Losing share to competitors.	Moderate geographic diversification.	Weak brands with limited non-food products and services.	Low degree of store ownership and/or unfavorable lease terms.
ccc	Market share in long term secular decline.	Concentrated in one region where cash flows are materially affected by severe recessionary or disruptive conditions.	Weak brand awareness with no non-food products and services.	No store ownership and unfavorable lease terms.
	Market Share Position	**Product and Service Offering**	**Brand Relevance Across the Demographic Spectrum**	**Quality of Store Locations**
aa	n.a.	n.a.	n.a.	n.a.
a	Market leader with EBITDAR of at least EUR or USD 4 billion.	Highly diversified across food and non-food products and services.	Brands well recognized and used across the demographic spectrum.	Excellent store portfolio in high traffic locations with favorable demographics.
bbb	Leading retailer with EBITDAR of at least EUR or USD 2 billion.	Well diversified across food and non-food products and services.	Brands recognized and used across the demographic spectrum.	Strong store portfolio in high traffic locations with favorable demographics.
bb	Second-tier retailer with EBITDAR of at least EUR or USD 1 billion.	Moderate diversification across food and non-food products and services.	Brands recognized and used across part of the demographic spectrum.	Good store portfolio in average density locations.
b	Marginal retailer with EBITDAR of at least EUR or USD 0.5 billion.	Some diversification of product and service offering.	Brands recognized and used across a restricted part of the demographic spectrum.	Average store locations in markets with average demographics.
ccc	Small retailer with EBITDAR of less than EUR or USD 0.5 billion.	Little or no diversification of product and service offering.	Little brand relevance across most demographic groups.	Weak store locations in markets facing little to no growth.
	Competitive Advantage	**Store Formats/On-line Presence**		**Store Productivity**
aa	n.a.	n.a.		n.a.
a	Strong competitive advantages in cost, technology or brand that cannot be replicated by competitors in the rating horizon.	Diversified store formats and/or strong online presence and omnichannel capability relative to peers.		Stores generate significantly above average sales per sqm (or sq ft) .
bbb	Select competitive advantages with reasonably good sustainability.	Moderate diversification of store formats and/or strong online presence and omnichannel capability in line with peers.		Stores generate above average sales per sqm (or sq ft).
bb	Modest competitive advantage. Long-term sustainability questionable.	Some store format diversification and/or developing omnichannel capability.		Stores generate average sales per sqm (or sq ft).
b	Limited or no competitive advantage.	Limited or no store format diversification and/or developing omnichannel capability.		Stores generate below average sales per sqm (or sq ft).
ccc	No competitive advantage.	Single store format and/or weak online presence and omnichannel capability.		Stores generate sales per sqm (or sq ft) meaningfully below peers.
				Capex Intensity
aa				n.a.
a				Healthy levels of capex resulting in competitive stores, supply chain and digital presence.
bbb				Adequate level of maintenance capex with some revenue-enhancing capex.
bb				Adequate level of maintenance capex with limited revenue-enhancing capex.
b				Capex is constrained, resulting in uncompetitive store base, supply chain and digital presence.
ccc				Limited capex to improve quality of store base.

Financial Profile Key Factors — Food Retail

	Profitability	Financial Structure	Financial Flexibility
Rating	**EBITDAR Margin**	**EBITDAR Leverage**	**Financial Discipline**
aa	n.a.	n.a.	Publicly announced conservative financial policy. Record of strict compliance.
a	6%	2.0x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	5%	3.0x	Financial policies less conservative than peers but generally applied consistently.
bb	4%	4.0x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
b	3%	5.0x	No financial policy or record of ignoring it. Opportunistic behavior.
ccc	below 2%	6.0x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	FFO Margin	**EBITDAR Net Leverage**	**Liquidity**
aa	n.a.	n.a.	Very comfortable liquidity; no need to use external funding, except for already committed facilities, in the next 24 months even under a severe stress scenario. Well-spread debt maturity. Diversified sources of funding.
a	4%	1.5x	Very comfortable liquidity. No need to use external funding, except for already committed facilities, in the next 12 months even under a severe stress scenario. Well-spread debt maturity schedule. Diversified sources of funding.
bbb	3%	2.5x	One year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
bb	2%	3.5x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
b	1%	4.5x	Liquidity ratio below 1.0.x. Overly reliant on one funding source.
ccc	0% or below	5.5x	No near-term prospect of recovery in liquidity score above 1.0x. All/most funding sources subject to material execution risk.
	FCF Margin	**FFO Adjusted Leverage**	**FX Exposure**
aa	n.a.	n.a.	No material FX mismatch.
a	2%	3.0x	Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flows well-matched.
bbb	1%	4.0x	Some FX exposure on profitability and/or debt/cash flow match. Effective hedging in place.
bb	FCF margin neutral	5.0x	FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b	FCF margin negative	6.0x	Large FX exposure. No significant/ineffective hedging in place.
ccc	FCF margin significantly negative	>8.0x	FX exposure dominant in impairing the issuer's ability to service debt in cash terms.
	Volatility of Profitability	**FFO Adjusted Net Leverage**	**EBITDAR Fixed Charge Coverage**
aa	n.a.	n.a.	n.a.
a	Volatility of profit and cash flow lower than industry average.	2.5x	4.0x
bbb	Volatility of profits and cash flow in line with industry average.	3.5x	3.0x
bb	Volatility of profits and cash flow higher than industry average.	4.5x	2.0x
b	Volatility of profits and visibility of cash flow viewed as a negative outlier for the industry.	5.5x	1.5x
ccc	Volatility of profits and cash flow greater than normal bounds of volatility for corporates sector as a whole.	>7.0x	<1.0x
	Profitability Trend	**(CFO-Capex)/Debt**	**FFO Fixed-Charge Coverage**
aa	n.a.	n.a.	n.a.
a	EBITDAR margin flat to improving and above industry peers.	20%	5.0x
bbb	EBITDAR margin flat to improving and in line with industry peers.	12.5%	2.5x
bb	EBITDAR margin stable and in line with industry peers.	7.5%	2.0x
b	EBITDAR margin deteriorating and/or below industry peers.	2.5%	1.5x
ccc	Breakeven to negative EBITDAR margin.	Flat to Negative	<1.0x

Non-Food Retail

Sector Risk Profile

Rating Range

Non-food retailers have a higher-than-average risk profile. The various subsectors vary widely in terms of size, growth rates, competitive dynamics, and property ownership type, but all must adapt their business models to changing consumer tastes and growing competition from the online and discount channels. With relatively high operational risks, non-food retailers' ratings are clustered in the 'BBB' and below-investment-grade rating categories, although strong credit characteristics can lift ratings into the 'A' category.

Sector-Specific Key Factors

Industry Profile

This key factor assesses the long-term growth potential, volatility of demand, competitive threats, and other risks facing the particular retail subsector.Financial Profile Key Factors

Market Position

This captures the retailer's market share and the extent to which it is gaining or losing share, reflecting its competitive advantages.

Diversification

This factor assesses the degree of diversification, in terms of both geography and product and service offerings. It also takes into account whether a retailer has multiple store formats and the extent of its online presence.

Property Management

This captures the quality of the stores in terms of location and demographic profile. The flexibility of the ownership structure, lease terms, and the degree of capex intensity and scalability are also important determinants of a non-food retailer's ratings.

Financial Profile Key Factors

Financial Profile

The financial metrics are standard corporate rating methodology ratios encompassing mid-point leverage and coverage ratios, and measures of profitability and cash flow, up to the 'A' rating category. Using lease-adjusted debt and coverage ratios enables peer analysis between different models of outlet ownership with a focus on the retailer's core retail operations. Financial ratios of captive financial services subsidiaries, if any, are assessed separately.

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Non-Food Retail

Industry Characteristics

The non-food retail sector includes a wide range of companies that provide a disparate product offering ranging from consumer electronics to clothing to home improvement products. Fitch considers the representative risk profile of this sector as up to the 'A' rating category and down to the 'B' category, with a few companies with unique operating or financial profiles potentially rated outside of this range.

Demand for many non-food categories tends to be discretionary in nature and will vary with economic cycles, changing consumer preferences and technological advancements. At the same time, the sector is often fragmented (populated mostly by participants of national scale), competitive, seasonal, and — in the apparel subsector in particular — weather-driven and potentially exposed to volatile raw materials prices and FX volatility. As a result, non-food retailers will have very different characteristics with respect to their business development strategies, sales trends, profit margins, and cash flow generation.

Different countries, regions or markets have varying degrees of depth in retail development. Fully fledged transactional multi-channel retailing (online, phone and store) may not be as developed due to consumer and cultural preferences, internet or mobile phone penetration levels.

A retailer's market share defensibility is a key driver of its credit risk profile. The best-in-class companies stand out positively because of their combination of strong differentiation, compelling brand, and/or demonstrated consumer loyalty, which enable them to assert solid competitive traction and a greater degree of overall stability and adaptability to changing trading environments. As such, the best-in-class participants have the ability to consistently generate FCF and deleverage as needed. These companies are likely to accelerate market share gains in a strong economy and demonstrate resilience in a weak economy. Furthermore, their capital structures are better equipped to withstand external shocks.

Sector-Specific Key Factors — Non-Food Retail

	Industry Profile	Market Position	Diversification	Property Management
Rating	**Long-Term Growth Potential**	**Trend in Market Share**	**Geographical Diversification**	**Store Ownership/Lease Terms**
aa	n.a.	n.a.	n.a.	n.a.
a	Strong growth potential over the rating horizon.	Consistent market share gains over competitors.	Highly diversified across developed and emerging economies.	High level of store ownership and/or favorable lease terms.
bbb	Moderate but predictable growth potential over the rating horizon	Steady market share or modest gains relative to competitors.	Highly diversified regionally (for large economies) or across developed markets.	Moderate degree of store ownership and/or favorable lease terms.
bb	Core categories, distribution channel, or markets may be under some pressure but opportunities arise in new categories, channels, or markets.	Steady market share or modest losses relative to competitors.	Good geographical diversification.	Low degree of store ownership and adequate lease terms.
b	Industry in decline and under threat from alternative formats.	Losing share to competitors.	Moderate geographic diversification typically concentrated in one key market.	Low degree of store ownership and/or unfavorable lease terms
ccc	Threat from alternative formats crystallized, and will result in multiple participant withdrawals/failures.	Large parts of the store network fundametally non-viable at the operating level due to share losses.	Concentrated in an especially disadvantaged region experiencing major recessionary or other disruptive conditions.	Store ownership strategy crystallized, or likely to, substantial cash costs, sustainably reducing or negating operating cash flow.
	Volatiliy of Demand	**Market Position**	**Product and Service Offering**	**Quality of Store Locations**
aa	n.a.	n.a.	n.a.	n.a.
a	Stable demand even in economic downturns.	Market leader by revenue in most of its merchandise categories and geographic markets with EBITDAR of at least EUR or USD3 billion.	Highly diversified.	Excellent store portfolio in high traffic locations with favourable demographics or highly productive malls.
bbb	Generally stable demand but some sensitivity to economic cycles.	Well established position. Leading retailer by revenue in most of its merchandise categories and geographic markets with EBITDAR of at least EUR/USD1.5 billion.	Well diversified.	Strong store portfolio in high traffic locations with favourable demographics or highly productive malls.
bb	Demand volatility in line with economic cycles.	Top-10 market position Second-tier retailer by revenue in most of its merchandise categories and geographic markets with EBITDAR of at least EUR/USD 0.5 billion.	Some diversification.	Good store portfolio in average density locations and average malls.
b	Demand volatility exacerbated by economic cycles.	Marginal or only local market share retailer by revenue in most of its merchandise categories and geographic markets with EBITDAR below EUR/USD0.5 billion.	Little or no diversification.	Weak store locations in markets with unfavourable demographics or malls with declining traffic.
ccc	Demand on permanent, accelerated downward trend	Sub-scale, shrinking footprint; persistently and structurally loss-making.	Record of failed diversification, high risk of repeat new product/service launch failure.	Store locations fundamental contributor to negative operating cash flow; onerous terms preventing expedited restructuring.
	Threat From Online Retailers/Discounters	**Competitive Advantage**	**Store Formats/Online Presence**	**Capex Intensity**
aa	n.a.	n.a.	n.a.	n.a.
a	Below average online penetration and/or product overlap with discount channel.	Strong competitive advantages in cost, technology or brand which cannot be replicated by competitors in the rating horizon.	Diversified store formats and/or strong online presence and omnichannel capability relative to peers.	Healthy levels of capex resulting in competitive stores, supply chain and digital presence.
bbb	Average online penetration and/or product overlap with discount channel.	Some competitive advantages with reasonably good sustainability.	Moderate diversification of store formats and/or online presence and omnichannel capability in line with peers.	Adequate level of maintenance capex with some revenue-enhancing capex.
bb	Above average online penetration and/or product overlap with discount channel	Modest competitive advantage. Long term sustainability questionable.	Limited or no store format diversification and/or developing omnichannel capability.	Adequate level of maintenance capex with limited revenue-enhancing capex.
b	High online penetration and/or product overlap with discount channel.	Limited or no competitive advantage.	Single store format and/or weak online presence and omnichannel capability.	Capex is constrained, resulting in uncompetitive store base, supply chain and digital presence.
ccc	Online displacement to substantially replace traditional format and/or discount channel will become dominant channel in sector.	Product offering fundamentally uncompetitive, sustained only by legacy customer base, itself in rapid decline.	Uncompetitive store format and/or no online presence.	Funds for capex largely unavailable, maintenance of store base reduced to barest minimum.
	Technology/Fashion Risk			
aa	n.a.			
a	Below average variability from non-economic factors such as shifts in technology and fashion.			
bbb	Average variability from non-economic factors such as shifts in technology and fashion			
bb	Above average variability from non-economic factors such as shifts in technology and fashion.			
b	High variability from non-economic factors such as shifts in technology and fashion.			
ccc	Substantial crystallized deterioration arising from shifts in technology and fashion likely to continue and worsen.			

Financial Profile Key Factors — Non-Food Retail

	Profitability	Financial Structure	Financial Flexibility
Rating	**EBITDAR Margin**	**EBITDAR Leverage**	**Financial Discipline**
aa	n.a.	n.a.	Publicly announced conservative financial policy. Record of strict compliance.
a	22%	2.0x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	18%	3.0x	Financial policies less conservative than peers but generally applied consistently.
bb	14%	4.0x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
b	9%	5.0x	No financial policy or record of ignoring it. Opportunistic behaviour.
ccc	5%	>7.0x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	FFO Margin	**EBITDAR Net Leverage**	**Liquidity**
aa	n.a.	n.a.	Very comfortable liquidity; no need to use external funding, except for already committed facilities, in the next 24 months even under a severe stress scenario. Well-spread debt maturity. Diversified sources of funding.
a	12%	1.5x	Very comfortable liquidity. No need to use external funding, except for already committed facilities, in the next 12 months even under a severe stress scenario. Well-spread debt maturity schedule. Diversified sources of funding.
bbb	10%	2.5x	One year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
bb	8%	3.5x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
b	4%	4.5x	Liquidity ratio below 1.0.x. Overly reliant on one funding source.
ccc	Persistently and structurally break-even or loss-making at FFO level.	>6.5x	No near-term prospect of recovery in liquidity score above 1.0x. All/most funding sources subject to material execution risk.
	Volatility of Profitability and Cash Flow	**FFO Adjusted Leverage**	**FX Exposure**
aa	n.a.	n.a.	No material FX mismatch.
a	Volatility of profit and cash flow lower than industry average.	2.5x	Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flows well matched.
bbb	Volatility of profits and cash flow in line with industry average.	3.5x	Some FX exposure on profitability and/or debt/cash flow match. Effective hedging in place.
bb	Volatility of profits and cash flow higher than industry average.	4.5x	FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b	Volatility of profits and visibility of cash flow viewed as a negative outlier for the industry.	5.5x	Large FX exposure. No significant/ineffective hedging in place.
ccc	Volatility of profits and cash flow greater than normal bounds of volatility for corporates sector as a whole.	>7.5x	FX exposure dominant in impairing the issuer's ability to service debt in cash terms.
	Profitability Trend	**FFO Adjusted Net Leverage**	**EBITDAR Fixed Charge Coverage**
aa	n.a.	n.a.	n.a.
a	EBITDAR margin flat to improving and above industry peers.	2.0x	6.0x
bbb	EBITDAR margin flat to improving and in-line with industry peers.	3.0x	5.0x
bb	EBITDAR margin stable and in-line with industry peers.	4.0x	3.0x
b	EBITDAR margin deteriorating and/or below industry peers.	5.0x	2.0x
ccc	Severe and persistent decline in EBITDAR.	>7.0x	1.5x or below.
		(CFO-Capex)/Debt	**FFO Fixed-Charge Coverage**
aa		n.a.	n.a.
a		20%	5.5x
bbb		12.5%	4.0x
bb		7.5%	2.5x
b		2.5%	2.0x
ccc		Flat to Negative	Net FCF debt service cover below 1.0x. All/most funding sources subject to material execution risk.

Healthcare Providers

Sector Risk Profile

Rating Range

Healthcare providers' risk profiles can range from above to below average. US-based healthcare providers face above-average sector risk due to some degree of economic cyclicality, and increased consumerization of healthcare spending. Other regions, such as the EU, UK and Australia, benefit from more constructive and balanced regulatory regimes, translating into non-cyclical demand and revenue defensibility for sector constituents, and consequently leading to a below-average sector risk assessment by Fitch and supporting higher ratings. However, all regions face secular threats to profitability driven by a rising cost of healthcare, as well as growing technological risks and opportunities, not only in care delivery, but also in managing patient data.

Healthcare sector constituents are clustered in the 'B'/'BB' rating categories, reflecting the combination of a highly regulated operating environment limiting organic topline and profitability expansion, inherently high operating leverage and buy-and-build strategies resulting in aggressive capital structures. In addition, complex and highly diverse regulatory regimes typically lead to healthcare providers being either regional or nation-wide market participants, with few having an international presence. However, larger and more diversified issuers operating in constructive regulatory environments can achieve high investment-grade ratings.

Sector-Specific Key Factors

Revenue Defensibility

This factor primarily considers the patient/payor mix and the outlook for national health insurance and reimbursement policies in the service lines in which the issuer operates. It is a key driver for Fitch's assessment of the business risk profile of an individual healthcare issuer and the overall sector risk profile it operates in.

Industry Profile

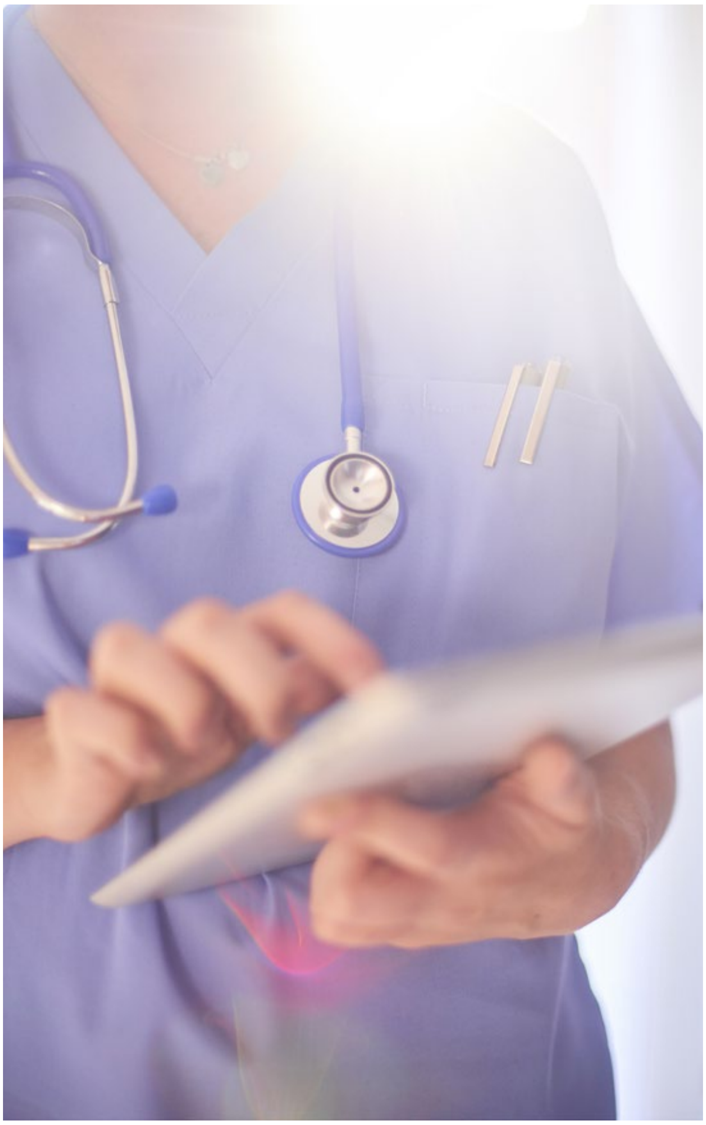
An evaluation of service line trends considers long-term organic growth potential, the macroeconomic volatility of demand, and the threat of technological substitution.

Market Position

This factor considers a company's market share, competitive advantages in brand, physician recruitment and acquisition opportunities, and degree of bargaining power with suppliers, health insurers and employees.

Diversification

The factor considers both geographic and service line diversification.



Financial Profile Key Factors

Financial Profile

The financial metrics are standard corporate rating methodology ratios encompassing midpoint leverage and coverage ratios, and measures of profitability and cash flow, up to the 'BBB' rating level.

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Healthcare Providers

Industry Characteristics

The global range of healthcare providers is diverse, consisting of public and private entities of various sizes operating within many different service lines. The industry is fragmented, not only globally, but also on a country basis, with only a select number of large for-profit companies operating in most major service lines. In addition, the sector also sees a large share of publicly owned and run, often not-for-profit healthcare providers, which would not fall under this global healthcare navigator, but would be rated under the Public-Finance rating framework.

Key risk factors for the industry are secular threats to profitability amid tight regulation given governments' policy to control national healthcare expenditure, influencing everything from healthcare reimbursement to the structure of payment models and operating practices, as well as macroeconomic sensitivity of demand being more relevant for US-based providers. The relative impact of these factors naturally varies across geographies and service lines, and therefore individual companies, depending upon the particular business model.

Drivers Affecting Demand and Profitability

Fitch considers secular trends as currently overall positive and supportive, characterized by a growing and ageing population, improving access to healthcare and early diagnostics globally, prevalence of chronic diseases, as well as strong medical innovation.

However, these positive underlying demand trends lead to increasing healthcare costs across many jurisdictions, with medical cost inflation typically exceeding the overall inflation rate. This increases pressure on public and private insurers, as well as patients through co-payments, and can lead to profitability pressure for healthcare providers, where costs cannot be passed on.

Globally, debates about cost control and management continue, particularly for public healthcare budgets, and there is an increasing focus on improving the sector's productivity under 'value-based-healthcare' initiatives. The response and impact on healthcare providers varies by jurisdiction, but healthcare providers are typically at the center of these discussions and can form part of the solution to help control the growing burden of national healthcare costs.

Profitability pressures – particularly in developed countries – are also arising from shortages of qualified labour, amplifiyng wage cost increases.

In the developing economies, healthcare systems are increasingly looking at private and international investment to modernize and build a healthcare system capable of addressing basic medical care, including access to basic medicines and treatments.

Macroeconomic Sensitivity

Demand in healthcare services is not highly cyclical. However companies in the sector are still exposed to the influence of macroeconomic conditions. Particularly in the US, affordability of healthcare is closely correlated to employment levels, causing structural changes in patient mix with a decreasing number of patients with commercial health insurance in cyclical downturns. These are the most profitable type of patients, since commercial insurers typically offer structurally higher reimbursements to hospitals and other healthcare providers, compared to Medicare or Medicaid for treating a patient of comparable acuity.

Such two tier healthcare reimbursement system also exists in Europe and Australia, but its financial implications for sector issuers are less pronounced based on a publicly funded basic healthcare provision, in some jurisdictions supplemented by incentives to have a private insurance, supporting private sector demand. Private sector is critical to the ability of national healthcare systems to provide sufficient capacity to reduce waiting times and stabilise demand. Consequently, the treatment affordability is generally higher in these jurisdictions, leading to a lower degree of consumerization and co-payments, and therefore a more stable demand, which translates into a lower macroeconomic sensitivity for issuers in these regulatory environments.

Complex Regulatory Environment

The healthcare services industry is highly regulated, making the sector protected and defensive. However, it also leads to policy-driven decisions, which can add regulatory complexity, reduce transparency and increase unpredictability, directly affecting strategic and financial incentives for the industry. Changing policies represent the biggest risk to the industry's operating profile, going beyond direct coverage and reimbursement schemes to affect areas that change the economic incentives of various industry stakeholders.

Despite these challenges, Fitch recognizes that the industry's reliance on government payors also supports its financial health. Healthcare providers are perceived as providing a critically important service, making it quite unlikely that the policy makers would adopt reforms that would make sector investments uneconomical, especially given the critical importance of private operators for national healthcare systems.

Since healthcare providers have limited control over reimbursement rates, a focus on cost control is critical. The need for rigorous cost management is exacerbated by the relatively high operating leverage given high personnel intensity, and meaningful share of rental expenses in the case of asset-light business models.

Sector-Specific Key Factors — Healthcare Providers

	Revenue Defensibility	Industry Profile	Market Position	Diversification
Rating	**Patient Payor Mix**	**Long-Term Growth Potential of Major Service Lines**	**Market Share**	**Geographic**
aa	n.a.	n.a.	n.a.	n.a.
a	n.a.	n.a.	n.a.	n.a.
bbb	Favorable payor mix. Well balanced across public and private payors.	Major service lines have strong long-term organic growth potential, demographic trends are favorable and the value proposition defensible.	Market leader in most service lines and geographies; evidence of gaining share by outpacing industry organic patient volume growth.	Strong diversification with no reliance on any single country (or state/region in larger countries).
bb	Decent payor mix. Not particularly concentrated exposure to any one class of payor.	Major service lines have good long-term organic growth potential; favorable demographic trends; somewhat questionable value proposition.	Top-three participant in most markets or clear leader in well-defined service line; maintaining share with organic growth on pace with industry.	Modest geographical diversification. Up to half of revenues concentrated in one or two countries (or state/region in larger countries).
b	Weak payor mix. Highly concentrated in one payor source (i.e. greater than 70% Medicare patients in the US) or high level of patient co-payments or uninsured patients.	Major service lines have weak long-term organic growth potential; unfavorable demographic trends; questionable value proposition.	Smaller participant or obviously losing share; industry-lagging organic patient volume growth.	Weak geographic diversification. More than half of revenues concentrated in a single country (or state/region in larger countries).
ccc	Ability to pay of main payor sources questionable and deteriorating.	Major service lines facing rapid decline.	Extremely small and/or undifferentiated participant.	Concentrated in country (or state/region in larger countries) where projected cash flows are materially affected by severe recessionary or other disruptive conditions.
	Reimbursement Policy Outlook	**Volatility of Demand**	**Relative Power in the Value Chain**	**Service Lines**
aa	n.a.	n.a.	n.a.	n.a.
a	n.a.	n.a.	n.a.	n.a.
bbb	Changes in reimbursement policy in major service lines are unlikely or represent a minimal threat to profitability.	Highly stable demand in major service lines even in economic downturns.	Stronger bargaining power than commercial health insurers, employees and suppliers.	Balanced exposure to two or more service lines with different sensitivity to the economic cycle and reimbursement risk.
bb	There is real potential for reimbursement policy changes, but the effect to profitability is likely to be nominal.	Generally stable demand in major service lines, but somewhat sensitive to economic downturns.	Stronger-to-balanced bargaining power relative to commercial health insurers, employees and suppliers.	As above but with less balanced exposure. Or operates in only one service line well aligned with factors driving organic growth in patient demand.
b	High likelihood of major policy changes in reimbursement in major service lines that would result in lower profitability.	Demand in major service lines is highly sensitive to economic downturns.	Balanced-to-weaker bargaining power relative to commercial health insurers, employees and suppliers.	Operates in only one service line that is not well aligned with factors driving organic growth in patient demand i.e. a higher cost provider.
ccc	High likelihood of major policy changes in reimbursement in major service lines that would result in profit losses.	Highly volatile demand consistently declining.	Very weak bargaining power relative to commercial health insurers, employees and suppliers.	Operates in service lines facing rapid decline.
	Regulatory and Payor Scrutiny	**Threat of Substitutes**	**Performance on Standardized Quality Measures**	
aa	n.a.	n.a.	n.a.	
a	n.a.	n.a.	n.a.	
bbb	Little legal, governmental and commercial payor scrutiny of operating procedures that could result in lower revenues and EBITDA.	Unique capabilities in service lines with few threats of substitutes.	All facilities are consistently highly graded on industrywide quality scores, with no major deficiencies noted.	
bb	Some legal, governmental and commercial payor scrutiny of operating procedures not expected to materially affect revenue and EBITDA.	Substitutes of comparable quality exist but threat is limited by a defensible value proposition and practical challenges in implementation.	Majority of facilities consistently highly graded on industrywide quality scores, with no major deficiencies noted.	
b	High degree of legal, governmental and commercial payor scrutiny of operating procedures that could cause sizable drop in revenue and EBITDA.	Facing substitutes of comparable quality due to improved medical technology and/or a weak value proposition.	Majority of facilities graded at least average on industrywide quality scores, with few major deficiencies noted.	
ccc	High degree of legal, governmental and commercial payor scrutiny of operating procedures that could lead to unsustainably low profitability.	Product line fundamentally uncompetitive, sustained only by legacy customer base, itself in rapid decline.	Majority of facilities considered deficient.	

Financial Profile Key Factors — Healthcare Providers

	Profitability	Financial Structure	Financial Flexibility
Rating	**Operating EBITDA Margin**	**EBITDA Leverage or EBITDAR Leverage**	**Financial Discipline**
aa	n.a.	n.a.	Publicly announced conservative financial policy. Record of strict compliance.
a	n.a.	n.a.	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	17%	2.0x or 2.0x	Financial policies less conservative than peers but generally applied consistently.
bb	12%	3.5x or 3.5x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
b	9%	5.5x or 5.5x	No financial policy or record of ignoring it. Opportunistic behavior.
ccc	Persistently and structurally break-even or loss-making at EBITDA level.	7.5x or 7.5x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	EBIT Margin	**EBITDA Net Leverage or EBITDAR Net Leverage**	**Liquidity**
aa	n.a.	n.a.	Very comfortable liquidity; no need to use external funding, except for already committed facilities, in the next 24 months even under a severe stress scenario. Well-spread debt maturity. Diversified sources of funding.
a	n.a.	n.a.	Very comfortable liquidity. No need to use external funding, except for already committed facilities, in the next 12 months even under a severe stress scenario. Well-spread debt maturity schedule. Diversified sources of funding.
bbb	12%	1.5x or 1.5x	One year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
bb	9%	3.0x or 3.0x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
b	5%	5.0x or 5.0x	Liquidity ratio below 1.0x. Overly reliant on one funding source.
ccc	Persistently and structurally break-even or loss-making at EBIT level.	7.0x or 7.0x	No near-term prospect of recovery in liquidity score above 1.0x. All/most funding sources subject to material execution risk.
	FFO Margin	**FFO Leverage**	**EBITDA Interest Coverage or EBITDAR Fixed Charge Coverage**
aa	n.a.	n.a.	n.a.
a	n.a.	n.a.	n.a.
bbb	12%	2.5x	5.0x or 4.0x
bb	9%	4.0x	4.0x or 2.5x
b	5%	6.0x	2.0x or 1.5x
ccc	Persistently and structurally break-even or loss-making at FFO level.	8.0x	Consistently below 1.0x.
	FCF Margin	**FFO Net Leverage**	**FFO Interest Coverage**
aa	n.a.	n.a.	n.a.
a	n.a.	n.a.	n.a.
bbb	2.5%	2.0x	5.0x
bb	1%	3.5x	4.0x
b	Neutral to negative FCF margin.	5.5x	2.0x
ccc	Accelerating negative FCF margin, with limited/no flexibility on spending reduction and funding gaps.	7.5x	Consistently below 1x.
	Volatility of Profitability	**(CFO-Capex)/Debt**	
aa	n.a.	>25%	
a	n.a.	20%	
bbb	Volatility of profits in line with industry average.	12.5%	
bb	Higher volatility of profits than industry average.	7.5%	
b	Volatility of profits viewed as a negative outlier for the industry.	2.5%	
ccc	Volatility of profits a negative outlier and with a secular downward trend in absolute and relative terms.	Flat to Negative	

Hotels

Sector Risk Profile

Rating Range

The hotel sector has a higher-than-average risk profile, primarily reflecting the discretionary nature of hotel demand, which has contributed to the industry's cyclicality historically. The industry is also prone to overbuilding at certain points over the cycle. Hotel issuers pursue diverse operating models with varying degrees of capital intensity that also influence risk profiles. The sector risk profile ranges up to the 'A–' rating level as a result of these attributes.

U.S. hotel groups are more likely to occupy lower investment-grade territory due to their greater focus on asset-light, recurring fee-based business models. In EMEA, corporate hotel issuers have historically managed capital structures at the lower end of the investment-grade and 'BB'/'B' rating categories.

Sector-Specific Key Factors

Market Position

This factor captures the operator's scale in terms of enterprise value and EBITDAR size, market position and size and scope of rooms and reservation systems.

Diversification

This factor assesses the degree to which geographic diversification and mix of hospitality product/service income supports cash-flow stability.

Brand Strength

This factor incorporates the strength and diversity of the company's brands, including the number of global, international or national brands owned and record of brand maintenance and development. The contribution to earnings from lower-risk, recurring franchise and management fees and the degree of customer loyalty provide the context for assessing this factor.

Portfolio Strategy & Management

Fitch analyzes the various forms of property ownership hotel operators use and compares hotel quality and property management ability. The agency also reviews the amount of maintenance and development capex.

Financial Profile Key Factors

Financial Profile

The financial metrics include standard corporate rating methodology ratios encompassing mid-point leverage and coverage ratios, and measures of profitability and cash flow, up to the 'A-' rating level. Fitch adjusts its metrics for leased, franchise and owned-hotel investment strategies in order to enable peer comparison.

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Hotels

Industry Characteristics

Representative hotelcompanies are generally rated 'BBB' and lower, reflecting the above-average sector risk profile. The sector has limited defensive qualities, with companies providing products and services Fitch views as generally functional, but ultimately discretionary. Companies with greater exposure to direct hotel ownership generally have volatile operating margins and weaker FCF profiles. Groups in receipt of franchise fees or less volatile receipts are one step removed from operational revenue and cost volatility, but are nevertheless indirectly affected.

Cyclicality

The hospitality sector is cyclical, with demand largely conditioned by the macroeconomic environment. Corporate and leisure travel are the two principal sources of hotel demand. The former is heavily influenced by corporate profits and the latter by employment and income growth. Market positioning (ie budget, midmarket or upper-end segments) heavily influences operating margin volatility, with upper-price tier hotels historically experiencing the highest swings – up and down.

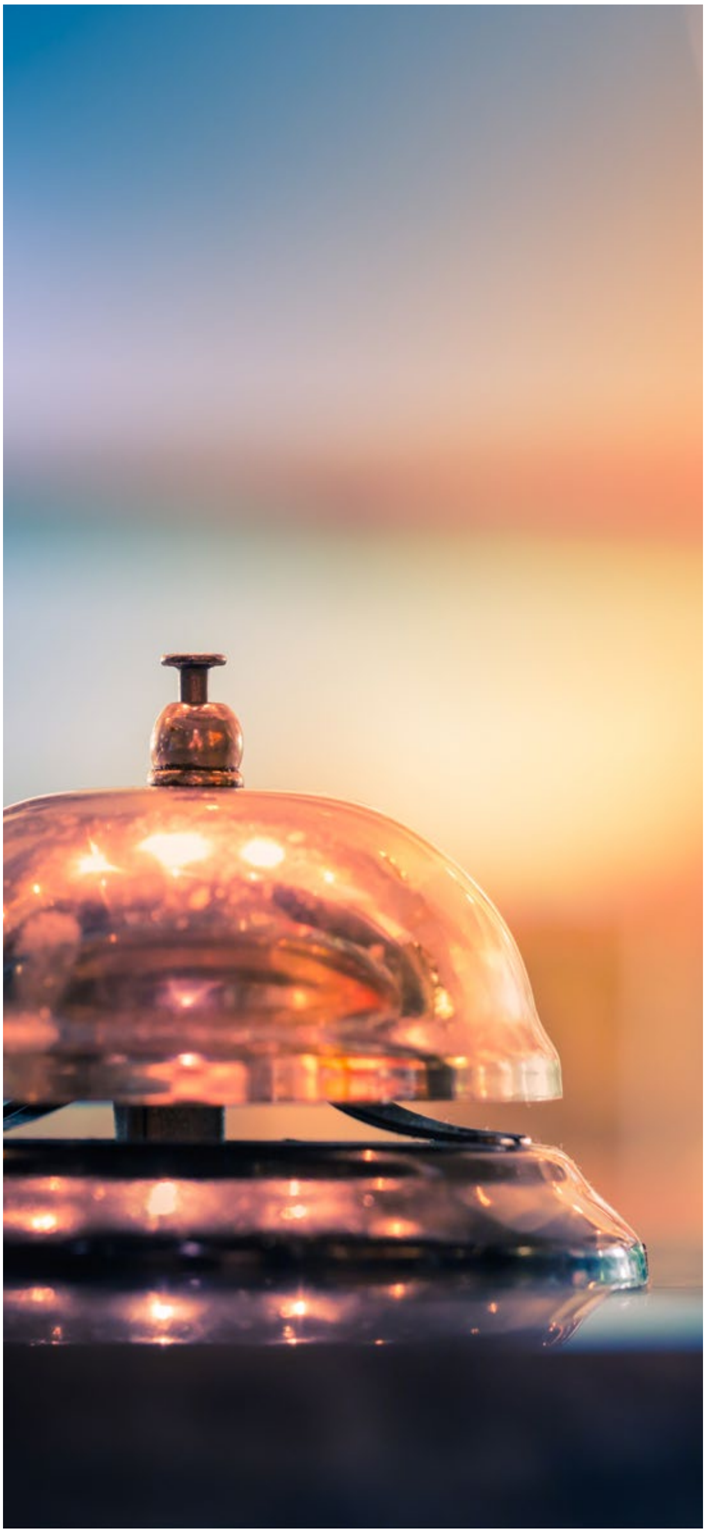
Branded chains are gaining market share at the expense of independent operators, partly due to the short lead times and low cost of development. Hotel operators are generally transitioning towards less volatile and capital-intensive recurring fee-based franchise and management models, away from from owned and leased assets. Company progress towards asset-light exists along a spectrum, with U.S. operators generally further along in their evolution.

International Diversification

The strongest hotel credits are generally large and geographically well-diversified. They also own competitive brand portfolios[1], evidenced by their ability to attract franchisees, as well as the size of their customer loyalty and rewards programs. Lower-rated entities are typically smaller and less diversified by brands (number and price segmentation) and geography, often having rooms systems limited to a single national or regional economy.

Hotel Ownership Types

Most brand owners have transitioned (or are transitioning) away from the more volatile and capital-intensive hotel ownership business in favour of asset-light forms of operation that emphasize recurring fees generated by long-term franchise and/or management agreements. Asset-light business models allow companies to increase the depth and breadth of their brand portfolios with little additional capital from the head office. Property risk is left to more specialized investors, as a result. Smaller hotel groups, with national networks and less established brands are more likely to rely on owned or leased hotels for system growth, making them more exposed to property cycles.



[1] Fitch defines "competitive brands" as those that regularly achieve RevPAR penetration indices above 100%. RevPAR penetration indices measure a hotels' performance relative to its peers, with observations above 100% indicating the hotel is outperforming its competitors.

Sector-Specific Key Factors — Hotels

	Market Position	Diversification	Brand Strength	Portfolio Strategy & Management
Rating	**Enterprise value (EUR)**	**Geographical Rooms System Diversification**	**Brand Recognition**	**Op. Model (Own, Lease, Manage, Franchise)**
aa	n.a.	n.a.	n.a.	n.a.
a	10 billion	Rooms system diversified across several developed economies and some emerging markets.	Strong global/international brands.	Diversified sources of hospitality related revenues principally comprised of recurring fee income.
bbb	5 billion	Rooms system diversified throughout at least a major developed economy.	Strong national brands.	Diversified sources of hospitality related revenues with an emphasis on recurring fee income.
bb	1 billion	Rooms system concentrated regionally within a developed economy.	Competitive national brands.	Some diversity of hospitality related revenues with an emphasis on volatile owned and leased income.
b	0.5 billion	Rooms system concentrated regionally within an emerging market.	Strong regional/competitive national brands.	Concentrated sources of hospitality related revenues with an emphasis on volatile owned and leased income.
ccc	Marginal participant.	Rooms system concentrated regionally on a declining market.	Impaired brand value.	Concentrated sources of hospitality-related revenues with an emphasis on volatile owned and leased income in declining markets.
	Market Position	**Hospitality Product and Service Diversification**	**Record in Maintaining Brand**	**Property Management Ability**
aa	n.a.	n.a.	n.a.	n.a.
a	Critical size across most hotel price tiers/chain scales.	Widely diversified hospitality products and services.	Record of brand maintenance supported by frequent property improvement programs.	Superior property management skills across most product types and demand segments.
bbb	Critical size in more than two hotel price tiers/chain scales.	Diversified hospitality products and services.	Regular brand maintenance supported by occasional property improvement programs.	Excellent property management skills across most product types and demand segments.
bb	Critical size in two price tiers/chain scales.	Some diversification of hospitality products and services.	Regular brand maintenance supported by occasional property improvement programs.	Good property management skills across several product types and demand segments.
b	Critical Size in one price tier/chain scales.	Little diversification of hospitality products and services.	Intermittent brand maintenance.	Adequate property management within a granular subsegment of the hospitality industry.
ccc	Lack of critical size.	Concentration on uncompetitive products and services.	Insufficient brand maintenance.	Inadequate property management.
	EBITDAR (EUR)		**Number of Brands**	**Revenue Per Available Room (RevPAR) vs Peers**
aa	n.a.		n.a.	n.a.
a	5 billion		Five or more recognised hotel brands with room systems higher than 10,000 rooms.	Hotel brands generate premium RevPAR relative to their competitors.
bbb	1 billion		Three or more recognised hotel brands with room systems higher than 10,000 rooms.	Hotel brands frequently generate premium RevPAR relative to their competitors.
bb	0.5 billion		At least one recognised hotel brands with room systems higher than 10,000 rooms.	Hotel brands infrequently generate premium RevPAR relative to their competitors.
b	0.2 billion		At least one recognised hotel brands with room systems higher than 10,000 rooms.	Hotel brands consistently generate RevPAR below their competitors.
ccc	Minimal.		Lack of recognized hotel brand.	Hotel brands consistently generate RevPAR well below their competitors.
	Scope of Sales and Reservation Systems		**Franchise and Management Fees**	**Capex/Hotel Property Value**
aa	n.a.		n.a.	n.a.
a	Global sales effort supported by a centralized reservation system across multiple channels.		75% of operating profit from franchise/management fees.	Maintenance capex spending of 4%-6% of revenue per year; consistent program of revenue-enhancing capex.
bbb	National sales effort supported by a centralized reservation system across multiple channels.		50% of operating profit from franchise/management fees.	Maintenance capex spending of 4%-6% of revenue per year; some revenue-enhancing capex.
bb	National sales effort supported by a centralized reservation system.		25% of operating profit from franchise/management fees.	Maintenance capex spending of 4%-6% of revenue per year; limited revenue-enhancing capex.
b	Centralised reservation system.		Less than 25% of operating profit from franchise/management fees.	Maintenance capex spending of 4%-6% of revenue per year.
ccc	Lack of centralized reservation system.		n.a.	Insufficient capex.
	Rooms System Size		**Repeat Amount of Business**	
aa	n.a.		n.a.	
a	Rooms system @ 500,000		High levels of repeat business.	
bbb	Rooms system @ 250,000		High levels of repeat business.	
bb	Rooms system @100,000		Good levels of repeat business.	
b	Rooms system @ 100,000		Moderate level of repeat business.	
ccc	Insufficient number of rooms to be competitive.		Lack of repeat business.	

Financial Profile Key Factors — Hotels

	Profitability	Financial Structure	Financial Flexibility
Rating	**EBITDAR Margin**	**EBITDAR Leverage**	**Financial Discipline**
aa	n.a.	n.a.	Publicly announced conservative financial policy. Record of strict compliance.
a	30%	3.0x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	25%	3.5x	Less conservative policy but generally applied consistently.
bb	20%	4.5x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines
b	15%	5.5x	No financial policy or record of ignoring it. Opportunistic behavior.
ccc	10%	7.5x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	EBIT Margin	**EBITDAR Net Leverage**	**Liquidity**
aa	n.a.	n.a.	Very comfortable liquidity; no need to use external funding, except for already committed facilities, in the next 24 months even under a severe stress scenario. Well-spread debt maturity. Diversified sources of funding.
a	10%	2.0x	Very comfortable liquidity. No need to use external funding, except for already committed facilities, in the next 12 months even under a severe stress scenario. Well-spread debt maturity schedule. Diversified sources of funding.
bbb	7.5%	3.0x	One year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
bb	5.0%	4.0x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
b	3.0%	5.0x	Liquidity ratio below 1.0x. Overly reliant on one funding source.
ccc	Persistently and structurally break-even or loss-making at EBIT level	>7.0x	No near-term prospect of recovery in liquidity score above 1.0x. All/most funding sources subject to material execution risk.
	FFO Margin	**FFO Adjusted Leverage**	**FX Exposure**
aa	n.a.	n.a.	No material FX mismatch.
a	15%	3.0x	Profitability potentialy exposed to FX but efficient hedging in place. Debt and cash flows well matched.
bbb	10%	4.0x	Some FX exposure on profitability and/or debt/cash flow match. Effective hedging in place.
bb	7%	5.0x	FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b	5%	6.0x	Large FX exposure. No significant/ineffective hedging in place.
ccc	Persistently and structurally break-even or loss-making at FFO level.	>8.0x	FX exposure dominant in impairing the issuer's ability to service debt in cash terms.
	FCF Margin	**FFO Adjusted Net Leverage**	**EBITDAR Fixed Charge Coverage**
aa	n.a.	n.a.	n.a.
a	2%	2.5x	3.0x
bbb	FCF margin positive.	3.5x	2.5x
bb	FCF margin neutral to negative.	4.5x	1.5x
b	FCF margin negative.	5.5x	1.0x
ccc	Accelerating negative FCF margin, with limited/no flexibility on spending reduction and funding gaps.	>7.5x	<1.0x.
		(CFO-Capex)/Net Debt	**Unencumbered Assets to Unsecured Debt**
aa		n.a.	n.a.
a		20%	3.0x
bbb		12.5%	2.0x
bb		7.5%	1.8x
b		2.5%	1.5x
ccc		Flat to Negative	<1.0x.

Medical Devices, Diagnostics and Products

Sector Risk Profile

Rating Range

Companies in the medical devices, diagnostics and products (MDDP) segment generally have a lower than average risk profile. The sector's risk profile can range up to the 'A' rating category with large, diversified firms viewed as having less risk than relatively smaller companies with a narrower product portfolio. The MDDP sector's risk profile reflects its good long-term growth opportunities, relatively modest macroeconomic sensitivity, significant exposure to government regulation on revenues and profitability and significant litigation liability risk.

Company-specific traits such as product portfolio, R&D profile, scale and competitive position, diversification and financial profiles — as indicated by capital structure, profitability and financial flexibility — can result in issuer ratings as high as the 'A' rating level. EBITDA margins and cash flow metrics can be better than similarly rated corporate entities due to strong gross margins and relatively manageable capex, with high regulatory risk and litigation exposure offsetting risk factors.

Sector-Specific Key Factors

Revenue/Value Sources

Subfactors used to assess a firm's product portfolio include product strength, number of competitors and level of differentiation.

Innovation

Key factors to evaluate a company's R&D profile include breadth and depth of the new product development pipeline and sufficiency for profitable growth.

Market Position

Key factors to evaluate a firm's scale and competitive position include revenue, EBITDA and market position relative to peers.

Diversification

Diversification, relative to geography and product concentration, is an important subfactor to consider, because revenue and cash flow concentration can increase business risk.

Financial Profile Key Factors

Financial Profile

The financial metrics are standard corporate rating methodology ratios, including midpoint leverage ratios, coverage ratios and margins. In addition, Fitch considers FFO, operating cash flow and FCF when evaluating a firm's ability to fund existing operations, investments in growth, shareholder benefits and debt service.

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Medical Devices, Diagnostics and Products

Industry Characteristics

Large innovative medical devices, diagnostics and products companies generally fall into the 'BBB' rating category or higher. The potential for relatively high ratings within this band reflects the fairly predictable and strong cash flow generated by the industry, particularly among firms that are well diversified both geographically and by-product treatment platforms.

Lower-rated MDDP companies in the 'BB' and 'B' categories tend to be smaller, less diversified, less innovative and/or highly leveraged issuers with significant product-platform concentration issues.

As their product offerings are mainly medical necessities, revenues and cash flows of MDDP developers and manufacturers are generally not significantly affected by economic cycles. Nonetheless, weak economic environments, particularly with weak employment, can weigh on the number of medically insured patients, as well as patients' willingness or financial ability to utilize certain medical services.

In addition, a moderately negative impact on cash flows can result from cost containment measures by third-party payors, which can be mitigated by geographical diversification.

Growth drivers for MDDP companies that support the sector's risk profile are growing populations, longer life expectancies, aging populations, increased instances of chronic diseases, scientific advancements driving new technologies, suboptimal treatments for many diseases and emerging market income growth.

The sector remains relatively fragmented, so consolidation will likely continue; Fitch Ratings expects acquisitions to vary in size. In addition, some firms may divest noncore assets in an attempt to bolster growth and profitability, especially if they anticipate the organic growth prospects of their core product portfolio are strong.

Subsector — Medical Devices, 'A' to 'B' Rating Categories Depending on Scale and Breadth

Medical device firms focus on developing, manufacturing and selling innovative medical devices to treat various diseases that are often surgically implanted into a patient's body. Competition is based on clinically meaningful innovation and the value it offers patients, providers and payers. Revenue is relatively predictable, although disruptive technologies, changes in governmental regulation or unanticipated clinically significant developments can materially affect end -market demand.

These firms' product portfolios generally cover a number of therapeutic areas. In many therapeutic areas, innovation is steady and often incremental, but can offer additional value compared to older product platforms, so innovation commands premium pricing early in a product's life cycle.

The industry remains moderately fragmented, particularly in the area of nascent technologies that have yet to establish clinically significant efficacy and safety profiles. Fitch expects the medical device industry to consolidate and acquisitions will vary in size, depending on an individual firm's product portfolio and strategic goals. Any significant consolidating transactions will largely be driven by efforts to fill major portfolio gaps or strengthen a firm's negotiating strength with payers and providers.

Subsector — Medical Diagnostics, 'A' to 'B' Rating Categories Depending on Scale and Breadth

Medical diagnostics firms provide value through innovation that improves the efficiency, ease of use and accuracy of health related laboratory data. The industry also strives to develop tests for previously unmeasured clinical and chemical targets that are increasingly instrumental in the detection and treatment of disease. Many companies also develop and manufacture instrumentation and the related reagents needed to perform the clinical test.

Instrumentation is often a capital expenditure generating margins that are less than the reagents, which are consumable and repeat purchases. Customers range in a continuum from individual patients who self-administer the tests to large institutional laboratories that serve various stakeholders.

Subsector — Medical Products, 'A' to 'B' Rating Categories Depending on Scale and Breadth

Medical product firms have a higher mix of less innovative or differentiated products than medical device firms. With these more commoditized products, pricing affects competition more than it does with medical devices and diagnostics. Broad product offerings can help these firms support sales and margins when negotiating with providers and payers. Innovation and brand value is still important to these companies, but as a whole the segment has relatively modest pricing power.

Sector-Specific Key Factors — Medical Devices, Diagnostics and Products

	Revenue/Value Sources	Innovation	Market Position	Diversification
Rating	**Product Strength**	**Breadth and Depth**	**Revenue**	**Geographic Diversification**
aa				
a	Large majority of revenues derived from products/technological platforms that have top-three market positions.	New product flow plus currently marketed products sufficient for roughly four years of consistent and meaningful new product/platform introductions.	$12 billion	Meaningful presence in three of the following markets: U.S., Europe, Japan and emerging markets.
bbb	Majority of revenues derived from products/technological platforms that have top-three market positions.	New product flow plus currently marketed products sufficient for roughly three years of consistent and meaningful new product/platform introductions.	$4 billion	Some presence in two or three of the following markets: U.S., Europe, Japan and emerging markets.
bb	Minority of revenues derived from products/technological platforms that have top-three market positions.	New product flow plus currently marketed products sufficient for roughly two years of consistent and meaningful new product/platform introductions.	$1 billion	Some presence in one of the following markets: U.S., Europe, Japan and emerging markets.
b	20% of revenues derived from products/technological platforms that have top-three market positions.	New product flow plus currently marketed products sufficient for roughly one year of of consistent and meaningful new product/platform introductions.	$500 million	Presence in only a few select countries.
ccc	Product/technological platform portfolio unable maintain market share, growth and margins sufficient to generate positive FCF over the long-term.	New product flow plus currently marketed products insufficient to provide revenue that can sustain the firm's viability during the intermediate term.	$100 million	Presence in only one or two small countries.
	Number of Competitors	**Sufficiency for Profitable Growth**	**EBITDA**	**Product Diversification**
aa				
a	Four meaningful competitors for the majority of product/technological platform sales	Internal R&D and existing portfolio sufficient to drive growth at or above the market.	$1 billion	Credit profile able to withstand significant and durable operational pressure in its top two technological platforms.
bbb	Five meaningful competitors for the majority of product/technological platform sales	Internal R&D, existing portfolio and targeted acquisitions sufficient to drive growth at or above the market.	$250 million	Credit profile able to withstand significant and durable operational pressure in its top technological platform.
bb	Six meaningful competitors for the majority of product/technological platform sales	Internal R&D, existing portfolio and significant acquisitions sufficient to drive growth at or above the market.	$125 million	Credit profile unable to withstand significant and durable operational pressure in its top two technological platforms.
b	More than six meaningful competitors for the majority of product/technological platform sales competing mostly on price	Internal R&D, existing portfolio and significant acquisitions insufficient to drive growth at the market.	$70 million	Credit profile unable to withstand significant and durable operational pressure in its top technological platform.
ccc	Nearly all competitors are superior regarding their products/technological platforms in terms of differentiation, quality and price.	Internal R&D, existing portfolio and significant acquisitions insufficient to sustain the firm's viability during the intermediate term.	<$70 million	Credit profile under significant and durable operational pressure in its top technological platforms that is unsustainable in the near- to intermediate term.
	Level of Differentiation		**Market Position**	
aa				
a	Large majority of expected revenues to be derived from highly differentiated products/technological platforms.		Strong global market positions.	
bbb	Majority of expected revenues to be derived from highly differentiated products/technological platforms.		Competitive global market positions.	
bb	Minority of expected revenues to be derived from highly differentiated products/technological platforms.		Leading national market positions.	
b	Small minority of expected revenues to be derived from highly differentiated products/technological platforms.		Weak national and global market positions.	
ccc	Virtually all revenues are generated from products/technological platforms that are undifferentiated and/or cannot compete on price.			

Financial Profile Key Factors — Medical Devices, Diagnostics and Products

	Profitability	Financial Structure	Financial Flexibility
Rating	**EBITDA Margin**	**EBITDA Leverage**	**Financial Discipline**
aa	n.a.	n.a.	n.a.
a	25%	2.5x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	23%	3.5x	Financial policies less conservative than peers but generally applied consistently.
bb	20%	4.5x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
b	17%	5.5x	No financial policy or record of ignoring it. Opportunistic behavior.
ccc	n.a.	Leverage so weak that it is no longer meaningful relative to cash generation and liquidity.	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	EBIT Margin	**EBITDA Net Leverage**	**Liquidity**
aa	n.a.	n.a.	n.a.
a	18%	2.0x	Very comfortable liquidity. No need to use external funding, except for already committed facilities, in the next 12 months even under a severe stress scenario. Well-spread debt maturity schedule. Diversified sources of funding.
bbb	16%	3.0x	One year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
bb	14%	4.0x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
b	11%	5.0x	Liquidity ratio below 1.0x. Overly reliant on one funding source.
ccc	Level that could eventually threaten liquidity.	Leverage so weak that it is no longer meaningful relative to cash generation and liquidity.	No near-term prospect of recovery in liquidity score above 1.0x. All/most funding sources subject to material execution risk.
	FFO Margin	**FFO Leverage**	**FX Exposure**
aa	n.a.	n.a.	n.a.
a	18%	3.0x	Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flows well-matched.
bbb	16%	4.0x	Some exposure of profitability to FX movements and/or debt/cash-flow match. Effective hedging in place.
bb	14%	5.0x	Some exposure of profitability to FX movements and/or debt/cash-flow match. Some hedging in place but only partly effective.
b	11%	6.0x	Large FX exposure. No significant/ineffective hedging in place.
ccc	Level that could eventually threaten liquidity.	Leverage so weak that it is no longer meaningful relative to cash generation and liquidity.	FX exposure dominant in impairing the issuer's ability to service debt in cash terms.
	FCF Margin	**FFO Net Leverage**	**EBITDA Interest Coverage**
aa	n.a.	n.a.	n.a.
a	8%	2.5x	9.0x
bbb	7%	3.5x	6.5x
bb	5%	4.5x	3.5x
b	Neutral to Negative	5.5x	2.0x
ccc	Level that could eventually threaten liquidity.	Leverage so weak that it is no longer meaningful relative to cash generation and liquidity.	n.a.
	Volatility of Profitability	**(CFO-Capex)/Debt**	**FFO Interest Coverage**
aa	n.a.	n.a.	n.a.
a	Lower volatility of profits than industry average.	20%	8.0x
bbb	Volatility of profits in line with industry average.	12.5%	6.0x
bb	Higher volatility of profits than industry average.	7.5%	3.0x
b	Volatility of profits viewed as a negative outlier for the industry.	2.5%	2.0x
ccc	Level that could eventually threaten liquidity.	Flat to Negative	Net FCF debt service cover below 1.0x. All/most funding sources subject to material execution risk.

Packaged Food

Sector Risk Profile

Rating Range

Packaged food companies have a below-average risk profile. Fitch's existing public ratings span a wide range from 'AA' to 'B' based on our assessment of scale, business profile, organic growth, and geographical and product diversification. Companies in this space must contend with changing consumer preferences and flat-to-declining volumes in mature markets. Investment-grade entities tend to be the larger national and international corporations. Highly leveraged and smaller producers tend to be rated sub-investment grade.

Sector-Specific Key Factors

Market Position

This factor for packaged food companies assesses the overall size and relative scale of the issuer, as measured by EBITDA and the scale of its distribution systems.

Brand Strength

This factor considers the brand strength of a company's portfolio as well as its price leadership in its represented categories.

Growth Potential

This factor evaluates a packaged food company's organic sales growth prospects versus the industry average (low single digit in the developed world and mid-single to low double digit in developing countries) in the countries it operates in, and the strength of its product innovation pipeline.

Diversification

Diversification by geography, product and price point is analyzed, with broader diversification supporting higher ratings.

Financial Profile Key Factors

Financial Profile

The financial metrics are standard corporate rating methodology ratios encompassing mid-point leverage and coverage ratios, and measures of profitability and cash flow, up to the 'AA' rating level. The financial profile factors show ranges of size, profit margins and leverage and coverage metrics within the relevant rating categories.

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Packaged Food

Industry Characteristics

Stable and Mature Industry

Fitch views packaged food companies as having a below-average risk profile given that the industry's stability is supported by the fact that food is a basic necessity. Demand for packaged food rises in line with population growth in mature economies. Demand in developing countries is often above the average rate of economic growth, as consumers shift from home-produced or non-prepacked (loose) foods to hygienically safer packaged products. As a result, packaged food represents a growing proportion of total food consumption in developing markets. Consumption of food is more resilient throughout the economic cycle than non-durable goods, although branded packaged food companies could see volume being impacted by a switch to private brand or lower-cost products.

Companies need to ensure that their product offerings remain relevant to consumers, as the demand for products in specific markets can vary with changing economic conditions, evolving preferences, health concerns, and fluctuations in food prices.

Fitch expects volume growth in the traditional packaged food industry in the developed markets to be modestly negative, offset by growth in natural, organic and snacking categories. Pricing is expected to be limited, although mix shifts towards higher growth categories should be a modest positive. As a result, Fitch expects overall organic growth for most large packaged food companies to be flat to positive 2%. Packaged food companies are focused on expense reduction and portfolio rationalization to boost profitability, while enabling investments in growth and marketing. Companies will continue to explore acquisitions, divestitures, restructuring and spin-offs to reorient product portfolios and market exposure.

Developing markets are expected to remain attractive over the long term, despite near-term weakness in some of the markets such as China, Russia and Brazil, exacerbated by U.S. dollar strength.

Investment-grade packaged food companies typically have well-diversified product portfolios of globally recognized brands, with significant market share in a few categories or markets. Speculative-grade packaged food companies typically have a narrow product portfolio or possess brands with weak or declining market share or with low market penetration, and a heavy focus on one market or region.

Input Cost Volatility

Manufacturers of food must contend with volatility of commodity and foreign exchange markets as well as packaging and distribution costs. Agricultural commodities and other raw materials typically represent only about one-third of the cost structure of a branded packaged food company, muting the impact of variability in these costs on the bottom line.

Larger, diversified food companies will tend to produce more consistent results, due not only to their product-line diversity but also to their ability to manage through periods of rising input costs – through price increases, product reformulations, cost reductions, and effective hedging. More discretionary cost components such as advertising and promotional expenses, which represent 10%-20% of costs, can be reduced for short periods to offset sharp increases in commodity inputs. However, this strategy over a long period is likely to result in lower volumes sold and erosion in market shares in highly competitive markets.

Private Labels a Formidable Competitor to Brands

Private labels (or store brands) present risk to the branded manufacturers, and force them to invest heavily in innovation and marketing to sustain volume growth and justify price differentials versus private-label substitutes. This risk is particularly acute for food companies with secondary or 'B' brands (evident from lower market shares or brand awareness), while companies with strong brand equities, or 'A' brands, have generally been able to maintain their market share and premium price positioning. In addition, private-label packaged foods give significant bargaining power to supermarket chains.

Private-label penetration by category varies widely around the world but garners significant market share in some geographies. Private-label growth has slowed in Europe as the market share is more saturated, with shares in the 40%-50% range depending on the country. There is more room for private label to grow in the U.S., with overall share in the low 20% range. However, market share varies by category and is generally much higher for commodity-oriented foods. Private-label penetration levels in Asia tend to be low and could be an opportunity over the long term.

Sector-Specific Key Factors — Packaged Food

	Market Position	Growth Potential	Brand Strength	Diversification
Rating	**Size**	**Organic Growth**	**Brand Quality**	**Geographic**
aa	EBITDA >$5 billion	Organic growth is consistently in mid-single digits, which is above industry average.	Outstanding portfolio of global and local brands that enjoy high awareness and cannot be replicated by competitors in the rating horizon.	Highly diversified across mature and developing economies.
a	EBITDA >$2.5 billion	Organic growth is usually above the industry's low single-digit average.	Very strong brand portfolio and high awareness.	Diversified regionally (for large economies) and/or across developing and emerging economies
bbb	EBITDA >$1.5 billion	Organic growth tends to be average.	Strong brand portfolio with good awareness.	Moderate geographical diversification.
bb	EBITDA >$500 million	Below average or modest decline in organic growth rate.	Skewed toward weaker or smaller brands.	Limited geographical diversification.
b	EBITDA <$500 million	Decline in organic growth rate.	Skewed toward weaker or smaller brands with declining relevance.	Concentrated in one country or region (large economy).
ccc	Insufficient scale to be competitive	Sustained decline in organic growth rate, with little visibility of a turnaround.	Long-term sustainability of brands questionable.	Concentrated in one region where cash flows are materially affected by severe recessionary or disruptive conditions.
	Market Share	**Innovation**	**Price Leadership**	**Products**
aa	Market leader with number one or number two share in most of its categories, with proven ability to grow share.	Consistent history of innovation. Generates meaningful revenue and/or pricing power from new product introductions	Strong ability to command premium pricing or lead price increases in most categories.	Well diversified across food products and categories.
a	Market leader in many categories, with proven ability to maintain or grow share.	Strong innovation pipeline to maintain or increase share and command premium pricing.	Good ability to command premium pricing or lead price increases in most categories.	Diversified across food products and categories.
bbb	Number one or number two market share in some categories, with overall brand portfolio maintaining market share	Innovation pipeline of new products allows stable market share and offsets declines in other parts of the portfolio.	Lead pricing in a few categories, follow pricing actions in others.	Moderate portfolio diversity.
bb	Predominantly secondary or tertiary brands with low market shares, and stable to declining share.	Below-average ability to generate innovative products.	Mostly a price follower on price changes.	Narrow portfolio.
b	Small participant in niche or narrow category, with low or declining market share.	Limited innovation.	Always a price follower. Little or no ability to command premium prices.	Single or very limited product focus.
ccc	Marginal participant with declining market share and low visibility of a turnaround.	Lack of financial flexibility to enable new product launches.	The weakest position in a value chain leading to strong downward pressure on company's prospects.	Concentrated on one product facing material decline.
	Distribution Channel			**Price Points**
aa	Highly diversified presence and positioning across relevant distribution channels, including physical retail and online formats.			Well-balanced portfolio across numerous price points.
a	Diversified presence and positioning across relevant distribution channels, including physical retail and online formats			Portfolio exposure to a variety of price points.
bbb	Good presence and positioning across relevant distribution channels, including physical retail and online formats			Good breadth of price points providing sufficient flexibility to manage portfolio favorably through different points in the economic cycle.
bb	Reliance on limited distribution channels or weak positioning relative to direct peers			Focused on only a couple of price points.
b	Reliance on channels that are in decline			Focused only on low or high-end price points, with narrow consumer appeal.
ccc	Weak positioning relative to direct peers and reliance on channels that are in decline			Focused on pricing point facing material decline.

Financial Profile Key Factors — Packaged Food

	Profitability	Financial Structure	Financial Flexibility
Rating	**EBITDA Margin**	**EBITDA Leverage**	**Financial Discipline**
aa	23%	1.5x	Publicly announced conservative financial policy. Record of strict compliance.
a	20%	2.5x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	15%	3.5x	Less conservative than peers but generally applied consistently.
bb	12%	4.5x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
b	8%	6.5x	No financial policy or record of ignoring it. Opportunistic behavior.
ccc	Mid-single digits or lower	>8.0x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	FFO Margin	**EBITDA Net Leverage**	**Liquidity**
aa	15%	1.0x	Very comfortable liquidity; no need to use external funding, except for already committed facilities, in the next 24 months even under a severe stress scenario. Well-spread debt maturity. Diversified sources of funding.
a	11%	2.0x	Very comfortable liquidity. No need to use external funding, except for already committed facilities, in the next 12 months even under a severe stress scenario. Well-spread debt maturity schedule. Diversified sources of funding.
bbb	9%	3.0x	One year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
bb	7%	4.0x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
b	5%	6.0x	Liquidity ratio below 1.0x. Overly reliant on one funding source.
ccc	Break-even or loss-making at FFO level.	>7.5x	No near-term prospect of recovery in liquidity score above 1.0x. All/most funding sources subject to material execution risk.
	FCF Margin	**FFO Leverage**	**FX Exposure**
aa	6%	2.0x	No material FX mismatch.
a	4%	3.0x	Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flows well matched.
bbb	3%	4.0x	Some FX exposure on profitability and/or debt/cash flow match. Effective hedging in place.
bb	2%	5.0x	FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b	1%	6.0x	Large FX exposure. No significant/ineffective hedging in place.
ccc	Break-even or loss-making at FCF level.	>8.0x	FX exposure dominant in impairing the issuer's ability to service debt in cash terms.
	Volatility of Profitability	**FFO Net Leverage**	**EBITDA Interest Coverage**
aa	Stable or consistent profit generation.	1.5x	11.0x
a	Volatility of profit lower than industry average.	2.5x	10.0x
bbb	Volatility of profit in line with industry average.	3.5x	6.5x
bb	Volatility of profit higher than industry average.	4.5x	4.0x
b	High volatility of profit relative to the industry.	5.5x	3.0x
ccc	Exceptionally high volatility of profit relative to the industry.	>7.5x	<1.0x
		(CFO-Capex)/Debt	**FFO Interest Coverage**
aa		>25%	10.0x
a		20%	8.5x
bbb		12.5%	6.0x
bb		7.5%	3.5x
b		2.5%	2.0x
ccc		Flat to Negative	<1.0x

Pharmaceuticals

Sector Risk Profile

Rating Range

Pharmaceuticals generally have a lower than average risk profile. The sector's risk profile can range up to the 'AA' rating category with the branded subsector viewed as having less risk than the specialty, biotechnology and generic subsectors. The pharmaceutical sector risk reflects its long-term growth opportunities, relatively modest economic sensitivity, significant government regulation and significant legal/ legislative considerations.

Company-specific traits, such as size and market positioning, patent protection, R&D pipeline, diversification and financial profiles — as indicated by capital structure, profitability and financial flexibility — can result in higher ratings. EBITDA margins and cash flow metrics can be better than similarly rated corporate entities due to high gross margins and manageable capital expenditures.

Sector-Specific Key Factors

Market Position

Sub-factors to assess a pharmaceutical firm's scale include sales, EBITDA, market position and reimbursement environment.

Revenue Defensibility

Sales "at risk" from patent expiries or loss of exclusivity during the rating horizon is a critical sub-factor. It is of particular importance for small-molecule drugs in the U.S. that tend to lose the vast majority of their sales during the 12 months following patent expirations.

Innovation

Key factors to evaluate a pipeline's strength are the depth, breadth and stages of projects in development. A firm's success rate (R&D Productivity) of advancing these projects through the approval process is also very important.

Diversification

Diversification, relative to geography and product concentration, is an important sub-factor to consider, because revenue and cash flow concentration can increase business/operational risk.

Financial Profile Key Factors

Financial Risk Profile

The financial metrics are standard corporate rating methodology ratios including midpoint leverage ratios, coverage ratios and margins. In addition, Fitch Ratings considers funds from operations, operating cash flow and free cash flow when evaluating a firm's ability to fund existing operations, investments in growth, shareholder benefits and debt service.

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Pharmaceuticals

Industry Characteristics

Larger innovative brand-name pharmaceuticals companies rated in this sector generally fall into the 'A' rating category or higher. The potential for relatively high ratings within this band reflects the fairly predictable and strong cash flow generation by the rated industry, particularly among global branded drug firms that are well diversified both geographically and by product.

Lower rated pharmaceuticals companies in the 'BBB' and 'BB' categories tend to be smaller, less diversified, less innovative and/or highly leveraged issuers, and/or emerging-market companies with significant foreign-exchange exposure or product concentration issues.

As their product offerings are mainly medical necessities, revenues and cash flows of innovative drug makers are generally not significantly affected by economic cycles. Nonetheless, a modest negative impact on cash flows can result from cost containment measures by third-party payors which can be mitigated by geographical diversification.

Growth drivers for the pharmaceutical industry that support the sector's risk profile, are increasing populations, longer life expectancies, aging demographics, chronic diseases, new technologies, suboptimal treatments for many diseases and emerging markets growth.

As the sector is still fragmented, with the top 10 pharmaceutical companies making up less than 50% of the global pharmaceutical market, consolidation may continue. However, Fitch expects acquisitions to vary in size. In addition, some firms may divest noncore assets in an attempt to bolster growth and profitability, especially if they anticipate their organic growth prospects are strong.

Subsector — Large Pharma, Typically 'AA' to 'A' Rating Categories

Big pharma firms focus on developing (internally and externally) and distributing innovative prescription drugs. Competition is based more on innovation than on price. Drug revenue within the patent protection period is fairly predictable. These firms" product portfolios generally cover a wide range of therapeutic areas, where products can add value and command strong pricing.

Fitch expects most acquisitions will be targeted in attempts to augment pipelines, given that drug development within the biopharmaceutical sector is broad and no firm owns all of the promising development platforms. Any significant consolidating transactions will largely be driven by efforts to bolster major pipeline gaps and/or mitigate onerous patent expiry risks.

Subsector — Midsized Pharma, Typically 'A' to 'BBB' Rating Categories

These pharmaceutical companies are somewhat smaller innovative drug makers, often focusing on only a few segments of the pharmaceutical market. They sometimes do not have or only just have critical mass in R&D and distribution and are not very well diversified geographically. These firms are often less profitable than larger pharmaceutical companies. To gain critical mass, consolidation is often an option for these entities.

Subsector — Smaller and Specialty, Typically 'BBB' to 'B' Rating Categories

Smaller drug firms often concentrate on areas where they have critical mass: they acquire products dropped by larger pharmaceutical firms, market them on their own and develop those drugs further. Others concentrate their activities on marketing aspects. These drug companies typically generate a more modest free cash flow due to their smaller revenue bases compared with their larger competitors. Furthermore, they rely on acquisitions to boost growth.

Subsector —Generic Drug Makers, Typically 'BBB' to 'B' Rating Categories

Generic drug companies focus on the mass-market copying of major brand name products. In this sector the barriers to entry are lower, as competition is driven by price and distribution, not R&D. Cash flows are less predictable than for innovative drug makers, due to aggressive price competition in light of absent patent protection. For generic companies operating in the US, the legal risk can be high.

Sector-Specific Key Factors — Pharmaceuticals

	Market Position	Revenue Defensibility	Innovation	Diversification
Rating	**Revenue**	**% Sales and Profitability at Risk (Innovative)**	**Pipeline Profile**	**Geographic Diversification**
aa	$20 billion	Low level of sales and sales and profitability at risk from patent expiry	Full and balanced sufficient,without acquisitions, to drive profitable growth supportive of the company's credit profile.	Meaningful presence in all of the following markets: U.S., Europe, Japan and Emerging.
a	$10 billion	Relatively low level of sales and profitability at risk from patent expiry	Adequately full and balanced ,with targeted acquisitions, to drive profitable growth supportive of the company's credit profile.	Meaningful presence in three of the following markets: U.S., Europe, Japan and Emerging.
bbb	$5 billion	Moderate level of sales and profitability at risk from patent expiry	Somewhat shallow and/or narrow, with serial targeted acquisitions, to drive profitable growth at a level to remain competitive with its peers.	Some presence in two or three of the following markets: U.S., Europe, Japan and Emerging.
bb	$2 billion	Significant level of sales and profitability at risk from patent expiry	Shallow and narrow, requiring a strategic acquisition to drive profitable growth at a level to remain competitive with its peers.	Some presence in one of the following markets: U.S., Europe, Japan and Emerging.
b	$<2 billion	High level of sales and profitability at risk from patent expiry	Sparse and very narrow, requiring a strategic acquisitions to drive profitable growth at a level to remain competitive with its peers.	Presence in only a few select countries.
ccc		Patent expiry to lead to cash flow deterioration over the rating horizon, which actively threatens debt service	Absence of pipeline or pipeline dominated by highly troubled products, without the financial flexibility to acquire in order to maintain profitable growth.	Concentrated in an especially disadvantaged region experiencing severe recessionary or other disruptive conditions.
	Market Position	**Sales Opportunity (Generic) From Expiry**	**R&D Productivity (Innovative)**	**Top Product Concentration**
aa	Leading global market positions.	Sales opportunities large enough to sustain strong above-industry-average growth	R&D Expense ($m)/NMEs (in Phase III and Registration) <=$500 million	Top product: <25% of total sales.
a	Leading global market positions.	Sales opportunities large enough to sustain positive around industry-average growth	R&D Expense ($m)/NMEs (in Phase III and Registration) <=$600 million	Top product: 25%-35% of total sales.
bbb	Competitive global market positions.	Sales opportunities large enough to sustain moderate growth	R&D Expense ($m)/NMEs (in Phase III and Registration) <=$700 million	Top product: 35%-40% of total sales.
bb	Leading national market positions.	Modest sales opportunities	R&D Expense ($m)/NMEs (in Phase III and Registration) <=$800 million	Top product: 45%-50% of total sales.
b	Weak national and global market positions.	Sales opportunities insufficient to sustain near-term growth	R&D Expense ($m)/NMEs (in Phase III and Registration) >$800 million	Top product: >50% of total sales.
ccc	Uncompetitive products, may have a record of principal product failures.	Sales opportunities insufficient to sustain near- and long-term growth	R&D productivity unlikely to sustain the level of profitability and solvency necessary for a going concern	Dominant product or products simultaneously experiencing a profound negative sales trend.
	Reimbursement Environment		**R&D Productivity (Generic)**	
aa	Constructive and stable reimbursement environment.		Profitability not dependent on first-to-file ANDAs.	
a	Constructive and/stable reimbursement environment.		Profitability not significantly dependent on first-to-file ANDAs.	
bbb	Neutral and/or uncertain reimbursement environment.		Profitability somewhat dependent on a leading and steady portfolio of first-to-file ANDAs.	
bb	Negative and/or worsening reimbursement environment.		Profitability significantly dependent on a leading and steady portfolio of first-to-file ANDAs.	
b	Negative and worsening reimbursement environment.		Profitability mostly dependent on a narrow and/or sporadic portfolio of first-to-file ANDAs.	
ccc	Nascent, undeveloped or severely disrupted reimbursement environment.		Profitability mostly dependent on a weak and/or limited portfolio of first-to-file ANDAs.	

Financial Profile Key Factors — Pharmaceuticals

	Profitability	Financial Structure	Financial Flexibility
Rating	**EBITDA Margin**	**EBITDA Leverage**	**Financial Discipline**
aa	Stable and durably at or above 33% throughout product development and patent expiration cycles.	1.5x	Publicly announced conservative financial policy. Record of strict compliance.
a	Stable and durably at or above 27% throughout product development and patent expiration cycles.	2.5x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	Stable and durably at or above 19% throughout product development and patent expiration cycles.	3.5x	Financial policies less conservative than peers but generally applied consistently.
bb	Stable and durably at or above 17% throughout product development and patent expiration cycles.	4.5x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
b	Stable and durably at or above 14% throughout product development and patent expiration cycles.	5.5x	No financial policy or record of ignoring it. Opportunistic behavior.
ccc	Stable and durably at or above 7% throughout product development and patent expiration cycles.	>7.0x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	EBIT Margin	**EBITDA Net Leverage**	**Liquidity**
aa	Stable and durably at or above 26% throughout product development and patent expiration cycles.	1.0x	Very comfortable liquidity; no need to use external funding, except for already committed facilities, in the next 24 months even under a severe stress scenario. Well-spread debt maturity. Diversified sources of funding.
a	Stable and durably at or above 20% throughout product development and patent expiration cycles.	2.0x	Very comfortable liquidity. No need to use external funding, except for already committed facilities, in the next 12 months even under a severe stress scenario. Well-spread debt maturity schedule. Diversified sources of funding.
bbb	Stable and durably at or above 12% throughout product development and patent expiration cycles.	3.0x	One year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
bb	Stable and durably at or above 10% throughout product development and patent expiration cycles.	4.0x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
b	Stable and durably at or above 7% throughout product development and patent expiration cycles.	5.0x	Liquidity ratio below 1.0x. Overly reliant on one funding source.
ccc	Persistently and structurally break-even or loss-making at EBIT level.	6.5x	No near-term prospect of recovery in liquidity score above 1.0x. All/most funding sources subject to material execution risk.
	FFO Margin	**FFO Leverage**	**FX Exposure**
aa	Stable and durably at or above 26% throughout product development and patent expiration cycles.	2.0x	No material FX mismatch.
a	Stable and durably at or above 20% throughout product development and patent expiration cycles.	3.0x	Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flows well-matched.
bbb	Stable and durably at or above 12% throughout product development and patent expiration cycles.	4.0x	Some FX exposure on profitability and/or debt/cash flow match. Effective hedging in place.
bb	Stable and durably at or above 10% throughout product development and patent expiration cycles.	5.0x	FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b	Stable and durably at or above 7% throughout product development and patent expiration cycles.	6.0x	Large FX exposure. No significant/ineffective hedging in place.
ccc	Persistently and structurally break-even or loss-making at FFO level.	>8.0x	FX exposure dominant in impairing the issuer's ability to service debt in cash terms.
		FFO Net Leverage	**EBITDA Interest Coverage**
aa		1.5x	19.0x
a		2.5x	10.0x
bbb		3.5x	5.5x
bb		4.5x	4.5x
b		5.5x	2.5x
ccc		>7.0x	Persistently and structurally break-even or loss-making at EBITDA level.
		(CFO-Capex)/Debt	**FFO Interest Coverage**
aa		>25%	15.0x
a		20%	9.0x
bbb		12.5%	5.0x
bb		7.5%	3.5x
b		2.5%	2.5x
ccc		Flat to Negative	Net FCF debt service cover below 1.0x. All/most funding sources subject to material execution risk.

Protein

Sector Risk Profile

Rating Range

Protein companies have above-average risk profiles due to low levels of profitability, inherently volatile operating margins, and often high leverage. The sector's natural rating territory is in the 'BB' category. However, company-specific traits such as scale, operating efficiency and financial structure can result in ratings up to the 'BBB' category or as low as the 'B' category.

Investment-grade entities tend to be large diversified participants with substantial exports or international presence, and which maintain relatively low leverage and good liquidity. More highly leveraged and smaller producers tend to be rated sub-investment grade.

Sector-Specific Key Factors

Market Position

This factor assesses the overall size and competitive position of the meat producer as measured by its EBITDA, its position relative to the major global participants in its markets, and its importance in the channels where it distributes products.

Operational Profile

This factor evaluates the company's ability to manage through periods of volatility caused by changes in supply or demand, or fluctuating input costs. Good capacity utilization, flexible production lines, a lean cost structure, high veterinary standards, and effective logistics and distribution networks are measures used to evaluate operating efficiency.

Risk Management

Under this factor Fitch evaluates the effectiveness of the company's arrangements to manage commodity price risk. This can be related to the cost of procuring major inputs, such as grains and livestock, or the price received for end-products which is often stipulated by the terms of customer contracts.

Diversification

Diversification by region, animal protein types and products sold are analyzed under this factor, with broader diversification supporting higher ratings. Geographic diversification can be a benefit to companies not only in terms of sales but also in terms of areas for sourcing live animals. Similarly, a multi-protein business model helps reduce operating risk because production and supply/demand cycles often vary with strength in one protein helping offset weakness in another.

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Financial Profile Key Factors

Financial Risk Profile

The financial metrics are standard corporate rating methodology ratios encompassing mid-point leverage and coverage ratios, and measures of profitability and cash flow, up to the 'BBB+' rating level and down to the 'B-' rating level.

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Protein

Industry Characteristics

Steady Demand Growth

Worldwide meat consumption continues to grow due to relatively stable demand in developed countries and rising demand in emerging markets as populations grow and per capita incomes increase. According to the United States Department of Agriculture, global protein consumption has increased by more than 450% since 1960 to over 250 billion metric tons. Moreover, meat-based proteins are more resilient than discretionary consumer goods through economic cycles because food is a basic necessity and animal protein is seen by many as an integral part of a balanced diet.

However, shifts in consumption across different animal protein types do occur. Poultry consumption tends to rise in economic downturns at the expense of red meat as people shift from beef to more affordable proteins. In addition, in developed countries where consumers are more health conscious, consumption of red meat has declined in favor of poultry.

Periodic Supply Changes

Protein supply is a function of production and foreign trade but is also influenced by farmers' profitability and animal diseases. Production cycles vary across proteins while imports and exports fluctuate due to domestic needs, which can be impacted by animal disease, and can be affected by changes in currency rates and trade restrictions. Meanwhile, factors including market prices for live animals relative to the cost of feed and cut-out values influence farmers' decision to produce as they determine profitability.

Poultry supply can be adjusted quickest, followed by pork, then beef due to each protein's underlying production cycle. The chicken production cycle is the shortest at three to four months, from the time pullets lay eggs until the eggs hatch and the broiler reaches market weight. Cattle is the longest at more than two years, from gestation until they are weaned to reach feeder weight and are finished to a slaughter weight of 900 to 1,400 pounds. With intermediate duration, the production cycle for hogs is roughly one year including gestation, farrowing, being nursed, and finished to a market weight of about 270 pounds.

Commodity-Based Pricing

Meat is a commodity-like product with prices determined by market supply/demand conditions, resulting in product pricing being generally out of producers' control. Meat prices are usually linked to feed prices. Feed is primarily composed of corn and soybean meal for pigs and poultry, and to a lesser extent for cattle, which is also grass-fed.

Supply and demand imbalances are a recurrent feature of the industry and lead to fluctuations in product prices. Such imbalances may be caused by cyclical shifts between different animal proteins, disease outbreaks affecting livestock numbers, or trade restrictions driven by health scares or protectionism. Trade restrictions that prevent sales in certain markets can cause a surplus in supply forcing prices down globally. This can affect both the fortunes of companies which rely on exports and those that only market meat domestically.

Due to market fragmentation and the commodity orientation of the industry, meat producers generally have limited ability to affect meat prices. This does not mean that there cannot be times when companies can increase prices due to low supply but spreads or margins must be managed carefully. For instance, in the event of limited supply of certain proteins, such as beef, when herds go through times of smaller sizes, prices tend to rise but packer profitability might be lower than during times of more balanced supply.

Processors can partially mitigate downside price risk by moving up the value chain with products that can be sold at premium prices. Case-ready refrigerated tray packs of bone-in or deboned meat is the first level of added value, while organic, portion-packed, marinated, breaded, and fully cooked meats are examples of further value-added products. Limited pricing power heightens not only the volatility of the companies' revenues and profits but can also lead to swings in working capital due to the cost of livestock inventory.

Narrow and Volatile Margins

The meat-processing industry generally operates on narrow margins due to the low value added in the process of slaughtering. Additional risks for the sector arise from the inherent volatility of profit margins if grain prices or live animal prices and meat cut-out values follow diverging trends. Vertical integration into crop and fodder production, along with animal breeding and slaughtering operations provides greater control over a processor's supply chain and can result in potentially higher but more volatile operating margins.

Forward integration across the value chain helps meat processors enhance their profitability as controlling distribution might increase their ability to market value-added goods, improving pricing power. Nonetheless, operating margins generated on value-added meat products (eg, bacon, sausages, salami and convenience food) remain lower than on most branded-packaged food companies. The lower margins for meat products are due to the higher penetration of private-label products in the meat category and generally less consumer loyalty towards branded-meat products.

Sector-Specific Key Factors — Protein

	Market Position	Operational Profile	Risk Management	Diversification
Rating	**Size (Annual EBITDA)**	**Veterinary Standards**	**Commodity Risk Management**	**End Markets**
aa	n.a.	n.a.	n.a.	n.a.
a	n.a.	n.a.	n.a.	n.a.
bbb	USD1.5 billion	High veterinary standards, disease outbreaks are not material.	Robust risk-management policies.	Global operations with ability to reach most markets.
bb	USD0.4 billion	Good veterinary standards but record of occasional disease outbreaks material to short-term performance.	Adequate risk management.	Strong competitive operating position within a region.
b	USD 0.2 billion	Record of disease outbreaks with material impact on both short- and long-term performance.	Inconsistent risk policies or lack of documented risk policies.	Heavy concentration on one region.
ccc	<USD0.1 billion	Materially weak veterinary standards.	Speculative management of risks.	Domestic participant in a market suffering from a downturn.
	Relevance in the Supply Chain	**Access to Livestock Supply and Capacity Utilization**	**Vertical Integration**	**Sourcing Regions**
aa	n.a.	n.a.	n.a.	n.a.
a	n.a.	n.a.	n.a.	n.a.
bbb	Major counterparty for retailers and foodservice operators in its relevant markets of operation.	Consistently reliable access to livestock supply results in high processing capacity utilisation.	High integration into crop growing and fodder production or processed food.	Good geographical diversification by animal sourcing regions.
bb	Important supplier but clients have a consistent history of stronger bargaining power; does not supply all distributors in its relevant market.	Occasional supply disruptions or gradual secular decline in supplies lead to periods when capacity is under-utilised.	Moderate integration into crop growing and fodder production or processed food (weaker brands or mostly private label).	Some geographical diversification by animal-sourcing regions.
b	Smaller-sized supplier.	Frequent supply disruption or progressive decrease in supplies results in continuous under-utilisation of processing capacity.	Limited/no vertical integration or vertical integration that does not enhance the risk profile.	Heavy concentration on one animal-sourcing region.
ccc	Marginal.	Cost structure suffers from capacity heavily under-utilised or unpredictable supply.	Lack of vertical integration poses problems of business sustainability.	Animals are sourced from one local area.
	Ranking in Global Industry			**Animal Protein Type**
aa	n.a.			n.a.
a	n.a.			n.a.
bbb	Top-five global participant in its protein industry.			Broadly diversified by animal protein type.
bb	Mid-size participant by global standards			Moderate diversification by animal type.
b	Small-sized, mostly domestic company.			Concentrated on one animal protein type.
ccc	Company is small by domestic standards.			Concentrated on one animal protein type suffering from declining demand.
				Business Line
aa				n.a.
a				n.a.
bbb				Broadly diversified by business line.
bb				Moderate diversification by business line.
b				Single business line concentration.
ccc				One business line with compromised profile.

Financial Profile Key Factors — Protein

	Profitability	Financial Structure	Financial Flexibility
Rating	**EBITDA Margin (%)**	**EBITDA Leverage**	**Financial Discipline**
aa	n.a.	n.a.	Publicly announced conservative financial policy. Record of strict compliance.
a	n.a.	n.a.	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	8%	2.5x	Financial policies less conservative than peers but generally applied consistently.
bb	6%	3.5x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
b	4%	5.0x	No financial policy or record of ignoring it. Opportunistic behaviour.
ccc	Persistently and structurally breaking even or loss-making at EBITDA level.	>6.5x	Financial management has lost much of its discipline, and is subject to frequent, sudden changes consistent with a crisis.
	EBIT Margin (%)	**EBITDA Net Leverage**	**Liquidity**
aa	n.a.	n.a.	Very comfortable liquidity; no need to use external funding, except for already committed facilities, in the next 24 months even under a severe stress scenario. Well-spread debt maturity. Diversified sources of funding.
a	n.a.	n.a.	Very comfortable liquidity. No need to use external funding, except for already committed facilities, in the next 12 months even under a severe stress scenario. Well-spread debt maturity schedule. Diversified sources of funding.
bbb	5%	2.0x	One-year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
bb	3%	3.0x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
b	1%	4.5x	Liquidity ratio below 1.0x. Overly reliant on one funding source.
ccc	Persistently and structurally breaking even or loss-making at EBIT level	>6.0x	No near-term prospect of recovery in liquidity score above 1.0x. All/most funding sources are subject to material execution risk.
	FFO Margin (%)	**FFO Leverage**	**FX Exposure**
aa	n.a.	n.a.	No material FX mismatch.
a	n.a.	n.a.	Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flows well matched.
bbb	6%	3.0x	Some exposure of profitability to FX movements and/or debt/cash-flow match. Effective hedging in place.
bb	4%	4.0x	Some exposure of profitability to FX movements and/or debt/cash flow match. Some hedging in place but only partly effective.
b	below 3%	5.0x	Large FX exposure. No significant/ ineffective hedging in place.
ccc	Persistently and structurally breaking even or loss-making at FFO level.	>7.0x	FX exposure is dominant in impairing the issuer's ability to service debt in cash terms.
	FCF Margin (%)	**FFO Net Leverage**	**EBITDA Interest Coverage**
aa	n.a.	n.a.	n.a.
a	n.a.	n.a.	n.a.
bbb	2.5%	2.5x	6.5x
bb	1%	3.5x	4.0x
b	Neutral to negative	4.5x	2.5x
ccc	Accelerating negative FCF margin, with limited/no flexibility on spending reduction.	>6.5x	< 1.0x
	Volatility of Profitability	**(CFO-Capex)/Debt**	**FFO Interest Coverage**
aa	n.a.	>25%	n.a.
a	n.a.	20%	n.a.
bbb	Volatility of profits viewed as a positive outlier for the industry.	12.5%	6.0x
bb	Volatility of profits in line with industry average.	7.5%	3.5x
b	Higher volatility of profits than industry average.	2.5%	2.0x
ccc	Volatility of profits exceeds normal bounds of volatility for corporate sector as a whole.	Flat to Negative	<1.0x

Restaurant Companies

Sector Risk Profile

Rating Range

Restaurants have a higher-than-average risk profile. The risk profile for restaurants can range up to the 'BBB' rating category with the limited-service subsector viewed as having less risk than the full-service subsector. The restaurant sector's risk profile reflects its overall maturity, economic sensitivity, the effects of commodity food and labor cost inflation, government regulation, and health and obesity concerns.

Company-specific traits; such as, scale, brand strength, system health, and diversification, and financial profiles — as indicated by capital structure, profitability, and financial flexibility – can result in issuer ratings as high as the 'A' rating level. Cash flow metrics and EBITDA margins of issuers can also be better than similarly rated corporate entities due to limited working capital requirements, resulting from mainly cash transactions, and widespread use of the franchising.

Sector-Specific Key Factors

Market Position

Sub-factors to assess a restaurant's scale include EBITDAR, market position, system-wide units, and system-wide sales. Growth prospects, measured by net new unit development, provide a forward looking view of a restaurant's scale.

Brand Strength

Key factors to evaluate brand strength include same-store sales (SSS) trends, which could indicate potential shifts in market share, brand perception and customer satisfaction, and the breadth of consumer appeal across demographic groups.

System Health

This sub-factor considers same-store sales (SSS), AUVs [average unit volumes], brand perception and customer satisfaction, and (if applicable) the composition and financial strength of franchisees. Trends in these metrics and a peer comparison are indicative of system health.

Diversification

Diversification geographically and with multiple brand concepts is a sub-factor that is evaluated given that revenue and cash flow concentration could increase business risk. Breadth of consumer appeal also adds to diversification across customer base.

Financial Profile Key Factors

Financial Risk Profile

The financial metrics are standard corporate rating methodology ratios encompassing midpoint leverage and coverage ratios, and measures of profitability and cash flow, up to the 'A' rating level. Fitch's analysis takes into account the mix of franchised and company-operated units — where franchising typically results in lower corporate revenue, higher EBITDA margins and more stable cash flow for the franchisor — by also evaluating restaurant-level profitability if available.

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Restaurant Companies

Industry Characteristics

The restaurant sector, in particular in the US, is highly fragmented, consisting of public and private chains of various sizes and independent operators. Major risk factors for the restaurant sector include its overall maturity, macroeconomic conditions, commodity food inflation, labor cost pressure, government regulation, and health and obesity concerns. Moreover, due to maturation, changing consumer preferences, and periods of weak economic growth in developed markets, the sector has become intensely competitive.

The impact of these factors can vary across subsectors, segments, categories and individual companies due to differences in average per person check, demographic trends and shifting consumer preferences. Fitch assesses restaurant performance by examining changes in SSS, traffic, AUV and restaurant-level profitability. EBITDA margins vary across subsectors, ranging from the high single digits to low teens for full service companies to as high as 50% or greater for limited service firms that franchise.

Subsector — Limited Service

The limited-service subsector has lower average per person checks and AUV than that of full service. Patrons order and pay for items consumed on premise or via take-out before eating and there is little to no table service. Menu depth, characterized by the variety of offerings across the breakfast, lunch and dinner day parts, and restaurant decor can vary. Quick-service restaurants (QSR) or fast food is the largest segment of the limited service subsector, all you can eat buffets are contracting, and fast casual is growing rapidly. Fast casual restaurants have an average per person check of $6–$9, according to Technomic. QSR meal prices can be in line with to lower than those at fast casual establishments while the average per person check at buffets can be in line with to moderately higher than that of the fast casual segment.

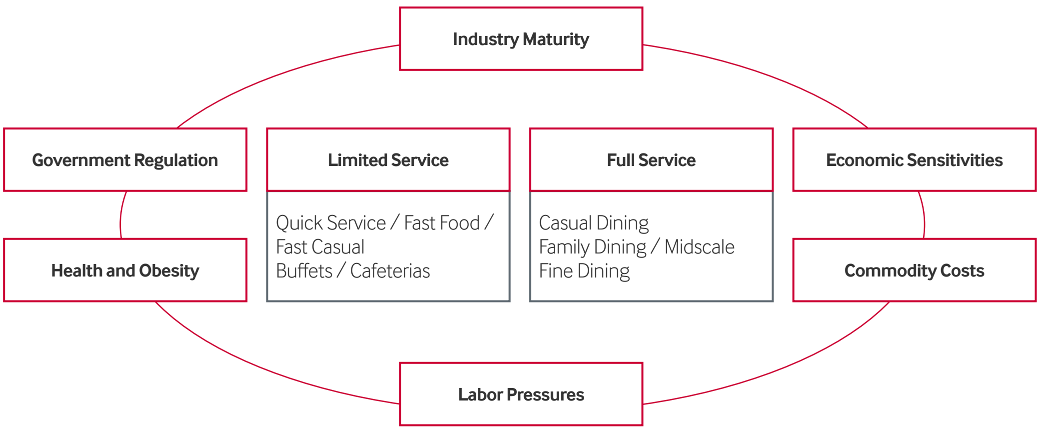
Subsector — Full Service

Casual dining is the largest segment of the full service subsector, which is typically the most economically sensitive due to higher per person average check. Average per person check for midscale or family dining restaurants is $6–$10, for casual dining $10–$25, and for fine dining over $20 according to Technomic. Table service is offered as customers are more likely to dine on the premises, paying after food is consumed, but take-out also occurs. Restaurant decor and atmosphere tends to be more inviting given that dining is typically onsite and is often occasion based. Menus are more inclusive than those provided by limited-service restaurants, including appetizers, entrees and desserts, and generally span two or more day parts including lunch and dinner. Alcoholic beverages are typically offered by casual and fine dining restaurants and can represent up to 30% or more of AUV.

Other Considerations

Restaurant sales are influenced by GDP growth, unemployment and consumer sentiment. Although food is a basic necessity, the industry competes with dollars spent on food consumed at home, which is generally more economical, and other discretionary items. QSRs are typically least economically sensitive followed by fast casual and full service restaurants due to average per person check but levels of employment and discretionary income across demographic groups can also influence the economic sensitivity of a given subsector.

Restaurant Sector Risk Factors



Source: Fitch Ratings

Restaurant Companies

Food and labor can each represent about a third of a restaurant's cost structure and are a significant risk to profitability. With rent and utilities representing another 20%, unit level margins are generally in the midteens but due to selling, general and administrative expenses, operating margins before interest and tax are often in the high single digits. Franchising results in higher margins for restaurants because exposure to food labor, and other operating expenses is limited and profits are more influenced by sales-based royalties, rental income, and fees.

Effective supply chain management is critical for the restaurant sector. Food basket components vary within the industry but meat-based proteins, wheat and dairy are usually the largest portions and are all prone to a high level of price volatility. Average hourly wages for foodservice workers are generally at or slightly above government minimums with benefits being fairly limited. Therefore, the industry is also highly susceptible to labor-related legislation, such as such as higher federal, state, and local minimum wages In addition to government regulation, an increasing level of health consciousness by consumers, particularly among higher income and younger guests, is a risk for the restaurant sector. Foodservice companies are criticized as being major contributors to rising rates of obesity. Therefore, the move towards including calorie content on menus and menu boards allows consumers to make informed choices. Fitch expects restaurants to continue adding healthier food alternatives to respond to changing consumer preferences.

Considering Highly Franchised Business Models

Restaurants can generate revenue from company-owned and operated units, franchise royalties, franchise fees and rental income. The primary driver of non-fee revenue is SSS, which is an indicator of organic sales growth versus expansion-based sales growth or net restaurant development. Components of SSS include price, mix and traffic, with traffic being the best indication of market share trends. Franchised royalties are sales based and usually range from 4%–5% of monthly sales. Franchise fees are typically associated with the initiating and renewing of agreements and payments into general advertising funds. Rental income is derived from leasing or subleasing restaurants to franchisees and may or may not have a contingent sales-based component.

Franchising should provide a more stable source of cash flow than operating company-owned units. This stability results from a royalty and fee based revenue stream and the absence of food, labor and other restaurant expenses which could add volatility to profits. Accounting profit ratios for highly franchised restaurant companies are also higher due to lower corporate revenue. Franchising can also, depending on dividend policies, improve FCF generation due to lower capex requirements as franchisees generally fund remodeling and new unit development.

However, the ultimate stability of a franchised system's cash flow depends on the financial health of its franchisees. A franchisors ability to co-invest with franchisees or to re-acquire units from poor performing franchisees also contributes to the stability of its cash generation. Fitch considers whether the franchise base is diversified or concentrated, the strength of the franchisor-franchisee relationship, terms of the franchise agreement, and the financial health of franchisees to assess the stability of royalty-based cash flows to the franchisor. Public financial statements of franchisees are analysed if available along with franchisor receivables and bad debt expense.

Sector-Specific Key Factors — Restaurant Companies

	Market Position	Brand Strength	System Health	Diversification
Rating	**Systemwide Units**	**Brand Perception and Customer Satisfaction**	**Same-Store Sales Trends**	**Geographic**
aa	n.a.	n.a.	n.a.	n.a.
a	> 5,000 systemwide units.	Highly respected brand(s) due to good food quality, consistent food preparation, cleanliness of restaurants and speed of service.	Same-store sales consistently growing at or above industry average. Positive market share trends.	Globally diverse brand(s) with healthy balance of emerging market exposure.
bbb	>1,000 systemwide units.	Relatively strong, better than average, perception of brand(s).	Same-store sales growing in line with industry average. Relatively stable market share trends.	Large national brand(s) with growing international exposure.
bb	>500 systemwide units.	Brand(s) perceived as average in terms of food quality, preparation, cleanliness of restaurants and speed of service.	Same-store sales growing below the industry average. Slight loss of market share.	Large national brand(s)with limited international exposure.
b	>250 systemwide units.	Brand(s) perceived as weak in terms of food quality, preparation, cleanliness of restaurants and speeed of service.	Same-store sales periodically negative and exhibiting volatility. Modest loss of market share.	Regionally concentrated brand(s).
ccc	< 250 systemwide units.	Brand(s) perceived as unacceptably weak in terms of food quality, preparation, cleanliness of restaurants and speed of service.	Same-store sales persistently negative. Steady loss of market share.	Concentrated in one region where projected cash flows are materially affected by severe recessionary or other disruptive conditions.
	Market Position	**Breadth of Consumer Appeal**	**Average Unit Volumes**	**Brand Concepts**
aa	n.a.	n.a.	n.a.	n.a.
a	Market leader in a large or growing category.	Broadly appealing brand(s) with diverse customer demographic.	Average unit volumes leads those of peers.	Multiple brand concepts that provide meaningful diversification across industry segments (menu, product) or consumer demographics.
bbb	Top-three participant in a large or growing category.	Brand(s) appeals to most consumer demographics.	Average unit volumes in line with peers.	Multiple brand concepts providing moderate diversification across industry segments (menu, product) or consumer demographics.
bb	Midsize-to-large chain.	Brand(s) appeal disproportionately skewed towards certain consumer demographics.	Average unit volumes below peers.	Diversification across industry segments (menu, product) or consumer demographics, but with contribution to earnings and cash flow skewed towards one brand.
b	Small-to-midsize chain .	Single brand with narrow consumer appeal.	Average unit volumes below peers and declining modestly.	One core brand concept contributing to earnings and cash flow.
ccc	Small chain or independent	Single brand with narrow appeal on a rapidly declining customer base.	Average unit volume significantly below peers, with little visibility for improvement.	One core brand concept that is in decline.
	EBITDAR		**Franchisee/Licensee Network (If Applicable)**	
aa	n.a.	n.a.		n.a.
a	EBITDAR > $5 billion		Financially strong franchisees or licensees that have a good working relationship with franchisor. Franchisor has equity interest in large franchisees.	
bbb	EBITDAR > $1 billion		Financially strong franchisees or licensees with objectives aligned with that of the franchisor. Franchisor may have equity interest in large franchisees.	
bb	EBITDAR > $500 million		Financially stable franchisees with constructive relationship with the franchisor.	
b	EBITDAR > $100 million		Financially stable franchisees with tenuous relationship with franchisor.	
ccc	EBITDAR < $100 million		Financially strained franchisees with tenuous relationship with franchisor.	
	Growth Prospects			
aa	n.a.			
a	Strong growth profile with mid-single-digit or more net unit growth.			
bbb	Relatively mature brand (s) with low-to-mid single-digit net unit growth.			
bb	Mature brand (s) with low single-digit net unit growth.			
b	Mature brand (s) with limited unit growth opportunities.			
ccc	Shrinking brand presence with net unit closures.			

Financial Profile Key Factors — Restaurant Companies

	Profitability	Financial Structure	Financial Flexibility
Rating	**EBITDAR Margin**	**EBITDAR Leverage**	**Financial Discipline**
aa	n.a.	n.a.	Publicly announced conservative financial policy. Record of strict compliance.
a	25%	2.0x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	20%	3.0x	Financial policies less conservative than peers but generally applied consistently.
bb	15%	4.0x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
b	10%	5.0x	No financial policy or record of ignoring it. Opportunistic behavior.
ccc	<5%	6.0x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis mode environment.
	Restaurant Level Margin (%)	**EBITDAR Net Leverage**	**Liquidity**
aa	n.a.	n.a.	Very comfortable liquidity; no need to use external funding, except for already committed facilities, in the next 24 months even under a severe stress scenario. Well-spread debt maturity. Diversified sources of funding.
a	>17%	1.5x	Very comfortable liquidity. No need to use external funding, except for already committed facilities, in the next 12 months even under a severe stress scenario. Well-spread debt maturity schedule. Diversified sources of funding.
bbb	15%	2.5x	One-year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
bb	10%	3.5x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
b	5%	4.5x	Liquidity ratio below 1.0x. Overly reliant on one funding source.
ccc	<5%	5.5x	No near-term prospect of recovery in liquidity score above 1.0x. All/most funding sources subject to material execution risk.
	FFO Margin (%)	**FFO Adjusted Leverage**	**FX Exposure**
aa	n.a.	n.a.	No material FX mismatch.
a	> 20%	2.3x	Profitability potentialy exposed to FX but efficient hedging in place. Debt and cash flows well matched.
bbb	17%	3.3x	Some FX exposure on profitability and/or debt/cash flow match. Effective hedging in place.
bb	13%	4.3x	FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b	8%	5.3x	Large FX exposure. No significant/ineffective hedging in place.
ccc	< 5%	6.3x	FX exposure dominant in impairing the issuer's ability to service debt in cash terms.
	FCF Margin (%)	**FFO Adjusted Net Leverage**	**EBITDAR Fixed Charge Coverage**
aa	n.a.	n.a.	n.a.
a	5%	2.0x	4.0x
bbb	3%	3.0x	3.0x
bb	2%	4.0x	2.0x
b	1%	5.0x	1.5x
ccc	Negative	6.0x	Below 1.0x
	Volatility of Profit and Cash Flow	**(CFO-Capex)/Debt**	**FFO Fixed-Charge Coverage**
aa	n.a.	n.a.	n.a.
a	Lower volatility of profit and cash flow than industry average.	20%	3.5x
bbb	Volatility of profit and cash flow in line with the industry.	12.5%	2.5x
bb	Moderately higher volatility of profit and cash flow than industry average.	7.5%	1.5x
b	Higher volatility of profit and cash flow than industry average.	2.5%	1.0x
ccc	Volatility of profit and cash flow viewed as a negative outlier for industry.	Flat to Negative	Below 1.0x.

Tobacco Companies

Sector Risk Profile

Rating Range

Tobacco companies, particularly the larger, geographically diversified ones, have a lower-than-average risk profile. Less geographically diversified market participants, exposed to declining markets, can display higher risk. The sector risk profile reflects strong generation of cash flow from operations, supported by minor investment requirements in terms of capex, R&D and innovation. However, these aspects are contrasted by generally declining volumes, litigation risk in certain geographies, and the tendency to distribute to shareholders a major proportion of cash flows. The heavy regulation of the industry will continue to exacerbate a declining trend of consumption across most markets of the world.

For companies well diversified geographically and with conservative balance sheets, ratings can be as high as 'A+'. They are limited by the industry's volume declines and generous shareholder policies.

Sector-Specific Key Factors

Risk Management

This key factor looks at the regulatory and legal environments to gain an understanding of the external risks facing tobacco manufacturers in the regions in which they operate. Litigation exposure is one key component of the business environment as unfavorable legal rulings can pressure earnings and cash flows for extended periods.

Product Portfolio Profile

This captures the diversification of the tobacco company's brand portfolio and the strength of its most important brands. Fitch also assesses the company's pricing power and its ability to maintain organic revenue and profit growth with its products.

Market Position

This key factor assesses the market share and overall size and how these, together with its product portfolio, translate or not into stronger-than-the-market growth capacity.

Diversification

This factor indicates an ability to mitigate the effects of economic cyclicality or risk of excise duty increases through its exposure to various end-markets, price points and tobacco products. Concentration of sales on one or few markets can be a risk due to changing macroeconomic environment and regulatory regimes.

Financial Profile Key Factors

Financial Risk Profile

The financial metrics are standard corporate rating methodology ratios encompassing mid-point leverage and coverage ratios, and measures of profitability and cash flow, up to the 'A+' rating level.

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Tobacco Companies

Industry Characteristics

The industry's robustness is the result of a concentrated industry structure that supports pricing power, a low cost of producing the products, as well as consumers' regularity of consumption. The majority of markets have reached an advanced stage of consolidation, whereby typically at most two to three large participants operate in an individual market. A few smaller participants may co-exist but tend to have limited impact on the competitive environment.

The ability of tobacco product manufacturers to manage litigation risk (more relative to those companies operating in the U.S.) through the legal process can lengthen any immediate impact from an adverse court decision. Fitch believes a fundamental change has occurred in U.S. litigation given settlements and dismissal of lawsuits, including several class actions in 2016. This gives Fitch increasing confidence that the risk of tobacco litigation leading to major payouts has significantly abated in the U.S. market.

Government regulation of the industry can be punitive as countries attempt to curb tobacco cigarette consumption given public health risks and the inevitable cost to national health systems. Governments employ various tools to restrict smoking, such as raising the cost of tobacco products (via higher excises and enabling manufacturers to raise prices) and introducing regulations on advertising, consumption and marketing. Developed marketplaces, specifically the United States, western Europe and Australia, are at the forefront of stringent control of the industry. Moreover, since the World Health Organization (WHO) launched the Framework Convention for Tobacco Control in 2003, many other governments are following suit.

Consequently, prices for tobacco products have risen significantly in those countries as demand subsides, and consumers continue to give up smoking or move to cheaper and to illicitly marketed products contributing to the steady pace of volume decline. Volume has been falling in the low to mid-single digits in percentage terms in the developed world on an annual basis. Black-market suppliers are also challenging the duty-paying participants in many markets, particularly those with high pricing, contributing to demand pressure. These markets, where pricing is higher, tend to be the most profitable despite long-term perspectives clouded by irreversibly declining volumes.

Responding to volume declines in the developed world, several companies have diversified operations into the developing world, where demographic and per capita disposable income growth sustain volumes and migration to more expensive products. Companies with higher ratings therefore enjoy geographic diversification across both the highly profitable mature markets and the markets that enjoy volume and price growth opportunities.

The restrictions on advertising imposed in several markets act as a barrier to entry given fewer options available to a newcomer trying to raise consumer awareness of its products. At the same time, price has become one of the most important differentiating factors and new category entries are still possible with products positioned at the lowest price points.

Further diversification stems from product portfolio innovation, including the development and launch of new generation electronic cigarettes, which do not burn tobacco but heat either liquid nicotine or tobacco. The pace at which these products will substitute traditional tobacco consumption depends on the evolution of many variables, notably the ability to replicate the pleasure of smoking a traditional cigarette, possible regulatory restrictions, potential taxation, and pricing offered to consumers. The new category is currently in an investment phase, producing little or no profit for the manufacturers but could represent a powerful tool protecting the larger participants in the event of an acceleration of the rates of decline of demand for traditional tobacco products.

Production and input costs are not material to companies in the industry and the cost of tobacco leaf tends to be relatively stable. Production requires limited investment in capacity, thus supporting, in conjunction with growing prices, significant cash generated from operations. For some market participants, strong cash generation is necessary to manage litigation risk arising from adverse health cases as individuals settle claims and governments attempt to recoup incremental costs borne by healthcare systems because of tobacco smoking.

Sector-Specific Key Factors — Tobacco Companies

	Risk Management	Product Portfolio Profile	Market Position	Diversification
Rating	**Litigation**	**Organic Growth**	**Market Share**	**Geographic Diversification**
aa	n.a.	n.a.	n.a.	n.a.
a	Low legal exposure that is highly manageable in the long term.	Organic revenue growth well above industry average in low single digits, driven by increasing demand.	Market leader, and proven ability to grow share.	Ideal balance between mature and growth markets. No reliance on any single region.
bbb	Moderate litigation exposure and manageable in the long term.	Organic revenue growth is usually above industry average.	Market leader in key tobacco markets and ability to maintain or grow share.	Strong diversification, but balance between developed and growth markets could be better.
bb	Heavy litigation exposure in the long term and managed under current cash flow.	Organic revenue growth tends to be industry average.	Competitive market share, and difficulty growing share in some cases.	Some geographical diversification, but imbalanced between developed and growth markets.
b	Heavy litigation exposure pressuring current cash flow generation.	Below-average organic revenue growth or slight decline.	Predominantly lower market share and/or losing share.	Heavy focus in one or two markets or regions.
ccc	Imminent risk of unfavourable litigation outcome threatening the viability of the company.	Organic revenue growth in rapid decline.	Marginal participant with declining market share.	Concentrated in one region where cash flows are materially affected by severe recessionary or other disruptive conditions.
	Regulatory	**Pricing Power**	**Size (EBITDA)**	**Product Breadth**
aa	n.a.	n.a.	n.a.	n.a.
a	Regulatory restrictions placing modest demand pressure in few core markets.	Ability to drive prices within key tobacco categories in core markets.	$6.0 billion	Diversified across all tobacco categories.
bbb	Regulatory restrictions placing modest demand pressure in most core markets.	Moderate ability to drive prices within key tobacco categories in core markets.	$4.0 billion	Well represented with several tobacco and other tobacco product franchises.
bb	Regulatory restrictions placing moderate demand pressure in most core markets.	Some ability to drive prices within core markets.	$2.0 billion	Focus on a few tobacco or other tobacco products.
b	Regulatory restrictions placing moderate demand pressure in all core markets.	No ability to drive prices.	<$1.0 billion	Focus on one tobacco or other tobacco product.
ccc	Regulatory restrictions leading to rapid demand decline in all core markets.	Consistently declining prices in core markets.	Extremely small and/or undifferentiated participant.	Product line facing extinction.
		Innovation	**Distribution Channel**	**Price Tiering**
aa		n.a.	n.a.	n.a.
a		Innovative across brand extensions and new product categories.	Global, efficient distribution capability that would be difficult to replicate.	Balanced presence in value- and premium-priced categories across all product segments.
bbb		Innovative in extending key brand franchises.	Efficient distribution systems in several regions grant a competitive advantage.	Balanced presence in value- and premium-priced categories across several product segments.
bb		Lagging peers in new product offerings and line extensions.	Efficient distribution systems in a large market or several small regions.	Focus on value- or premium-priced categories across several product segments.
b		No commitment to research.	Weak, inefficient distribution channels isolated in one or several small regions.	Focus on value- or premium-priced categories in one product segment.
ccc		Products lines outdated and gap with competitors rapidly widening.	Distribution strategy in profound transition or experiencing severe, long-term operational disruptions, impairing cash flow from operations.	Focused on a pricing point facing rapid decline.
		Brand Strength		
aa		n.a.		
a		Strong brand awareness across portfolio creates competitive advantages.		
bbb		Strong brands in several categories but more at risk from solid competitors.		
bb		Mix of strong and weaker brands with reasonably good sustainability.		
b		Heavily skewed toward weaker brands. Long-term sustainability of brands questionable.		
ccc		Impaired brands.		

Financial Profile Key Factors — Tobacco Companies

	Profitability	Financial Structure	Financial Flexibility
Rating	**EBITDA Margin**	**EBITDA Leverage**	**Financial Discipline**
aa	n.a.	n.a.	Publicly announced conservative financial policy. Record of strict compliance.
a	40%	2.5x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	30%	3.5x	Financial policies less conservative than peers but generally applied consistently.
bb	20%	4.5x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
b	<20%	6.5x	No financial policy or record of ignoring it. Opportunistic behavior.
ccc	Persistently and structurally break-even or loss-making at EBITDA level.	>8.0x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	FFO Margin	**EBITDA Net Leverage**	**Liquidity**
aa	n.a.	n.a.	Very comfortable liquidity; no need to use external funding, except for already committed facilities, in the next 24 months even under a severe stress scenario. Well-spread debt maturity. Diversified sources of funding.
a	20%	2.0x	Very comfortable liquidity. No need to use external funding, except for already committed facilities, in the next 12 months even under a severe stress scenario. Well-spread debt maturity schedule. Diversified sources of funding.
bbb	15%	3.0x	One year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
bb	10%	4.0x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
b	5%	6.0x	Liquidity ratio below 1.x. Overly reliant on one funding source.
ccc	Persistently and structurally break-even or loss-making at FFO level.	>7.5x	No near-term prospect of recovery in liquidity score above 1.0x. All/most funding sources subject to material execution risk.
	FCF Margin	**FFO Leverage**	**EBITDA Interest Coverage**
aa	n.a.	n.a.	n.a.
a	4%	3.0x	11.0x
bbb	2%	4.0x	8.0x
bb	Neutral FCF margin	5.0x	5.0x
b	Neutral to negative FCF margin	6.0x	2.0x
ccc	Accelerating negative FCF margin, with limited/no flexibility on spending reduction and funding gaps.	>8.0x	1.5x
	Volatility of Profitability	**FFO Net Leverage**	**FX Exposure**
aa	n.a.	n.a.	No material FX mismatch.
a	Lower volatility of profits than industry average.	2.5x	Profitability potentialy exposed to FX but efficient hedging in place. Debt and cash flows well-matched.
bbb	Volatility of profits in line with industry average.	3.5x	Some FX exposure on profitability and/or debt/cash flow match. Effective hedging in place.
bb	Higher volatility of profits than industry average.	4.5x	FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b	Volatility of profits viewed as a negative outlier for the industry.	5.5x	Large FX exposure. No significant/ineffective hedging in place.
ccc	Volatility of profits greater than normal bounds of volatility for corporate sector as a whole.	>7.5x	FX exposure dominant in impairing the issuer's ability to service debt in cash terms.
		(CFO-Capex)/Debt	**Cash Flow Return to Shareholders**
aa		>25%	n.a.
a		20%	Moderate FFO surplus despite capital spending, dividends and share repurchasing.
bbb		12.5%	Modest excess FFO despite capital spending, dividends and share repurchasing.
bb		7.5%	FFO completely consumed by capital spending, dividends and share repurchasing.
b		2.5%	Incremental debt needed to fund capital requirements and/or special dividends.
ccc		Flat to Negative	Cash return to shareholders leading to a continuous increase in debt towards unsustainable levels.

Aerospace and Defense

Sector Risk Profile

Rating Range

Aerospace and defense companies have an average risk profile. The sector's risk profile reflects uncorrelated and distinctly different cyclicalities in the industry's civil sphere and the defense segments, and risks of cost overruns on large programs. It is also exposed to potential political influence, defense spending cuts, foreign exchange risks and a complex supply chain, including fluctuating commodity prices.

The majority of Fitch's existing published ratings in the aerospace and defense sector are between the 'A' and 'BB' rating categories. Companies in the 'A' and 'BBB' rating categories are typically program lead contractors, large and diversified by product, with good exposure to large defense markets.

Sector-Specific Key Factors

Diversification

This factor indicates an ability to mitigate the effects of the industry's cyclicality and demand dynamics through its exposure to various end markets, participation in a large number of military programs, and provision of various products and services.

Innovation

A company's history and commitment to innovation and development of new technologies, which are key to maintaining market leadership positions, are evaluated.

Revenue Visibility

This captures the company's cost competitiveness, which can drive the ability to be a lead contractor as well as providing a wider R&D footprint, and the quality, diversity and size of its order backlog, an indicator of future production and a provider of transparency on future revenue and cash flows.

Market Position

This factor assesses an issuer's prime contracting capability and history, relative size, position on key programs, its market position as well as the strategic importance of the products it manufactures and services.

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Financial Profile Key Factors

Financial Risk Profile

The financial metrics are standard corporate rating methodology ratios encompassing midpoint leverage and coverage ratios, and measures of profitability and cash flow, up to the 'A+' rating level. The analysis of key credit metrics focuses on the manufacturer's core industrial operations. Financial ratios of captive financial services entities are assessed separately.

Some aerospace and defense companies carry negative working capital, where payables, including customer prepayments, are larger than current assets (inventory, receivables). Where companies have structurally negative working capital requirements, an increasing activity creates a cash inflow. Conversely, a decreasing revenue base equates to a shrinking negative capital position, and cash outflows.

If Fitch Ratings is concerned that a negative working capital position may reverse or prove to be volatile, analysts may increase debt for the lack of cash, or reduce the cash to reflect this potential cash outflow.

Aerospace and Defense

Industry Characteristics

Fitch considers the representative risk profile of this sector spans the high end of the 'A' rating category down to the high 'B' category, with some companies being possibly rated outside this range (in the lower 'AA' category or below 'B') due to their company-specific factors and financial profiles. This range reflects a sector whose inherent risk profile includes exposure to the cyclical commercial aerospace segment, high investment requirements and program execution risk.

This is offset by the stabilizing effect of the defense segments: high barriers to entry; clear revenue visibility afforded by the long-term contracts and large backlogs characteristic of the industry; and the argument that the industry's products and services are essential, at some basic level, to the global economy and national security.

High barriers to entry are standard for both sectors of the industry due to the substantial investments required in product development and technology, and national security considerations that exclude certain companies from bidding in some markets. Nevertheless, the commercial aircraft segment is somewhat susceptible to increased competition, especially from emerging markets as the new companies are often backed by their governments.

Cyclicality of Commercial Aerospace

Fitch considers the commercial aerospace segment to hold the most risk within this industry. In addition to economic cyclicality, the commercial aerospace industry is subject to non-economic shocks such as disease pandemics and terrorism. Furthermore, the main customer, the airline sector, is financially weak and highly leveraged, although this characteristic is partly offset by the ability to obtain secured financing using highly mobile and standardized aircraft as collateral.

The large commercial aircraft subsector (comprising Airbus S.A.S. and Boeing Co.) is highly competitive, as is the engine manufacturing subsector. The aftermarket business typically carries high margins with lower cyclicality, but is fragmented. Moreover, a common strategy among large original equipment manufacturers is to increase market share in the higher margin aftermarket business, which has the potential to make the subsector more competitive. The business jet subsector is probably the most risky sector because of the emergence of several new participants and higher cyclicality with severe shrinkage during global economic downturns when compared with the large commercial aircraft and regional aircraft sub-sectors.

Long Lead Times on Defense Contracts

Another important sector-specific characteristic that has a bearing on ratings is companies' exposure to, and reputation with, key national defense departments. As many defense contracts are large, politically sensitive and long term, establishing good access to defense departments with large budgets is key. To this end, issuers with strong positions on large defense programs for the U.S. Department of Defense are at an advantage over those whose defense customer base is limited to smaller countries, or whose access to large defense markets is restricted by domestic governments.

Reductions in national defense expenditure do not pose a significant sector risk, as these are typically carried out at a speed that allows contractors to react by adjusting their cost structures. However, accelerated defense spending cuts, whether the consequence of political paralysis or severe fiscal pressure, do pose a risk of hurting the financial profiles of companies in the sector. Partly for this reason, some U.S.-based companies have higher ratings than their EMEA peers. Another characteristic of the defense sector is the negotiating power that large defense departments hold over contractors, which generally limits the margin upside in the industry.

Program Cost Structure and Execution

Timely and economic program execution plays an important part in the rating of the aerospace and defense sector. Commercial aerospace and defense programs require significant investment, and the nature of some customer contracts is such that cost overruns and delays are covered by the contractor, which could lead to a significant cash impact if programs run into trouble. Companies in this sector, which have a proven ability to deliver on time and budget, tend to be rated higher.

One additional aspect to consider about defense projects is that large, complex development programs (particularly in the U.S.) are often contracted on a "cost-plus" basis, which mitigates some risks, although at lower margins. However, many large international development contracts are executed on a fixed-price basis, which has been a key risk source in the sector over the past decade.

State Ownership/Support

Some companies in the aerospace and defense sector, particularly in the EMEA region, are partly state owned. Coupled with the high importance of the sector for national economies, owing to national security considerations, its high-value-added inputs and high employment levels, this raises the specter of state support and/or interference.

Fitch, however, rarely links the rated entity with that of the state because the companies for the most part are run on an arms-length basis as corporations, not as extensions of the state. Even in the few cases where rating linkage to the state exists and there is a demonstrated high dependency on the state by the company, there is a difference between the ratings of the issuer and that of the state.

Sector-Specific Key Factors — Aerospace and Defense

	Diversification	Innovation	Revenue Visibility	Market Position
Rating	**Geographic Diversification**	**Level of Self-Funded R&D/History of Innovation**	**Cost Competitiveness and Flexibility**	**Prime Contracting/Key Programs**
aa	n.a.	n.a.	n.a.	n.a.
a	Revenue base well spread out geographically.	High level of self-funded R&D; long history of innovation.	Costs can be reduced rapidly. A significant portion (40% - 50%) of work is performed by sub-contractors.	Regular prime contractor to large MoDs/DoD. Wins most tenders. Works on majority of key programs. Can receive concessions from suppliers.
bbb	Revenue base moderately well spread out geographically.	Moderate level of self-funded R&D; some history of innovation.	Costs can be reduced but with delays of with six to 12 months. A sizable portion (30% - 40%) of work is performed by sub-contractors.	Occasional prime contractor. Wins a large portion of tenders. Works on a large number of key programs.
bb	Little geographical diversification; heavy reliance on one country or region.	Low level of self-funded R&D; little or no history of innovation.	Cost reduction may be challenging. The majority of work is performed by own employees.	Supplier or non-prime contractor. Wins few tenders. Works on some key programs. Sub-contracts the majority of work.
b	Practically totally reliant on one country or region.	No self-funded R&D; no history of innovation.	Cost reduction may be limited. Almost all work is performed by own employees.	Non tier-one supplier. Works on few key programs. Sub-contracts most work.
ccc	Reliance on a single, high-risk location or a single high-risk purchaser.	Recent record of repeated, material deficiencies in product technology.	Inflexible cost structure. Would face prolonged negotiations with high execution risk in a downturn.	Marginal supplier. Product mix approaching obsolescence or experiencing a prolonged tender drought. Does not work on key programs.
	Commercial vs Defense Split	**Fin. Exp. to New Tech Projects (Excl. Aircraft Dev.)**	**Backlog Quality, Diversity and Size**	**Market Position**
aa	n.a.	n.a.	n.a.	n.a.
a	Close to 50:50 split between commercial aerospace and defense.	The majority of new technology programs are cost plus.	Little history of order cancellations. Well diversified geographically and by customer. Backlog-to-revenue above 2x.	Top one or two position in key segments of operation.
bbb	Active in both commercial and defense segments although one dominates.	Cost overruns of new technology programs are limited.	History of some order cancellations. Somewhat diversified backlog. Backlog-to-revenue around 1.5x.	Top five position in key segments of operation.
bb	Primarily active in either commercial aerospace or defense.	Cost overruns of new technology programs can be sizable.	Regular cancellations and history of customer unreliability. Concentrated backlog. Backlog-to-revenue around 1x.	Top 10 position in key segments of operation.
b	Solely active in either commercial aerospace or defense.	Exposure to cost overruns of new technology programs is significant.	Regular cancellations and history of customer unreliability; heavily reliant on one customers; backlog to revenue under 1x	Positioned outside the top 10 in key segments of operation.
ccc	Solely active in a rapidly declining single segment of commercial aerospace or defense.	Dominant cost overrun issues from one or more programs of a size that may render the issuer insolvent.	Regular or material cancellations. Customers display weak creditworthiness and contract performance. Backlog-to-revenue below 1x.	Extremely small and/or undifferentiated participant.
	Program/Product Diversification			**Strategic Importance of Products**
aa	n.a.			n.a.
a	Active in a large number of programs.			Products are strategically vital to customers and programs. Little replaceability is possible.
bbb	Active in a moderate number of programs.			Products are strategically important to customers and programs. Can be replaced but at significant cost.
bb	High level of program concentration.			Products are somewhat important to customers and programs. Replacement is readily available.
b	Essentially a one-program company.			Products are largely generic but carry some value to customers and programs. Replacement is readily available.
ccc	A one-program company approaching or at the end of that program with no suitable replacement plans.			Products are generic and are easily replaced.
	Aftermarket Presence			**Revenue Size**
aa	n.a.			n.a.
a	Strong aftermarket presence.			Over $10 billion
bbb	Moderate aftermarket presence.			Between $4 billion and $8 billion
bb	Low aftermarket presence.			Between $1 billion and $4 billion
b	No aftermarket presence.			Under $1 billion
ccc	No current aftermarket presence, but financial or legal exposures that weigh materially on the future profile.			Under $500 million
	Customer Concentration (Non-Prime Suppliers)			
aa	n.a.			
a	Limited exposure to a particular customer; top customer less than 10% of revenue and top five programs less than 30% of revenue.			
bbb	Exposure to a top customer ranges from 10% to 20%.			
bb	Exposure to a top customer ranges from 20% to 50%.			
b	A top customer represents more than 50% of revenue.			
ccc	A single top customer of either low creditworthiness or high volatility in purchase and/or payment patterns.			

Financial Profile Key Factors — Aerospace and Defense

	Profitability	Financial Structure	Financial Flexibility
Rating	**EBITDA Margin**	**EBITDA Leverage**	**Financial Discipline**
aa	n.a.	n.a.	Publicly announced conservative financial policy. Record of strict compliance.
a	15%	1.5x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	12%	3.0x	Financial policies less conservative than peers but generally applied consistently.
bb	10%	4.0x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
b	7%	5.5x	No financial policy or record of ignoring it. Opportunistic behavior.
ccc	<2%	>7.5x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	EBIT Margin	**EBITDA Net Leverage**	**Liquidity**
aa	n.a.	n.a.	Very comfortable liquidity; no need to use external funding, except for already committed facilities, in the next 24 months even under a severe stress scenario. Well-spread debt maturity. Diversified sources of funding.
a	11%	0.5x	Very comfortable liquidity. No need to use external funding, except for already committed facilities, in the next 12 months even under a severe stress scenario. Well-spread debt maturity schedule. Diversified sources of funding.
bbb	9%	1.5x	One year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
bb	7%	2.5x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
b	5%	4.5x	Liquidity ratio below 1.0x. Overly reliant on one funding source.
ccc	Persistently and structurally break-even or loss-making at EBIT level.	>7.0x	No near-term prospect of recovery in liquidity score above 1.0x. All/most funding sources subject to material execution risk.
	FFO Margin	**FFO Leverage**	**FX Exposure**
aa	n.a.	n.a.	No material FX mismatch.
a	11%	2.0x	Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flows well-matched.
bbb	9%	3.0x	Some FX exposure on profitability and/or debt/cash flow match. Effective hedging in place.
bb	8%	4.0x	FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b	6%	6.0x	Large FX exposure. No significant/ineffective hedging in place.
ccc	Persistently and structurally break-even or loss-making at FFO level.	>8x	FX exposure dominant in impairing the issuer's ability to service debt in cash terms.
	FCF Margin	**FFO Net Leverage**	**EBITDA Interest Coverage**
aa	n.a.	n.a.	n.a.
a	5%	1.0x	9.0x
bbb	3%	2.0x	7.0x
bb	1%	3.0x	4.5x
b	Neutral to negative FCF margin.	5.0x	3.0x
ccc	Accelerating negative FCF margin with limited/no flexibility on spending reductions and funding gaps.	>7.0x	1.5x
	Volatility of Profitability	**(CFO-Capex)/Debt**	**Pension Plan Funding**
aa	n.a.	>25%	n.a.
a	Lower volatility of profits than industry average.	20%	Required cash contributions to fund pension plans are less than 10% of FFO.
bbb	Volatility of profits in line with industry average.	12.5%	Required cash contributions to fund pension plans are less than 20% of FFO.
bb	Higher volatility of profits than industry average.	7.5%	Required cash contributions to fund pension plans are between 20% to 40% of FFO.
b	Volatility of profits viewed as a negative outlier for the industry.	2.5%	Required cash contributions to fund pension plans are higher than 40% of FFO.
ccc	Volatility of profits a negative outlier, and experiencing a secular downward trend in absolute and relative terms.	Flat to Negative	Cash contributions a material ongoing drain on cash flows, hampering operational investments and access to external funding.

Automotive Manufacturers

Sector Risk Profile

Rating Range

Original equipment manufacturers (OEM) have a higher-than-average risk profile. The automotive manufacturers' risk profile reflects the industry's marked cyclicality and volatility, its correlation to economic indicators and social trends and its exposure to numerous regulations. It is also exposed to political interference, pricing pressure and to a complex supply chain, including fluctuating commodity prices. Captive financial services entities also play an important role.

With relatively high operational and financial risks, OEMs' ratings are clustered in the 'BB'/'BBB' rating categories, although strong credit characteristics can lift ratings to the 'A' rating category. Conversely, times of extreme industry stress can offset solid company-specific traits and drag companies' ratings to the 'B' rating category or below.

Sector-Specific Key Factors

Market Position

This assesses the overall size and relative scale of the issuer and its product positioning, notably whether its brands are premium or mass market.

Diversification

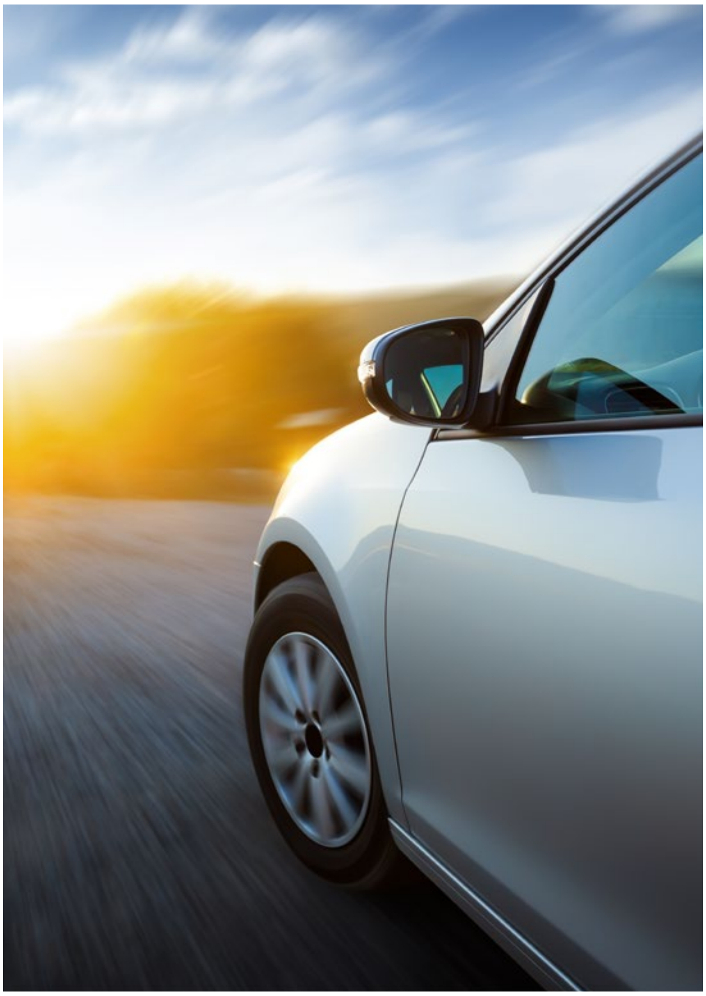
This indicates an ability to mitigate the effects of the industry's pronounced cyclicality and volatility through its exposure to various end-markets. Concentration of sales on one or few segments or products is another risk due to changing consumer patterns and the potential failure of a new vehicle.

Brand Strength

This captures the manufacturer's market shares in key markets and its brand value and recognition. These factors are assessed in combination as increasing market shares can reflect rising discounts and ultimately an erosion of the brand value.

Cost Position

The flexibility of the cost structure, measured notably by the issuer's capacity utilization rates and its ability to generate synergies either internally or through external alliances, is a key factor.



Financial Profile Key Factors

Financial Profile

The financial metrics are standard corporate rating methodology ratios encompassing mid-point leverage and coverage ratios, and measures of profitability and cash flow, up to the 'A' category. The analysis of key credit metrics focuses on the manufacturer's core industrial operations. Financial ratios of captive financial services entities are assessed separately. Large joint venture operations in China, typically reported as associated income below EBIT, are treated in line with our methodology, including dividends received in funds from operations.

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Automotive Manufacturers

Industry Characteristics

Exposure to Economic and Social Trends

The sector's high operational risks reflect the industry's pronounced cyclicality and manufacturers' volatile revenue, earnings and cash flows. Vehicles are big-ticket consumer discretionary items, strongly exposed to, and correlated with, key economic indicators and social trends such as GDP development, unemployment levels, disposable income, consumer confidence, availability of financing, and demographics. Oil and fuel prices can also affect sales developments, including rapid swings to potentially cheaper and less profitable vehicles, and manufacturers' strategies and credit profiles.

New vehicle sales are made by retail and corporate demand. Corporate demand mainly comprises fleet (company cars and rental fleets) and depends on general economic conditions and corporate confidence. Retail demand includes replacement and first-time buyers (growth demand) and is mainly reliant on vehicles' average age and affordability, while growth demand is driven mostly by economic development, affordability, demographics and penetration rate.

Political Interference

The automotive industry is crucial for the economy and employment in several countries. This makes it prone to political intervention and potential financial support from states to their domestic manufacturers to avoid bankruptcies. However, such potential support may not lead to any rating uplift. Fitch believes that political intervention is more likely in cases of extreme stress that are likely to lead to bankruptcies, and that direct government support is unlikely in the absence of immediate failure risk, as manufacturers can continue to operate with a weak credit profile. Furthermore, forms of government intervention and support can be of various types and could aim primarily at protecting employment.

Political interference can therefore prove a burden and prevent rational actions, hinder the implementation of a group's planned industrial strategy and be detrimental to creditors. Political intervention to support the automotive market includes forms of direct and indirect tax incentives in case of a dramatic downturn leading to potential bankruptcies of key economic constituents, and can also distort the underlying demand for new cars.

Automotive Manufacturers

Overcapacity

Partly due to its political sensitivity and the social impact of massive restructuring plans, the sector has not been able to address its structural production overcapacity. This overcapacity weighs significantly on profitability due to unused fixed costs not being absorbed by actual demand, and partly explains manufacturers' low operating margins through the cycle. In addition, the sector is highly regulated, with a variety of regional or national regulations including safety or environmental issues. This adds complexity to strategic decisions and business plans and extra costs in complying with all regulations, which, furthermore, can differ among regions or markets.

Consumer Products Characteristics

The automotive industry also has attributes of the consumer products sector, where brand and image are important. This necessitates on-going investment to ensure products remain attractive and are frequently replaced. Passenger cars typically have a six- to eight-year life cycle, with an intermediate facelift after three years; these product cycles compound the inherent cyclicality of the sector. Although it has been shortened through the use of virtual technologies, product development still takes several years and requires substantial investment.

Technological Disruption and New Mobility Trends

In line with the rapidly shifting overall technological landscape, automotive manufacturers are affected by the accelerating migration of powertrains to new types of energy and the quickening pace of research into autonomous vehicles. Likewise, new mobility concepts are emerging and the car's use and image is evolving. Car sharing and ride hailing are redefining how people perceive and use the automobile, leading OEMs to move gradually from traditional auto manufacturers to providers of comprehensive transport services.

Although the effect of these changes is not a near-term threat to traditional OEMs and suppliers, the potential long-term effects could be material. In particular, new powertrains and disruptive mobility often trigger a strategic refocus and require substantial investments. The place of all actors in the overall supply chain is also shifting with several suppliers taking a greater weigh in the value chain. New start-ups and technology companies are emerging and force traditional manufacturers to rethink their strategy and manufacturing footprint.

Financial Services

As most vehicles are either financed with credit or leased, either through manufacturers' captive financial services (FS) entities, or external banks or financial institutions, continuous availability of financing is critical. In particular, FS entities require easy and constant access to capital markets and bank financing to refinance loans to end-customers and to their dealers.

Most manufacturers also include new forms of car ownership and ancillary financial services in their FS division, including insurance brokering, fleet management services, investment products and credit cards, as well as various mobility services such as car sharing and ride hailing.

Barriers to Entry

The various factors detailed above can constitute barriers to entry, protecting established participants from the arrival of new competitors. Other factors such as the need for a large distribution network, the substantial investments required in product development and technology, or the importance of the brand, notably in the premium segment, are further barriers to the entry of new participants. However, these barriers to entry are considered low and may not prevent the entrance of new competitors, especially in emerging or niche markets, such as electric vehicles. Fitch also expects competition from emerging regions' mass-market manufacturers to intensify in the medium term.

Sector-Specific Key Factors — Automotive Manufacturers

	Market Position	Diversification	Brand Strength	Cost Position
Rating	**Product Positioning**	**Product Range**	**Brand Value**	**Capacity Utilization**
aa	n.a.	n.a.	n.a.	n.a.
a	Well-balanced portfolio combining premium and large mainstream brands.	Minimum reliance on three to four key products or product families (top four products <50% of total unit sales).	Extremely strong and stable brand value (>$15 billion) and recognition.	Flexible cost structure and high capacity utilization rates.
bbb	Large premium manufacturer commanding higher margins.	Modest reliance on three to four key products or product families (top four products >50% of total unit sales).	Strong brand value (>$5 billion).	Moderate cost structure and lower and more volatile capacity utilization rates.
bb	Large volume or small premium manufacturer.	Some reliance on two to three key products (top three products >60% of total unit sales).	Medium brand value.	Poor capacity utilization rates leading to high under-absorption of fixed costs.
b	Small/niche manufacturer.	Heavy reliance on two to three key products (top three products >75% of total unit sales).	Low brand value.	Poor and inflexible cost structure.
ccc	Majority of profits derived from only a few vehicles.	Excessive reliance on a few products facing a heavy demand decline.	Severely impaired brand value.	Poor and inflexible cost structure leading to operating losses during even modest market downturns.
	Overall Scale	**Geography**	**Market Share**	**Potential for Synergies**
aa	n.a.	n.a.	n.a.	n.a.
a	Top-tier manufacturer (sales > 6 million units).	Minimum reliance on one to two end-markets (<40% of total unit sales).	Sustainable top three to top five positions in key markets.	Significant potential for synergies without external alliances.
bbb	Large manufacturer (sales > 4 million units).	Modest reliance on one or two end-markets (>40% of total unit sales).	Sustainable top five positions in most key markets.	High potential for synergies, very limited need for external alliances.
bb	Medium-sized manufacturer (sales > 2 million units).	Some reliance on one or two end-markets (>60% of total unit sales).	Top five to top 10 positions in key markets.	Limited potential for synergies on a standalone basis, strong need for external alliances.
b	Small manufacturer (sales <2 million units).	Heavy reliance on one or two end-markets (>75% of total unit sales).	Top 10 positions in most markets.	Impossibility to sustain business model without external partners.
ccc	Small scale leading to poor competitiveness.	Reliance on one or two declining end-markets.	Marginal participant in most markets.	Impossible to sustain business model. Unlikely to find suitable external partners.
		Production		
aa		n.a.		
a		Little concentration of production in one country/region and minimum mismatch between sales and production.		
bbb		Moderate mismatch between sales and production.		
bb		Some mismatch between sales and production.		
b		Heavy concentration of production in one country/region and significant mismatch between sales and production.		
ccc		Concentration of production in one country/region and mismatch between sales and production leading to a major competitive disadvantage.		

Financial Profile Key Factors — Automotive Manufacturers

	Profitability	Financial Structure	Financial Flexibility
Rating	**EBITDA Margin**	**EBITDA Leverage**	**Financial Discipline**
aa	n.a.	n.a.	Publicly announced conservative financial policy. Record of strict compliance.
a	11%	0.5x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	8%	1.3x	Financial policies less conservative than peers but generally applied consistently.
bb	5%	2.3x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
b	3%	3.5x	No financial policy or record of ignoring it. Opportunistic behavior.
ccc	<1%	5.5x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	EBIT Margin - Group	**EBITDA Net Leverage**	**Liquidity**
aa	n.a.	n.a.	Very comfortable liquidity; no need to use external funding, except for already committed facilities, in the next 24 months even under a severe stress scenario. Well-spread debt maturity. Diversified sources of funding.
a	6%	Negative	Very comfortable liquidity. No need to use external funding, except for already committed facilities, in the next 12 months even under a severe stress scenario. Well-spread debt maturity schedule. Diversified sources of funding.
bbb	4%	0.8x	One year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
bb	2%	1.8x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
b	Negative	3.0x	Liquidity ratio below 1.0x. Overly reliant on one funding source.
ccc	Persistently and structurally break-even or loss-making at EBIT level.	5.0x	No near-term prospect of recovery in liquidity score above 1.0x. All/most funding sources subject to material execution risk.
	FFO Margin	**FFO Leverage**	**FX Exposure**
aa	n.a.	n.a.	No material FX mismatch.
a	9%	0.5x	Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flows well matched.
bbb	7%	1.5x	Some FX exposure on profitability and/or debt/cash flow match. Effective hedging in place.
bb	4%	2.5x	FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b	2%	4.0x	Large FX exposure. No significant/ineffective hedging in place.
ccc	Persistently and structurally break-even or loss-making at FFO level.	6.0x and above.	FX exposure dominant in impairing the issuer's ability to service debt in cash terms.
	FCF Margin	**(CFO-Capex)/Debt**	**EBITDA Interest Coverage**
aa	n.a.	n.a.	n.a.
a	2.5%	16%	9.0x
bbb	1.5%	11%	7.0x
bb	0.5%	6%	5.0x
b	Negative	Positive	3.5x
ccc	Accelerating negative FCF margin, with limited/no flexibility on spending reduction and funding gaps.	Consistently negative	2.0x
	Volatility of Margins	**CFO/Debt**	**FFO Interest Coverage**
aa	n.a.	n.a.	n.a.
a	Low volatility of margins.	100%	9.0x
bbb	More volatility leading to low but positive margins at cycle trough.	60%	7.0x
bb	Some more volatility can lead to moderate and temporary losses at cycle trough.	40%	5.0x
b	Significant volatility leading to operating losses at cycle trough.	25%	3.5x
ccc	Very volatile and sustainably negative margins.	10%	Consistently below 2.0x.

Auto Suppliers

Sector Risk Profile

Rating Range

Auto suppliers have a higher-than-average risk profile. The auto suppliers' risk profile reflects the industry's marked cyclicality and volatility, its correlation to economic indicators and social trends and its exposure to numerous regulations. It is also exposed to political interference, pricing pressure and to a complex supply chain, including fluctuating commodity prices. However, a large share of aftermarket sales can mitigate the high sector risk profile.

With relatively high operational and financial risks, auto suppliers' ratings are clustered in the 'BB'/'BBB' rating categories, although particularly strong credit characteristics can lift ratings to the lower end of the 'A' rating category. Conversely, times of extreme industry stress can offset solid company-specific traits and drag companies' ratings to the 'B' rating category or below.

Sector-Specific Key Factors

Strategic Position

Assesses a supplier's position in the supply chain and the nature of its end-market customers, notably whether it primarily sells to original equipment manufacturers (OEMs) or to aftermarket customers.

Market Position

Assesses the overall size and relative scale of the auto supplier as well as the strength of its position in its core product areas.

Diversification

Indicates an ability to mitigate the effects of the industry's pronounced cyclicality and volatility through exposure to various end markets. Concentration of sales on one or few customers, products or geographic regions is a risk.

Innovation

Assesses the value-added nature of the issuer's product portfolio and its innovation capabilities

Financial Profile Key Factors

Financial Profile

The financial metrics are standard Corporate Rating Methodology ratios encompassing midpoint leverage and coverage ratios, and measures of profitability and cash flow, up to the 'A' rating level.

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Auto Suppliers

Industry Characteristics

Fitch believes that the characteristics of the global auto supply industry will lead most companies to fall naturally into the 'BBB' and 'BB' rating categories. The largest and strongest tier-one suppliers could be rated higher if they are little reliant on manufacturers and have developed robust portfolios of products with high added-value positioning them strongly in the sector's value chain. Smaller, more vulnerable issuers, particularly those with limited diversification and lower margin product offerings and those exposed to leveraged buyout structures, would generally fall in the 'B' category or lower.

In line with other industrial manufacturing sectors, the auto supply industry is exposed to pronounced cyclicality and volatility. The generally discretionary nature of car demand and the resulting production of vehicles depend, among other factors, on GDP development, disposable income, consumer confidence and preferences, and the availability of financing. As the volume of auto production fluctuates, the demand for suppliers is also extremely volatile as OEMs usually do not commit to purchase pre-determined quantities from their suppliers. Production volatility can quickly eliminate margins and impair cash flow, and recovery can take a long time. Just-in-time/just-in-sequence production schedules require auto suppliers to have highly sophisticated logistics and efficient working capital management to preserve cash flow.

In contrast to the intense concentration which has occurred in the auto manufacturing sector, the auto supply industry is still largely fragmented. Notwithstanding a limited number of larger tier-one suppliers, which sell their products directly to OEMs, the sector is composed of many highly specialized small- to medium-sized companies selling to the larger suppliers. Due to structural overcapacities in some markets and regions, the divergence in credit profiles between the larger and smaller participants has widened and will likely lead to further sector consolidation.

The global nature of the industry offers large potential markets, but also higher competition as OEMs choose who their suppliers will be in any region. As OEMs place constant pressure on their suppliers to reduce prices, the suppliers have to continuously improve productivity to protect their margins. Furthermore, the pressure on prices has intensified following the entry of competitors from low-cost countries.

The auto supply industry is highly competitive and characterized by swift technological changes, capital intensity and the need for continuous improvements in manufacturing facilities.

However, the rapid shift of the overall technological landscape also offers opportunities to suppliers able to adapt their portfolios and market products with higher added value and profitability. A few large suppliers are taking the lead in R&D and develop attractive new products sold profitably to OEMs. In addition, several manufacturers have outsourced the development of some of the latest technologies as they have to refocus their investment to other trends and cannot shoulder all costs. These moves are gradually rebalancing the relationship between manufacturers and a few large tier-one suppliers.

Strict regulations and the trend for smaller, more fuel-efficient and environmentally friendly vehicles require auto suppliers to permanently innovate. This can lead to high capital intensity, although this also can constitute a barrier to entry protecting established participants and provide a good differentiating factor, thereby protecting margins. The sector is heavily unionized in some countries, and this can weigh on profitability and prevent or slow down necessary restructuring actions. Volatile raw material prices can have a material impact on auto suppliers' profitability, as it is difficult to pass on price increases to powerful customers with strong bargaining power.

Sector-Specific Key Factors — Auto Suppliers

	Strategic Position	Market Position	Diversification	Innovation
Rating	**Position in the Supply Chain**	**Overall Scale**	**Original Equipment Manufacturer**	**Product Portfolio**
aa	n.a.	n.a.	n.a.	n.a.
a	Top 10 tier-one core suppliers with strong relationships with most original equipment manufacturers.	Very large global participant (revenue > EUR20 billion/$25 billion).	Very limited dependence on a few OEMs.	High-added value products with limited competition.
bbb	Large tier-one core suppliers with strong relationships with most original equipment manufacturers.	Large global participant (revenue > EUR5 billion/$7 billion).	Limited dependence on a few OEMs.	High-added value products.
bb	Tier-two suppliers or weaker positioned tier-one suppliers.	Sizeable participant (revenue > EUR1 billion/$1.5 billion).	Limited to medium dependence on a few OEMs.	High- to medium-added value products, may also have more mature products.
b	Small tier-one suppliers, some tier-two and tier-three suppliers and lower tier sub-suppliers, LBO-type suppliers.	Smaller participant (revenue < EUR1 billion/$1.5 billion).	High dependence on one or two OEMs.	Low-added value, commodity-style products.
ccc	Minor, easily replaceable, low-tier supplier.	Insufficient scale to be competitive.	Impaired relationship with OEMs on which the company depends for most of its business.	Uncompetitive products.
	End-Markets	**Market Position**	**End-Markets**	**Innovation**
aa	n.a.	n.a.	n.a.	n.a.
a	Minimum reliance on original equipment manufacturers (<35%).	Very strong positions in key market segments.	Minimum reliance on one region or products line (<40% of total revenue).	Major innovation capability leading to material long-term outperformance of industry growth.
bbb	Moderate reliance on original equipment manufacturers (35%-65%).	Strong positions in key market segments.	Modest reliance on one region or product line (40-60% of total revenue).	Good innovation capability leading to long-term outperformance of industry growth.
bb	High reliance on original equipment manufacturers (65%-80%).	Good positions in key market segments or sound niche supplier.	Some reliance on one region or product line (60-75% of total revenue).	Innovation capability sufficient to match industry growth.
b	Heavy reliance on original equipment manufacturers (>80%).	No meaningful positions in any segments.	Heavy reliance on one region or product line (>75% of total revenue).	Weak innovation capability posing threat of long-term revenue decline.
ccc	n.a.	Record of being replaced by competitors or substitutes.	Weak end-markets diversification. Target markets shrinking fast.	R&D capability insufficient to prevent widening of technological disadvantage.
			Production	
aa			n.a.	
a			Little concentration of production in one country or region and minimum mismatch between sales and production.	
bbb			Moderate mismatch between sales and production.	
bb			Some mismatch between sales and production.	
b			Heavy concentration of production in one country/region and significant mismatch between sales and production.	
ccc			Concentration of production in one country/region and mismatch between sales and production leading to a major competitive disadvantage.	

Financial Profile Key Factors — Auto Suppliers

	Profitability	Financial Structure	Financial Flexibility
Rating	**EBITDA Margin**	**EBITDA Leverage**	**Financial Discipline**
aa	n.a.	n.a.	Publicly announced conservative financial policy. Record of strict compliance.
a	14%	0.5x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	12%	1.5x	Financial policies less conservative than peers but generally applied consistently.
bb	8%	2.5x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
b	5%	3.5x	No financial policy or record of ignoring it. Opportunistic behavior.
ccc	<2%	5.5x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	EBIT Margin	**EBITDA Net Leverage**	**Liquidity**
aa	n.a.	n.a.	Very comfortable liquidity; no need to use external funding, except for already committed facilities, in the next 24 months even under a severe stress scenario. Well-spread debt maturity. Diversified sources of funding.
a	11%	0.0x	Very comfortable liquidity. No need to use external funding, except for already committed facilities, in the next 12 months even under a severe stress scenario. Well-spread debt maturity schedule. Diversified sources of funding.
bbb	9%	1.0x	One year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
bb	6%	2.0x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
b	4%	3.0x	Liquidity ratio below 1.0x. Overly reliant on one funding source.
ccc	Persistently and structurally break-even or loss-making at EBIT level.	5.0x	No near-term prospect of recovery in liquidity score above 1.0x. All/most funding sources subject to material execution risk.
	FFO Margin	**FFO Leverage**	**FX Exposure**
aa	n.a.	n.a.	No material FX mismatch.
a	12%	1.0x	Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flows well matched.
bbb	10%	2.0x	Some FX exposure on profitability and/or debt/cash flow match. Effective hedging in place.
bb	7%	3.0x	FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b	5%	4.0x	Large FX exposure. No significant/ineffective hedging in place.
ccc	Persistently and structurally break-even or loss-making at FFO level.	6.0x+	FX exposure dominant in impairing the issuer's ability to service debt in cash terms.
	FCF Margin	**FCF/Debt**	**EBITDA Interest Coverage**
aa	n.a.	n.a.	n.a.
a	3.0%	15%	8.0x
bbb	2.5%	10%	6.0x
bb	1.5%	5%	4.0x
b	0.0%	Positive	3.0x
ccc	Accelerating negative FCF margin, with limited/no flexibility on spending reduction and funding gaps.	Consistently negative.	1.5x
	Margin Volatility	**CFO/Debt**	**FFO Interest Coverage**
aa	n.a.	n.a.	n.a.
a	Low volatility of margins.	80%	8.0x
bbb	More volatility leading to low but positive margins at cycle trough.	50%	6.0x
bb	Some more volatility can lead to moderate and temporary losses at cycle trough.	30%	4.0x
b	Significant volatility leading to operating losses at cycle trough.	15%	2.5x
ccc	Very volatile and sustainably negative margins.	5%	Consistently below 1.0x.

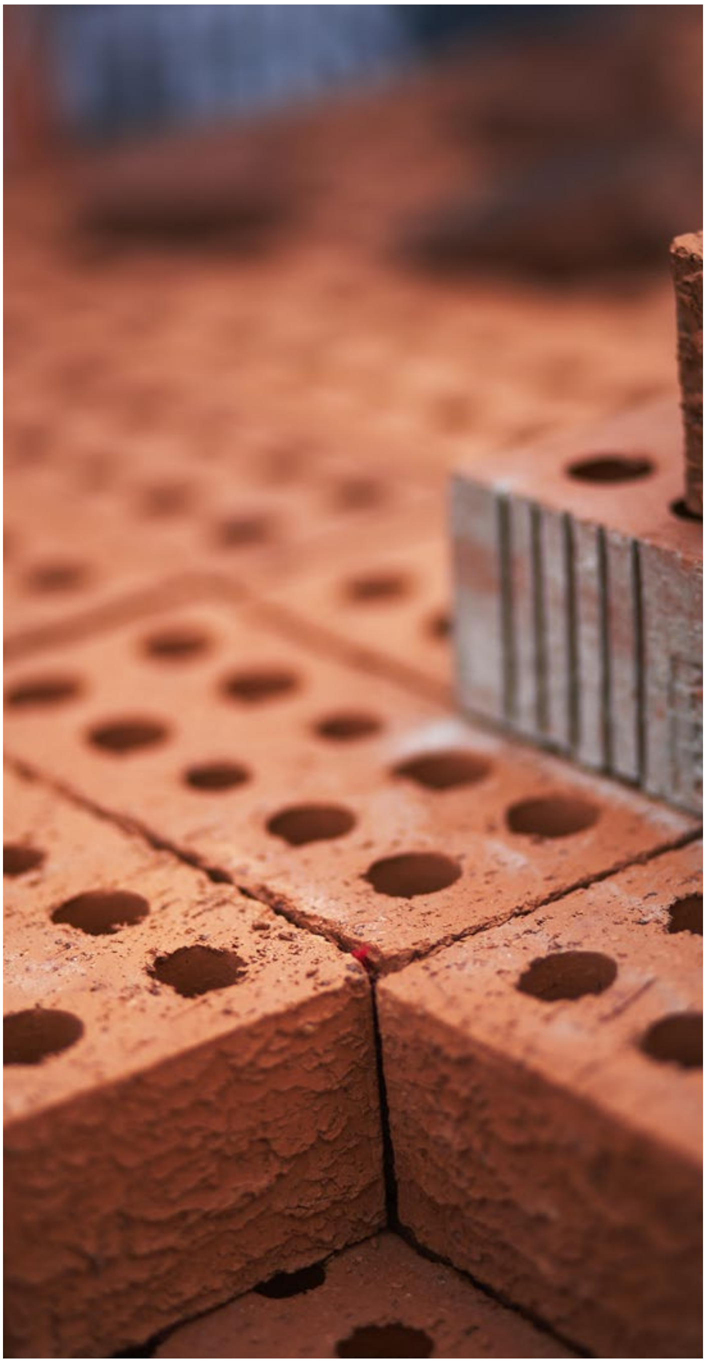
Building Materials

Sector Risk Profile

Rating Range

Building materials companies have a higher-than-average risk profile. The sector risk profile can be as high as 'BBB' reflecting the high cyclicality and seasonality of demand for building materials. It also reflects the high barriers to entry due to both regulatory requirements and intensive capital requirements, and some pricing power for the leading companies in some sub-segments.

Large global and national building materials producers commanding leading market positions tend to be rated in the 'BBB' and 'BB' rating categories. Smaller regional participants or highly leveraged companies tend to be rated in the 'B' category or lower.



Sector-Specific Key Factors

Market Position

Key factors include the market position, the industry's barriers to entry and the pricing power in the market segments in which the issuer operates.

End-Market Diversification

Sub-factors examine the cyclicality and diversification of end-markets and the product breadth, and the extent to which these enable the company to serve various market segments.

Geographical Diversification

Sub-factors assess the location of production facilities, the revenue concentration in one or more countries or geographic regions, and exposure to lower- and higher-growth markets.

Cost Position

Assesses the issuer's cost leadership relative to peers and ability to pass through costs to end-users to limit profitability erosion. This is vital in weathering downturns or periods of weaker demand in the capital-intensive building materials sector. A building materials producer's exposure to environmental costs from regulations can incur significant operating costs and capital requirements. This could adversely affect the cash-flow and risk profile if costs cannot be passed through to counterparties or recovered via higher market prices.

Financial Profile Key Factors

Financial Profile

Financial metrics are standard corporate rating methodology ratios. The focus on internal cash generation, liquidity and leverage reflects the importance of financial flexibility in this cyclical industry. Ratios are adjusted for cash held at local subsidiaries and seasonal working capital swings, which are pronounced in the sector.

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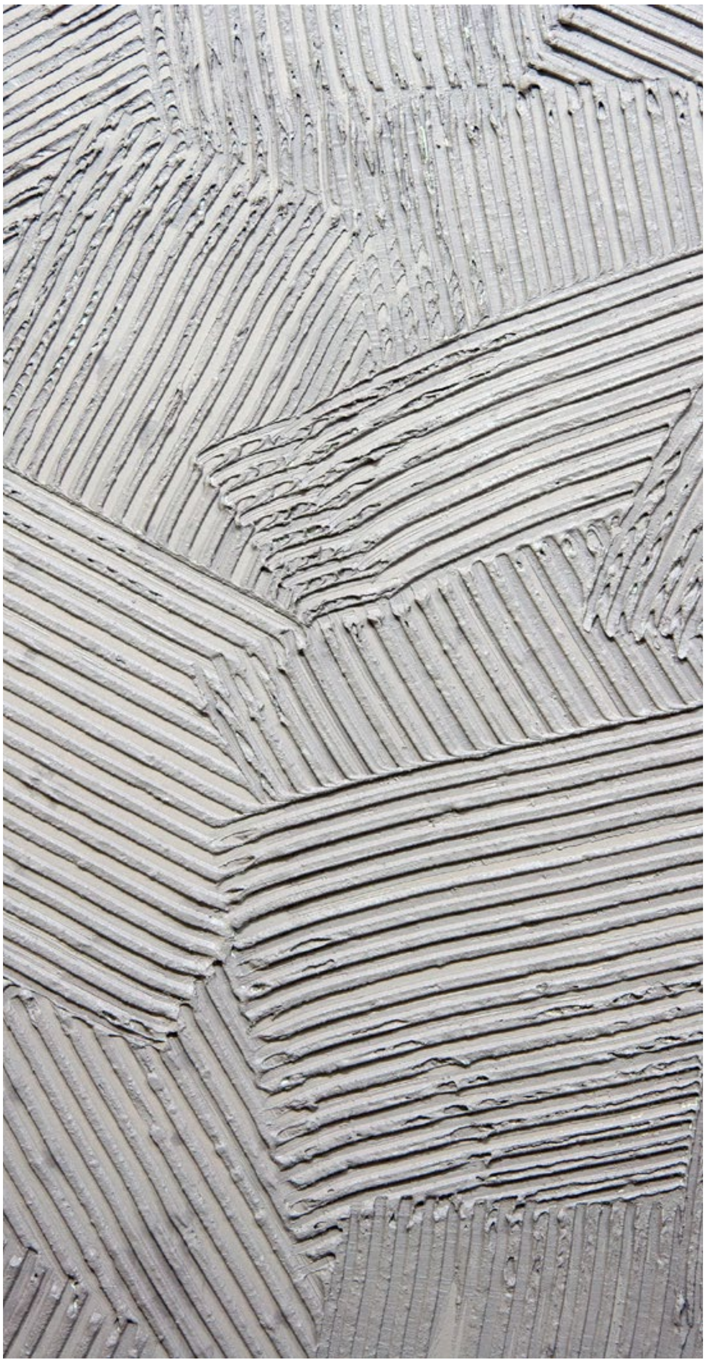
Building Materials

Industry Characteristics



Representative companies in this sector are typically rated from the 'BBB' rating category down to 'B'. The sector is exposed to higher-than-average sector risk, given the seasonality and cyclicality of construction demand, high levels of competition, the commoditized nature of end-products and the capital-intensive nature of production.

Demand for building materials is primarily driven by housing, non-residential and infrastructure construction activity, which in turn is correlated with economic cycles, the availability of funding and demographic trends. Construction demand is also seasonal and can be adversely affected by bad weather conditions. Markets are typically local or regional as long-haul transportation of building materials is often uneconomical. Coupled with few product differentiating factors and a heavy asset base that limits the relocation of production, competitive pressure quickly builds when market demand drops in economaic downturns.

Geographic diversification is therefore key in reducing exposure to a specific country or region, as changes in market cycles tend to vary across regions. In addition, some sub-sectors are counter-cyclical or late-cycle, such as infrastructure, and can mitigate a downturn in other segments of the market, such as residential and commercial property construction. Investment-grade companies therefore tend to be highly diversified across numerous regions and segments.

Building materials companies also benefit from relatively high barriers to entry. These include tight regulation by national and local governments for environmental and land use and a capital-intensive production base, particularly in cement. In combination with a degree of industry consolidation in certain markets, this gives participants with dominant market positions some pricing power to withstand margin pressure in downturns or an ability to pass on energy cost inflation to end-customers. This is particularly important for more energy-intensive activities such as cement manufacturing.

Sector-Specific Key Factors — Building Materials

	Market Position	End-Market Diversification	Geographical Diversification	Cost Position
Rating	**Market Position**	**Cyclicality**	**Production**	**Cost Leadership**
aa	n.a.	n.a.	n.a.	n.a.
a	n.a.	n.a.	n.a.	n.a.
bbb	Market leader in core markets.	Limited revenue exposure to markets with high/ medium cyclicality.	Production facilities widely spread in a country or region.	Cost leadership.
bb	Top-five participant in core markets.	Moderate revenue exposure to markets with high/ medium cyclicality.	Production facilities somewhat spread in a country or region.	Moderate cost base.
b	Weak market positions in markets where company operates.	Material revenue exposure to markets with high cyclicality.	Production facilities concentrated in one geographic zone of a country or region.	High cost base.
ccc	Marginal participant in most markets.	Material revenue exposure to markets with high cyclicality and in long-term decline.	Concentration of production in one country/region and mismatch between sales and production leading to a major competitive disadvantage.	Uncompetitive cost base.
	Barriers to Entry	**Product Diversification**	**Growth/Mature Split**	**Ability to Pass Through Costs**
aa	n.a.	n.a.	n.a.	n.a.
a	n.a.	n.a.	n.a.	n.a.
bbb	High barriers to entry.	Good range of products, covering end-markets in different maturity stages.	Balanced revenue split between low- and high-growth regions/countries.	Strong ability to pass through input cost inflation.
bb	Medium barriers to entry.	Limited range of products, serving end-markets in similar maturity stages.	Somewhat balanced revenue split between low- and high-growth regions/countries.	Moderate ability to pass through input cost inflation.
b	Low barriers to entry.	Focus on one or two products.	Revenue concentrated in low- or high-growth markets.	Highly sensitive to input cost inflation and/or supply concentration.
ccc	Record of successful new entrants.	Focus on one or two products in secular decline.	Revenue concentrated in declining markets.	Margins regularly negative due to input cost pressure.
	Pricing Power		**Revenue**	**Environmental Exposure**
aa	n.a.	n.a.	n.a.	n.a.
a	n.a.	n.a.	n.a.	n.a.
bbb	Strong pricing power towards customers.		Low revenue concentration with revenue from one single region or geographic zone <25%.	Limited or manageable exposure to environmental regulations. Remediation costs for any pollution are incorporated in current cashflows.
bb	Moderate pricing power towards customers.		Medium revenue concentration with revenue from one single region or geographic zone 25%-45%.	Significant exposure to environmental regulations. Remediation costs for any pollution are incorporated in current cashflows, but may weigh more over time.
b	Weak pricing power towards customers.		High revenue concentration with revenue from one single region or geographic zone >45%.	Material exposure to highly polluting technology. Remediation costs for any pollution are an incremental strain on projected cashflows.
ccc	Inability to pass input price increases regularly leading to significant losses.		High revenue concentration on one region with rapidly declining demand.	Substantial cash impairment crystallized, or about to, due to multiple, punitive environmental cost burdens.

Financial Profile Key Factors — Building Materials

	Profitability	Financial Structure	Financial Flexibility
Rating	**EBITDA Margin**	**EBITDA Leverage**	**Financial Discipline**
aa	n.a.	n.a.	Publicly announced conservative financial policy. Record of strict compliance.
a	n.a.	n.a.	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	18%	2.5x	Financial policies less conservative than peers but generally applied consistently.
bb	14%	3.5x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
b	9%	4.5x	No financial policy or record of ignoring it. Opportunistic behaviour.
ccc	5%	6.5x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	FFO Margin	**EBITDA Net Leverage**	**Liquidity**
aa	n.a.	n.a.	Very comfortable liquidity; no need to use external funding, except for already committed facilities, in the next 24 months even under a severe stress scenario. Well-spread debt maturity. Diversified sources of funding.
a	n.a.	n.a.	Very comfortable liquidity. No need to use external funding, except for already committed facilities, in the next 12 months even under a severe stress scenario. Well-spread debt maturity schedule. Diversified sources of funding.
bbb	14%	2.0x	One year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
bb	10%	3.0x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
b	6%	4.0x	Liquidity ratio below 1.0x. Overly reliant on one funding source.
ccc	3%	6.0x+	No near-term prospect of recovery in liquidity score above 1.0x. All/most funding sources are subject to material execution risk.
	FCF Margin	**FFO Leverage**	**FX Exposure**
aa	n.a.	n.a.	No material FX mismatch.
a	n.a.	n.a.	Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flows well-matched.
bbb	Positive FCF margin	2.7x	Some FX exposure on profitability and/or debt/cash flow match. Effective hedging in place.
bb	Neutral to negative FCF margin	3.7x	FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b	Negative FCF margin	4.7x	Large FX exposure. No significant/ineffective hedging in place.
ccc	Accelerating negative FCF margin, with limited/no flexibility on spending reduction and funding gaps.	>6.7x	FX exposure dominant in impairing the issuer's ability to service debt in cash terms.
		FFO Net Leverage	**EBITDA Interest Coverage**
aa		n.a.	n.a.
a		n.a.	n.a.
bbb		2.2x	7.5x
bb		3.2x	6.5x
b		4.2x	4.0x
ccc		>6.2x	2.0x
			FFO Interest Coverage
aa			n.a.
a			n.a.
bbb			6.5x
bb			5.5x
b			3.5x
ccc			Consistently below 1.5x.

Building Products

Sector Risk Profile

Building products companies have a higher-than-average risk profile. The building products sector's risk profile reflects the cyclicality and seasonality of demand for building products, economic sensitivity, and volatility of raw material and energy costs.

Issuers with investment-grade ratings typically serve various construction end-markets, with heavier exposure to the relatively less cyclical repair and remodel segment, resulting in more stable revenue and earnings stream. These higher-rated issuers are also market leaders with expansive product and service offerings as well as well-recognized brand names. Investment-grade issuers usually exhibit some variability in credit metrics through the cycle, although strong credit protection measures provide flexibility to adjust to downturns. Conversely, issuers with lower ratings usually have somewhat limited product or end-market diversity or have greater exposure to the new construction market, causing more volatile financial results and credit metrics.

Sector-Specific Key Factors

Market Position

This sub-factor includes the overall size as well as the market position of the issuer within its core product offerings. It also examines the breadth and depth of the issuer's product and service offerings and the extent to which these enable the company to serve the various construction end markets.

Diversification

This sub-factor examines the cyclicality and diversification of end-markets (both geographically and construction end-market), and the extent to which these products are sold across a range of distribution channels.

Product Portfolio Profile

This sub-factor captures brand value and recognition and the company's ability to price its product offerings at a premium.

Industry Profile

This sub-factor assesses the long-term growth potential of the building products segment where the issuer participates. It also examines industry capacity utilization rates and the volatility of raw material costs and the issuer's ability to pass through costs to end-users to limit erosion of profitability.

Financial Profile Key Factors

Financial Profile

The financial metrics assessed encompass mid-point leverage and coverage ratios, and measures of profitability and cash flow relative to sector peers.

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Building Products

Industry Characteristics

Representative companies in this sector are typically rated from the 'A' rating category down to 'B'. Companies in the 'A' rating category typically are global market leaders, have excellent balance sheets and outstanding capital markets access through the cycle. The sector's higher than average risk reflects exposure to significant cyclical demand changes in the construction industry, evolving consumer trends, somewhat volatile raw material costs, and high levels of competition.

The building products sector is highly fragmented, both by geographic region and by product category. However, there are companies that dominate certain sub-sectors. Demand for building products is primarily driven by construction activity, which in turn is generally correlated with economic cycles, interest rates and the availability of funding, and demographic trends.

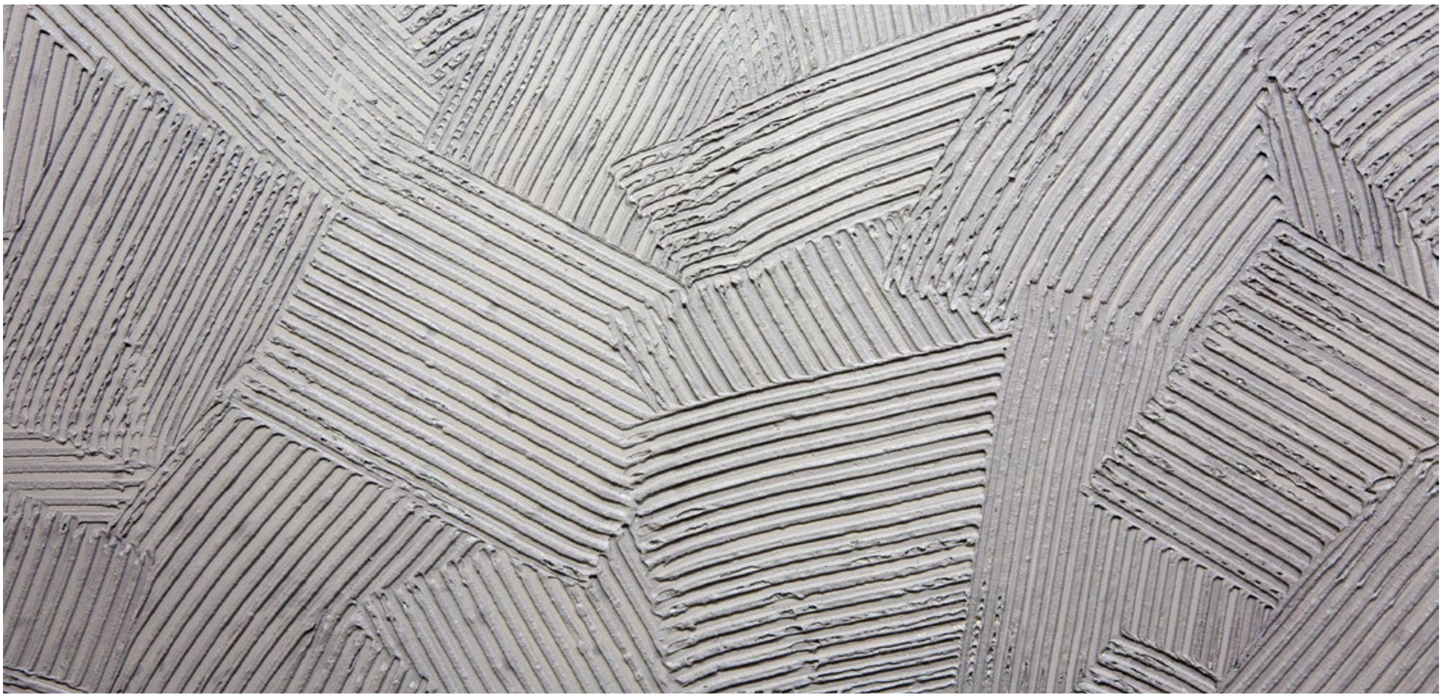
While the overall construction industry is inherently cyclical, diversification, both geographically and by construction end-market, helps issuers mitigate the overall cyclicality of demand for building products. Typically, residential construction and commercial construction have differing cycles. Additionally, the repair and remodel sector (both residential and commercial) has generally exhibited less volatile characteristics compared with the new construction market. The construction industry is generally mature in developed markets, with modest growth opportunities. As such, some companies are seeking to expand in emerging markets to accelerate growth.

Building products are also sold to the end-user through a wide array of distribution channels, including through company-owned stores, dealers, distributors and big-box retailers. These different distribution channels generally cater to specific customer segments, including the professional and the do-it-yourself segments. As such, brand strength and diversity of product offerings play an important role in getting access to these various distribution channels to drive sales.

There has been industry consolidation as companies attempt to gain market share and achieve cost efficiencies from economies of scale. Fitch expects the fragmented nature of the building products sector will lead to further consolidation as industry participants seek to expand their product offerings and increase their geographic coverage.

Building products companies also benefit from relatively high barriers to entry, particularly in sub-sectors such as wallboard, roofing, insulation materials, flooring and coatings. These sub-sectors generally have industry participants with well-established brand names, dominant market positions, access to various distribution channels, strong innovation capabilities, highly competitive cost structures from greater efficiencies and economies of scale, and, in some cases, technological advantages.

The building products sector is also susceptible to changing consumer trends. Changes in lifestyles, advances in technology, and the growing focus on environmentally friendly materials are some trends that contribute to shifting consumer preferences. As such, the ability to adapt to changes in consumer behavior is necessary for these companies to differentiate themselves from their competitors.



Sector-Specific Key Factors — Building Products

	Market Position	Diversification	Product Portfolio Profile	Industry Profile
Rating	**Market Position**	**End-Market Diversification**	**Brand Strength**	**Long-Term Growth Potential**
aa	n.a.	n.a.	n.a.	n.a.
a	Top-three participant in core product and service offerings.	Well-balanced exposure to various construction end-markets with limited revenue exposure to the more volatile new-construction market.	Product offerings with well-known brands and strong customer loyalty that command premium pricing.	Strong long-term potential with volatile growth characteristics.
bbb	Top-five participant in core product and service offerings.	Well-balanced exposure to various construction end-markets with moderate revenue exposure to the new-construction market.	Strong brand equity but alternative products exist that could somewhat limit premium pricing.	Strong long-term potential but with more volatile cyclical growth characteristics.
bb	Top-10 participant in core product and service offerings.	Somewhat balanced exposure to various construction end-markets with somewhat meaningful revenue exposure to the new-construction market.	Moderate brand equity but pricing plays a meaningful role in customer decision.	Mature industry. Traditional markets may be under some pressure but opportunities arise in new markets.
b	Weak market position in markets/products where company operates.	Significant revenue exposure to the more volatile new-construction market.	Commoditized product offerings with little or no brand equity.	Industry in decline.
ccc	Marginal participant in most markets.	Significant revenue exposure to markets in secular decline.	Severely impaired brand value.	Industry in rapid decline.
	Product and Service Offerings	**Geographic Diversification**	**Innovation**	**Raw Material Volatility**
aa	n.a.	n.a.	n.a.	n.a.
a	Expansive offering of products and services widely spread across various construction end-markets.	Well-balanced geographic exposure within countries or regions.	Strong record of product innovation that delivers strong value and is well accepted by the marketplace.	Volatility of input costs are mitigated by the strong ability to pass through input cost inflation (although on a lagged basis).
bbb	Good range of products serving various construction end-markets.	Moderate geographic exposure within countries or regions.	Modest competitive advantages in product innovation with reasonably good sustainability.	Moderate ability to pass through input cost inflation somewhat offsets input cost volatility; initiatives help minimize margin compression.
bb	Limited range of products serving various construction end-markets.	Limited geographic exposure within countries or regions.	Some competitive advantages in product innovation but could be replicated by competitors.	Volatility of input costs can result in moderate margin compression due to limited ability to pass through input cost inflation.
b	Focus on one or two products.	Concentrated in one or two geographic markets within countries or regions.	No competitive advantage.	Highly sensitive to input cost inflation and/or supply concentration.
ccc	Focus on one or two products in secular decline.	High revenue concentration on one region with rapidly declining demand.	Uncompetitive product offering.	Margins regularly negative due to input cost pressure.
		Distribution Channels	**Barriers to Entry**	**Industry Capacity**
aa		n.a.	n.a.	n.a.
a		Product and service offerings are sold across a wide range of distribution channels. Best-in-class distribution network.	Very high barriers to entry. Emergence of significant new entrants in the rating horizon is somewhat limited.	High industry utilization rates support higher returns.
bbb		Product and service offerings are sold across a moderate range of distribution channels.	Time and significant financial commitment required to enter the industry meaningfully.	Industry utilization rates fluctuate in line with overall construction spending, resulting in somewhat volatile pricing.
bb		Product and service offerings are sold across a limited range of distribution channels.	Moderate barriers to entry. Incumbents are generally strongly established but successful new entrants have emerged over time.	Excess capacity exists, putting pressure on selling prices and margins.
b		Meaningful concentration of distribution channels.	No barrier to entry/exit. Number of industry participants follows the cycle.	Significant excess capacity expected to continue in the intermediate to long term.
ccc		Meaningful concentration on distribution channels facing rapid decline.	Record of successful new entrants.	Significant excess capacity leading to severe price competition.

Financial Profile Key Factors — Building Products

	Profitability	Financial Structure	Financial Flexibility
Rating	**EBITDA Margin**	**EBITDA Leverage**	**Financial Discipline**
aa	n.a.	n.a.	Publicly announced conservative financial policy. Record of strict compliance.
a	16%	1.5x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	13%	2.5x	Financial policies less conservative than peers but generally applied consistently.
bb	11%	3.5x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
b	9%	5.0x	No financial policy or record of ignoring it. Opportunistic behavior.
ccc	<3%	>7.0x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	EBIT Margin	**EBITDA Net Leverage**	**Liquidity**
aa	n.a.	n.a.	Very comfortable liquidity; no need to use external funding, except for already committed facilities, in the next 24 months even under a severe stress scenario. Well-spread debt maturity. Diversified sources of funding.
a	10%	1.0x	Very comfortable liquidity. No need to use external funding, except for already committed facilities, in the next 12 months even under a severe stress scenario. Well-spread debt maturity schedule. Diversified sources of funding.
bbb	8%	1.5x	One year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
bb	6%	2.5x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
b	3%	3.5x	Liquidity ratio below 1.0x. Overly reliant on one funding source.
ccc	Persistently and structurally break-even or loss-making at EBIT level.	5.5x	No near-term prospect of recovery in liquidity score above 1.0x. All/most funding sources subject to material execution risk.
	FFO Margin	**FFO Leverage**	**FX Exposure**
aa	n.a.	n.a.	No material FX mismatch.
a	11%	2.0x	Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flows well matched.
bbb	9%	3.0x	Some FX exposure on profitability and/or debt/cash flow match. Effective hedging in place.
bb	7%	4.0x	FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b	5%	5.0x	Large FX exposure. No significant/ineffective hedging in place.
ccc	Persistently and structurally break-even or loss-making at FFO level.	>7.0x	FX exposure dominant in impairing the issuer's ability to service debt in cash terms.
	FCF Margin	**FFO Net Leverage**	**EBITDA Interest Coverage**
aa	n.a.	n.a.	n.a.
a	5%	1.5x	11.0x
bbb	3%	2.0x	8.0x
bb	2%	3.0x	6.0x
b	Neutral to negative FCF margin.	4.0x	3.5x
ccc	Accelerating negative FCF margin, with limited/no flexibility on spending reduction and funding gaps.	>6.0x	2.0x
	Volatility of Profitability	**(CFO-Capex)/Net Debt**	**FFO Interest Coverage**
aa	n.a.	n.a.	n.a.
a	Lower volatility of profits than industry average.	30%	8.0x
bbb	Volatility of profits in line with industry average.	20%	6.0x
bb	Higher volatility of profits than industry average.	12.5%	5.0x
b	Volatility of profits viewed as a negative outlier for the industry.	5.0%	3.0x
ccc	Volatility of profits a negative outlier, with a secular downward trend in absolute and relative terms.	Flat to negative	1.5x

Services

Sector Risk Profile

Rating Range

The services sector has an average risk profile. The sector risk profile reflects both the relative stability of revenue streams for large, diversified, leading participants and risks such as competition and M&A activity. It also reflects the companies' exposure to outsourcing trends, the asset-light nature of their activities and exposure to reputational risk.

Fitch Ratings' existing ratings of companies in this sector range between 'B' and 'A–'. The higher-rated entities are the larger international champions rather than smaller local participants. More highly leveraged and smaller services companies tend to be rated sub-investment grade.

Sector-Specific Key Factors

Market Position

This key factor considers the overall size and relative scale of the issuer and its ability to achieve operating efficiencies through an extended network. It also assesses the nature of the services, whether these are basic or highly customized, and the issuer's record in securing multi-service contracts and capturing cross-selling opportunities.

Diversification

This indicates an ability to mitigate the risks associated with earnings concentration from certain services, specific clients, industries or geographies.

Revenue Visibility

This factor assesses the proportion of earnings that are contracted or considered recurring, and the degree of visibility that provides over future cash flows by considering the typical length of contracts and their maturity profile. Fitch takes into account the degree of renewal risk upon expiry of contracts as evidenced by retention rates, the competitive environment, switching costs for customers and the risk of services being repatriated "in-house."

Execution, Expertise and Regulation

This key factor assesses the reputation and record of the company in executing contracts and providing high-quality and reliable services, including the importance of the brand for consumer-oriented services. Fitch also assesses profitability through an understanding of pricing mechanisms, cost-sharing agreements between parties and how the relationship with the end customer is managed against the backdrop of any regulatory framework, if applicable.

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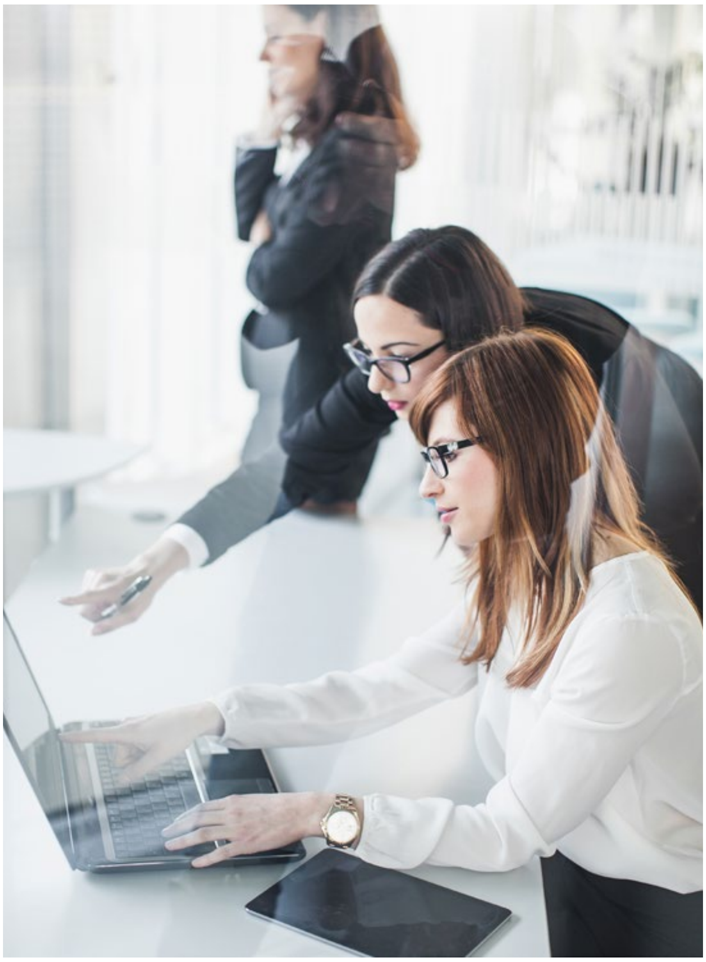

Financial Profile Key Factors

Financial Profile

The financial metrics are standard corporate rating methodology ratios encompassing midpoint leverage and coverage ratios, and measures of profitability and cash flow, up to the 'A' rating category.

Contracts in the food and facility management segment usually fall into two main categories: profit and loss (whereby the service provider is paid for the service and bears the entire cost); and fee-based contracts. Cost and fee-based contracts are more developed in the U.S., but the trend has been toward profit and loss. These contracts have a high-risk profile as the company incurs any extra costs that were not in the initial bid/forecast, although this approach also enables companies to differentiate themselves in terms of their service offering and management capacity.

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Services

Industry Characteristics

Fitch considers the representative risk profile of the sector to be up to the low end of the 'A' rating category and down to the 'B' category. This range reflects both the stability of revenue streams for large, diversified, leading companies and risks such as competition and acquisition activity. Bolt-on acquisitions and M&A activity are common in the more fragmented subsectors with potentially lower barriers to entry, where companies seek growth to achieve economies of scale.

Relative Stability of Earnings

Revenues tend to be predictable, supported by medium- to long-term contracts or a recurring nature of services. Operating profit generally exhibits moderate volatility through the cycle, although the level of profit margins depends on the nature of the services, the cost-sharing agreements with the customer, competitive pressure and the extent to which contracts are executed or subcontracted.

However, not all service companies exhibit resilient performance under challenging economic conditions. Some face higher volatility in performance depending on the issuer's exposure to business and industrial sectors, education, healthcare or public sector clients. Some business models are also affected by cuts in public spending, a weaker consumer sentiment, rising unemployment or delays in the execution of contracts.

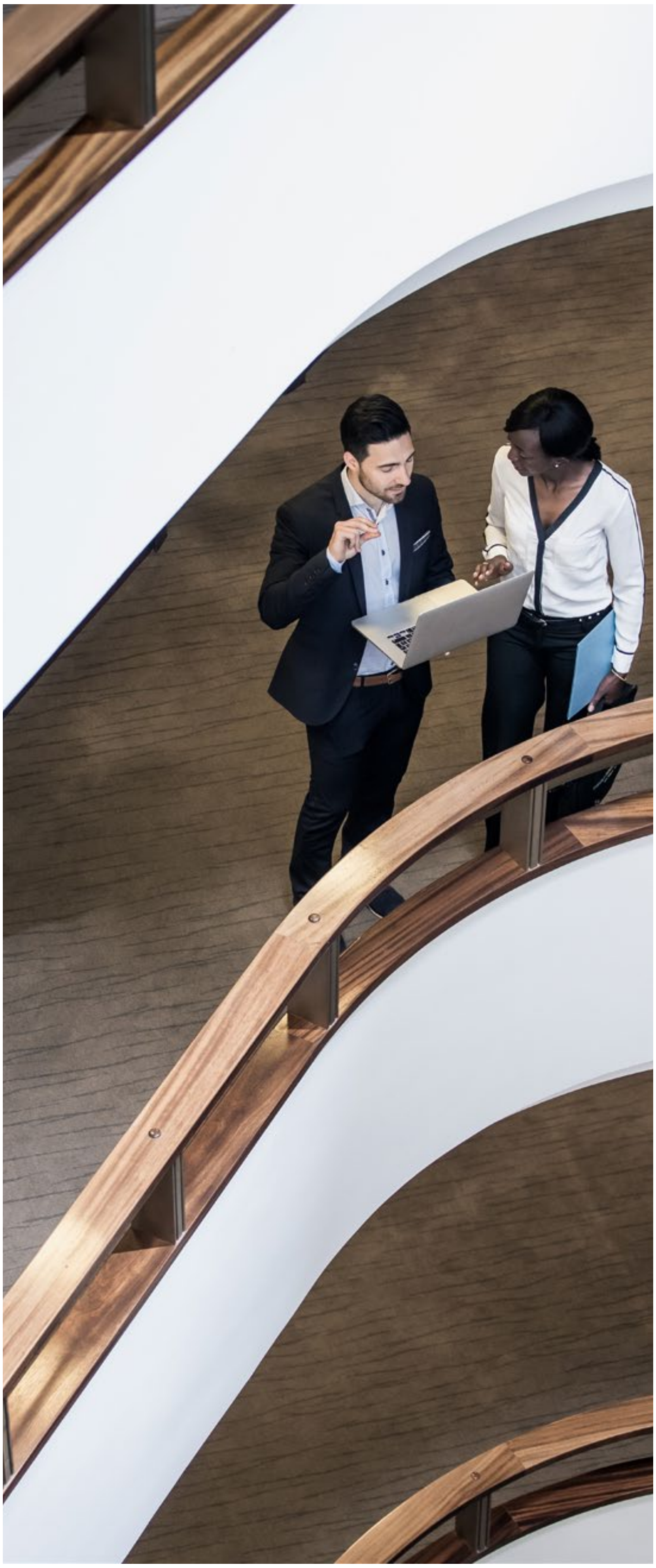
Exposure to Outsourcing Trends

Service companies offer support services that could be provided in-house but are generally seen as noncore, and are commonly exposed to trends in outsourcing from both the private and public sectors. Services firms typically generate revenue from customers seeking to reduce costs and achieve operating efficiencies. However, they are exposed to unemployment cycles, changing regulation and, sometimes, limited ability to directly manage the relationship with the end customer.

Asset-Light, Proven Expertise

For most diversified services companies and those positioned high in the value chain, the offering is no longer limited to outsourcing and cost-reduction services, but also covers ancillary services to provide global, bundled, tailored solutions to customers. This enables services firms to lock in customers and increase switching costs to mitigate the risk of services being repatriated in-house. The quality of the service delivered and the reputation of the brand, underpinned by know-how and local knowledge, often play key differentiating roles.

Capital intensity is typically moderate, such that cash flow is generally healthy, because barriers to entry stem from reputation and expertise and services providers (such as caterers) sometimes use the customer's own sites. However, post-dividend FCF generation is frequently used for bolt-on acquisitions or share buybacks.



Sector-Specific Key Factors — Services

	Market Position	Diversification	Revenue Visibility	Execution, Expertise and Regulation
Rating	**Market Share**	**Range of Services**	**Level of Recurring / Contracted Earnings**	**Brand, Reputation and Quality**
aa	n.a.	n.a.	n.a.	n.a.
a	Leading global market share and established position. Proven ability to secure international multi-service contracts.	Broadly diversified range of services.	90% of total revenue and EBITDA is contracted or considered recurring.	Global brand associated with high service quality standards and expertise.
bbb	Within top-ten market position globally. Some large and cross-border contracts.	Moderately diversified range of services but with opportunity to expand the services proposition.	75% to 90% of total revenue and EBITDA is contracted or considered recurring.	Brand generally associated with good reputation for expertise and quality of service.
bb	Leading market share on a regional scale. Successful on local contracts, but limited record of large international contracts.	Limited range of services with little opportunity to expand the services proposition.	50% to 75% of total revenue and EBITDA is contracted or considered recurring.	Moderate brand reputation with somewhat erratic record of contract execution.
b	Marginal or only local market share.	Narrow range of services or single type of service.	Less than 50% of total revenue and EBITDA is contracted or considered recurring.	Instances of reputational damage on poor execution of some contracts.
ccc	Insignificant market share and/or high portion of unprofitable contracts.	Narrow range of services facing rapid decline.	Vast majority of total revenue and EBITDA not contracted. Minimal portion of recurring revenues.	Impaired reputation.
	Scale	**End-Markets**	**Maturity Profile of Contracts**	**Pricing Mechanisms and Cost-Sharing**
aa	n.a.	n.a.	n.a.	n.a.
a	Large size (EBITDA >USD/EUR1.5bn) and comprehensive network provide significant economies of scale and bargaining power with suppliers.	Range of services reaches a diverse spectrum of end-markets.	Primarily long-term contracts (between five and seven years) and/or well spread and balanced maturity profile.	Contractual terms provide high visibility over future revenue and expenses over the life of the contracts
bbb	Size (EBITDA >USD/EUR750m) and comprehensive network provide some economies of scale and bargaining power with suppliers.	Services applicable to a limited number of or some cyclical end-markets.	Medium-term contracts (between three and five years) and/or few contracts expire simultaneously but do not present a meaningful risk to earnings if not renewed.	Proven ability to monitor operating costs and contract profitability through price increases and favourable cost-sharing agreements.
bb	Size (EBITDA > USD/EUR250m) makes economies of scale challenging and limits bargaining power with suppliers.	Services only applicable to specific end-markets that are potentially cyclical.	Short-term contracts (one to two years) and/or contracts are up for renewal in bulk, presenting a substantial risk to earnings if not renewed.	Ability to offset the impact of some unprofitable contracts with highly profitable ones.
b	Small size (EBITDA < USD/EUR250m) confers little or no bargaining power with suppliers. Economies of scale, if any, are limited.	Services applicable or attractive in only one or two niche and/or potentially cyclical end-markets.	Less than one-year contracts or no contracted revenue base, and/or significant or near-term renewal risk on one key contract that would materially affect the credit profile if not renewed.	Market share supported by low-margin or unprofitable contracts.
ccc	Insufficient scale to be competitive.	Rapidly declining end-markets.	No contracted revenue base, with poor record of customer retention, and/or high short-term risk of non-renewal of contracts on which the company depends for its survival.	Record of poorly profitable contracts. Ability to win profitable contracts questionable.
	Customisation of Services	**Customer Base**	**Customer Churn and Switching Costs**	**Staff Retention and Subcontracting**
aa	n.a.	n.a.	n.a.	n.a.
a	Highly customised services with cross-selling opportunities and ability to offer new services to customers.	High customer diversification. Largest customers represent less than 5% of total revenue.	Extremely low customer churn (<5%) due to essential nature of services and high switching costs for customers.	Staff continuity on projects ensuring no disruption in the execution of contracts. Subcontracting, if any, is well managed.
bbb	Generally bespoke services with cross-selling opportunities and ability to offer new services to customers.	Broad customer diversification. Largest customers represent between 5% and 10% of total revenue.	Limited customer churn (5% to 10%) due to lack of credible alternatives and high switching costs for customers.	Staff continuity on most projects. Recourse to subcontracting has historically been well managed.
bb	Standard services and/or limited cross-selling opportunities.	Moderate customer diversification. Largest customers represent between 10% and 20% of total revenue.	Moderate customer churn (above 10%) as switching costs are limited.	Some difficulty in retaining skilled staff. Occasional disruption or client dissatisfaction as a result of subcontracting issues.
b	Highly commoditized services with limited or no value added.	Limited customer diversification. Largest customers represent over 20% of total revenues.	High customer churn (above 15%). Limited or no switching costs.	Poor record of retaining staff and/or extensive use of subcontractors with weak credentials. Poor customer relationship management.
ccc	Fully commoditized services.	Impaired relationship with customers on which the company depends for most of its business.	High customer churn (above 15%). Limited or no switching costs. Ability to replace lost customers questionable.	Lack of skilled staff preventing the company winning new contracts.
		Geographic Diversification	**In-Sourcing Risk**	**Regulatory Environment**
aa		n.a.	n.a.	n.a.
a		Highly diversified with significant presence in both developed and emerging markets.	Low in-sourcing risk regardless of economic environment or other macro trends.	Low regulatory oversight.
bbb		Broadly diversified with limited presence in emerging markets.	Moderate in-sourcing risk, subject to economic environment or other macro trends.	Moderate regulatory oversight.
bb		Moderately diversified within developed markets only.	Meaningful in-sourcing risk due to economic environment or other macro trends.	Material regulatory oversight.
b		Concentrated on one region or country.	High in-sourcing risk. Changing economic environment or other macro trend can make demand for such services uneconomic.	Material regulatory oversight, with material risk to business operating profile.
ccc		Concentrated on one region or country where market is rapidly declining.	Clear in-sourcing trend significantly reducing market size.	Regulatory oversight clearly evolving negatively for the sustainability of the business.

Financial Profile Key Factors — Services

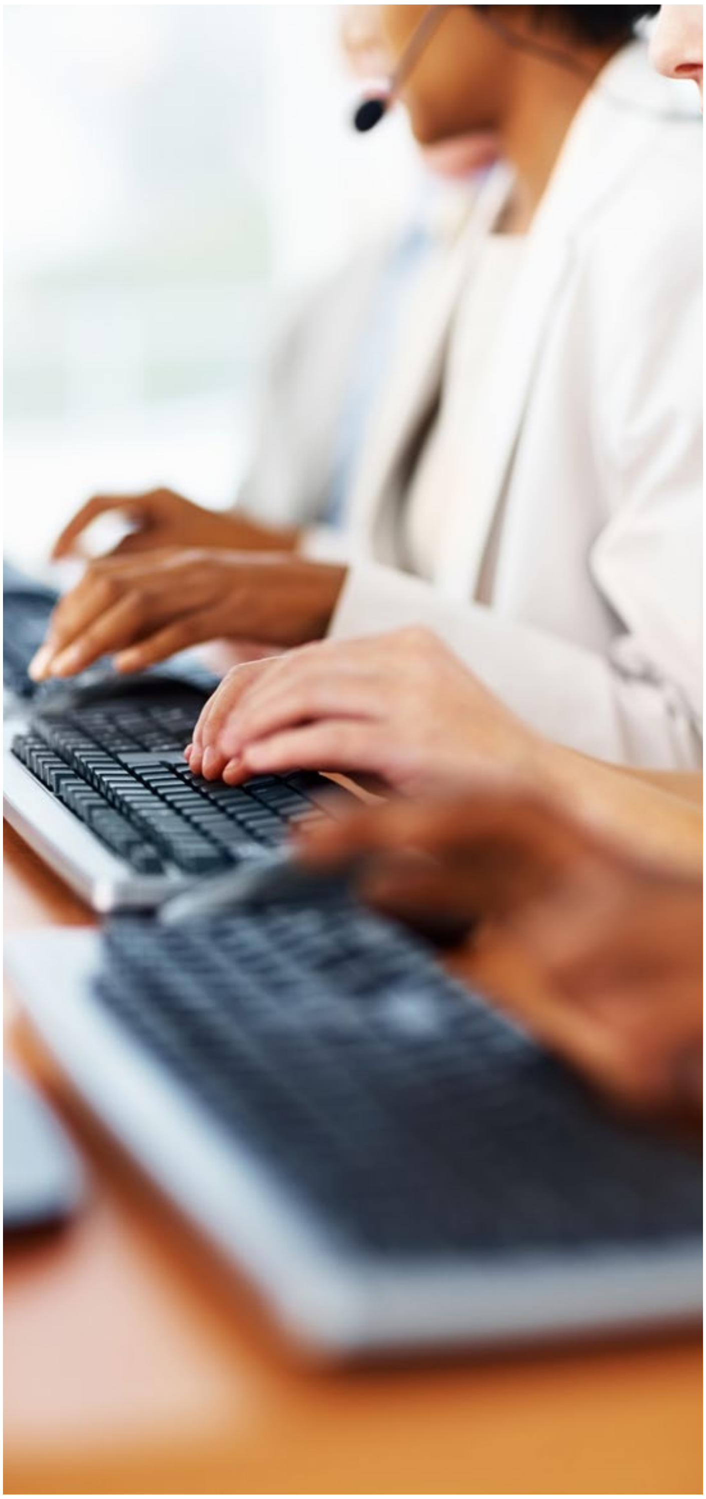
	Profitability	Financial Structure	Financial Flexibility
Rating	**EBITDA Margin**	**EBITDA Leverage**	**Financial Discipline**
aa	n.a.	n.a.	Publicly announced conservative financial policy. Record of strict compliance.
a	18%	1.5x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	12%	2.5x	Financial policies less conservative than peers but generally applied consistently.
bb	9%	3.5x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
b	6%	5.0x	No financial policy or record of ignoring it. Opportunistic behavior.
ccc	<2%	6.5x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	EBIT margin	**EBITDA Net Leverage**	**Liquidity**
aa	n.a.	n.a.	Very comfortable liquidity; no need to use external funding, except for already committed facilities, in the next 24 months even under a severe stress scenario. Well-spread debt maturity. Diversified sources of funding.
a	10%	1.0x	Very comfortable liquidity. No need to use external funding, except for already committed facilities, in the next 12 months even under a severe stress scenario. Well-spread debt maturity schedule. Diversified sources of funding.
bbb	7%	2.0x	One year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
bb	5%	3.0x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
b	below 5%	4.5x	Liquidity ratio below 1.0x. Overly reliant on one funding source.
ccc	Persistently and structurally break-even or loss-making at EBIT level.	6.0x	No near-term prospect of recovery in liquidity score above 1.0x. All/most funding sources subject to material execution risk.
	FFO margin	**FFO Leverage**	**FX Exposure**
aa	n.a.	n.a.	No material FX mismatch.
a	10%	2.0x	Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flowswell matched.
bbb	7%	3.0x	Some FX exposure on profitability and/or debt/cash flow match. Effective hedging in place.
bb	5%	4.0x	FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b	below 5%	5.5x	Large FX exposure. No significant/ineffective hedging in place.
ccc	Persistently and structurally break-even or loss-making at FFO level.	>7.5x	FX exposure dominant in impairing the issuer's ability to service debt in cash terms.
	FCF margin	**FFO Net Leverage**	**EBITDA Interest Coverage**
aa	n.a.	n.a.	n.a.
a	6%	1.5x	11.0x
bbb	3%	2.5x	8.0x
bb	1%	3.5x	6.0x
b	Neutral to Negative FCF margin	5.0x	4.0x
ccc	Accelerating negative FCF margin, with limited/no flexibility on spending reduction and funding gaps.	>7.0x	1.5x
	Volatility of Profitability and Cash Flows	**(CFO-Capex)/Debt**	**FFO Interest Coverage**
aa	n.a.	n.a.	n.a.
a	Inexistent or very low throughout the cycle.	20%	9.0x
bbb	Limited throughout the cycle.	12.5%	6.0x
bb	Substantial throughout the cycle.	7.5%	4.5x
b	High throughout the cycle.	2.5%	3.0x
ccc	Volatility of profits a negative outlier and experiencing a secular downward trend in absolute and relative terms.	Flat to Negative	<1.0x.

Services DAP

Sector Risk Profile

Rating Range

Services — DAP companies have a lower than average risk profile. The sector's risk profile reflects the strong competitive positioning resulting from combining industry expertise, technology and delivery platforms to solutions within client decision-making processes. Representative companies rated in this sector are in the 'A' to 'B' rating categories.



Sector-Specific Key Factors

Market Position

Fitch Ratings assesses the relative scale of the issuer, its ability to defend and grow market share, barriers to entry and competitive advantages afforded by overall product strategy.

Diversification

This factor assesses the ability to mitigate the risks associated with earnings concentration from certain clients, end markets or geographies. Greater diversification can provide stability to revenue and FCF, depending upon the degree of correlation across geographies, end markets and customers.

Revenue Visibility

The highly visible revenue streams are a reflection of sector participant's ability to procure renewable, multiyear contracts, which are critical to the sustainability of operating performance within the sector. Fitch focuses on the proportion of revenues under contract, the length of contracts and historical retention rates.

Sector Environment

Acquisitions continue to play a central role in the sector, and Fitch examines the acquirer's evaluation process of potential targets and how the potential acquisition can strengthen the company's core competencies. Regulatory environment (outside of financial services vertical) is considered relatively benign.

Financial Profile Key Factors

Financial Profile

The financial metrics are standard corporate rating methodology ratios encompassing midpoint leverage and coverage ratios, and measures of profitability and cash flow, up to the 'A' rating level.

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Services DAP

Industry Characteristics

Fitch believes companies in the sector will continue to benefit from the trend of companies outsourcing certain types of services, the need for robust databases and supporting analytics and the advancements in technology to deliver information. These companies also are focused on delivery in a variety of formats to different platforms (e.g. online and mobile). By offering products and services that enhance productivity and result in a competitive advantage for clients, these companies aim to be at the center of their customers' daily activities, thereby reducing the likelihood that clients will reduce spending in a downturn or switch to a competitor. Fitch expects larger professional publishers to continue to acquire smaller companies and build out their databases, analytics and product offerings.

Issuers within this sector typically benefit from high margins and relatively high conversion of EBITDA to FCF and are generally conservatively capitalized, affording them the capacity to withstand a downturn.

Fitch believes this subsector is in a position to expand at or beyond GDP growth over the longer term. Fitch acknowledges that costs may not be variable, meaning that companies which endure heavy revenue declines will see even deeper pressure on EBITDA. The contractual nature of the industry can provide lead time for management to make cost cutting and capital-deployment decisions in anticipation of declining revenues.

Most of the financial information companies routinely engage in aggressive restructuring to contain fixed costs through the downturn, thus improving operating leverage through-the-cycle. Acquisitions and shareholder- friendly activities could remain a risk in the sector. However, much of this activity can be accommodated without negatively affecting credit fundamentals, primarily capped at FCF and limited debt- funded activity.

Sector-Specific Key Factors — Services DAP

	Market Position	Diversification	Revenue Visibility	Sector Environment
Rating	**Barriers to Entry**	**Asset Class/Verticals/Products**	**Proportion of Revenues Under Contract**	**Regulatory Environment**
aa	n.a.	n.a.	n.a.	n.a.
a	Time and significant financial commitment required to compete effectively in most business segments/verticals.	Well balanced exposure to at least three verticals/sectors/business segment lines with different sensitivity to the economic cycle.	>80%	Low regulatory oversight.
bbb	Moderate barriers to entry. Incumbents are generally strongly established but successful new entrants have emerged over time.	Well balanced exposure to at least three verticals/sectors/business segment lines with sensitivity to the economic cycle.	>60%	Moderate regulatory oversight.
bb	Some barriers to entry but incumbents do not benefit from particularly strong positions that new entrants cannot replicate.	Focus on a couple of verticals/sectors/business segment lines with sensitivity to the economic cycle.	<60%	Material regulatory oversight.
b	No barrier to entry/exit.	One product/sector concentration.	<25%	Material regulatory oversight evolving, with material risk to business operating profile.
ccc	Record of successful new entrants.	Concentrated on one product/sector facing rapid decline.	Insignicant revenues under contract.	Regulatory oversight clearly evolving negatively for the sustainability of the business.
	Market Position	**Customer Base**	**Renewal Rate and Switching Costs**	**Litigation Environment**
aa	n.a.	n.a.	n.a.	n.a.
a	Strong and defensible market position within most business/segment verticals.	No customer concentration issue noted.	Renewal rates of 90% or better, due to non-discretionary nature of services/products and high switching costs for customers.	Low or standard.
bbb	Strong and defensible market position within key business/segment verticals. Others may be more exposed to a competitive environment.	Broad customer diversification. Largest customersrepresent between 5%–10% of total revenue.	Renewal rates of 80%–90%, due to mostly non-discretionary nature of services/products and modest to high switching costs for customers.	Modest.
bb	Modest market position, or highly competitive with no clear market leader, within key business/segment verticals.	Moderate customer diversification. Largest customersrepresent between 10%–20% of total revenue.	Renewal rates of less than 80%. Limited or no switching costs.	Material.
b	Weak market position across business/segment verticals. Issuer may be losing market share or is a new entrant in a concentrated verticals.	Limited customer diversification. Largest customersrepresent over 20% of total revenues.	Renewal rates of less than 60%. Limited or no switching costs.	Highly litigious environment, with pending case heightening event risk of a material monetary settlement/judgment.
ccc	Marginal participant in most markets.	Impaired relationship with customers on which the company depends for most of its business.	High short-term risk of non-renewal of contracts on which the company depends for its survival.	
	Scale	**Exposure to Challenged Business Lines**	**Level of Recurring Transaction/Project Revenues**	**M&A Strategy**
aa	n.a.	n.a.	n.a.	n.a.
a	Large size/scale, EBITDA >USD/EUR1 billion	Strong competitive position and defensible market share. Secular threats and opportunities not expected to have material adverse effect.	90% or more of total revenues may be considered recurring.	Focus on smaller acquisitions. Large acquisitions are conducted within rating tolerances. Solid integration record.
bbb	Midsize/scale, EBITDA >USD/EUR500m	Operating profile has minimal vulnerability to secular risks requiring minor investment to mitigate risk.	80% or more of total revenues may be considered recurring.	Generally small bolt-on acquisitions. History of large acquisitions routinely pressures credit metrics. Good integration record.
bb	Midsize/scale, EBITDA <USD/EUR500m	Material portion of business profile exposed to secular risks that can lead to weakening of competitive position and erosion of market share.	Less than 80% of total revenues may be considered recurring.	Aggressive acquisition strategy. Potential of integration risk due to multiple acquisitions in a short period of time.
b	Small size/scale, EBITDA <USD/EUR100m	Significant strategic redirection and investment required to address risks. In absence of action, market share losses expected to endure.	Less than 50% of total revenues may be considered recurring.	Aggressive acquisition strategy. History of integration issues and unsuccessful in delivering revenue and cost synergies.
ccc	Insufficient scale to be competitive.	Uncompetitive business lines.	Minimal portion of recurring revenues.	Failed M&As putting the survival of the companyat risk.
	Product Strategy			
aa	n.a.			
a	Consistently innovating and delivering new analytics/products, enabling the company to consistently deliver organic revenue growth.			
bbb	Product and service innovation at times is driven by response to product introduction by competitors/peers.			
bb	Modest research and development of new analytic/products/services, or research that sufficient to remain competitive.			
b	Limited to insufficient research and development.			
ccc	R&D capability insufficient to prevent widening ofcompetitive disadvantage.			

Financial Profile Key Factors — Services DAP

	Profitability	Financial Structure	Financial Flexibility
Rating	**EBITDA Margin**	**EBITDA Leverage**	**Financial Discipline**
aa	n.a.	n.a.	Publicly announced conservative financial policy. Record of strict compliance.
a	30%	2.0x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	25%	3.0x	Financial policies less conservative than peers but generally applied consistently.
bb	16%	4.0x	Financial policies in place but flexibility in applying them could lead to temporarilyexceeding downgrade guidelines.
b	12.5%	5.5x	No financial policy or record of ignoring it. Opportunistic behavior.
ccc	below 7.5%	7.5x	Financial management has lost much of its discipline, and subject to frequent, suddenchanges consistent with a crisis environment.
	FFO Margin	**EBITDA Net Leverage**	**Liquidity**
aa	n.a.	n.a.	Very comfortable liquidity; no need to use external funding, except for already committed facilities, in the next 24 months even under a severe stress scenario. Well-spread debt maturity. Diversified sources of funding.
a	23.0%	2.0x	Very comfortable liquidity. No need to use external funding, except for already committed facilities, in the next 12 months even under a severe stress scenario. Well-spread debt maturity schedule. Diversified sources of funding.
bbb	15%	2.6x	One year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
bb	10%	3.6x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
b	7.5%	5.0x	Liquidity ratio below 1.0x. Overly reliant on one funding source.
ccc	Persistently and structurally break-even or loss-making at FFO level.	7.5x	No near-term prospect of recovery in liquidity score above 1.0x. All/most funding sourcessubject to material execution risk.
	FCF Margin	**FFO Leverage**	**FX Exposure**
aa	n.a.	n.a.	No material FX mismatch.
a	10.0%	2.4x	Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flowswell matched.
bbb	6.5%	3.4x	Some FX exposure on profitability and/or debt/cash flow match. Effective hedging inplace.
bb	5.0%	4.4x	FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b	Neutral to negative FCF margin	6.0x	Large FX exposure. No significant/ineffective hedging in place.
ccc	Accelerating negative FCF margin, with limited/no flexibility on spendingreduction and funding gaps.	7.5x	FX exposure dominant in impairing the issuer's ability to service debt in cash terms.
	Volatility of Profitability and Cash Flows	**(CFO-Capex)/Debt**	**EBITDA Interest Coverage**
aa	n.a.	>25%	n.a.
a	Lower volatility of profits than industry average.	20%	5.5x
bbb	Volatility of profits in line with industry average.	12.5%	5.0x
bb	Higher volatility of profits than industry average.	7.5%	4.0x
b	Volatility of profits viewed as a negative outlier for the industry.	2.5%	3.5x
ccc	Volatility of profits a negative outlier and experiencing a seculardownward trend in absolute and relative terms.	Flat to Negative	<2.0x
		FCF/Debt	**FFO Interest Coverage**
aa		n.a.	n.a.
a		15%	7.0x
bbb		11%	5.0x
bb		5%	3.5x
b		2.5%	2.5x
ccc		0.0%	<1.0x.

Insurance Brokers/Servicers

Sector Risk Profile

Rating range

Companies servicing the insurance sector have an average to low risk profile that reflects the relative stability of revenue streams generated from serving a mature industry. Insurance brokers earn fee income as an intermediary between buyers and sellers of insurance products. Other types of companies that serve the insurance industry include third-party administrators, managing general agencies and technology firms. Companies in this sector provide services to insurers but do not assume underwriting risk.

Most medium-sized to large insurance brokers and servicers fall in the lower investment-grade through upper high-yield categories. The sector's typically narrow focus and competitive forces make it unlikely that debt ratings exceed the 'A' category. Small brokers and servicers with substantial financial leverage are more likely to be in the 'B' category.

For an insurance broker or servicer to be rated investment-grade; solid market position, operating scale, and favourable cash flow trends are generally necessary, along with prudent use of financial leverage.

Sector-Specific Key Factors

Business profile

Insurance brokers and servicers have a longstanding instrumental role as intermediaries in the insurance markets. The larger brokers in Fitch's rating portfolio have created enduring franchises focused upon meeting the demand of insurance buyers for policy placement and risk management services. Other servicers have provided key operational roles such as administrative services and distribution. This portion of the sector has grown as more insurance companies pursue outsourcing strategies. The four key elements included in the evaluation of business profile are competitive position, product and client diversification, growth strategy and record, and sector environment. Additional detail on these elements are presented in the Sector-Specific Key Factors table on page 97.

Competitive position

This factor is greatly influenced by the absolute scale of the business, as measured by operating EBITDA and market share. Brokers considered to have investment-grade-quality competitive positions are most likely among the largest companies globally in terms of market share. Only the largest brokers in terms of market share are likely to be viewed as having a competitive position associated with an 'A' rating. Insurance brokers and servicers with a larger business base and geographic reach have information management and expense efficiencies relative to peers.

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Insurance Brokers/Servicers

These larger companies can also absorb marketplace changes more readily and are better positioned to service a broader range of clients, with a wider distribution platform, while also providing other profitable specialties and value-added services relative to smaller competitors.

Smaller servicers can compensate for their lack of scale with an emphasis on one or more market niches, and ability to be nimble in exploiting new market opportunities. These market niches generally include smaller clients with whom a smaller company's reputation and abilities may be particularly strong and a global platform is not required. Lower corporate overheads and organisational complexity can allow for smaller servicers with stable business relationships and strong operating skills to generate superior margins relative to the overall market.

Diversification

Diversification of services offered, customers and regions serviced, and/or end-markets is a key factor considered in Fitch's evaluation of insurance services firms. These companies can absorb the consequences of less favourable market conditions in individual segments. Greater diversification can positively affect the Issuer Default Rating (IDR).

Depending on size and areas of expertise, insurance brokers and servicers may focus on serving retail markets, the reinsurance sector, middle-market clients, multinational corporations or all of these areas. Smaller companies may pursue a niche-oriented strategy, while the largest companies typically serve a broad array of market sectors. A strong niche or target market may have a positive effect on ratings if the firm can demonstrate favourable profits and stability relative to peers.

Growth strategy and record

Organic growth rates are driven by the underwriting cycle as well as the insurance servicer's ability to expand into new products, new markets and client relationships. Servicers that can grow organically have lower execution risk than those focused on growth through acquisitions.

Mergers and acquisitions have a defining role in the composition of the insurance services market. Some of today's largest companies exist in their current forms through a series of transactions over many years. Consideration of acquisition activity on a servicer's business profile focuses on an evaluation of an entity's reliance on acquisitions to meet growth objectives and the record for acquisition success and integration.

A company's record of internal expansion or growth through acquisitions is an important consideration. The profitability of large acquisition-oriented companies has, at various periods, suffered due to lingering problems tied to poor integration of prior acquisitions. Successful acquisitions spur revenue and earnings growth, particularly among small or medium-sized companies, for which a modest acquisition could lead to increased market share and scale.

Rapid growth through acquisitions may create integration and operational risk, while also masking performance weaknesses. Acquisitive organisations require skills and expertise in assessing and valuing acquisition candidates, structuring and financing transactions, inducing key producers and employees of acquired firms to remain with the newly combined firm, and integrating acquired offices, systems and processes into existing operations.

Demand for insurance services is relatively stable. Since most commercial insurance products are purchased annually and are a necessary cost of doing business, insurance brokers start each year with a steady revenue renewal base. In addition, replacing brokers can generate frictional costs to insurance clients. Other servicers like third-party administrators and technology firms typically have multi-year contractual relationships with clients for operations core to the insurer's business. Once established, these relationships usually have staying power.

Sector environment

While the insurance industry is highly regulated, insurance servicers are generally not subject to significant regulations. Cash flow generated from operations can be used at the company's discretion. Contracts between regulated insurance companies and third-party service providers could come under regulatory scrutiny if deemed excessive or non-competitive.

Intermediaries are subject to litigation on many fronts including professional conduct, business practices, negligence and disclosure of confidential information. Insurance brokers have been subject to class action litigation and paid large settlements for prior actions.

Financial Profile Key Factors

Financial profile

Insurance brokers and other servicers have the capacity to generate strong cash flow from operations from commission-based and fee-based revenues without a need for significant capital investments or other tangible assets. These are not risk-bearing entities by design in contrast to insurance underwriters, so they do not hold reserve liabilities or require capital to support claims obligations.

A large proportion of expenses are related to personnel and compensation. Technology costs are increasingly important as companies try to reduce transaction costs, improve client-facing technology to create a competitive advantage, and update and integrate legacy information systems inherited through acquisitions.

Following the more qualitative business profile evaluation, Fitch analyses a company's current and projected financial profile focusing on three key areas: profitability, financial structure, and financial flexibility. Key financial ratios utilised to evaluate companies' strengths and weaknesses regarding these factors are shown in the Financial Profile Key Factors table on page 98.

Insurance Brokers/Servicers

Profitability

Fitch reviews several profitability metrics in the Navigator including: EBITDA margins, funds from operations (FFO) margins and free cash flow (FCF) margins. The agency also considers the volatility of an issuer's cash flow over time. This industry exhibits strong cash flow characteristics, with positive and stable cash flow among many companies, particularly leading global brokers.

EBITDA margins are relatively healthy in the insurance brokerage sector, with many issuers generating margins in the range of 15%-35% or higher. Operating profit generally shows moderate volatility through the economic and underwriting cycle. The level of profitability depends on the nature of the services provided, the operating scale achieved, and competitive pressure in contract tenders.

Financial structure

Leverage metrics vary meaningfully across the insurance brokerage and services sector, with some of the largest global issuers operating with reasonably conservative gross debt/EBITDA ratios of around 1.5x-2.0x. By comparison, some smaller operators have shown leverage of more than 10x in particular periods – typically following M&A transactions and/or capital structure changes such as dividend recapitalisations. Fitch considers leverage a key component in its overall risk assessment, given that the magnitude of debt (in conjunction with other quantitative and qualitative factors) can indicate the overall riskiness of the enterprise.

Financial flexibility

Large issuers in the sector show healthy financial flexibility traits, with robust access capital both via internal cash flow generation and multiple means of external capital sources. Industry margins are generally healthy throughout the cycle and stable while capital intensity is typically moderate. Therefore, cash flow is generally healthy. Barriers to entry stem from reputation, expertise and service quality, rather than large capital investment requirements. Cash flow generation is frequently used for bolt-on acquisitions or share buybacks.

Large brokers have clearly defined financial policies, while smaller brokers and services companies show more opportunistic behaviour that can pressure liquidity and flexibility over time.

Industry Characteristics

Fitch considers the representative risk profile of the sector to be up to the low end of the 'A' rating category and down to the 'B' category. This range reflects both the stability of revenue streams for large, diversified, leading companies and risks such as competition and acquisition activity. M&A activity including bolt-on acquisitions are very common in this sector. Barriers to entry are low and companies seek growth to achieve economies of scale. Private equity is an active participant in consolidating small companies with the hope of monetising their investment through a sale or IPO.

Relative stability of earnings

The insurance sector is an established mature industry that provides a necessary product to entities and individuals. Some insurance coverage is legally or commercially mandated, while other coverage is generally viewed as an essential purchase. Therefore, the companies that service the insurance industry have a stable, reliable customer base.

Revenues tend to be predictable, supported by established relationships on the broker side and medium- to long-term contracts on the insurance servicer side. Operating profit generally shows moderate volatility through the economic and underwriting cycle. The level of profitability depends on the nature of the services provided, the operating scale achieved and competitive pressure in contract tenders.

Exposure to outsourcing trends

Insurance brokers serve as the link between buyers and sellers of insurance and reinsurance products. This activity is generally not exposed to outsourcing treads. However, other services offered by brokers and other insurance servicers could be done in-house by insurers. These activities are generally seen as non-core to insurers, and are commonly exposed to trends in outsourcing.

Insurance services firms typically generate revenue from customers seeking to reduce costs and achieve operating efficiencies. However, they are exposed to unemployment cycles, changing regulation and, sometimes, limited ability to directly manage the relationship with the end-customer.

Asset-light, proven expertise

Many insurance brokers and other insurance servicers are positioned high in the value chain. Their offerings can be complex and cover ancillary services to provide global, bundled, tailored solutions to insurers. This enables these servicing firms to "lock in" customers and increase switching costs to mitigate the risk of services being shopped or repatriated in-house. The quality of the service delivered and the reputation of the brand, underpinned by expertise and local knowledge, often play key differentiating roles. Capital intensity is typically moderate due to the services component of the business.

Sector-Specific Key Factors — Insurance Brokers/Servicers

	Competitive position	Diversification	Growth strategy and record	Sector environment
Rating	**Market Share**	**Range of services**	**Organic growth rate**	**Regulatory environment**
aa	n.a.	n.a.	n.a.	n.a.
a	Leading global market share & established position.	Broadly diversified range of services.	Typically at or above industry growth rate.	Low regulatory oversight.
bbb	Top 10 market position globally.	Moderately diversified range of services but with opportunity to expand the services proposition.	Typically tracks industry growth rate.	Moderate regulatory oversight.
bb	Leading market share on a regional scale.	Limited range of services with little opportunity to expand the services proposition.	Typically trails industry growth rate.	Material regulatory oversight.
b	Marginal or only local market share.	Narrow range of services or single type of service.	Significantly trails industry growth rate.	Material regulatory oversight evolving, with material risk to business operating profile.
ccc	Insignificant market share.	Narrow range of services facing rapid decline.	Negative growth rate.	Regulatory oversight clearly evolving negatively for the sustainability of the business.
	Scale - operating EBITDA	**End-markets**	**Reliance on acquisitions for growth**	**Litigation environment**
aa	n.a.	n.a.	n.a.	n.a.
a	USD1.5 billion	Range of services reaches a diverse spectrum of end-markets.	Low reliance on acquisitions to generate revenue growth.	Low or standard.
bbb	USD1.0 billion	Services applicable to a limited number of or some cyclical end-markets.	Medium reliance on acquisitions to generate revenue growth.	Modest.
bb	USD500 million	Services only applicable to specific end-markets that are potentially cyclical.	High reliance on acquisitions to generate revenue growth.	Material.
b	USD100 million	Services applicable or attractive in only one or two niche and/or potentially cyclical end-markets.	Very high reliance on acquisitions to generate revenue growth.	Highly litigious environment, with pending case heightening event risk of a material monetary settlement/judgement.
ccc	USD20 million	Rapidly declining end markets.	Unable to generate revenue growth.	n.a.
	Barriers to entry	**Customer base**	**M&A strategy**	
aa	n.a.	n.a.	n.a.	
a	Time and significant financial commitment required to compete effectively in most business segments/verticals.	High customer diversification. Largest customers represent 2%-5% of total revenue.	Focus on smaller or infrequent M&A. Larger deals are conducted within rating tolerances. Solid integration record.	
bbb	Moderate barriers to entry. Incumbents are generally strongly established but successful new entrants have emerged over time.	Broad customer diversification. Largest customers represent 5%-10% of total revenue.	Generally small bolt-on M&A. History of large deals routinely pressure credit metrics. Good integration record.	
bb	Some barriers to entry but incumbents do not benefit from particularly strong positions that new entrants cannot replicate.	Moderate customer diversification. Largest customers represent 10%-20% of total revenue.	Aggressive acquisition strategy. Potential of integration risk due to multiple acquisitions in a short period of time.	
b	No barrier to entry/exit.	Limited customer diversification. Largest customers represent over 20% of total revenue.	Aggressive acquisition strategy. Some signs of execution issues and/or higher risk due to scale of business.	
ccc	Record of successful new entrants.	Impaired relationship with customers on which the company depends for most of its business.	History of failed M&A.	
	Multi-service/bundles contracts	**Geographic diversification**	**Volatility of demand**	
aa	n.a.	n.a.	n.a.	
a	Proven ability to secure international multi-service and bundled contracts.	Highly diversified with significant presence is many geographic markets.	Generally stable demand, modestly sensitive to the economic or underwriting cycle.	
bbb	Some success in winning large and possibly cross-border contracts.	Broadly diversified with a presence is many geographic markets.	Demand volatility in line with the economic or underwriting cycle.	
bb	Successful on local contracts but limited record of winning large international contracts.	Moderately diversified with a presence is several geographic markets.	Demand volatility somewhat higher than the economic or underwriting cycle.	
b	Often marginalised in contract tenders.	Concentrated in one region or market.	Demand volatility higher than the economic or underwriting cycle.	
ccc	Ability to win profitable contracts seriously impaired.	Concentrated in one region or market where market is rapidly declining.	Demand in secular decline.	

Source: Fitch Ratings

Financial Profile Key Factors — Insurance Brokers/Servicers

	Profitability	Financial Structure	Financial Flexibility
Rating	**EBITDA margin**	**EBITDA Leverage**	**Financial discipline**
aa	n.a.	n.a.	Publicly announced conservative financial policy. Record of strict compliance.
a	35.0%	2.0x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	25.0%	3.0x	Financial policies less conservative than peers but generally applied consistently.
bb	15.0%	4.0x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
b	10.0%	6.5x	No financial policy or record of ignoring it. Opportunistic behaviour.
ccc	7.5%	8.0x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	FFO margin	**EBITDA Net Leverage**	**Liquidity**
aa	n.a.	n.a.	Very comfortable liquidity; no need to use external funding, except for already committed facilities, in the next 24 months even under a severe stress scenario. Well-spread debt maturity. Diversified sources of funding.
a	23.0%	1.5x	Very comfortable liquidity. No need to use external funding, except for already committed facilities, in the next 12 months even under a severe stress scenario. Well-spread debt maturity schedule. Diversified sources of funding.
bbb	15.0%	2.5x	One-year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
bb	10.0%	3.5x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
b	7.5%	5.5x	Liquidity ratio below 1.0x. Overly reliant on one funding source.
ccc	Persistently and structurally break-even or loss-making at FFO level.	7.5x	No near-term prospect of recovery in liquidity score above 1.0x. All/most funding sources subject to material execution risk.
	FCF margin	**FFO leverage**	**FX exposure**
aa	n.a.	n.a.	No material FX mismatch
a	10.0%	2.4x	Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flows well matched.
bbb	7.0%	3.4x	Some FX exposure on profitability and/or debt/cash flow match. Effective hedging in place.
bb	3.0%	4.4x	FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b	Neutral to negative FCF margin	6.5x	Large FX exposure. No significant/ineffective hedging in place.
ccc	Accelerating negative FCF margin, with limited/no flexibility.	8.0x	FX exposure dominant in impairing the issuer's ability to service debt in cash terms.
	Volatility of profitability and cash flows	**FFO net leverage**	**EBITDA Interest Coverage**
aa	n.a.	n.a.	15.0x
a	Very low throughout the cycle.	2.0x	10.0x
bbb	Limited throughout the cycle.	3.0x	8.0x
bb	Moderate/high throughout the cycle.	4.0x	4.0x
b	Substantial throughout the cycle.	6.0x	2.0x
ccc	Volatility of profits a negative outlier and experiencing a secular downward trend in absolute and relative terms.	8.0x	<1.0x
		(CFO-capex)/Debt	**FFO Interest Coverage**
		>25.0%	n.a.
		20.0%	7.0x
		12.5%	5.0x
		7.5%	3.5x
		2.5%	2.0x
		Flat to negative.	<1.0x

Engineering and Construction

Sector Risk Profile

Rating Range

The risk profile for the engineering and construction (E&C) sector ranges up to the 'BBB' rating level, reflecting the cyclical nature of the construction industry and high contract risk that a contractor is exposed to. Company-specific traits indicate ratings potentially up to 'BBB+' according to the level of geographic and sub-sector diversification, quality and longevity of order book, scale and market position, management record and extent of contract risk mitigation.

Investment-grade companies have strong liquidity, a net cash position (after excluding non-recourse debt at concession or project level) with good access to capital markets and strong generation of cash flow (including stable and recurrent dividends from the concession business). Lower-rated entities tend to be more susceptible to volatile working-capital swings, and follow an aggressive financial policy.

Sector-Specific Key Factors

Market Position

This assesses the business and geographical diversification of the issuer and its market share in key and growing markets. In addition, it focuses on the diversification into concessions and size of revenues.

Revenue Visibility

The order book-to-revenue ratio (an unaudited measure) is considered by Fitch Ratings as an important forward-looking operating factor. The industry is late cyclical and therefore the order book evolution provides an insight into future cash-flow generation but not necessarily on the profitability of the contracts over their lifespan.

Working Capital

This assesses the issuer's working-capital seasonality and any dependence on the use of factoring and confirming lines to smooth volatility. The risk of structural unwinding and the amount of freely available cash is also analyzed.

Risk Management

This captures the issuer's risk management procedures and contract execution and its bidding discipline.

Financial Profile Key Factors

Financial Profile

The financial metrics are standard corporate rating methodology ratios encompassing mid-point leverage and coverage ratios, and measures of profitability and cash flow, up to the 'BBB' rating category. Depending on the group's structure, its consolidated ratios are adjusted to reflect deconsolidation of non-recourse debt mainly related to the concession business, and analysis of relevant cash resources for the rated entity is undertaken.

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Engineering and Construction

Industry Characteristics

The sector's risk profile, which ranges up to the 'BBB' rating category, reflects exposure to significant cyclical demand changes and inherent contract risk when executing long-term projects on time and against a budget, at a relatively low margin. More highly rated E&C companies benefit from solid project diversification, a strong record in successful project execution, and diversification into repeat maintenance and service contracts.

Higher-rated companies offset the sector characteristics with strong liquidity, low leverage, high value-added capabilities and an ability to withstand the sudden unwinding of favorable working-capital dynamics.

Weaker-rated companies usually have several of the following characteristics: limitation to the domestic market; project concentration; dependency on one customer, typically a public-related entity; liquidity dependent on advance payments or short-term bank facilities and evidence of loss-making contracts.

E&C Sub-Sectors

Fitch considers the specific sub-sector in which the contractor operates to factor in the diversity of end-markets, including their cyclicality and barriers to entry driven by technical know-how.

All E&C companies are exposed to the economic cycle, although public sector-focused infrastructure is late cyclical when compared to the early cyclical private sector-buildings sub-sector. Volatility in order books varies considerably, depending on an issuer's exposure to industrial sectors, public authorities or property markets. During a downturn fiscal stimulus from governments usually temporarily benefits those contractors exposed to public-sector end-markets.

Group Structure Approach

In line with its corporate criteria, Fitch's analysis may adjust consolidated financial figures by deconsolidating non-recourse concessions, deducting the debt and EBITDA contributions. Instead, the profile will focus on the deconsolidated profile of the parent, its sustainable dividends received from these subsidiaries, and serviceability of the capital raised by the parent injected into concession subsidiaries as subordinated equity, alongside its "pure" E&C activities which should have minimal debt attributed to them.

Project Life Cycle — E&C Value Chain

	Pre-construction	Construction	Operating and maintenance	Ownership and financing
Activities	**Offering consultancy and engineering designs service**	**Execution of construction through project management of sub-contractors**	**Medium-term service contracts across the asset's life once constructed**	**Entitlement of future cash-flow streams of the asset**
Diversification		Traditional contractor in the E&C universe		
EBITDA margin (%)	7-10	3-7	7-10	40-70
Capital intensive	Very low	Low	Average	High
Cyclicality	High	High	Average	Low
Barriers to entry	Average	Low	Average	High

Source: Fitch

Sector-Specific Key Factors — Engineering and Construction

	Market Position	Revenue Visibility	Working Capital	Risk Management
Rating	**Geographic**	**Order Book Sustainability**	**Working Capital Seasonality**	**Risk Management and Contract Execution**
aa	n.a.	n.a.	n.a.	n.a.
a	n.a.	n.a.	n.a.	n.a.
bbb	Globally diversified with a mix of developed and stable emerging markets.	Strong order book with a record of achieving sustainable growth rates.	Working capital requirements through the year show average volatility. Long-term committed lines are used to fund working capital.	Successful contract execution with non-recurring historic losses and good dispute management procedures.
bb	Globally diversified with a meaningful domestic focus. Fairly weak market positions outside of domestic market.	Good quality order book with a record of stability.	Working capital requirements show high volatility through the year. Factoring and other short-term facilities are used to manage liquidity.	Some occurrence of contract losses but appropriately managed. Evidence of successful claims and arbitration for large losses.
b	Limited diversification outside of domestic market or diversification that includes high exposure to high-risk emerging markets.	Poor quality order book with concentration risk, new customers, history of high cancellation rates and volatility.	Working capital requirements are extremely volatile through the year. Dependence on factoring or short-term uncommitted credit lines.	Poor record in contract execution with recurring contract losses; poor dispute management capability.
ccc	Concentrated in an especially disadvantaged region experincing disruptions.	Concentrated exposure to troubled counterparties, high cancellation rates and minimal forward order book.	Working-capital requirements above or expected to be above management's capacity to respond.	Established record of poor contract execution, including repeated large losses; poor dispute management capability.
	End Market and Segment	**Customer Relationship**	**Structural Working Capital Requirement**	**Bidding Discipline**
aa	n.a.	n.a.	n.a.	n.a.
a	n.a.	n.a.	n.a.	n.a.
bbb	Diversified in a number of sub-sectors or concentration in one high value sub-sector with a global market leading position	High level of repeat business or service type contracts with long-established customer relationships.	Working capital requirement is stable. Advance payments comfortably covered by freely available cash.	Good record of bidding discipline. Management policies clearly articulate the risk and reward of pricing contracts.
bb	Limited sub-sector diversification.	Majority of order book derived from existing customer relationships, although growth is dependent on obtaining contracts from new customers.	Working capital requirement is volatile and at risk of structural unwinding. Advance payments broadly covered by freely available cash.	Evidence of bidding discipline. Higher risk activities or projects in emerging markets should transfer into high margins.
b	Focused on a single sub-sector or involved in highly fragmented sub-sectors such as the more cyclical property construction.	Majority of order book is derived from new customers.	Working capital requirement is highly volatile and at risk of material structural unwinding. Advance payments not covered by freely available cash.	Aggressive margin bidding and lowering risk profile during economic downturn.
ccc	Focused on one or a small number of troubled sub-sectors experiencing turmoil.	n.a.	Working capital a source of acute cash outflow, with limited prospect of remedy.	Sustained aggressive margin bidding in irrational market conditions; high risk profile in contract book.
	Global and Domestic Competitiveness	**Project Concentration Risk**		
aa	n.a.	n.a.		
a	n.a.	n.a.		
bbb	Ranks as one of the top 20 international E&C companies; has a dominant domestic market position.	Limited project concentration with the top-10 contracts accounting for less than 25% of order book.		
bb	Ranks as one of the top 50 international E&C companies; has a dominant domestic market position.	Limited project concentration with the top-10 contracts accounting for less than 50% of order book.		
b	Strong domestic market position.	Limited project concentration with the top-10 contracts accounting for more than 50% of order book.		
ccc	Extremely small, undifferentiated, or precipitously declining market position.	Order book dependent on a handful of contracts.		
	Diversification Into Concessions	**Customer Diversification**		
aa	n.a.	n.a.		
a	n.a.	n.a.		
bbb	Large, mature, concession portfolio with a record of providing recurring dividends	Some concentrations to the domestic public sector. Any customer concentration mitigated by solid credit (BBB+ or above).		
bb	Concession portfolio is largely mature with some greenfield activities	Meaningful concentrations to large counterparties. Concentration is likely to be with non investment grade entities.		
b	Aggressive investment into greenfield concessions	Highly concentrated customer base with the top 10 customers representing more than 50% of revenue.		
ccc	Expectation or record of multiple failed concessions of a material scale relative to the group.	Concentrations on troubled customer bases, with high volatility in contracted order book.		
	Revenue base			
aa	n.a.			
a	n.a.			
bbb	Greater than EUR10 billion.			
bb	Greater than EUR3 billion.			
b	Revenue greater than EUR1 billion.			
ccc	Extremely small, undifferentiated, or precipitously declining revenue base.			

Financial Profile Key Factors — Engineering and Construction

	Profitability	Financial Structure	Financial Flexibility
Rating	**Volatility of profitability**	**EBITDA Leverage**	**Financial Discipline**
aa	n.a.	n.a.	Publicly announced conservative financial policy. Record of strict compliance.
a	n.a.	n.a.	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	Volatility of profits in line with industry average.	1.0x	Less conservative policy but generally applied consistently.
bb	Higher volatility of profits than industry average.	2.5x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
b	Volatility of profits viewed as a negative outlier for the industry	4.0x	No financial policy or record of ignoring it. Opportunistic behavior.
ccc	Volatility of profits greater than normal bounds of volatility for corporate sector as a whole.	5.5x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	Profitability on Investments in Concessions	**EBITDA Net Leverage**	**Liquidity**
aa	n.a.	n.a.	Very comfortable liquidity; no need to use external funding, except for already committed facilities, in the next 24 months even under a severe stress scenario. Well-spread debt maturity. Diversified sources of funding.
a	n.a.	n.a.	Very comfortable liquidity. No need to use external funding, except for already committed facilities, in the next 12 months even under a severe stress scenario. Well-spread debt maturity schedule. Diversified sources of funding.
bbb	Good record of crystallizing profit or generating recurring dividends from investments made in concessions.	0.0x	One year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
bb	Record of generating profits or dividends from concessions with some volatility. Value of concessions covers corporate gross debt.	1.5x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
b	Limited record of crystallizing profit or dividends from concessions. Concession value does not cover corporate gross debt.	3.0x	Liquidity ratio below 1.0.x. Overly reliant on one funding source.
ccc	No record of generating profits or cash flows from concessions. Concession value low relative to corporate gorss debt.	4.5x	No near-term prospect of recovery in liquidity score above 1.0x. All/most funding sources subject to material execution risk.
	Free Cash Flow	**FFO Leverage**	**FX Exposure**
aa	n.a.	n.a.	No material FX mismatch.
a	n.a.	n.a.	Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flows well-matched.
bbb	Positive three-year average free cash flow with some degree of volatility.	1.5x	Some FX exposure on profitability and/or debt/cash flow match. Effective hedging in place.
bb	Neutral three-year average free cash flow with some degree of volatility.	3.0x	FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b	Negative three-year average free cash flow.	4.5x	Large FX exposure. No significant/ineffective hedging in place.
ccc	Accelerating negative FCF margin, with limited/no flexibility on spending reduction and funding gaps.	>6.0x	FX exposure dominant in impairing the issuer's ability to service debt in cash terms.
		FFO Net Leverage	**EBITDA Interest Coverage**
aa		n.a.	n.a.
a		n.a.	n.a.
bbb		0.5x	7.0x
bb		2.0x	4.5x
b		3.5x	3.0x
ccc		>5.0x	1.5x
		Corporate Gross Debt/Concession Book Value	**FFO Interest Coverage**
aa		n.a.	n.a.
a		n.a.	n.a.
bbb		Concession portfolio value is liquid and comfortably able to repay corporate (recourse) debt. Concession book value/corporate debt greater than 2.0x.	6.0x
bb		Concession portfolio value is liquid and able to repay corporate (recourse) debt. Concession book value/ corporate debt about 1.0x.	4.0x
b		Concession portfolio value is fairly illiquid and unable to repay corporate (recourse) debt. Concession book value/ corporate debt less than 1.0x.	2.0x
ccc		Concession portfolio value entirely illiquid and materially below levels of corporate (recourse) debt.	Net FCF debt service cover below 1.0x. All/most funding sources subject to material execution risk.

EMEA Homebuilders

Sector Risk Profile

Homebuilding companies in EMEA have a higher-than-average risk profile. Companies in this sector are typically rated in the range of 'B' to 'BBB'. The sector's risk profile reflects the cyclicality of demand for housing, a fluctuating cash flow cycle, economic sensitivity, government policy sensitivity and demographics.

Issuers with investment-grade ratings typically have a long record of low leverage, a less volatile profit margin or cash flow profile through the cycle, and a strong market position delivering good diversification (whether by project, region or customer segment). Conversely, issuers with lower ratings tend to have higher leverage, lower liquidity, a smaller size and a volatile cash flow cycle.

Industry Characteristics

The homebuilding sector is highly fragmented in most EMEA countries, with the largest homebuilders typically accounting for 10%-20% of the total market. The regulatory framework in each EMEA country is different in terms of land acquisition, customer payment terms and mortgage-market development, thereby affecting the associated cash flow profiles. Typically, EMEA homebuilding companies are regional participants, operating in a single country.

Homebuilding companies benefit from lower working-capital requirements when markets permit the use of the optioned land (as opposed to paying for the land upfront) and when customer payment terms align with the construction process. Companies with less upfront capital-commitment requirements often deliver lower margins, but they also have less volatile working-capital trends, and their cash flow profiles tend to suffer less in a downturn. A further significant rating factor is the presale ratio, defined as the amount of units sold before the construction phase begins. Higher presales provide better visibility over future revenue streams and reduce cash flow volatility.

In undersupplied markets, many governments provide some form of support to homeowners, and by implication to the homebuilding sector, through varying schemes that promote home purchases. This support can be provided through supportive lending schemes for certain buyers or regions, lower interest rates for mortgages for some customers, or easing access to land, for example. Governments also regulate the legislative environment, including the mortgage market and the ability to use the optioned land, thereby having the ability to influence the fundamentals of the homebuilding sector in their respective countries.

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EMEA Homebuilders

Sector-Specific Key Factors

Sector Competitive Intensity

EMEA homebuilding market structures are typically highly fragmented, with size and pricing variability key differentiators. A large number of non-differentiated participants of similar size would be increasingly prone to price competition.

Barriers to entry in the homebuilding sector usually relate to access to capital, well-situated land and recognition of a company by market participants (customers, banks and the government). Well-established positions in certain areas or product types can create higher barriers to entry and may be reflected by an incumbent's higher margins.

The ability to acquire land through options rather than upfront payment is beneficial to the cash flow cycle of a homebuilder, resulting in lower up-front capital investment. While a significant land bank can provide a strong strategic position as well as a potentially liquid financial asset, this is set against the detrimental impact to leverage metrics resulting from the required up-front capital investment. In the event of financial distress the homebuilder may sell the land, albeit at a significant discount, which would provide the company with funds to cover its immediate needs.

A homebuilder with both national scale and local presence usually has a strong position with its customers, trade partners, subcontractors and material suppliers. This is particularly important if the homebuilding sector is entering a market downturn.

Industry Profile

The homebuilding market is inherently cyclical, although undersupplied housing markets can amplify positive trends and grow more rapidly than others during the upcycle and sometimes contract less during a downturn. Such locations are typically structurally undersupplied (long-term demand exceeding supply) with above-average employment and population growth. Some of the higher-rated builders have fine-tuned their exposure to such markets.

Government intervention generally has been positive for the sector, especially during market downturns. It can take various forms, including subsidised mortgage rates for some customers, equity contributions for first-time buyers, and access to land, amongst other initiatives. A stable regulatory framework for the homebuilding and adjacent sectors can help companies mitigate the cyclicality of the sector.

Market cyclicality can also be addressed by a sales strategy, with homebuilders seeking to presell a set percentage of units to its customers before the beginning of construction. This strategy is generally more conservative than speculative construction and helps manage the volatility of the market and cash flows. Speculative homebuilding, evidenced by a lack of presales or a large stock of finished buildings, generally represents a majority of production for lower-rated companies.

Market Position

A large revenue base is beneficial to the rated company as it may provide a distinct competitive advantage within the company's core market. Large companies can fully participate in land deals and opportunities as they come to market, with larger companies typically having both experience in and capability to evaluate and address regulatory and development processes and permissions. Scale also provides homebuilders with access to subcontractors and recognition from customers and government agencies.

Some higher-rated companies have access to a wider range of capital sources, often resulting in a lower cost of capital. This is a clear competitive advantage over smaller companies.

Higher-rated entities usually have access to a well-balanced customer pool or a faster-growing niche market. Conversely, lower-rated homebuilders have a focus on a single customer segment with limited end-market diversification. A relatively high average sale price for individual units can often signal that the homebuilder may be more prone to market fluctuations in a downturn.

Working Capital

Fitch considers effective working-capital management to be a key factor in assessing homebuilding companies. A company may appear to have large cash balances only to suffer a significant unwinding of working capital in a market downturn or in the event that new projects or land are not sourced. Seasonal movements in working capital will affect liquidity during the financial year, mainly due to the timing of funds received from the customers versus the timing of construction phases and land purchases.

Companies whose customer payment terms coincide with the cash outflows of the company (land acquisitions, construction costs, etc.) are generally less sensitive to the inherent volatility of the working-capital requirements of the sector and are generally higher-rated.

EMEA Homebuilders

Financial Profile Key Factors

In Fitch's financial analysis of homebuilding entities, the funds from operations leverage on both a gross and net basis is specifically considered to differentiate company ratings. Homebuilding companies' financial metrics are often dependent on the relationship between profitability, working-capital movements, leverage and liquidity.

Profitability

Homebuilding companies are less likely to increase profits by decreasing costs. They can achieve higher margins by providing higher-value-added services or alternately from taking on higher-risk projects (very often incorporating a greater element of accompanying infrastructure). Increases in margin volatility can often indicate increased opportunistic behaviour on behalf of the company or higher levels of competition within the sector.

Higher-rated companies tend to have lower profit volatility and a positive free cash flow generation through the cycle, even at an expense of lower margins relative to peers. Conversely, lower-rated homebuilders show higher volatility in either margins or free cash flow generation, particularly during market downturns.

Financial Structure

Fitch's view of homebuilders' leverage metrics tends to be more conservative than for similarly rated companies in other sectors. This is due to the inherent cyclicality of the sector and the challenges to manage cash flow in a market downturn.

However, some homebuilders may benefit from a large land portfolio in a market downturn if it is not excessively debt-funded, as the homebuilder would be able to use this for new projects or dispose of it (albeit at a discounted value) to support overall cash flow. We calculate the land portfolio metric at the book value of the land divided by the overall unadjusted debt quantum of the company. While the flexibility afforded by the land bank is positive for a company's credit profile, an excessively large debt-funded land bank (particularly those growing significantly in a short time) could indicate a higher level of speculative land investment.

Financial Flexibility

Financial Flexibility measures an issuer's ability 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. This is reflected in the Financial Discipline sub-factor.

Other 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 sub-factor.

An annual unexpected and significant working-capital change compared to the revenue of the company can indicate a potential liquidity concern in a market downturn or a higher level of speculative development. This is because liquidity sources may be needed to fund working-capital requirements which, in conjunction with short-term debt commitments, could lead to deteriorating credit quality.

Sector-Specific Key Factors — EMEA Homebuilders

	Sector Competitive Intensity	Industry Profile	Market Position	Working Capital
Rating	**Industry Structure**	**Long-Term Supply/Demand Balance**	**Annual Revenue**	**Working Capital Volatility**
aa	n.a	n.a	n.a	n.a
a	n.a	n.a	n.a	n.a
bbb	Larger number of competitors with some record of price discipline in downturns.	Cyclical industry. Heavily undersupplied market.	>EUR3.5 billion	Working capital requirements through the year show average volatility. Debt is not generally used to fund working capital.
bb	Highly competitive industry with many participants of comparable size.	Cyclical industry. Undersupplied market.	>EUR1.5 billion	Working capital requirements show high volatility through the year. Short-term debt is used to fund working capital.
b	Record of aggressive and opportunistic competitive behavior.	Cyclical industry. Mostly balanced supply and demand in the market.	>EUR500 million	Working capital requirements are extremely volatile through the year.
ccc	Fragmented industry, participant landscape in aggressively disruptive phase with multiple company failures anticipated.	Industry in accelerated decline.	<EUR500 million	Working capital requirements above or expected to be above management's capacity to respond.
	Barriers to Entry/Exit	**Government Impact**	**Competitive Advantage**	**Customer Payment Terms**
aa	n.a	n.a	n.a	n.a
a	n.a	n.a	n.a	n.a
bbb	Moderate barriers to entry. Incumbents are generally strongly established but successful new entrants have emerged.	Government initiatives supportive to the market, especially in a downturn; favourable and stable regulatory environment.	Strong competitive advantages in access to capital, land and labour.	Smooth payment terms, in line with the building cycle; inablity of a customer to cancel.
bb	Some barriers to entry but incumbents do not benefit from particularly strong positions that new entrants cannot replicate.	Government initiatives moderately supportive to the market in a downturn; less favourable and/or stable regulatory environment.	Some competitive advantages with reasonably good sustainability.	Slightly volatile payment terms; some ability of a customer to cancel the purchase.
b	No barrier to entry/exit in secondary markets. Some industry participants follow the cycle.	No government initiatives to support the market in a downturn; frequent often adverse changes to the regulatory environment.	Modest competitive advantages. Long-term sustainability questionable.	Volatile payment terms; ability of a customer to cancel the purchase.
ccc	No barriers to entry, and industry has a high and/or rapidly accelerating rate of attrition of market participants.	Government entering the market in a significant manner, forcing some market participants to be removed.	Few competitive advantages. Long-term sustainability questionable.	Highly volatile payment terms; payment received generally at end of constuction.
	Land Acquisition	**Sales Strategy**	**End-Market Diversification**	
aa	n.a	n.a	n.a	
a	n.a	n.a	n.a	
bbb	Favourable regulatory policy regarding acquisition of land; extensive use of land options favourable to the homebuilder	Pre-sales rate at above 70% rate.	Well balanced exposure to major customer market segments and/or broad exposure within faster-growing niche.	
bb	A balanced portfolio of purchased and optioned land.	Pre-sales rate at above 50% rate.	Over-weighted to a particular customer segment.	
b	Inability to purchased optioned land, portfolio heavily skewed towards upfront payment for land.	Pre-sales rate at below 30% rate, overweight to speculative sales.	Primarily focused on a particular customer segment.	
ccc	Record of, or prospective, failed land purchase strategy.	Highly speculative sales model.	No end-market diversification.	
	Relative Power in the Value Chain			
aa	n.a			
a	n.a			
bbb	Company has stronger bargaining power than suppliers and customers.			
bb	Balanced relative bargaining power with suppliers and customers.			
b	Concentrated suppliers and/or customers have significant bargaining power relative to the company.			
ccc	The weakest position in a value chain, where the weakness of this position in itself puts strong downward pressure on a company's prospects.			

Financial Profile Key Factors — EMEA Homebuilders

	Profitability	Financial Structure	Financial Flexibility
Rating	**Free Cash Flow**	**EBITDA Leverage**	**Financial Discipline**
aa	n.a	n.a.	n.a
a	n.a	n.a.	n.a
bbb	Positive FCF through the cycle with limited volatility.	0.5x	Financial policies less conservative than peers but generally applied consistently.
bb	Positive FCF through the cycle with some degree volatility.	2.0x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidance.
b	Volatile FCF margin.	3.5x	No financial policy or record of ignoring it. Opportunistic behavior.
ccc	Accelerating negative FCF margin.	6.0x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	Volatility of Profitability	**EBITDA Net Leverage**	**Liquidity**
aa	n.a	n.a.	n.a
a	n.a	n.a.	n.a
bbb	Volatility of profits viewed as a positive outlier for the industry.	0.0x	One-year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
bb	Volatility of profits in line with industry average.	1.5x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
b	Higher volatility of profits than industry average.	3.0x	Liquidity ratio below 1.0x. Overly reliant on one funding source.
ccc	Volatility of profits viewed as a negative outlier for the industry.	5.0x	No near-term prospect of recovery in liquidity score above 1.0x. All/most funding sources subject to material execution risk.
		FFO Leverage	**FX Exposure**
aa		n.a.	n.a
a		n.a.	n.a
bbb		<1.0x	Some FX exposure on profitability and/or debt/cash flow match. Effective hedging in place.
bb		<2.5x	FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b		<4.0x	Large FX exposure. No significant/ineffective hedging in place.
ccc		>6.0x	FX exposure dominant in impairing the issuer's ability to service debt in cash terms
		FFO Net Leverage	**EBITDA Interest Coverage**
aa		n.a.	n.a.
a		n.a.	n.a.
bbb		<0.5x	7.0x
bb		<2.0x	5.0x
b		<3.5x	3.5x
ccc		>5.5x	2.5x
		Land Portfolio	**Yearly Working Capital Change/Revenue**
aa		n.a.	n.a
a		n.a.	n.a
bbb		Land portfolio is liquid, book value/debt greater than 2.0x.	Median of <5% over a five-year period
bb		Land portfolio is liquid, book value/debt greater than 1.0x.	Median of <10% over a five-year period
b		Land portfolio is illiquid, book value/debt less than 1.0x.	Median of <20% over a five-year period
ccc		No inventory and/or land portfolio.	Exceedingly volatile yearly working capital changes

U.S. Homebuilders

Sector Risk Profile

Rating Range

Homebuilding companies have a higher-than-average risk profile. The homebuilder sector's risk profile reflects the cyclicality and seasonality of demand for housing, economic sensitivity, demographics and affordability.

The issuers with investment-grade ratings typically have a long record of low leverage or high liquidity. Conversely, issuers with lower ratings tend to have higher leverage, lower liquidity, smaller size, limited geographic spread and lesser access to well-situated land.

Sector-Specific Key Factors

Sector Competitive Intensity

Fitch Ratings considers the competitive environment in its analysis of a builder's credit profile. Larger, more vibrant markets tend to attract public builders, who are inclined to be more disciplined about pricing and the use of sales incentives. The builders' sizable presence in those markets often benefit pricing, bargaining power and margins. Land is the key raw material.

Industry Profile

"All real estate is local". Although there are broad issues that influence all residential markets, the local economies, in particular swayed by employment trends, spur superior, laggard or more stable housing growth. So the location of operations is consequential. Certain production strategies are more conservative than others and successful execution of strategy weighs heavily in the credit profile.

Market Position

Many public homebuilders strive to be among the largest builders in a metropolitan market. The goal is to achieve adequate production scale and accessibility to land and labor.

Diversification

A few builders are national in scope. Most are multiregional in focus. A balanced customer/product offering generally tends to support performance during the cycle.

Financial Profile Key Factors

Financial Profile

The financial metrics assessed encompass midpoint leverage and coverage ratios, and measures of profitability and cash flow relative to sector peers.

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U.S. Homebuilders

Industry Characteristics

Representative companies in this sector are typically rated from the 'BBB' rating category down to 'B'. The sector's higher than average risk reflects exposure to significant cyclical demand, economic sensitivity, demographics and affordability.

The homebuilding sector is highly fragmented nationally. However, on a major metropolitan market basis (the 30 largest) there is much more concentration with public builders dominating top five and top 10 rankings and accounting for 30%–80% share of the market.

Through the cycles, especially since the 1990s, there has been more concentration, as larger builders bought smaller private construction companies to extend into new geographic markets or increase their mass in existing markets. Occasionally, public builders acquired other public construction companies also to expand geographic presence and/or add product diversity. Of course acquisitions have to be justified based on the market value of the land. Fitch Ratings expects the fragmented nature of the housing sector will lead to further consolidation as industry participants seek to increase their geographic coverage and density in key markets.

Homebuilders typically suffer from relatively low barriers to entry as land and capital become more available during a housing recovery. During the upside of a cycle former builders and remodelers re-enter homebuilding markets. This tends to be less the case in markets where land is very expensive and land entitlement is a lengthy process.

While the overall housing industry is inherently cyclical, diversification, both geographically and by customer type, helps issuers mitigate the cyclicality of demand. The strength of the economy (GDP growth, income, employment) often varies geographically through a cycle and also affects affordability by market. Although sometimes under pressure at the same time, different product categories (entry-level, trade-up, luxury and active adult) do have different demand characteristics through the cycle, influenced by among other things consumer confidence, credit qualification standards, interest rates, income growth and personal wealth. Some builders also differentiate themselves by in-house technology and the growing focus on energy-efficient materials and features.

Sector-Specific Key Factors — U.S. Homebuilders

	Sector Competitive Intensity	Industry Profile	Market Position	Diversification
Rating	**Industry Structure**	**Long-Term Growth Potential**	**Market Position**	**Geographic Diversification**
aa	n.a.	n.a.	n.a.	n.a.
a	n.a.	n.a.	n.a.	n.a.
bbb	Some concentration of competition in major metropolitan markets with limited price discipline.	Cyclical industry. Over-weighting to higher-growth metro markets.	Top five participant in most markets or leader on a well defined and relatively protected niche.	National focus.
bb	Highly competitive industry with many participants of comparable size.	Cyclical industry. Average weighting to higher-growth metro markets.	Top 10 to 15 participant in most markets or leader on a niche.	Multi-regional focus.
b	Record of aggressive and opportunistic competitive behavior.	Cyclical industry. Under-weighting to higher-growth metro markets.	Predominantly second-tier participant.	Focus on a single or a few regions.
ccc	Fragmented industry, participant landscape in aggressively disruptive phase with multiple company failures anticipated.	Industry in accelerated decline. Consolidation following.	Extremely small and/or undifferentiated participant.	Concentrated in an especially disadvantaged region.
	Barriers to Entry/Exit	**Volatility of Demand**	**Competitive Advantage**	**End-Market Diversification**
aa	n.a.	n.a.	n.a.	n.a.
a	n.a.	n.a.	n.a.	n.a.
bbb	Moderate barriers to entry in certain markets. Larger incumbents are generally strongly established but successful new entrants have emerged over time.	Demand volatility generally in line with economic cycles. Over-weighting to higher-growth metro markets.	Strong competitive advantages in access to capital, land and labor.	Well balanced exposure to major customer market segments and/or broad exposure within faster-growing niches.
bb	Some barriers to entry but smaller incumbents do not benefit from particularly strong positions that new entrants cannot replicate.	Demand volatility generally in line with economic cycles. Average weighting to higher-growth metro markets.	Some competitive advantages with reasonably good sustainability.	Over-weighted to a particular customer segment.
b	No barrier to entry/exit in secondary markets. Number of small, private industry participants follow the cycle.	Demand volatility generally in line with economic cycles. Under-weighting to higher-growth metro markets.	Modest competitive advantages. Long-term sustainability questionable.	Primarily focused on a particular customer segment.
ccc	No barriers to entry, and industry has a high and/or rapidly accelerating rate of attrition of market participants.	Highly cyclical and facing a sharp, near-term decline in prospects.	Few competitive advantages. Long-term sustainability questionable.	No end-market diversification.
	Land Holdings	**Production Strategy**	**Operating Efficiency**	
aa	n.a.	n.a.	n.a.	
a	n.a.	n.a.	n.a.	
bbb	Especially well-located land; sufficient number of years of land under control; balance among owned, optioned, joint venture lots as appropriate.	Heavier mix toward "build-to-order"/pre-sale production.	Superior expense ratios.	
bb	Sufficient number of years of land under control; balance among owned, optioned, joint venture lots as appropriate.	Balanced mix of pre-sale and speculative production.	Average expense ratios.	
b	Limited years of land controlled; imbalance of owned, optioned, joint venture lots.	Over-weighted to speculative production.	Below par expense ratios. Profitability below average.	
ccc	Record of, or prospective, failed land control strategy.	Product line fundamentally uncompetitive.	Poor and declining profitability, likely to remain materially below cost of capital.	
	Relative Power in the Value Chain			
aa	n.a.			
a	n.a.			
bbb	Company has stronger bargaining power than suppliers and customers.			
bb	Balanced relative bargaining power with suppliers and customers.			
b	Concentrated suppliers and/or customers have significant bargaining power relative to the company.			
ccc	The weakest position in a value chain leading to strong downward pressure on a company's prospects.			

Financial Profile Key Factors — U.S. Homebuilders

	Profitability	Financial Structure	Financial Flexibility
Rating	**EBITDA Margin**	**EBITDA Leverage**	**Financial Discipline**
aa	n.a.	n.a.	Publicly announced conservative financial policy. Record of strict compliance.
a	n.a.	n.a.	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	13%	2.3x	Less conservative policy but generally applied consistently.
bb	12%	3.8x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
b	8%	4.3x	No financial policy or record of ignoring it. Opportunistic behavior.
ccc	Persistently and structurally break-even or loss-making at EBITDA level.	>10.0x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	FFO Margin	**FFO Leverage**	**Liquidity**
aa	n.a.	n.a.	Very comfortable liquidity; no need to use external funding, except for already committed facilities, in the next 24 months even under a severe stress scenario. Well-spread debt maturity. Diversified sources of funding.
a	n.a.	n.a.	Very comfortable liquidity. No need to use external funding, except for already committed facilities, in the next 12 months even under a severe stress scenario. Well-spread debt maturity schedule. Diversified sources of funding.
bbb	9%	2.3x	One year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
bb	7.5%	3.8x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
b	3.5%	4.3x	Liquidity ratio below 1.0x. Overly reliant on one funding source.
ccc	Persistently and structurally break-even or loss-making at the FFO level.	>8.0x	No near-term prospect of recovery in liquidity. All/most funding sources subject to material execution risk.
	EBIT Margin	**Net Debt/Capitalization**	**Cash & RCF Avail./Next Three Years Maturities**
aa	n.a.	n.a.	n.a.
a	n.a.	n.a.	n.a.
bbb	11.5%	35%	4.5x
bb	10.5%	50%	3.5x
b	8%	60%	1.5x
ccc	Persistently and structurally break-even or loss-making at EBIT level.	70%	All/most cash and RCF availability funding sources subject to material execution risk.
	FCF Margin	**(CFO-Capex)/Net Debt**	**EBITDA Interest Coverage**
aa	n.a.	n.a.	n.a.
a	n.a.	n.a.	n.a.
bbb	16%	30.0%	5.5x
bb	13%	20.0%	3.5x
b	10%	15.0%	1.5x
ccc	Accelerating negative FCF margin, with limited/no flexibility on spending reduction and funding gaps.	Flat to Negative	<1.0x.
	Volatility of Profitability	**Inventory/Debt**	**FFO Interest Coverage**
aa	n.a.	n.a.	n.a.
a	n.a.	n.a.	n.a.
bbb	Volatility of profits in line with industry average.	2.0x	4.5x
bb	Higher volatility of profits than industry average.	1.5x	3.75x
b	Volatility of profits viewed as a negative outlier for the industry.	1.0x	2.25x
ccc	Volatility of profits greater than normal bounds of volatility for corporate sector as a whole.	<0.5x.	1.0x

Chinese Property Developers

Sector Risk Profile

Rating range

Chinese property developers have an above-average risk profile. Therefore, the Sector Risk Profile has a ceiling at the 'BBB+' rating level, and the majority of Fitch's public ratings are in the non-investment-grade ('BB' and 'B' or lower) rating categories.

The sector is characterised by stable structural demand driven by growth in urbanisation rates and household income. However, short-term volatility of cash flows can be high due to local market demand and supply volatility and the developers' decisions on land bank expenditure, which is discretionary. In addition, the regulators intervene significantly in the market, targeting end-demand and developers' financial structure.

Sector-Specific Key Factors

Scale

This factor assesses business scale, usually measured by annual attributable contracted sales. Larger scale can make property developers' operating cash flow more stable and provides more choice of land bank, which brings operational flexibility and financial stability.

Diversification

This captures geographical diversification and exposure to non-core businesses. Geographical diversification allows property developers to mitigate the negative effects of market-specific factors like demand-supply imbalances or changes in government policies affecting a single city or region.

Market Position

This factor assesses brand image and market position, which affect property developers' profit margins and resilience of their sales, especially during a downturn

Business Stability

This factor assesses issuers' land acquisition discipline, land bank life, and volatility of financial metrics.

Financial Profile Key Factors

Fitch's analytical approach towards Chinese property developers takes into consideration several unique characteristics of the sector. This includes a significant timing mismatch between revenues and cash flows, significant management discretion over land acquisitions (which form a part of working capital), and evolving group structures, with significant exposure to JVs and non-controlling interests.

We assess property developers' financial profiles in a similar way to how we assess asset-trading companies, focusing on net debt to property assets and financial flexibility,

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Chinese Property Developers

Profitability

Fitch focuses on return efficiency in assessing the profitability of Chinese property developers, given the capital-intensive nature of the business and multi-year development cycle. The metric is the product of the margins and churn rate (measured as capital turnover), which often are inversely correlated.

Profitability metrics for the sector are of lower importance compared to leverage and liquidity, and need to be read in conjunction with leverage metrics. It is also worth noting that profitability metrics based on the income statement are lagging indicators, reflecting sales that took place one to three years prior.

Financial structure

Fitch focuses on balance sheet-based leverage metrics for property developers, as cash flow/profit-based leverage measures such as debt/FFO or debt/EBITDA are skewed by the delayed profit recognition and high levels of working-capital changes relative to more contemporary debt and asset amounts.

In addition, we consider balance sheet transparency and non-controlling interest exposure; two secondary factors that complement the main leverage metric.

Financial flexibility

Financial flexibility allows an issuer to meet its debt-service obligations and manage periods of volatility without eroding credit quality.

Liquidity: Fitch measures Chinese property developers' liquidity by comparing available cash to upcoming debt maturities. While not included in the quantitative ratio, Fitch also analyses the debt composition, as certain types of debt, such as project financing, are much easier to roll-over than others, such as trust loans and capital markets debt.

Gross interest paid/implied cash collection: Fitch compares gross interest paid against implied cash collection (defined as revenues + increase in customer deposits) to measure an entity's ability to service debt. This differs from EBITDA or FFO-based interest coverage metrics in other sectors, to reflect the delayed recognition feature of the industry.

Chinese Property Developers

Industry Characteristics

High cyclicality

The major risk to Chinese property developers is unstable operating cash flow, which encompasses large lump-sum cash outflows for land, net of cash inflows from sales proceeds. A homebuilder's land premium budget can have a substantial influence on its liquidity and credit profile. Furthermore, this item can be discretionary and vary with management's sentiment towards the property market, and risk appetite, and can change at any stage in the property cycle.

High policy risk

Sales performance is highly vulnerable to government policies and the wider economy. There is strong end-user demand driven by urbanisation in China over the coming decades, but government housing policies that broadly try and curb excessive price growth and speculation sometimes adversely affect developers concentrated in a particular segment or geography.

Development expenditure pre-funded

The major credit strength of Chinese property developers is the pre-sales system, which reduces working capital requirements. A typical project with fast asset turnover is likely to have fully collected pre-sale proceeds within a few months of contracting sales. The completed pre-sold apartment is, however, only delivered one to two years after the sale was contracted.

Based on the above schedule, Chinese property developers receive full payment upfront for the units sold even though substantial construction costs have yet to be incurred. This lowers the project funding needs and provides huge financial flexibility.

Multiple funding channels

Chinese property developers generally are not allowed to take out onshore bank loans to fund land acquisitions. This means access to different funding channels is critical if they want to rapidly expand their business. Developers rely on alternative funding channels including offshore and onshore bonds, offshore syndicated loans, onshore trust loans, and onshore perpetual capital securities to seek new capital, and/or to lower funding costs. Individual projects are able to raise financing from banks. Developers also sell minority interest in project companies to funds and other developers to diversify funding sources and risks. As a result, high exposure to JVs and minority interests is an enduring characteristic of the industry.

Evolving group structures

The group structures of Chinese property developers are constantly changing, unlike corporates in other sectors like industrials and utilities, which have a number of key operating subsidiaries. This is because project companies are constantly being set up and wound down as projects progress.

In recent years, property developers have increasingly partnered up to develop large projects together, in order to limit their risk and avoid bidding against each other. These project companies are either treated as non-wholly-owned subsidiaries or JVs/associates, depending on the level of shareholding.

This has resulted in higher exposure to JVs and associates and higher non-controlling interests (NCIs) on the consolidated balance sheets of property developers; a key consideration when assessing a group's true assets, liabilities and cash flows.

Sector-Specific Key Factors — Chinese Property Developers

	Scale	Diversification	Market position	Business stability
Rating	**Annual attributable contracted sales**	**Geographical diversification**	**Market leadership**	**Land acquisition discipline**
aa	n.a	n.a	n.a	n.a
a	n.a.	n.a..	n.a.	n.a.
bbb	CNY200 billion	Nationwide diversification.	Top-three market participant in most of the cities where it has operations.	Land acquisition follows management guidance and generates neutral-to-positive cash flow from operations over the cycle.
bb	CNY75 billion	Multi-regional diversification.	Top-five market participant in its core markets, or leading market participant in its niche market nationwide.	Land acquisition follows management guidance and generates small negative cash flow from operations over the cycle.
b	CNY25 billion	Concentrated in one or two regions.	Faces strong competition in its core markets.	Reliance on debt to fund land acquisition resulting in sustainably large negative cash flow from operations relative to contracted sales.
ccc	Marginal market participant	Concentrated in an especially disadvantaged region.	Undifferentiated market participant in competitive markets.	Land acquisition appetite jeopardises near-term liquidity.
		Non-core businesses	**Brand recognition**	**Land bank life**
aa		n.a	n.a	n.a
a		n.a..	n.a.	n.a.
bbb		Non-core businesses generating reasonable returns.	Strong brand name recognition nationwide.	In line with/better than industry average. No evidence of poor quality land bank.
bb	.	Some investments in non-core businesses with limited or volatile returns.	Moderate level of brand awareness nationwide.	In line with/better than industry average. No evidence of poor quality land bank.
b		Material investments in non-core businesses with limited or volatile returns.	Limited brand awareness beyond its core market.	Below industry average. Significant land replenishment is needed to sustain operations.
ccc	.	Significant cash drain from non-core businesses.	Record of unresolved project defects, untrusted brands.	Unsustainable land bank life.
				Volatility of financial metrics
aa				n.a
a				n.a..
bbb				Low volatility of financial metrics.
bb	.			Moderate volatility of financial metrics.
b	.			High volatility of financial metrics.
ccc			.	Unpredictable financial metrics.

Source: Fitch Ratings

Financial Profile Key Factors — Chinese Property Developers

	Profitability	Financial Structure	Financial Flexibility
Rating	**Return efficiency**	**Net debt/net property assets**	**Liquidity**
aa	n.a.	n.a.	n.a
a	n.a.	n.a.	n.a.
bbb	14%	35%	Readily available cash to short-term debt above 1.25x. Well-spread maturity schedule of debt.
bb	11%	45%	Readily available cash to short-term debt above 1.0x. Less smooth debt maturity or concentrated funding.
b	7%	60%	Readily-available cash to short-term debt below 1.0x. Overly reliant on one funding source.
ccc	Unsustainable levels	Unsustainable levels.	No near-term prospect of recovery in liquidity. All/most funding sources subject to material execution risk.
	EBITDA margin (before JVs)	**Balance sheet transparency**	**Gross interest paid/implied cash collection**
aa	n.a.	n.a.	n.a.
a	n.a.	n.a.	n.a.
bbb	18%	Limited mismatch between implied cash collection and reported contracted sales. JV net claims account for less than 10% of net property assets.	5%
bb	14%	Moderate mismatch between implied cash collection and reported contracted sales. JV net claims account for 10%-20% of net property assets.	8%
b	11%	Large mismatch between implied cash collection and reported contracted sales. JV net claims account for more than 20% of net property assets.	15%
ccc	Persistently and/or structurally breakeven or loss-making at the EBITDA level.	Large mismatch between implied cash collection and reported contracted sales. JV net claims account for more than 20% of net property assets.	Unsustainable levels.
	Capital turnover (x)	**Non-controlling interest exposure**	
aa	n.a.	n.a.	
a	n.a.	n.a.	
bbb	1.00x	Low exposure to non-controlling interests. NCI net claims/net property assets of less than 15%.	
bb	0.75x	Moderate exposure to non-controlling interests. NCI net claims/net property assets of 15%-25%.	
b	0.50x	High exposure to non-controlling interests. NCI net claim/net property assets of more than 25%.	
ccc	Unsustainable levels	High exposure to non-controlling interests. NCI net claim/net property assets of more than 25%.	

Diversified Industrials and Capital Goods

Sector Risk Profile

Rating Range

The sector has an "average" risk profile. Companies in the 'A' rating category typically are market and technology leaders, with strong balance sheets and unimpaired access to capital markets. Companies with lower ratings usually lack some of these characteristics and may be exposed to contingent liabilities, operate in markets in structural decline or face other risks. The sector can be highly cyclical, and strong credit-protection measures provide flexibility to adjust to downturns.

Sector-Specific Key Factors

Innovation

Most end markets are highly competitive and do not have high barriers to entry or are prone to short product life cycles. The ability to supply leading-edge products supports favorable pricing and profit margins but requires consistent investment in R&D.

Market Position

These factors reflect the role of size in realizing operating benefits from large scale, growth opportunities and financial and strategic flexibility. Such characteristics are often key differentiators where subsectors are global. The nature of the product or end market can determine growth or investment strategies.

Diversification

An issuer's exposure to individual product markets or geographic regions is reduced by diversification, which spreads risks related to customers, suppliers and competitors.

Business Stability

An issuer's cost structure and ability to respond to business cycles is incorporated. The mix of products and higher-margin recurring services is an important consideration.

Financial Profile Key Factors

Financial Profile

Financial metrics are standard corporate rating methodology ratios. A slight emphasis on FCF, liquidity and leverage measures reflects the importance of financial flexibility in a cyclical environment.

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Diversified Industrials and Capital Goods

Industry Characteristics

Companies in the sector are diverse. They have very different characteristics regarding end markets, growth outlook, profit margins and cash generation, although they share broadly similar demand drivers in terms of global industrial production, capex and infrastructure spending. Diversified industrials and capital goods companies can be differentiated according to both the characteristics of the goods they produce and the end customers they supply. These two elements represent the key external drivers and constraints on their operations.

The definition of capital goods is broader in EMEA, where the sector incorporates issuers whose manufacturing activities include consumer goods, such as appliances. The North American definition of the sector usually applies to manufacturers of equipment for industrial users, which are then used in the production of other goods.

Fitch Ratings considers the risk profile of this sector as up to the higher end of the 'A' rating category This range reflects a sector whose inherent risk profile includes exposure to cyclical end markets and volatile raw material prices, high R&D requirements, increasing competition from emerging markets and contract execution risk.

These factors can be offset by scale and diversification, and technological and market-share leadership, which create high barriers to entry, strong reputation and/or brands, which allows for some pricing power, and benefits from offering similar products and complementary services.

Dealer Networks

It is not unusual for capital goods companies to generate a substantial proportion of sales through independent dealer networks. Dealers typically purchase and own their inventory, removing it from the manufacturer's balance sheet, although, in some cases, inventory may be sold on consignment and owned by manufacturers until final sale to the end customer. Dealer financing is often provided by captive finance operations of the capital goods manufacturer.

Well-capitalized dealers represent a competitive advantage as they are in a good position to finance large inventories, which can lead to higher sales. A large dealer network with a broad geographic reach is another advantage, as it offers convenience to customers and can generate substantial after-market product and service revenue to manufacturers and dealers.

Captive Finance Companies

A number of capital goods companies operate with captive financial services (FS) divisions, which typically provide financing to customers, supporting the manufacturing business. To the extent possible, Fitch deconsolidates FS captives from consolidated results in order to focus on the manufacturing business. By eliminating distortions in the metrics associated with FS captives, an easier comparison can be made between the group's core industrial performance with that of its peers.

Fitch analyzes the extent and nature of the relationship between the industrial and financial arms of the group to ascertain the degree to which the FS entity acts to enhance the credit profile of the industrial activities, or whether the FS entity is, or could be, a drain on the resources of the industrial activities. Important characteristics of the FS entity include its size, asset quality (including impaired or nonperforming loans, arrears), capitalization and additional resource requirements, such as additional liquidity (loans) or injection of capital (equity).

Customer Warranties

Product warranty exposure can also adversely affect ratings in cases where a manufactured product is poorly designed or produced. To ascertain any rating impact, Fitch assesses the company's history of warranty claims payouts and their effect on the group's reputation and cash-generating ability.

Sector-Specific Key Factors — Diversified Industrials and Capital Goods

	Innovation	Market Position	Diversification	Business Stability
Rating	**Technology Content**	**Market Position**	**Product Range**	**Cyclicality**
aa	n.a.	n.a.	n.a.	n.a.
a	High technology content in products and services.	Top-three participant in broad range of markets.	Broad range of products, covering numerous technologies or end-markets.	Little exposure to cyclical demand, generally stable even in economic downturns.
bbb	Medium technology content in products and services.	Top-five participant in broad range of markets or top-three in few markets.	Good range of products, covering several technologies and/or end-markets.	Moderate exposure to cyclical demand, but aided by diversification.
bb	Low technology content in products and services.	Second-tier participant in broad range of markets, top-five participant in few markets or top-three participant in niche markets.	Limited range of products.	Somewhat high exposure to cyclical demand.
b	Commoditized products and services.	Second-tier participant in few markets or top-five participant in niche markets.	Focus on one or two products.	High exposure to cyclical demand.
ccc	Commoditized products and services facing compeition from superior substitutes.	Marginal participant.	Focus on one or two products in secular decline.	High exposure to end-markets in long-term decline.
	Barriers to Entry	**Growth**	**Geographic Diversification**	**Operating Leverage**
aa	n.a.	n.a.	n.a.	n.a.
a	High entry barriers.	Good exposure to markets with long-term structural growth.	International procurement, manufacturing and distribution, with some concentration in certain regions.	Low fixed cost structure and ability to cut costs quickly.
bbb	Moderate entry barriers.	Modest exposure to markets with long-term structural growth.	Good diversification across many countries with some concentration in certain countries.	Medium fixed cost structure and ability to cut costs relatively quickly.
bb	Low entry barriers.	Exposure to markets in long-term decline.	Concentration in one region or less than five countries.	Limited cost flexibility and ability to reduce costs.
b	No meaningful entry barriers.	Material exposure to markets in long-term decline.	Focused on one or two countries.	Inflexible cost structure.
ccc	Record of successful new entrants.	Material exposure to markets in rapid decline.	High revenue concentration on a few countries with rapidly declining demand.	High and inflexible cost structure leading to operating losses during even modest market downturns.
	Innovation		**Mix of End-Markets**	**Services and Aftermarket Revenue**
aa	n.a.		n.a.	n.a.
a	High commitment to innovation and significant product differentiation		Balanced exposure to industries and customers.	Services and aftermarket revenue > 40%.
bbb	Moderate commitment to innovation, limited product differentiation mitigated by high switching costs..		Limited presence in certain industries or applications.	Services and aftermarket revenue 25%-40%.
bb	Limited commitment to innovation, commoditized product with modest switching cost.		Exposure to a narrow range of end-users.	Services and aftermarket revenue 10%-25%.
b	No meaningful R&D; substitution by competitive products facilitated by superior quality or imminent technology changes.		Focus on a single application or industry.	Services and aftermarket revenue < 10%.
ccc	Continued lack of innovation jeopardizing the viability of the product lines.		Focus on a single application or industry facing secular decline.	
			Customers and Suppliers	
aa			n.a.	
a			No reliance on any one customer or supplier.	
bbb			No significant reliance on any one customer or supplier.	
bb			Some concentration risks around a number of customers and suppliers.	
b			Reliant on one or two key customers and suppliers.	
ccc			Impaired relationship with customers and suppliers on which the company depends for most of its business.	

Financial Profile Key Factors — Diversified Industrials and Capital Goods

	Profitability	Financial Structure	Financial Flexibility
Rating	**EBITDA Margin**	**EBITDA Leverage**	**Financial Discipline**
aa	n.a.	n.a.	Publicly announced conservative financial policy. Record of strict compliance.
a	16%	1.5x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	13%	2.5x	Financial policies less conservative than peers but generally applied consistently.
bb	10%	3.5x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
b	6%	5.0x	No financial policy or record of ignoring it. Opportunistic behavior.
ccc	2%	7.0x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis mode environment.
	EBIT Margin	**EBITDA Net Leverage**	**Liquidity**
aa	n.a.	n.a.	Very comfortable liquidity; no need to use external funding, except for already committed facilities, in the next 24 months even under a severe stress scenario. Well-spread debt maturity. Diversified sources of funding.
a	above 10%	1.0x	Very comfortable liquidity. No need to use external funding, except for already committed facilities, in the next 12 months even under a severe stress scenario. Well-spread debt maturity schedule. Diversified sources of funding.
bbb	above 8%	2.0x	One year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
bb	above 6%	3.0x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
b	above 4%	4.5x	Liquidity ratio below 1.0x. Overly reliant on one funding source.
ccc	Persistently and structurally break-even or loss-making at EBIT level	6.5x	No near-term prospect of recovery in liquidity score above 1.0x. All/most funding sources subject to material execution risk.
	FFO Margin	**FFO Leverage**	**FX Exposure**
aa	n.a.	n.a.	No material FX mismatch.
a	above 10%	2.5x	Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flows well matched.
bbb	above 8%	3.5x	Some FX exposure on profitability and/or debt/cash flow match. Effective hedging in place.
bb	above 6%	4.5x	FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b	above 4%	5.5x	Large FX exposure. No significant/ineffective hedging in place.
ccc	Persistently and structurally break-even or loss-making at FFO level.	>7.5x	FX exposure dominant in impairing the issuer's ability to service debt in cash terms.
	FCF Margin	**(CFO-Capex)/Net Debt**	**EBITDA Interest Coverage**
aa	n.a.	>30%	n.a.
a	above 4%	20%	9.0x
bbb	above 2.5%	12.5%	6.0x
bb	Positive	7.5%	4.0x
b	Minimal	2.5%	2.5x
ccc	Consistently negative FCF margin, with limited/no flexibility on spending reduction and funding gaps.	Flat to Negative	1.5x
		FCF/Debt	**FFO Interest Coverage**
aa		n.a.	n.a.
a		20%	9.0x
bbb		15%	6.0x
bb		10%	4.0x
b		Positive	2.0x
ccc		Negative	<1.0x

APAC Property/REITs

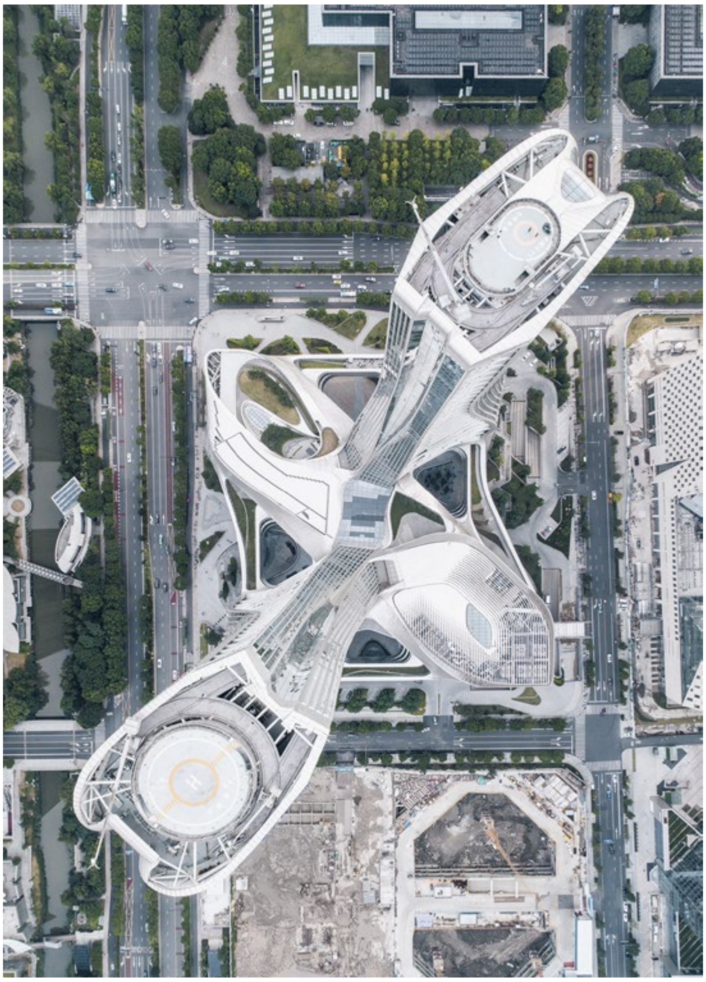
Sector Risk Profile

Rating Range

Asian equity REITs and property investment companies (PICs) have an average-risk profile, and typically have good visibility on cash flows from contractual rental income. Therefore, the sector risk profile can be as high as 'A'. However, property markets are vulnerable to swings in capital and rental values, often due to factors beyond the companies' immediate control (eg interest rates, supply and demand dynamics, asset allocations).

Asian equity REITs are subject to cash retention limitations as they are required to distribute at least 90% of their distributable income, resulting in consistent reliance on capital markets. Therefore, the ratings of Asian REITs are typically clustered in the 'BBB' category, although operational and sector characteristics can result in ratings in the 'BB' or 'A' categories.

Asian PICs are not restricted by the cash retention limitations and have better financial flexibility than REITs. They usually have lower leverage than REITs, which mainly fund their acquisitions with debt. Hence, there are more Asian PICs rated in the 'A' category.



Sector-Specific Key Factors

Property Portfolio

This assesses portfolio liquidity and ability to leverage assets, investment granularity, asset scale and quality, and development exposure. The focus is on recurring rental income from commercial property portfolios, but some groups also have residential development activities.

Rental Income Risk Profile

This incorporates occupancy, lease duration, lease expiration schedules, rollover rates, tenant concentration and credit.

Liability Profile

This captures the average debt maturity, matching of lease and interest rate risk, laddered debt maturities, and fixed/floating interest rate liability profiles.

Access to Capital

Sources of capital, unencumbered asset pools, secured debt yields and capitalisation rates also affect the sector.

Financial Profile Key Factors

Financial Profile

The financial metrics encompass mid-point leverage and coverage ratios, and measures of profitability and cash flow, up to the 'A+' rating level. The analysis of key credit metrics focuses on the Asian equity REIT's or PIC's profitability, financial structure and financial flexibility. Net debt to recurring EBITDA ratio is used as a primary measure of financial structure while loan-to-value (LTV) ratio is used as a secondary measure. However, net debt to recurring EBITDA ratios have their weakness when comparing across property types (office, retail, logistics, industrials) and across countries in developed markets versus emerging markets.

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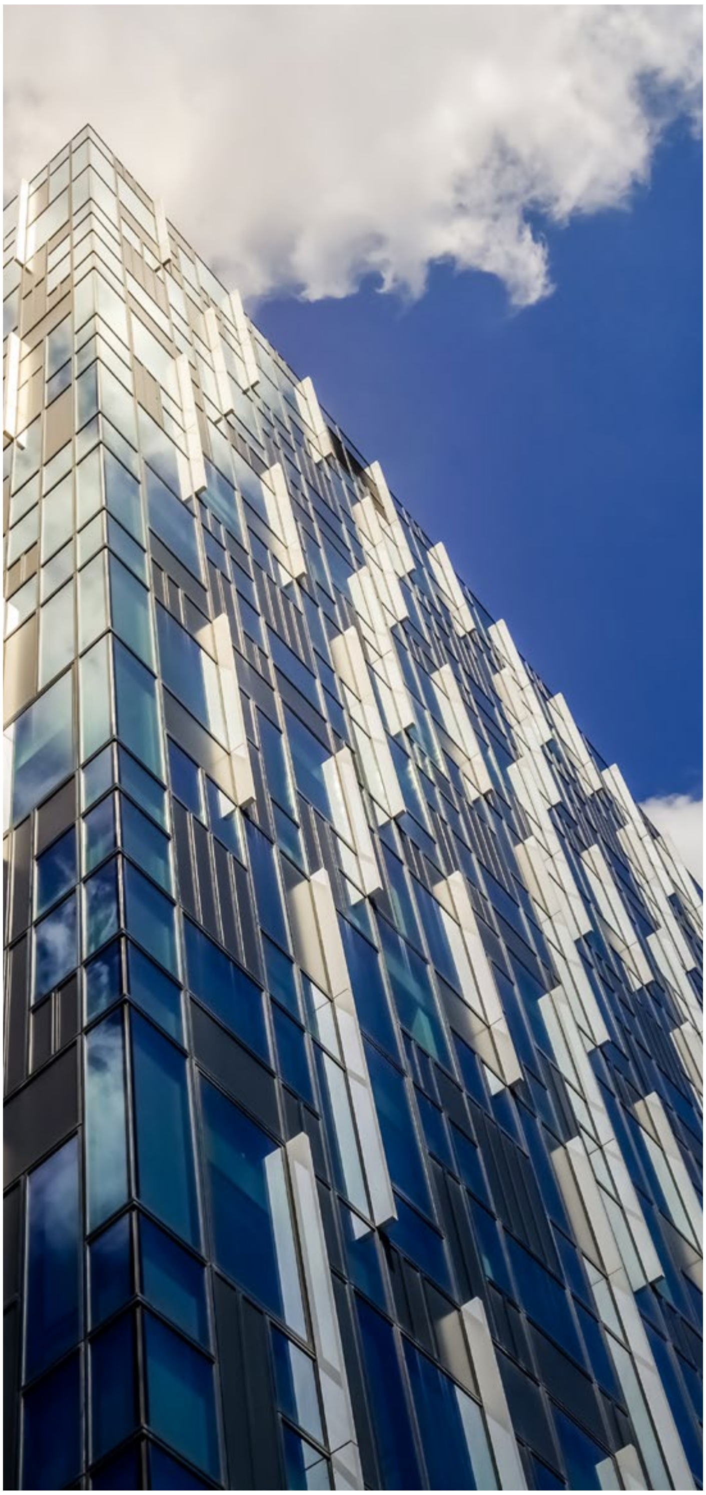
APAC Property/REITs

Industry Characteristics



Asian equity REITs and PICs typically have good visibility on cash flows from long-term contractual rental income. However, property markets are vulnerable to swings in capital and rental values, often due to causes beyond the companies' immediate control. Such swings are more subdued for Hong Kong PICs, as their office and retail properties are in prime locations with minimal new supply; whereas for emerging Asian economies like China, greater volatility can be expected for all property types.

Issuers within the sector are mostly reliant on capital markets to refinance debt, fund acquisitions, development and redevelopment of investment properties. Bank financing is an additional funding option. Property valuation volatility can change lenders' appetite towards refinancing debt and equity investors' perception of company valuation, each of which can affect a REIT or PIC's ability to access capital.

Asian equity REITs are usually unable to repay debt with retained cash flow generation, given the REIT code requirement to distribute at least 90% of a REIT's distributable income. Hence, Fitch's assessment of capital access, refinancing risk and liquidity is a key credit factor in the rating process. The Issuer Default Ratings (IDRs) of REITs, therefore, centre on the lower end of the investment-grade rating spectrum, typically in the 'BBB' category, although operational and sector characteristics can result in ratings in 'BB' or 'A' categories.

Asian PICs are not restricted by the cash retention limitations, and have better financial flexibility than REITs. They usually have lower leverage than REITs, which mainly fund their acquisitions with debt. Asian PICs under Fitch's portfolio fall between the 'A' and 'BBB' categories. They are rarely above the 'A' category, due to the geographical concentration of their property portfolios and the companies' exposure to property development activities.

Asian equity REITs and PICs at the middle-to-higher end of the sector risk profile have demonstrated an ability to partly offset sector risks with an emphasis on owning prime properties, having conservative leverage and strong liquidity. Companies at the lower end may have lower quality properties, higher leverage and/or weaker liquidity, or higher exposure to development risk.

For diversification purposes, many Hong Kong PICs have subsidiaries that are involved in non-property businesses. Fitch also takes into consideration the business and financial risk profile of these businesses and assesses whether they contribute to or detract from the risk profile of the rated entity relative to its credit rating.

Sector-Specific Key Factors — APAC Property/REITs

	Property Portfolio	Rental Income Risk Profile	Liability Profile	Access to Capital
Rating	**Portfolio Liquidity and Ability to Leverage Assets**	**Occupancy**	**Debt Maturity Profile**	**Sources of Capital**
aa	n.a.	n.a.	n.a.	n.a.
a	Good institutional appetite (buyers/sellers/lenders) in best markets, indicating liquidity and ability to leverage assets.	Occupancy at 95% or above. Limited occupancy volatility through cycles.	Average debt tenor of more than four years. No year represents more than 25% of total debt.	Market-leading access through cycles to all of common and preferred equity, unsecured bonds/ bank debt, secured debt, and/or joint ventures.
bbb	Average institutional appetite (buyers/sellers/lenders) in strong markets, indicating liquidity and ability to leverage assets.	Occupancy between 92.5% and 95.0%. Moderate occupancy volatility through cycles.	Average debt tenor of more than three years. No year represents more than 30% of total debt.	Solid access to all of common and preferred equity, unsecured bonds/bank debt, secured debt, and/or joint ventures.
bb	Weak institutional appetite (buyers/sellers/lenders) in good markets, indicating a lack of liquidity and of ability to leverage assets.	Occupancy below 92.5%. High occupancy volatility through cycles.	Average debt tenor of more than three years. No year represents more than 40% of total debt.	Limited access to some of the following markets: equity, unsecured bonds/bank debt, secured debt, and/or joint ventures.
b	Limited institutional appetite (buyers/sellers/lenders) in poor markets, indicating a lack of liquidity and of ability to leverage assets.	Occupancy below 85%. High occupancy volatility through cycles.	Average debt tenor less than three years. No year represents more than 50% of total debt.	Access only during buoyant credit markets to equity, unsecured bonds or bank debt, secured bank mortgages or joint ventures.
ccc	Adverse market with lack of liquidity and/or leveragability.	Sustained large decline or wide swings in occupancy rates under normal market conditions.	Short-term debt concentration, leading to high threat of liquidity shortfall.	Conditional access to capital.
	Investment Granularity	**Lease Renewal**	**Matching of Lease and Interest Rate Risk**	**Unencumbered Asset Pool**
aa	n.a.	n.a.	n.a.	n.a.
a	Very high portfolio granularity. Top 10 assets comprise less than 30% of net rental income or value.	Large majority (or more than 85%) of leases renewed.	Difference between average lease length and average debt tenor less than two years.	Leveragable unencumbered pool with no adverse selection.
bbb	High portfolio granularity. Top 10 assets comprise 30%-60% of net rental income or value.	Most (or more than 80%) of leases renewed.	Difference between average lease length and average debt tenor between two and four years.	Leveragable unencumbered pool with limited adverse selection.
bb	Limited portfolio granularity; small or concentrated portfolio. Top 10 asset comprise more than 60% of net rental income or value.	Majority (more than 70%) of leases renewed	Difference between average lease length and average debt tenor exceeds four years.	Small unencumbered pool with some adverse selection.
b	High single-asset concentration. Top 10 assets comprise more than 60% of net rental income or value.	Difficulties in lease renewals (less than 60%).	Significant difference between average lease length and average debt tenors.	Limited unencumbered pool with adverse selection.
ccc	Record of failed operations in concentrated assets.	Limited lease renewals (less than 50%).	Unfunded short-term debt concentration leading to high threat of liquidity shortfall.	Rapidly shrinking unencumbered pool with adverse selection.
	Asset Scale	**Lease Expiration Schedule**	**Laddered Debt Maturity Profile**	
aa	n.a.	n.a.	n.a.	
a	Rent-yielding assets: USD8bn; leasing EBITDA: USD400m.	Average near-to-medium term lease expiries.	Well spread debt maturity schedule.	
bbb	Rent-yielding assets: USD2bn; leasing EBITDA: USD100m.	Average or high near-to-medium term lease expiries.	Moderately spread debt maturity schedule.	
bb	Rent-yielding assets: USD1bn; leasing EBITDA: USD50m.	High near-to-medium term lease expiries.	Less smooth debt maturity schedule.	
b	Rent-yielding assets: USD0.5bn; leasing EBITDA: USD25m.	Very high near-to-medium term lease expiries.	Less smooth debt maturity schedule with material bullet risk.	
ccc	Rapidly declining size of rent-yielding assets.	Erratic lease expiry reflecting operational difficulties.	Material near-term maturity with no viable long-term refinancing.	
	Asset Quality	**Rollover Rates**	**Fixed/Floating Interest Rate Liability Profile**	
aa	n.a.	n.a.	n.a.	
a	Strong rent per square foot and occupancy.	Positive through-the-cycle lease rollover rates with yoy decline of less than 5%.	Fixed or hedged debt more than 75% of total debt.	
bbb	Average rent per square foot and occupancy.	Flat through-the-cycle lease rollover rates with with yoy decline of less than 10%.	Fixed or hedged debt 50%-75% of total debt.	
bb	Below-average rent per square foot and occupancy.	Flat through-the-cycle lease rollover rates withwith yoy decline of less than 15%.	Fixed or hedged debt less than 50% of total debt.	
b	Weak rent per square foot and occupancy.	Flat through-the-cycle lease rollover rates with with yoy decline of up to 20%.	Fixed or hedged debt consistently less than 50% of total debt. No clear hedging policy, with evidence of change through the cycle.	
ccc	Unsustainable rental and occupancy statistics.	Negative through-the-cycle lease rollover rates.	Hedge counterparty defaults resulting in highly detrimental interest rate exposure.	
	Development Exposure	**Tenant Concentration and Tenant Credit**		
aa	n.a.	n.a.		
a	Development cost to complete less than 2.5% of assets. Limited speculative development.	Top 10 tenants comprise less than 15% of annual base rent revenue; below-average tenant credit risk.		
bbb	Development cost to complete between 2.5% and 10% of undepreciated assets. Some speculative development.	Top 10 tenants comprise 15%-30% of annual base rent revenue; average tenant credit risk.		
bb	Development cost to complete between 10% and 15% of assets. High speculative development.	Top 10 tenants comprise more than 30% of annual base rent revenue; high tenant credit risk.		
b	Development cost to complete above 15% of assets. High speculative development.	Top 10 tenants comprise more than 50% of annual base rent revenue; high tenant credit risk.		
ccc	High execution risk or overbearing development exposure.	High risk of, or significant, non-payment of rents.		

Financial Profile Key Factors — APAC Property/REITs

	Profitability	Financial Structure	Financial Flexibility
Rating	**Recurring EBITDA Margin**	**Net Debt/Recurring EBITDA**	**Financial Discipline**
aa	n.a.	n.a.	n.a.
a	80%	5.0x	Well defined geographic strategy. Clear commitment to maintaining a conservative policy with only modest deviations allowed.
bbb	70%	7.5x	Defined geographic strategy. Less conservative policy but generally applied consistently.
bb	60%	12.0x	Limited geographic strategy. Financial policy in place but flexibility in applying it could lead to tdowngrade guidelines being temporarily exceeded.
b	50%	>12x	No financial policy or record of ignoring it. Opportunistic behavior.
ccc	Rapidly declining profitability resulting in sustained negative EBITDA margin.	Unsustainable leverage.	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis mode environment,
	Asset Class Volatility Through the Cycle	**LTV (Net Debt/Investment Properties)**	**Liquidity Coverage**
aa	n.a.	n.a.	n.a.
a	Generally stable, somewhat less sensitive to economic cycles.	25%	1.25x.
bbb	Demand volatility in line with economic cycles.	40%	1.0x.
bb	Demand volatility exacerbates economic cycles.	60%	Liquidity ratio below 1.0x. Good access to resilient local banking market or significant unencumbered assets as an alternative source of liquidity.
b	Highly cyclical and difficult to predict.	65%	Liquidity ratio below 1.0x. Weak local banking market or limited portfolio of unencumbered assets as an alternative source of liquidity.
ccc	Unreliable asset class volatility.	Unsustainable level and/or close to covenant breach.	No near-term prospect of recovery in liquidity. All/most funding sources subject to material execution risk.
		Unencumbered Asset Cover	**FX Exposure**
aa		n.a.	No material FX mismatch.
a		2.5x	Profitability potentially exposed to FX but efficient hedging. Debt and cash flow well matched.
bbb		2.0x	Some FX exposure on profitability and/or debt/cash flow match. Effective hedging.
bb		1.5x	FX exposure on profitability and/or debt/cash flow match. Some hedging but only partly effective.
b		1.0x	Large FX exposure. No significant/ineffective hedging.
ccc		Rapidly shrinking unencumbered pool.	FX exposure dominant in impairing the issuer's ability to service debt in cash terms.
			Recurring Income EBITDA Interest Cover
aa			n.a.
a			4.0x
bbb			2.5x
bb			1.5x
b			1.0x
ccc			1.0x or lower.

EMEA Real Estate and Property

Sector Risk Profile

Rating Range

The sector risk profile can range up to the 'A' rating category reflecting the long-term, contractual and resilient nature of the income profile, together with the valuation volatility of the underlying properties, and other factors often beyond management control, such as interest rates, supply and demand dynamics, and asset allocations. Sector-specific factors indicate ratings within this rating range according to property portfolio, rental income risk, asset-liability matching and access to capital.

The cash retention limitations placed on EMEA REITs, given the tax code requirements to distribute the majority of taxable income, result in REITs consistently relying on the capital markets for refinancing. Fitch's ratings in the sector are clustered in the 'BBB' rating category, although certain characteristics can result in ratings up to the 'A+' rating level.

Sector-Specific Key Factors

Property Portfolio

This factor assesses portfolio quality, asset liquidity, and ability to leverage assets, asset concentration, geographical strategy, and development exposure.

Rental Income Risk Profile

This factor incorporates occupancy, lease duration and rental income volatility of the relevant asset classes through the cycle, lease expiration schedule, lease renewal percentages, tenant concentration and tenant credit considerations.

Liability Profile

This factor captures the average debt maturity, laddered debt maturities, and interest-hedging strategy.

Access to Capital

This factor measures sources of capital, the quality of the unencumbered asset pool, absolute scale of the property portfolio and the cost of funding relative to passing rent yields.

Financial Profile Key Factors

Financial Profile

The financial metrics encompass mid-point loan-to-value (LTV) and coverage ratios, and measures of financial discipline, asset class volatility and unencumbered asset cover, up to the 'A+' rating level. The analysis of key credit metrics focuses on EMEA real-estate and property issuers' profitability, financial structure and financial flexibility.

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EMEA Real Estate and Property

Industry Characteristics

Representative companies' IDRs in this sector are typically in the 'BBB' rating category. This indicates participants whose overall risk profile has good defensive income qualities with visibility of cash flows from long-term contracted rental income. However, property markets are vulnerable to swings in capital and rental values, often due to effects beyond their immediate control. The sector is also reliant on debt to fund long-term capital-intensive assets. Although not directly affecting cash flows, generally volatile property valuations — also affecting asset sale volumes — can change lenders' appetite for refinancing debt.

REITs and property companies are usually unable to repay debt from cash-flow generation — although a robust cash-flow profile can support efforts to refinance capital — and consequently the assessment of refinancing risk and liquidity is a key credit factor in the rating process. Due to the open multi-participant and therefore fragmented nature of the sector, the downside bias of property cycles is exacerbated by weaker and smaller participants falling foul of the above factors.

Property companies at the top of the rating range have demonstrated an ability to partly offset sector risks through geographical and asset class diversification, with an emphasis on prime properties, conservative leverage and strong liquidity. These companies also typically benefit from experienced management teams that are able to anticipate and react to changing market dynamics. Companies at the lower end of the rating range may have asset concentration, more exposure to tenant default, rent arrears, high vacancy rates and low tenant retention rates. When the property cycle unexpectedly declines, they are often caught with undeveloped, unlet properties.

Sector-Specific Key Factors — EMEA Real Estate and Property

	Property Portfolio	Rental Income Risk Profile	Liability Profile	Access to Capital
Rating	**Portfolio Liquidity and Ability to Leverage Assets**	**Occupancy**	**Debt Maturity Profile**	**Sources of Capital**
aa	n.a.	n.a.	n.a.	n.a.
a	Good institutional appetite (buyers/sellers/lenders) in best markets, indicating liquidity and ability to leverage assets.	Limited occupancy volatility through cycles. Occupancy consistently above 95%. Record of limited tenant defaults.	Average debt tenor at least seven years. No year represents more than 15% of total debt.	Market-leading access through cycles to all of common and preferred equity, unsecured bonds/ bank debt, secured debt, and/or joint ventures.
bbb	Average institutional appetite (buyers/sellers/lenders) in strong markets, indicating liquidity and ability to leverage assets.	Moderate occupancy volatility through cycles. Occupancy consistently above 90%. Record of limited tenant defaults.	Average debt tenor between five to seven years. No year represents more than 20% of total debt.	Solid access to all common and preferred equity, unsecured bonds/bank debt, secured debt, and/or joint ventures.
bb	Weak institutional appetite (buyers/sellers/lenders) in good markets, indicating a lack of liquidity and inability to leverage assets.	High occupancy volatility through cycles. Occupancy below 90%. Record of meaningful tenant defaults.	Average debt tenor between three to five years. No year represents more than 25% of total debt.	Limited access to some of the following markets: equity, unsecured bonds/bank debt, secured debt, and joint ventures.
b	Limited institutional appetite (buyers/sellers/lenders) in poor markets, indicating a lack of liquidity and inability to leverage assets.	High occupancy volatility through cycles. Occupancy below 85%. Record of high tenant defaults.	Average debt tenor less than three years. No year represents more than 30% of total debt.	Access only during buoyant credit markets to equity, unsecured bonds/bank debt, secured bank mortgages, and joint ventures.
ccc	Adverse market with lack of liquidity and/or leveragability.	Rapidly declining occupancy rates.	High threat of liquidity shortfall due to short-term debt concentration.	Conditional access to capital.
	Investment Granularity	**Lease Duration, Renewal and NOI Volatility**	**Fixed/Floating Interest Rate Liability Profile**	**Unencumbered Asset Pool**
aa	n.a.	n.a.	n.a.	n.a.
a	Very high portfolio granularity. Top 10 assets comprise less than 20% of net rental income or value.	Lease duration (or average tenure for residential) longer than eight years with large majority renewed, sustained net rental income growth and/or low volatility.	Fixed or hedged debt above 75% of total debt. Evidence of consistent policy through the cycle.	Leveragable unencumbered pool with no adverse selection.
bbb	High portfolio granularity. Top 10 assets comprise 20%-40% of net rental income or value.	Lease duration (or average tenure for residential) of five to eight years with most renewed, sustained net rental income growth and/or average volatility.	Fixed or hedged debt 50%-75% of total debt. Evidence of consistent policy.	Leveragable unencumbered pool with limited adverse selection.
bb	Limited portfolio granularity; small or concentrated portfolio. Top 10 assets comprise 40%-60% of net rental income or value.	Lease duration between three to five years with some renewed, flat or negative net rental income growth and/or above-average volatility compared to industry average.	Fxed or hedged debt above 50% of total debt. However, no clear hedging policy or lack of record.	Small unencumbered pool with some adverse selection.
b	High single asset concentration. Top 10 assets comprise more than 60% of net rental income or value.	Lease duration less than three years with difficulties in renewals, negative net rental income growth and/or higher volatility compared to industry average.	Limited fixed or hedged debt in place. No clear hedging policy or lack of record.	Limited unencumbered pool with adverse selection.
ccc	Record of failed operations in concentrated asset(s).	Short lease duration, limited lease renewals, negative net rental income growth and/or exceptional volatility compared to industry average.	Cash losses from hedging have become a critical outflow.	Rapidily shrinking unencumbered pool with adverse selection.
	Geographic Strategy	**Lease Expiry Schedule**		**Absolute Scale**
aa	n.a.	n.a.		n.a.
a	Record of benefiting from geographic diversification. Exposure to at least four markets displaying different economic and business cycles with appropriate scale.	Smoothed lease maturity profile with no large lease expiries in the medium term.		Rent-yielding property assets of at least EUR5bn.
bbb	A strong and focused presence in a prime market; or focus on two to three markets with appropriate scale. Markets display different economic and business cycles.	Smoothed lease maturity profile with no large lease expiries in the near term.		Rent-yielding property assets of at least EUR1.5bn.
bb	Portfolio thinly spread across markets; or focus on one non-prime market or small exposure to other non-prime markets.	Lumpy lease maturity profile.		Rent-yielding property assets of at least EUR750m.
b	No geographic strategy; or no scale in any market.	Lumpy lease maturity profile with meaningful lease expiries in the near term.		Rent-yielding property assets of at least EUR500m.
ccc	Concentration in especially disadvantageous region(s).	Significant lease expiries adversely affecting cash flow.		Rapidly declining scale.
	Asset Quality	**Tenant Concentration and Tenant Credit**		
aa	n.a.	n.a.		
a	Mainly prime and good secondary. Lowest-yielding asset class.	Top 10 tenants comprise less than 15% of annual base rent revenue; below-average tenant credit risk.		
bbb	Prime and good secondary.	Top 10 tenants comprise 15%-30% of annual base rent revenue; average tenant credit risk.		
bb	Secondary.	Top 10 tenants comprise more than 30% of annual base rent revenue; high tenant credit risk.		
b	Tertiary. Highest-yielding asset class.	Top 10 tenants comprise more than 50% of annual base rent revenue; high tenant credit risk.		
ccc	Unsustainable rental and occupancy statistics	High risk of, or significant, non-payment of rents adversely affecting cash flow.		
	Development Exposure			
aa	n.a.			
a	Committed development cost to complete of 5% of investment properties for average risk projects.			
bbb	Committed development cost to complete of 10% of investment properties for average risk projects.			
bb	Committed development cost to complete of 15% of investment properties for average risk projects.			
b	Committed development cost to complete of more than 20% of investment properties for average risk projects.			
ccc	High execution risk or overbearing development exposure.			

Financial Profile Key Factors — EMEA Real Estate and Property

	Profitability	Financial Structure	Financial Flexibility
Rating	**FFO Dividend Cover**	**Loan-to-Value**	**Financial Discipline**
aa	n.a.	n.a.	Publicly announced conservative financial policy. Record of strict compliance.
a	1.4x	40%	Clear commitment to maintaining a conservative policy with only modest deviations allowed.
bbb	1.1x	50%	Less conservative policy but generally applied consistently.
bb	1.0x	60%	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
b	below 1.0x	65%	No financial policy or record of ignoring it. Opportunistic behavior.
ccc	Unsustainable dividend cover.	Unsustainable level and/or close to covenant breach.	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis mode.
	Asset Class Volatility	**Unencumbered Asset Cover**	**Liquidity Coverage**
aa	n.a.	n.a.	n.a.
a	Portfolio values change less than 15% peak to trough with strong record of recovery.	2.5x	1.25x
bbb	Portfolio values change less than 30% peak to trough with a record of recovery	2.0x	1.0x.
bb	Portfolio values change less than 40% peak to trough with a record of recovery	1.5x	Liquidity ratio below 1.0x. Good access to resilient local banking market or significant unencumbered assets as an alternative source of liquidity.
b	Portfolio values change more than 40% peak to trough. Difficult to predict or lack of record to assess recovery.	1.0x	Liquidity ratio below 1.0x. Weak local banking market or limited portfolio of unencumbered assets as an alternative source of liquidity.
ccc	Unreliable asset class volatility.	Rapidly shrinking unencumbered pool.	No near-term prospect of recovery in liquidity. All/most funding sources subject to material execution risk.
		Managing Balance Sheet Through the Cycle	**FX Exposure**
aa		n.a.	No material FX mismatch.
a		Proven record of balance-sheet management through the cycle. Maintenance of a suitable LTV taking asset volatility into account.	Profitability potentially exposed to FX but efficient hedging. Debt and cash flow well matched.
bbb		Maintenance of a suitable LTV taking asset volatility into account.	Some FX exposure on profitability and/or debt/cash flow match. Effective hedging.
bb		Poor balance-sheet management. Some opportunistic re-leveraging of the balance sheet as property values increase.	FX exposure on profitability and/or debt/cash flow match. Some hedging but only partly effective.
b		Poor balance-sheet management. Aggressive re-leveraging of the balance sheet as property values increase.	Large FX exposure. No significant/ineffective hedging.
ccc		No control over balance-sheet leveraging.	FX exposure dominant in impairing the issuer's ability to service debt in cash terms.
		Net Debt/Recurring EBITDA	**Recurring Income EBITDA Interest Cover**
aa		n.a.	n.a.
a		8.0x	2.5x
bbb		9.0x	1.75x
bb		10.0x	1.25x
b		11.0x	1.1x
ccc		>11.0x	1.0x or lower.

Latin America Real Estate

Sector Risk Profile

Rating Range

Latin American REOCs have an average risk profile and typically have good visibility on cash flows from long-term contractual rental income. However, property markets are vulnerable to swings in capital and rental values, often due to issues beyond companies' immediate control, such as e.g. interest rates, supply and demand dynamics and asset allocations. LatAm REOC ratings are typically clustered in the 'BB' to 'BBB' rating categories, although strong credit characteristics such as higher property quality, property diversification, and low leverage can lift ratings to the 'A' rating level. On the other end, weak credit features such as short duration lease portfolios, more variable revenue, limited diversification, and higher sovereign risk environment could result in some companies set in the 'B' rating category despite lowers levels of leverage.

Sector-Specific Key Factors

Property Portfolio

This factor assesses portfolio liquidity and ability to leverage assets, investment granularity, geographic strategy and development exposure.

Rental Income Risk Profile

This factor incorporates occupancy, lease duration and variable revenue lease structures, lease-expiration schedule, lease renewal percentages and rollover rates, tenant concentration and tenant credit.

Liability Profile

This factor captures the average debt maturity and refinancing risk associated with bullet maturities commonly found in LatAm REOCs.

Access to Capital

Sources of capital and an unencumbered asset pool constitute another key factor.

Financial Profile Key Factors

Financial Profile

The financial metrics encompass midpoint recurring operating margin, net debt to EBITDA and loan-to-value leverage ratios, interest coverage ratios, and measures of financial discipline, asset class volatility and unencumbered asset cover, up to the 'A' rating level. Foreign currency risk is a major factor analyzed as part of the company's financial profile.

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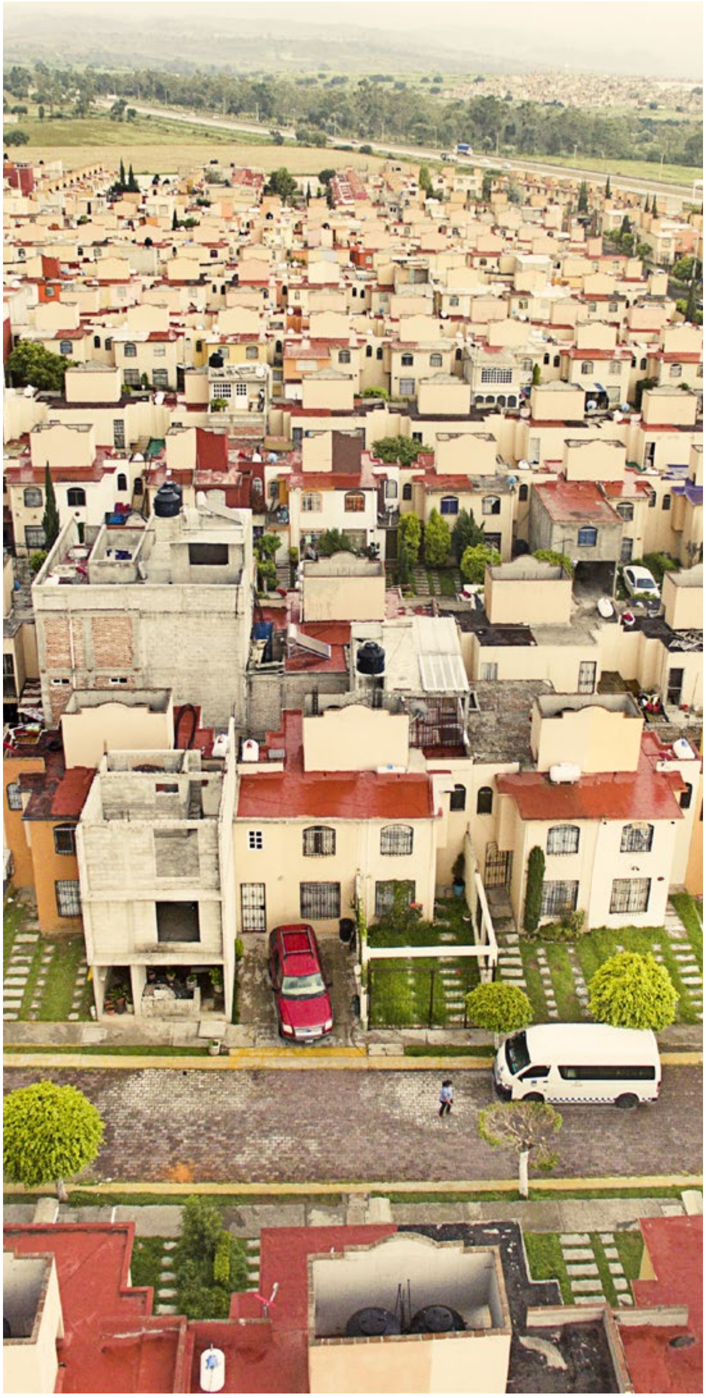
Latin America Real Estate

Industry Characteristics



The portfolio of real estate companies rated by Fitch Ratings in Latin America primarily consists of REOCs. REITs, a U.S. legal type of entity, are in an early stage of development and are only present in the Mexican market. The Mexican REIT, known as FIBRA, mirrors the U.S. legal form and is an investment vehicle that is dedicated to the acquisition and development of real estate properties in Mexico for leasing and possible subsequent sale. The primary benefit of the FIBRA structure is that the entity does not pay corporate income taxes. FIBRAs are taxed at the investor level, as opposed to a corporation taxed at the entity level. In order to achieve and maintain its fiscal status, a FIBRA must adhere to several qualifications. Currently, Mexican FIBRAs operate income-producing real estate properties such as shopping centers, regional malls, industrial warehouses, offices and hotel properties.

LatAm REOCs and FIBRAs (collectively, REOCs) typically have good visibility on cash flows from medium- to long-term contractual rental income. However, property markets are vulnerable to swings in capital and rental values, often due to issues beyond companies' immediate control including interest rates, supply and demand dynamics and asset allocations. Issuers within the sector are also reliant on the capital markets to refinance debt and to fund the acquisition, development and redevelopment of long-term capital-intensive assets. Property valuation volatility can change lenders' appetite toward refinancing debt and equity investors' perception of the companies' valuation, each of which can affect their ability to access capital.

LatAm REOCs are usually unable to repay debt via retained cash flow generation, although a robust cash flow profile and conservative common dividend payout policies can support internally generated liquidity. Therefore, Fitch's assessment of capital access, refinancing risk and liquidity is a key credit factor in the rating process.

LatAm REOCs at the middle to higher end of the natural rating range have demonstrated an ability to partly offset sector risks with an emphasis on owning prime properties, having conservative leverage and strong liquidity. To the other end of the rating range, companies may have lower-quality properties, weaker lease structures, limited diversification, higher leverage and/or weaker liquidity.

Sector-Specific Key Factors — Latin America Real Estate

	Property Portfolio	Rental Income Risk Profile	Liability Profile	Access to Capital
Rating	**Portfolio Liquidity**	**Occupancy**	**Average Debt Maturity Profile**	**Sources of Capital**
aa	n.a.	n.a.	n.a.	n.a.
a	Good institutional appetite (buyers/sellers/lenders) in best markets evidencing liquidity and ability to leverage assets.	Occupancy at 95% or above. Limited occupancy volatility through cycles.	Average debt tenor at least seven years.	Market-leading access through cycles to all of common and preferred equity, unsecured bonds/ bank debt, secured debt, and/or joint ventures.
bbb	Average institutional appetite (buyers/sellers/lenders) in strong markets evidencing liquidity and ability to leverage assets.	Occupancy between 92.5% and 95.0%. Moderate occupancy volatility through cycles.	Average debt tenor between five to seven years.	Some access to some of the following markets: common and preferred equity, unsecured bonds/ bank debt, secured debt, and/or joint ventures.
bb	Weak institutional appetite (buyers/sellers/lenders) in good markets evidencing a lack of liquidity and inability to leverage assets.	Occupancy between 85% and 92.5%. High occupancy volatility through cycles.	Average debt tenor less than five years.	Limited access to some of the following markets: common and preferred equity, unsecured bonds/ bank debt, secured debt, and/or joint ventures.
b	Limited institutional appetite (buyers/sellers/lenders) in poor markets evidencing a lack of liquidity and leveragability.	Occupany below 85%. High occupancy volatility through cycles.	Average debt tenor less than three years.	Access only to some of the following markets: common and preferred equity, unsecured bonds/ bank debt, secured debt, and/or joint ventures.
ccc	Adverse market with lack of liquidity and/or leveragability.	Rapidly declining occupancy rates.	Short-term debt concentration, leading to high threat of liquidity shortfall.	Conditional access to capital.
	Investment Granularity	**Lease Duration**	**Laddered Debt Maturity Profile**	**Unencumbered Asset Pool**
aa	n.a.	n.a.	n.a.	n.a.
a	Very high portfolio granularity. Top 10 assets comprise less than 15% of net operating income or value.	Lease duration longer than six years.	Extremelly well-spread debt maturity schedule.	Leveragable unencumbered pool and/or no adverse selection.
bbb	High portfolio granularity. Top 10 assets comprise between 15% to 40% of EBITDA or value.	Lease duration between four to six years.	Well-spread debt maturity schedule.	Leveragable unencumbered pool with limited adverse selection.
bb	Limited portfolio granularity; small or concentrated portfolio. Top 10 assets comprise between 40% to 60% of EBITDA or value.	Lease duration between two to four years.	Less smooth debt maturity schedule	Small unencumbered pool with some adverse selection.
b	High single asset concentration. Top 10 assets comprise more than 60% of EBITDA or value.	Lease duration less than two years.	Less smooth debt maturity schedule with material bullet risk.	Limited unencumbered pool with adverse selection.
ccc	Record of failed operations in concentrated assets.	Rapidly declining lease duration profile.	Material near-term maturity likely to cause liquidity shortfall.	Rapidly shrinking unencumbered pool with adverse selection.
	Geographic Strategy	**Lease Expiration Schedule**		
aa	n.a.	n.a.		
a	Well defined geographic strategy in markets with strong growth demographics.	Average near-to-medium term lease expirations.		
bbb	Defined geographic strategy in markets with average growth demographics.	Average or high near-to-medium term lease expirations.		
bb	Limited geographic strategy or emphasis on markets with average or below average growth characteristics.	High near-to-medium term lease expirations.		
b	No geographic strategy.	Elevated near-to-medium term lease expirations		
ccc	Concentration in especially disadvantageous region(s).	Significant lease expiries adversely affecting cash flow.		
	Development Exposure	**Lease Renewal Percentages and Rollover Rates**		
aa	n.a.	n.a.		
a	No speculative development.	Large majority of leases renewed; positive lease rollover rates.		
bbb	Limited speculative development.	Most leases renewed; flat to positive through-the-cycle lease rollover rates		
bb	Some speculative development.	Some leases renewed; flat through-the-cycle lease rollover rates		
b	High speculative development.	Difficulties in renewal of leases; negative through-the-cycle lease rollover rates.		
ccc	High execution risk or overbearing development exposure.	Detrimental effect of lease renewals on cash flow.		
		Tenant Concentration and Tenant Credit		
aa		n.a.		
a		Top ten tenants comprise less than 15% of annual base rent revenue; below-average tenant credit risk.		
bbb		Top ten tenants comprise between 15% - 30% of annual base rent revenue; average tenant credit risk		
bb		Top ten tenants comprise more than 30% of annual base rent revenue; high tenant credit risk		
b		Top ten tenants comprise more than 50% of annual base rent revenue; high tenant credit risk		
ccc		High risk of, or significant, non-payment of rents adversely affecting cash flow.		

Financial Profile Key Factors — Latin America Real Estate

	Profitability	Financial Structure	Financial Flexibility
Rating	**Recurring EBITDA Margin**	**Net Debt/Recurring EBITDA**	**Financial Discipline**
aa	n.a.	n.a.	Publicly announced conservative financial policy. Record of strict compliance.
a	80%	4.0x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	75%	5.0x	Less conservative policy but generally applied consistently.
bb	60%	6.5x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
b	Less than 60%	8.0x	No financial policy or record of ignoring it. Opportunistic behavior.
ccc	Persistently and structurally break-even or loss-making at EBITDA level.	>10.0x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	Asset Class Volatility Through-the-Cycle	**LTV (Net Debt/Investment Properties)**	**Liquidity Coverage**
aa	n.a.	n.a.	n.a.
a	Limited demand volatility with economic cycles.	20%	1.5x.
bbb	Demand volatility in line with economic cycles.	40%	1.25x.
bb	Demand volatility exacerbates economic cycles.	60%	1.0x.
b	Highly cyclical and difficult to predict.	60%	<1.0x.
ccc	Unreliable asset class volatility.	Unsustainable level and/or close to covenant breach.	No near-term prospect of recovery in liquidity. All/most funding sources subject to material execution risk.
		Unencumbered Asset/Net Unsecured Debt	**FX Exposure**
aa		n.a.	No material FX mismatch.
a		4.0x	Profitability potentialy exposed to FX but efficient hedging in place. Debt and cash flow well-matched.
bbb		3.0x	Some FX exposure on profitability and/or debt/cash flow match. Effective hedging in place.
bb		2.0x	FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b		1.0x	Large FX exposure. No significant/ineffective hedging in place.
ccc		Rapidly shrinking unencumbered pool.	FX exposure dominant in impairing the issuer's ability to service debt in cash terms.
			Recurring Income EBITDA interest cover
aa			n.a.
a			4.0x
bbb			2.5x
bb			1.75x
b			1.0x
ccc			1.0x or lower.

U.S. Equity REITs and REOCs

Sector Risk Profile

Rating Range

U.S. equity REITs have an average risk profile and typically have good visibility on cash flows from long-term contractual rental income. However, property markets are vulnerable to swings in capital and rental values, often due to effects beyond companies' immediate control, such as interest rates, supply and demand dynamics, and asset allocations.

The cash retention limitations placed on U.S. equity REITs, given the tax code requirement for a REIT to distribute at least 90% of its taxable income, result in REITs consistently relying on the capital markets; therefore, U.S. equity REITs ratings are typically clustered in the 'BBB' rating category, although certain characteristics can result in ratings spanning the 'B' to 'A' categories.

Sector-Specific Key Factors

Property Portfolio

This factor assesses portfolio liquidity and ability to leverage assets, investment granularity, geographical strategy, asset quality and development exposure.

Rental Income Risk Profile

This factor incorporates occupancy, lease duration, same-store net operating income (NOI) volatility and lease renewal percentages, and tenant concentration and tenant credit considerations.

Liability Profile

This factor captures the average debt maturity and fixed/floating interest rate liability profile.

Access to Capital

Sources of capital and a leverageable unencumbered asset pool constitute key factors.

Financial Profile Key Factors

Financial Profile

The financial metrics encompass midpoint leverage and coverage ratios and measures of profitability, cash flow and contingent liquidity up to the 'A+' rating level. The analysis of key credit metrics focuses on the U.S. equity REIT or REOC's profitability, financial structure and financial flexibility. Focus is on cashflow leverage metrics, to measure the earnings power of the portfolio.

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U.S. Equity REITs and REOCs

Industry Characteristics

U.S. equity REITs typically have good visibility on cash flows from long-term contractual rental income. However, property markets are vulnerable to swings in capital and rental values, often due to effects beyond companies' immediate control, including interest rates, supply and demand dynamics and asset allocations. Issuers within the sector are also reliant on the capital markets to refinance debt and fund the acquisition, development and redevelopment of long-term capital-intensive assets. Property valuation volatility can change lenders' appetite toward refinancing debt and equity investors' perception of REIT valuation, each of which can affect a REIT's ability to access capital.

U.S. equity REITs are usually unable to repay debt via retained cash flow generation, although a robust cash flow profile and conservative common dividend payout policies can support internally generated liquidity. Therefore, Fitch's assessment of capital access, refinancing risk and liquidity is a key credit factor in the rating process.

U.S. equity REITs in the middle to higher end of the natural rating range have demonstrated an ability to partly offset sector risks with an emphasis on owning prime properties, having conservative leverage and strong liquidity and also owning leverageable assets via the mortgage market. Companies at the other end of the sector risk profile may have lower-quality properties, higher leverage and/or weaker liquidity and less leverageable assets.

Sector-Specific Key Factors — U.S. Equity REITs and REOCs

	Property Portfolio	Rental Income Risk Profile	Liability Profile	Access to Capital
Rating	**Portfolio Liquidity and Ability to Leverage Assets**	**Occupancy**	**Debt Maturity Profile**	**Sources of Capital**
aa	n.a.	n.a.	n.a.	n.a.
a	Good institutional appetite (buyers/sellers/lenders) in best markets evidencing liquidity and ability to leverage assets.	Occupancy at 95% or above. Limited occupancy volatility through cycles.	Average debt tenor at least seven years. No year represents more than 15% of total debt.	Market-leading access through cycles to all of common and preferred equity, unsecured bonds/ bank debt, secured debt, and/or joint ventures.
bbb	Average institutional appetite (buyers/sellers/lenders) in strong markets evidencing liquidity and ability to leverage assets.	Occupancy between 92.5% and 95.0%. Moderate occupancy volatility through cycles.	Average debt tenor between five–seven years. No year represents more than 20% of total debt.	Some access to some of the following markets: common and preferred equity, unsecured bonds/ bank debt, secured debt, and/or joint ventures.
bb	Weak institutional appetite (buyers/sellers/lenders) in good markets evidencing a lack of liquidity and inability to leverage assets.	Occupancy below 92.5%. High occupancy volatility through cycles.	Average debt tenor between three-five years. No year represents more than 25% of total debt.	Limited access to some of the following markets: common and preferred equity, unsecured bonds/ bank debt, secured debt, and/or joint ventures.
b	Limited institutional appetite (buyers/sellers/lenders) in poor markets evidencing a lack of liquidity and leveragability.	Occupancy below 85%. High occupancy volatility through cycles.	Average debt tenor less than three years. No year represents more than 30% of total debt.	Access only to some of the following markets: common and preferred equity, unsecured bonds/ bank debt, secured debt, and/or joint ventures.
ccc	Almost no institutional appetite (buyers/sellers/ lenders) in poor markets, indicating a lack of liquidity and leveragability.	Occupancy below 80%. High volatility through cycles.	Short-term debt concentration leading to high threat of liquidity shortfall.	Conditional access to capital.
	Investment Granularity	**Lease Duration, Same Store NOI Volatility and Renewal Percentages**	**Fixed/Floating Interest Rate Liability Profile**	**Unencumbered Asset Pool**
aa	n.a.	n.a.	n.a.	n.a.
a	Very high portfolio granularity. Top 10 assets comprise less than 15% of net operating income or value.	Lease duration longer than seven years with large majority renewed, sustained SSNOI growth and/or lower volatility than industry average.	Fixed or hedged debt is more than 75% of total debt.	Leveragable unencumbered pool and/or no adverse selection.
bbb	High portfolio granularity. Top 10 assets comprise 15%–25% of net operating income or value.	Lease duration between five–seven years with most renewed, sustained SSNOI growth and/or average volatility compared to industry average.	Fixed or hedged debt is 50%–75% of total debt.	Moderately leveragable unencumbered pool and/or limited adverse selection.
bb	Limited portfolio granularity; small or concentrated portfolio. Top 10 asset comprise 25%–60% of net operating income or value.	Lease duration between three–five years with some renewed, flat or negative SSNOI growth and/or above-average volatility compared to industry average.	Fixed or hedged debt is less than 50% of total debt.	Limited leveragability and/or small unencumbered pool.
b	High single asset concentration. Top 10 assets comprise more than 60% of NOI or value.	Lease duration less than three years with difficulties in renewals, negative SSNOI growth and/or higher volatility compared to industry average.	Fixed or hedged debt is consistently less than 50% of total debt. No clear hedging policy in place with evidence of change through the cycle.	Limited unencumbered pool with adverse selection.
ccc	Record of failed operations in concentrated assets.	Short lease duration, limited lease renewals, negative SSNOI growth and/or exceptional volatility compared to industry average.	Cash losses from hedging a critical outflow.	No unencumbered pool.
	Geographic Strategy	**Tenant Concentration and Tenant Credit**		
aa	n.a.	n.a.		
a	Record of benefiting from geographic diversification. Exposure to at least four markets displaying different economic and business cycles with appropriate scale.	Top 10 tenants comprise less than 15% of annual base rent revenue; below-average tenant credit risk.		
bbb	Strong and focused presence in a given market or focus on two to three markets with appropriate scale. Markets display different economic and business cycles.	Top 10 tenants comprise 15%–25% of annual base rent revenue; average tenant credit risk.		
bb	Portfolio thinly spread across markets or focus on one market or small exposure to other markets.	Top 10 tenants comprise 25%–50% of annual base rent revenue; elevated tenant credit risk.		
b	No geographic strategy. No scale in any market.	Top 10 tenants comprise more than 50% of annual base rent revenue; elevated tenant credit risk.		
ccc	Concentration in especially disadvantageous region(s).	Significant tenant concentration along with non-payment of rents adversely affecting cash flow.		
	Asset Quality			
aa	n.a.			
a	Strong rent per square foot and occupancy relative to peers.			
bbb	Average rent per square foot and occupancy relative to peers.			
bb	Below average rent per square foot and occupancy relative to peers.			
b	Weak rent per square foot and occupancy relative to peers.			
ccc	Significantly weaker rents and occupancy relative to peers.			
	Development Exposure			
aa	n.a.			
a	Development cost-to-complete less than 2.5% of undepreciated assets. Limited speculative development.			
bbb	Development cost-to-complete between 2.5% and 10% of undepreciated assets. Some speculative development.			
bb	Development cost-to-complete between 10% and 15% of undepreciated assets. High speculative development.			
b	Development cost-to-complete above 15% of undepreciated assets. High speculative development.			
ccc	High execution risk or over-bearing development exposure.			

Financial-Profile Key Factors — U.S. Equity REITs and REOCs

	Profitability	Financial Structure	Financial Flexibility
Rating	**AFFO Payout Ratio**	**Net Debt/Recurring EBITDA**	**Financial Discipline**
aa	n.a.	n.a.	Publicly announced conservative financial policy. Record of strict compliance.
a	60%	5.5x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	80%	6.5x	Less conservative policy but generally applied consistently.
bb	100%	7.5x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
b	110%	10x	No financial policy or record of ignoring it. Opportunistic behavior.
ccc	Unsustainable payout ratio.	12.5x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
		Unencumbered Assets/Net Unsecured Debt	**Liquidity Coverage**
aa		n.a.	n.a.
a		2.5x at a stressed capitalization rate.	1.25x
bbb		2.0x at a stressed capitalization rate.	1.00x
bb		1.75x at a stressed capitalization rate.	0.75x
b		1.5x at a stressed capitalization rate.	0.50x
ccc		Rapidly shrinking or no unencumbered pool.	No near-term prospect of recovery in liquidity. All/most funding sources subject to material execution risk.
			U.S. REIT FFO Interest Coverage
aa			n.a.
a			3.5x
bbb			2.5x
bb			2.0x
b			1.5x
ccc			1.25x or lower

Chemicals

Sector Risk Profile

Rating Range

The sector has a higher than average risk profile, which ranges up to the 'A' rating category. This reflects the breadth and segmentation of the industry as well as its inherent cyclicality. Company-specific traits indicate ratings within this range according to cost position, diversification of product, geography and end-markets. These in turn dictate producers' resilience or vulnerability to swings in demand or prices.

Fitch's existing ratings of companies in this sector extend up to 'A+' for the bigger globally diversified entities or commodity producers with global cost leadership. Lower ratings typically reflect higher costs of production, smaller scale and/or limited product or geographical diversification.

Sector-Specific Key Factors

Diversification

Fitch views the level of diversification in a chemical company's revenue base as a key rating driver —as it reduces the risk associated with regional, market or product-specific downturns, and provides exposure to varying cyclical patterns, thereby smoothing out the volatility in operating earnings and cash flows.

Market Position

Fitch analyses a producer's leadership in its relevant market that reflects a strong value proposition, sufficient scale to develop or maintain competitive assets and technologies and global reach. The presence of significant barriers to entry or high switching costs support a company's pricing power.

Revenue/Value Sources

A product portfolio geared towards high-value-added chemicals is regarded as a positive factor due to the higher profitability, relative market stability, and cash-flow predictability entailed by those products. For commodity chemicals, Fitch places particular emphasis on the changes in industry capacity, as supply-driven imbalances have a significant impact on prices, operating rates and profitability.

A credible strategy to address the energy transition with limited execution risks is viewed as a mitigant to demand disruption that could emerge from a regulation-driven push for sustainability.

Cost Position

Margins and cash-flow generation will be higher across the cycle for low-cost producers, with positive implications in terms of financial flexibility, re-investment and expansion capacity. In addition, during cyclical downturns, lower-cost chemical producers will remain profitable at prices where higher- or marginal-cost producers may not break even —and may have to idle capacity, or even exit the market. This is particularly true for commodity chemicals where heavy asset bases translate into high operating leverage.

Financial Profile Key Factors

Financial Profile

The financial profile factors show ranges of size, profitability, cash-flow and leverage and coverage metrics within relevant rating categories. Compared with the aggregate corporate curve, the chemicals sector has a higher risk profile than the average.

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Chemicals

Industry Characteristics

Chemical products serve hundreds of end-users and market applications. They are commonly divided into broad clusters such as commodity chemicals, specialty chemicals, agrochemicals and industrial gases. Demand reflects end-market growth trends, and price cyclicality comes from supply/demand market imbalances. Increasingly, markets and sectors are defined by the state of commoditisation of products, or by the innovative R&D power of the market participants.

Price volatility is high at the commodity end of the value chain – where barriers to entry are low, product differentiation is non-existent, competition is price-driven, and the correlation is strong between selling and raw material prices. Those high-volume segments are capital intensive, and require substantial investment in large-scale production facilities, regular maintenance, upgrade and replacement programs, but also in storage, distribution and utilities.

Cost efficiency is essential, and the focus of commodity chemical producers is generally on economies of scale in production and procurement, vertical integration, and improvements in processes. Fixed-cost and operating leverage are high, and participants' ability to react to cyclical swings and adjust production capacity is critical. The combination of demand cyclicality, price volatility and long lead times for plant construction often result in a mismatch between capital spending and operating cash flows, and can present a challenge in terms of long-term investment planning and expansion strategies. Large capacity additions are typically planned during boom periods, and have in the past exacerbated the market imbalances resulting from cyclical slumps in demand.

Conversely, functional chemical products with performance attributes, high technological content, or niche applications, are less subject to wide shifts in the supply/demand balance, and can command pricing power. Asset bases are also lighter than those of commodity producers, and operating leverage is lower.

While not immune to swings, operating earnings and margins are less volatile over the cycle. A critical success factor for these products is the performance or added value in other production chains or industry sectors, rather than cost-efficient volume production. As such, companies have to constantly renew their product portfolio, and find new product applications or formulae (often in performance systems), to retain a cutting edge. These products are most successful if supported by long-term growth trends such as replacing less favorable materials, renewable energies, energy efficiencies, population growth, and increasing affluence in emerging markets.

Chemical producers are often exposed to more than one of the clusters listed above. The magnitude and impact of demand and price swings on their profitability and cash-flow generation is therefore dictated by their diversification in terms of product, geography and end-market, as well as their cost position. Investment-grade companies typically combine a business profile affording relative cash-flow predictability and positive free cash- flow (FCF) generation across the cycle, with a robust capital structure and high financial flexibility.

Speculative-grade chemical companies are typically more vulnerable to weak market conditions. They have less of an ability to control operating earnings and cash-flow levels through the cycle – due to factors such as high exposure to commodity chemicals and/or raw material volatility, low levels of operational, product or geographical diversification, regulatory constraints, concentration of supply, or inefficient production assets. Debt protection metrics are subject to wide variations from cyclical peaks to lows, and financial flexibility can be significantly impaired during downturns.

Sector-Specific Key Factors — Chemicals

	Revenue/Value Sources	Market Position	Diversification	Cost Position
Rating	**Portfolio Characteristics (Specialty Chemicals)**	**Market Position**	**Portfolio Diversification**	**Raw Material & Energy Costs**
aa	n.a.	n.a.	n.a.	n.a.
a	Portfolio with a high content of specialty chemicals with above average growth fundamentals. Highly differentiated offering.	Top-three market position in core activities.	Large diversified producer with portfolio of products offering exposure to diverging cyclical trends.	Strong ability to pass through raw material costs or sustainable access to highly competitively priced raw materials and/or energy.
bbb	Portfolio with a high content of specialty chemicals with strong growth prospects and strong degree of differentiation.	Top-five market position in core activities.	Medium-sized diversified producer or large non-diversified producer in highly concentrated subsector	Strong-to-moderate ability to pass through raw material costs or access to competitively priced raw materials and/or energy.
bb	Portfolio with a high content of specialty chemicals with moderate differentiation. Potential temporary structural weaknesses.	Top-10 market position in core activities or leader in niche, protected geographical or product market.	Medium or small producer.	Mid-to-high sensitivity to raw material price volatility oraverage to high raw material and energy costs.
b	Portfolio with a high content of specialty chemicals with weak medium- and long-term demand fundamentals. Facing structural weaknesses.	Outside top-10 market position.	Small or very small with little or no diversification.	High sensitivity to raw material price volatility, high raw material or energy costs, or high supply concentration.
ccc	Specialty chemicals portfolio with unsustainable demand fundamentals.	Rapidly deteriorating market position; extremely small and/or undifferentiated participant.	Concentration in disadvantageous market.	High cash costs exceeding mid-cycle revenue expectations.
	Portfolio Characteristics (Commodity Chemicals)	**EBITDA ($)**	**End-Market Diversification**	**Degree of Integration**
aa	n.a.	n.a.	n.a.	n.a.
a	Commodity chemicals with highly concentrated market structure, high barriers to entry and demonstrated supply-discipline with strong growth prospects.	USD1.4 billion	Above-average end-market diversification with verylow cyclicality across product portfolio.	Strong degree of vertical or horizontal integration with high logistical/cost efficiencies or co-located sites with high switching costs for customers.
bbb	Commodity chemicals with above average growth prospects mitigating overcapacity risks, volatile raw material prices and price competition.	USD0.6 billion	Strong end-market market diversification with lowcyclicality across product portfolio.	Average degree of vertical or horizontal integration with strong-to-moderate cost efficiencies or light asset bases with low operating gearing.
bb	Commodity chemicals with average growth prospects and characterized by overcapacity, volatile raw material prices, price-driven competition.	USD0.4 billion	Modest end-market diversification, some customer concentration, mid to high product cyclicality, leader in stable niche applications.	Low degree of vertical or horizontal integration.
b	Commodity chemicals characterized by structural overcapacity, intense competitive pressures, poor long-term growth potential.	USD0.1 billion	High cyclicality, no diversification and/or highcustomer concentration.	No integration with high operating gearing.
ccc	Commodity chemicals portfolio facing severe price pressure and/or extreme weak demand.	Rapidly declining in size.	n.a.	n.a.
	Sustainability Risks	**Pricing Power/ Barriers to Entry**	**Regional Footprint**	**Production Flexibility**
aa	n.a.	n.a.	n.a.	n.a.
a	Well-formulated and credible sustainability strategy with a focus on reducing Scope 3 emissions and participating in circularity. Offering positioned to benefit from the energy transition. Technology or portfolio adaptation with low execution risks.	Oligopolistic market with advantaged access to raw materials, technology or protected by regulation. Critical mass, product offering, physical footprint or patent-protected technology difficult to replicate.	Global participant with significant presence in threeor more regions.	High raw material diversification, high feedstock flexibility or high production process flexibility to match demand
bbb	Credible sustainability strategy and participating in circularity. Portfolio or process adaptation with moderate execution risks.	Strong barriers to entry due to established business relationship, strategic footprint, differentiated offering and technology. High switching costs reducing incentive to substitute.	Significant presence in two or more regions.	Moderate raw material diversification, limited feedstock flexibility or average production process flexibility
bb	Less developed sustainability strategy. Meaningful sustainability risks due to technology or portfolio adaptation costs. Greener products or process with meaningfully higher costs than existing grey ones, but lack of alternatives limit demand destruction.	Moderate barriers to entry but established market position and competitive offering.	Presence in one to two regions.	Low raw material diversification, no feedstock flexibility, some supplier concentration or limited production process flexibility
b	High risks of demand reduction or significantly increased costs for main products due to the energy transition or no sustainability strategy . Uncertainty around technologies or products that will prevail.	Low barriers to entry. Highly competitive market focusing on price. Company defending its market share at the expense of margins.	Little or no regional diversification.	No raw material diversification, high supplier concentration, no feedstock flexibility or no production process flexibility
ccc	n.a.	No barriers to entry, market with minimal capital requirement or limited product differentiation.	Concentration in severely disadvantageous region.	n.a.
			Number of Sites	**Regulatory Exposure**
aa			n.a.	n.a.
a			Multiple site operations (10+).	No material exposure to environmental regulations and/or penalties.
bbb			Three or more large scale integrated production complexes.	Limited or manageable exposure to environmental regulations. Remediation costs and/or likely penalties are comfortably covered within current cashflows.
bb			At least two large scale integrated sites or more than two lower-complexity sites.	Significant exposure to environmental regulations and/or penalties. Remediation costs and/or likely penalties are within current cashflows, but may weigh more over time.
b			Single site operations.	Material exposure to highly polluting technology. Remediation costs and/or penalties are an incremental strain on projected cashflows.
ccc			Failure at one or more sites threatens overall business economics.	Substantial cash impairment crystallized, or about to, due to multiple, punitive environmental cost burdens and/or penalties.

Financial Profile Key Factors — Chemicals

	Profitability	Financial Structure	Financial Flexibility
Rating	**EBITDA Margin**	**EBITDA Leverage**	**Financial Discipline**
aa	n.a.	n.a.	Publicly announced conservative financial policy. Record of strict compliance.
a	15%	1.0x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	12%	2.0x	Financial policies less conservative than peers but generally applied consistently.
bb	8%	3.0x	Financial policies in place but flexibility in applying them could lead to temporarilyexceeding downgrade guidelines.
b	5%	4.5x	No financial policy or record of ignoring it. Opportunistic behavior.
ccc	Persistently and/or structurally break-even or loss-making at EBITDAlevel.	>7.0x	Financial management has lost much of its discipline, and subject to frequent, suddenchanges consistent with a crisis environment.
	FFO Margin	**EBITDA Net Leverage**	**Liquidity**
aa	n.a.	n.a.	Very comfortable liquidity; no need to use external funding, except for already committed facilities, in the next 24 months even under a severe stress scenario. Well-spread debt maturity. Diversified sources of funding.
a	12%	1.0x	Very comfortable liquidity. No need to use external funding, except for already committed facilities, in the next 12 months even under a severe stress scenario. Well-spread debt maturity schedule. Diversified sources of funding.
bbb	10%	1.5x	One-year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
bb	8%	2.5x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
b	6%	4.0x	Liquidity ratio below 1.0x. Overly reliant on one funding source.
ccc	Persistently and/or structurally break-even or loss-making at the FFOlevel.	6.5x	No near-term prospect of recovery in liquidity. All/most funding sources are subject tomaterial execution risk.
	FCF Margin	**FFO Leverage**	**FX Exposure**
aa	n.a.	n.a.	No material FX mismatch.
a	3.0%	1.5x	Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flowswell matched.
bbb	1.5%	2.5x	Some FX exposure on profitability and/or debt/cash flow match. Effective hedging inplace.
bb	Neutral to negative FCF across the cycle.	3.5x	FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b	Negative FCF across the cycle.	5.0x	Large FX exposure. No significant/ineffective hedging in place.
ccc	Persistently negative FCF margin, with limited scope for raising fundsfrom equity/debt/disposals.	>8.0x	FX exposure dominant in impairing the issuer's ability to service debt in cash terms.
		FFO Net Leverage	**EBITDA Interest Coverage**
aa		n.a.	n.a.
a		1.0x	10.0x
bbb		2.0x	7.5x
bb		3.0x	5.0x
b		4.5x	3.0x
ccc		>7.0x	1.25x
		(CFO-Capex)/Debt	**FFO Interest Coverage**
aa		>25%	n.a.
a		20%	8.0x
bbb		12.5%	6.0x
bb		7.5%	4.0x
b		2.5%	2.5x
ccc		Flat to Negative	1.25x

Commodity Processing and Trading Companies

Sector Risk Profile

Rating Range

Commodity processing and trading companies have a higher-than-average risk profile. The sector risk profile ranges up to the 'BBB' rating level, reflecting the inherent cyclicality and volatility of the commodity markets. Declines in volumes, rather than price volatility, which is typically hedged, are a key risk factor and can drag down profitability in absolute terms. Company-specific traits indicate ratings potentially up to the mid-'A' rating level according to categorisation of scale of operations, geographic and commodity diversification, risk management policies and asset ownership factors.

Financial Profile Key Factors

Financial Profile

The financial metrics are standard corporate rating methodology ratios encompassing mid-point leverage and coverage ratios, and measures of profitability and cash flow, up to the 'A' rating level.

Sector-Specific Key Factors

Operational Scale

Key factors in assessing relative scale include the continuity of commodity supplies, supply chain and logistics infrastructure, and funds flow generation pre and post working capital.

While many firms can trade commodities, the ability to provide procurement, trading, storage, processing and transportation of multiple commodities on a global basis is present in just a few.

Asset Quality

This factor reviews operational leverage of an issuer by evaluating organizational structure and asset ownership. Asset-light business models have limited buffers to withstand negative market dynamics, while more integrated operations offer protection through central oversight of liquidity and profit controls.

Diversification

This factor indicates an issuer's ability to withstand operating earnings and cash-flow volatility linked to inherently variable commodity markets. A broad geographic footprint and breadth of the commodity basket can mitigate this business risk.

Risk Management

To operate effectively, commodity traders need to maintain good access to suppliers, derivative counterparties, and cheap and reliable sources of capital. A worsening of counterparty relationships can lead to a very rapid downward spiral in performance, and potentially similarly precipitous credit rating movements.

This factor incorporates Fitch's view on how well an entity manages risk and its exposure to external liquidity events, along with consideration of whether these liquidity events are taking place. Where there are signs that market confidence may be weakening materially this factor is likely to feature disproportionately in driving the rating.

Early warning signs of worsening third-party relations include a shortening of trade payables days, an increase in disclosed letters of credit without corresponding increases in revenue, and bond and CDS pricing indicating distress.

One of the reasons trading-focused commodity businesses are more vulnerable than the average corporate to changes in confidence is that the nature of their businesses is often opaque – profit is earned as the result of thousands of individual trades, the nature of which cannot easily be summarised, and where for commercial reasons disclosure is kept to a minimum. This opacity is exacerbated by traders' often extensive use of derivatives which can dramatically affect the balance sheet and income statement from period to period. To assess this risk, Fitch looks at the net fair value of derivative financial instruments divided by working capital (here defined as current assets less short-term debt), averaged over the last three years, and the proportion of working capital accounted for by derivatives valued using the most risky Level 3 valuation methodologies.

Where companies' trading operations are anything but straightforward, a financial institutions specialist will be asked to provide input regarding its risk management framework. This will include an initial review of the control environment, how the company manages market, credit and other risk, and attendance at subsequent management meetings to identify any changes to the environment. A company with a 'bbb' or lower score for balance-sheet complexity would not be considered straightforward.

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Commodity Processing and Trading Companies

Agricultural commodity trading and processing companies maintain substantial grain and oilseed inventories that are hedged and could readily be converted into cash to enhance their liquidity and reduce debt. This high level of liquid readily marketable inventories (RMI), when combined with cash and short-term marketable securities, provides substantial financial flexibility during periods of earnings volatility associated with agricultural cycles, partially mitigating financial risk. Commercial paper, accounts receivable securitizations and bank credit facilities are generally used to finance seasonal working capital needs, primarily related to RMI.

For credit purposes, Fitch calculates RMI adjusted leverage by first subtracting the minimum or base level inventory required to operate a downstream processing facility. This inventory is not generally readily available for realisation purposes with a going concern entity. An additional 10% discount is taken for the remaining merchandisable inventory (reported RMI less minimum base processing inventory) to account for potential basis risk loss on hedging positions.

For the purpose of the ratios working capital is defined as net current assets less short-term debt.

Industry Characteristics

The sector risk profile reaches up to the 'BBB' rating category reflecting the cyclicality and seasonality of certain commodities, which can be caused by, among other things, political and economic shocks and episodes of agricultural disease and droughts. This is compounded by the inherent volatility in commodity prices as well as supply and demand dynamics which participants are not in control of, causing substantial swings in profits and liquidity requirements through economic and commodity cycles.

The relatively high sector risk profile is further underpinned by trading risks. For example, profit concentration on one/two quarters around the harvesting period also adds to a heightened risk profile mainly for smaller, less diversified agricultural commodity processors.

Investment-Grade Commodity Processing and Trading Companies

- Substantial processing and trading capacity across essential commodities
- High diversity leading to greater stability in trading volumes
- Diversified processing operations which are mainly fully owned
- Fully funded internal and external working-capital requirements
- Speculative-grade commodity processing and trading companies
- Relatively small firms with limited geographic reach and product mix
- Substantial portion of revenues generated through trading activity on thin gross margins, plus a share of profits arising from minority stakes in joint ventures.

Some of the commodity processors and traders with a worldwide presence are also considered as "investment holding companies" with equity stakes in plantations, ethanol plants, and mills. Such investments can strengthen sourcing ability, improve asset utilization while freeing up capital for other investments, or improve distribution through a presence across the value chain while helping commodity trading volumes and arbitrage opportunities. Some investments are non-tradable strategically, or effectively illiquid particularly when structural challenges can impair valuation of assets and limit the number of interested buyers.

Companies that trade and process physical commodities through their origination, processing and transportation operations are increasingly important as they satisfy the demands of global economic growth and worldwide population growth. In developed economies, demand for most commodities is relatively stable, mirroring economic growth. However, in developing economies the demand for commodities can vary significantly, depending on the trend in industrial output and the nature of the commodity.

The rating of a commodity processor and trader will not depart too much from a 'BBB' sector risk profile. Only the well-diversified, global entities that source and process several commodities in different geographies, demonstrating constant demand can be expected to attain the maximum rating consistent with the overall sector risk profile. Commodity concentration and limited sourcing capabilities along with excessive reliance on trading activities translate into ratings either in the 'BB' or 'B' rating categories.

Sector-Specific Key Factors — Commodity Processing and Trading Companies

	Operational Scale	Risk Management	Asset Quality	Diversification
Rating	**Operational Scope**	**Financial Risk Policy**	**Operational Structure**	**Geographic**
aa	n.a.	n.a.	n.a.	n.a.
a	Highly efficient supply chain with superior ability to procure, trade, store, process and transport commodities on a global scale.	Robust risk management policies.	Majority of wholly owned subsidiaries.	No reliance on any single region.
bbb	Relatively efficient supply chain with good ability to procure, trade, store, process and transport commodities on global scale.	Adequate risk management.	Presence of joint ventures or growing share of minority interests across parts of value chain.	Moderate geographical diversification.
bb	Ability to procure, trade, store, process and transport commodities in several regions.	Inconsistent risk policies with occasional deviations to risk protocols.	Significant minority stakes (sustainable dividend income solely accounted).	Strong competitive operating position within a region.
b	Processing and trading ability mostly limited to one region.	Risk management and/or policy failures have led or are expected to lead to persistent cash flow losses.	Significant minority stakes (sustainable dividend income solely accounted).	Heavy concentration on one region.
ccc	Narrowly-focused and relatively small operations.	Risk management and/or policy failures have led or are expected to lead to persistent and very substantial cash flow losses.	Ownership stakes in investments economically substantial compared to cash flows subject to legal, operational or other disruptions.	Concentrated in an especially disadvantaged region experiencing severe recessionary or other disruptive conditions.
	Size (Annual EBITDA)	**Market and Counterparty Access**	**Asset Ownership**	**Commodity**
aa	n.a.	n.a.	n.a.	n.a.
a	$3.0 billion	Held in the highest regard by counterparties with market-leading terms of trade with unquestioned access to derivatives and funding throughout the cycle.	Asset-heavy business model.	Broadly diversified by commodity.
bbb	$2.0 billion	Highly regarded by counterparties . Vast majority of suppliers extending trade credit . Steady access to funding and derivatives even in periods of market turmoil.	High share of fully owned processing assets.	Moderate diversification by commodity.
bb	$750 million	Mid-range or larger operator with non- transitory deterioration in counterparty terms and market sentiment. Some counterparties requiring credit enhancements.	Predominantly asset-light business model.	Focus on few commodities.
b	$250 million	Smaller operator or operator with prolonged negative sentiment. Counterparties requiring credit enhancement. Liquidity and derivative access more patchy.	Asset-light business model.	One product/commodity concentration.
ccc	Persistently and structurally break-even or loss-making.	Highly adverse liquidity events crystallised, or are expected to, on a scale that presents a high risk of failure.	n.a.	n.a.
		Balance Sheet Complexity		
aa		n.a.		
a		Average net derivative exposure over last three years less than 5% of working capital. Three-year average Level 3 valuation exposure <5% of working capital.		
bbb		Average net derivative exposure over last three years is 5%-10% of working capital. Three-year average Level 3 exposure 5-10% of working capital.		
bb		Average net derivative exposure over last three years is 10-20% of working capital. Three-year average Level 3 exposure 10-15% of working capital.		
b		Average net derivative exposure over last three years is over 20% of working capital. Three-year average Level 3 exposure >15% of working capital.		
ccc		Opacity of balance sheet for external parties (lenders, investors and analysts) is actively impairing access to funding		

Financial-Profile Key Factors — Commodity Processing and Trading Companies

	Profitability	Financial Structure	Financial Flexibility
Rating	**EBITDA Margin**	**RMI, EBITDA Leverage**	**Financial Discipline**
aa	n.a.	n.a.	Publicly announced conservative financial policy. Record of strict compliance.
a	4%	1.5x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	3%	2.5x	Less conservative policy but generally applied consistently.
bb	2%	3.5x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
b	below 1%	5.0x	No financial policy or record of ignoring it. Opportunistic behavior.
ccc	<=0%	>6.5x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	EBITDA/Gross Profit (RMI-Adjusted)	**RMI, EBITDA Net Leverage**	**Liquidity (RMI adjusted)**
aa	n.a.	n.a.	Very comfortable liquidity; no need to use external funding, except for already committed facilities, in the next 24 months even under a severe stress scenario. Well-spread debt maturity. Diversified sources of funding.
a	80%	1.0x	Very comfortable liquidity. No need to use external funding, except for already committed facilities, in the next 12 months even under a severe stress scenario. Well-spread debt maturity schedule. Diversified sources of funding.
bbb	65%	2.0x	One-year liquidity ratio 1.0x. Well-spread maturity schedule of debt but funding may be less diversified.
bb	35%	3.0x	One-year liquidity ratio 0.8x. Less smooth debt maturity or concentrated funding.
b	10%	4.5x	One-year liquidity ratio 0.8x. Overly reliant on one funding source.
ccc	Persistently and structurally break-even or loss-making at EBITDA level.	>6.0x	No near-term prospect of recovery in liquidity score above 1.0x. All/most funding sources subject to material execution risk.
	FFO Margin	**RMI, FFO Net Leverage**	**FX Exposure**
aa	n.a.	n.a.	No material FX mismatch.
a	3%	1.0x	Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flows well matched.
bbb	2%	2.5x	Some FX exposure on profitability and/or debt/cash flow match. Effective hedging in place.
bb	1%	3.5x	FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b	below 1%	4.5x	Large FX exposure. No significant/ineffective hedging in place.
ccc	Persistently and structurally break-even or loss-making at FFO level.	>6.5x	FX exposure dominant in impairing the issuer's ability to service debt in cash terms.
	FCF Margin	**Debt/(Cash + Working Capital)**	**RMI-Adjusted Op. EBITDA/Interest Paid**
aa	n.a.	n.a.	n.a.
a	1.0%	0.5x	7.0x
bbb	0.5%	0.75x	5.5x
bb	Neutral FCF margin.	1.0x	3.0x
b	Neutral to Negative FCF margin.	> 1.0x	2.0x
ccc	Accelerating negative FCF margin, with limited/no flexibility on spending reduction and funding gaps.	n.a.	<1.0x
		(CFO-Capex)/Debt	**RMI-Adjusted FFO Interest Coverage**
aa		n.a.	n.a.
a		20%	6.5x
bbb		12.5%	4.5x
bb		7.5%	3.0x
b		2.5%	2.0x
ccc		Flat to Negative	<1.0x

Palm Oil

Sector Risk Profile

Rating Range

Palm oil producers have above-average risk profiles due to significant price, revenue and margin volatility, which is compounded by the vagaries of weather and competition from other edible oils, limited geographical and product diversification and generally smaller scales.

The sector's natural rating territory is in the 'BB' category, which represents a producer with a medium-sized planted acreage, average quality of upstream operations, a high degree of vertical integration, neutral free cash flow (FCF) and moderate leverage, among other factors. However, companies that are assessed as better on these parameters can be rated higher in the 'BBB' category, while weaker credits would be rated in the 'B' category or lower.

Sector-Specific Key Factors

Business Profile

Scale

This factor assesses the size of a producer's planted acreage and the level of geographical diversification. Size often reflects a company's market access and operational maturity while geographical diversification mitigates risks from weather and regulatory changes.

Quality of Upstream Operations

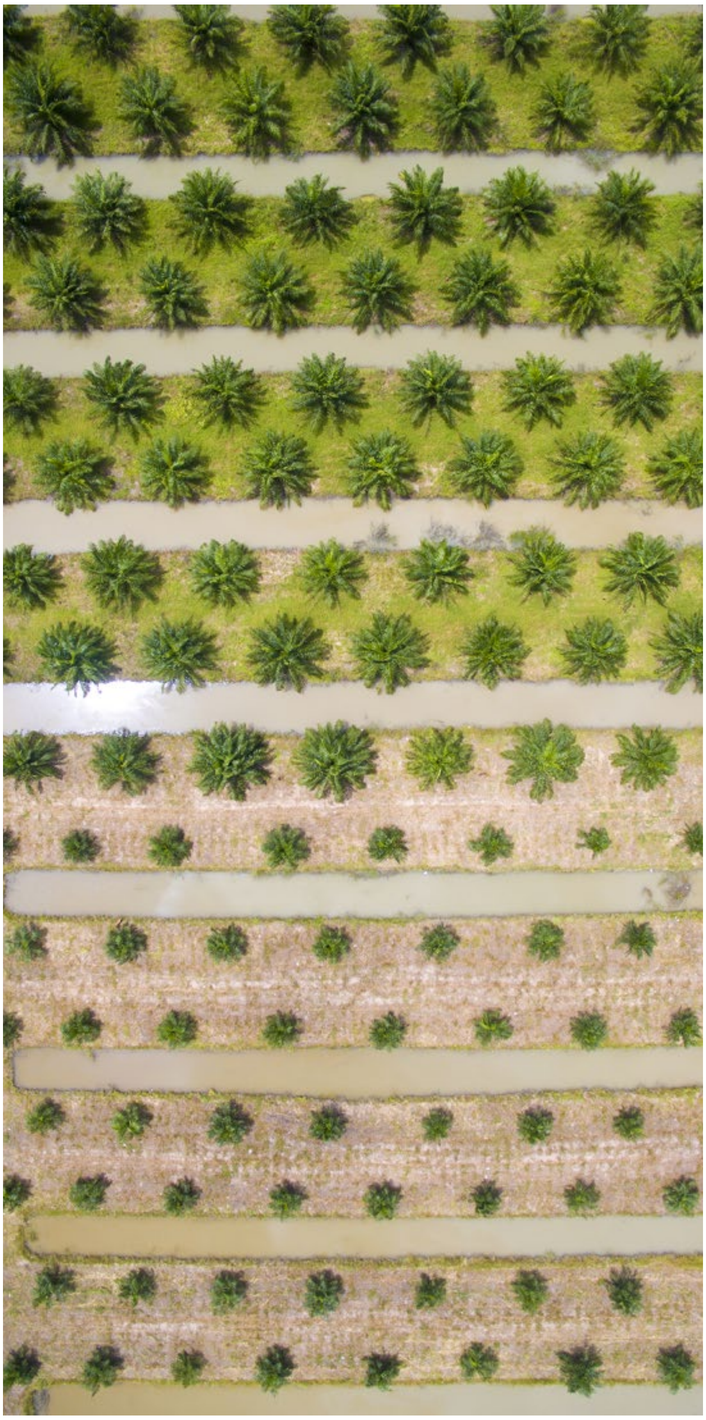
Under this factor, we account for the key operating metrics related to crude palm oil (CPO) production that are key drivers of a company's profitability. We consider a producer's CPO yield, assess the plantation age profile and evaluate the cost of production of palm fruits.

Vertical Integration

This factor assesses the level of benefit a company derives in terms of lower earnings volatility from refining and processing CPO. We differentiate producers based on the amount of produced CPO they should be able to process.

Sustainability Credentials and Compliance

There are several domestic regulations and international standards aimed at minimising the impact of palm oil operations on the environment and local communities. Compliance brings producers better access to markets, greater operational stability and higher financial flexibility. The degree of compliance is assessed under this factor, usually based on public disclosures regarding the share of operations of a company that adhere to various national and international standards.



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Palm Oil

Financial Profile Key Factors

Financial Profile

The financial metrics considered are standard corporate rating methodology ratios for leverage and coverage, and cash flow-based metrics to assess profitability, up to the 'bbb+' rating level.

Industry Characteristics

Impact of Weather and Competing Oils

Oil palms generally thrive in tropical weather conditions characterised by high, evenly distributed rainfall and lots of sunlight. Indonesia and Malaysia, which benefit from these conditions, account for more than 80% of global palm oil.

The annual variation in rainfall is a key factor that affects yields of oil palm fruit and palm oil supply. Climate patterns such as El Niño and La Niña have a significant bearing on annual rainfall, with El Niño inducing drier weather and lower fruit yields in Indonesia and Malaysia and La Niña bringing higher rainfall to these countries.

Palm oil is mainly used as an edible oil and its demand and price is affected by the supply and price of close substitutes – such as soybean oil, rapeseed oil and sunflower seed oil – which are grown in other regions. The crude oil price has also become a determinant of palm oil demand as incremental consumption in recent years has been driven by palm oil-based biodiesel production in countries such as Indonesia, which are looking to substitute regular diesel.

Importance of a Well-Spread Acreage

How well a company's planted oil palm acreage is spread across different regions and countries is an important factor for assessing credit quality, in addition to acreage size. Geographical diversification mitigates risks to a company's operations and improves its credit profile.

Weather has a significant influence on yields, and it varies within Indonesia and Malaysia. A plantation in Kalimantan may benefit from ample rainfall, for example, while one in Sumatra may suffer drier conditions. Operational presence across two or more countries also alleviates risk related to changes in tariffs or regulations.

Yield Varies with Tree Age and Seed Quality

Oil palm acreage can be divided into four categories based on tree age: immature, young mature, mature and old. Yield of fresh fruit bunches increases steadily during the young mature stage and peaks during the mature stage. Yield then gradually decreases and producers look to replant the area, incurring capex.

Producers with a high share of immature and young mature acreage may have weaker yields compared with peers that have a larger share of mature acreage, but such producers have a better outlook for yields. In addition to a maturing acreage, the likely use of newer-generation seeds should boost future yields for such companies.

Conversely, yield for an acreage with a high share of old trees is likely to be affected due to the use of earlier-generation seeds. Such an age profile also indicates high risks of both a fall in output as trees age and significant replanting capex over the rating horizon.

Vertical Integration

The CPO produced from the milling of the palm fruits can be refined and processed further into products such as cooking oil, margarine, soap and biodiesel. Almost all industry participants have planting and milling operations. Once they reach a certain scale, they also usually add refining and processing capacity.

While most of the margin in the palm oil value chain is captured in the production of CPO, further processing capacity allows producers to capture additional value and reduce earnings volatility. Countries such as Indonesia have also been encouraging the refining and processing of palm oil by providing a more favourable tariff structure compared with CPO.

Increasing Focus on Sustainability

The palm oil industry faces scrutiny over the impact of its operations on biodiversity, tropical forest cover and local communities. Producers are subject to several domestic regulations imposed by the government. Many companies choose to go beyond such minimum requirements and seek adherence to global palm oil standards such as the Roundtable on Sustainable Palm Oil.

Such enhanced compliance increases costs but producers benefit from better access to developed markets and earn premiums for certified products. Such companies are also likely to see lower risks, due to less social conflict, and have better operational stability. Several global lenders and investors also emphasise sustainability in their willingness to provide funds, meaning that producers that seek enhanced compliance benefit from continued financial flexibility.

Consumers in the key palm-oil-consuming markets of India, Indonesia and China do not yet prioritise sustainability. As a result, some palm oil companies have not focused on implementing global best practices, relying instead on adherence to national regulations. This exposes them to risks over the longer term, from the likely evolution of consumer markets as well as regulations. Emphasis on sustainability is likely to grow, albeit gradually, in key Asian markets. Domestic regulations may also move further in line with global standards and principles.

Sector-Specific Key Factors — Palm Oil

	Scale	Quality of Upstream Operations	Vertical Integration	Sustainability Credentials and Compliance
Rating	**Plantation Size and Location (Hectares)**	**CPO Yield (Tonnes per Mature Hectare)**	**Refining Capacity**	**Adherence to Standards and Regulations**
aa	n.a.	n.a.	n.a.	n.a.
a	n.a.	n.a	n.a	n.a
bbb	Planted area >= 150,000, well spread across countries.	Yield >= 4.5	Downstream capacity sufficient to process entire CPO output and beyond.	High level of adherence to global standards, compliant with proposed regulations.
bb	Planted area >= 150,000, spread across one country	3.8 <= Yield < 4.5	Downstream capacity sufficient to process the majority of CPO output.	Moderate level of adherence to global standards, near-compliant with proposed regulations.
b	10,000Ha <= Planted area < 150,000	Yield < 3.8	No/limited CPO processing capacity.	Minimal/low adherence to global standards, moderate progress on compliance with proposed regulations.
ccc	Planted area < 10,000	Very weak.	Lacking adequate milling capacity for CPO production.	No/low progress on compliance with proposed regulations.
		Plantation Age Profile		
aa		n.a.		
a		n.a.		
bbb		Higher share of immature and young acreage, compared with an evenly spread age profile.		
bb		Evenly spread age profile or large share of mature acreage.		
b		Higher share of old trees.		
ccc		A predominance of old trees.		
		Cash Cost for Production of Fresh Fruit Bunches (USD/tonne)		
aa		n.a.		
a		n.a.		
bbb		Cost <= 50		
bb		50< Cost <= 60		
b		Cost > 60		
ccc		Unsustainable cost profile.		

Source: Fitch Ratings

Financial Profile Key Factors — Palm Oil

	Profitability	Financial Structure	Financial Flexibility
Rating	**FCF**	**EBITDA Leverage**	**Financial Discipline**
aa	n.a.	n.a.	Publicly announced conservative financial policy. Record of strict compliance.
a	n.a.	n.a.	Clear commitment to maintaining a conservative policy with only modest deviations allowed.
bbb	Positive through the cycle.	2.5x	Financial policies less conservative than those of peers but generally applied consistently.
bb	Neutral to positive through the cycle.	3.5x	Financial policies in place but flexibility in applying them could lead to temporary breaches of downgrade guidelines.
b	Neutral to negative through the cycle.	5.0x	No financial policy, or a record of ignoring it. Opportunistic behaviour.
ccc	Persistently negative FCF margin, with limited/no flexibility on spending reduction.	>6.5x	Financial management has lost much of its discipline, and is subject to frequent, sudden changes consistent with a crisis environment.
	Capex/CFO	**EBITDA Net Leverage**	**Liquidity**
aa	n.a.	n.a.	Very comfortable liquidity; no need to use external funding, except for already committed facilities, in the next 24 months even under a severe stress scenario. Well-spread debt maturity. Diversified sources of funding.
a	n.a.	n.a.	Very comfortable liquidity. No need to use external funding, except for already committed facilities, in the next 12 months even under a severe stress scenario. Well-spread debt maturity schedule. Diversified sources of funding.
bbb	<67%	2.0x	One-year liquidity ratio above 1.25x. Well-spread debt maturity schedule but funding may be less diversified.
bb	<=100%	3.0x	Liquidity ratio around 1.0x. Less smooth debt maturity schedule or concentrated funding.
b	Capex expected to materially exceed CFO over the rating horizon.	4.5x	Liquidity ratio below 1.0x. Overly reliant on one funding source.
ccc	Unsustainable profile.	> 6.0x	No near-term prospect of a recovery in the liquidity score above 1.0x. All/most funding sources subject to material execution risk.
		FFO Net Leverage	**FX Exposure**
aa		n.a.	No material FX mismatch
a		n.a.	Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flows well matched.
bbb		2.5x	Some FX exposure on profitability and/or debt/cash flow match. Effective hedging in place.
bb		3.5x	FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b		4.5x	Large FX exposure. No significant/ineffective hedging in place.
ccc		> 6.5x	FX exposure dominant in impairing the issuer's ability to service debt in cash terms.
			EBITDA Interest Coverage
aa			n.a.
a			n.a.
bbb			5.5x
bb			4.0x
b			2.5x
ccc			<1.0x

Mining

Sector Risk Profile

Rating Range

Mining companies have a higher than average risk profile. The sector's risk profile can be as high as the 'a' rating category, reflecting exposure to cyclical commodity prices and volumes that are subject to the dynamics of global supply and demand. It also acknowledges the essential requirement for these commodities to ensure economic growth. Sector-specific factors indicate the potential for ratings up to 'A+', according to geographic and product diversification, cost of production, commodity diversification and reserve life. Lower ratings are more appropriate for single mines or single-commodity companies.

Sector-Specific Key Factors

Operational Scale and Market Position

Company size and the size of its individual operations are often a good indicator of mining company rating levels. While size by itself is not generally a positive differentiator, it is indicative of other positive factors – larger companies generally have more financial flexibility and often target the development of larger deposits, which often have lower costs.

Cost Position

As price-takers with a limited ability to influence prices, mining companies rely for their long-term competitiveness on continuing to minimize operating costs and hence improve their position on the industry's cost curve.

Diversification, Environmental and Country Risk

Commodity diversification reduces cash-flow volatility in this inherently cyclical industry. The country risk sub-factor complements the operating environment assessment above. Sustainability strategies are becoming an important consideration in our analysis of mining companies.

Reserve Life

An ongoing issue for miners is the replacement of mine reserves in order to maintain future production volumes.

Financial Profile Key Factors

Financial Profile

The financial metrics are standard corporate rating methodology ratios encompassing mid-point leverage and coverage ratios, and measures of profitability and cash flow, up to the 'a' category. In assessing commodity companies' credit rating, Fitch projects future financial profiles using various assumptions including market-based forward-price indications for the near term, and a "mid-cycle commodity price" for the medium-term profile.

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Mining

Industry Characteristics

The mineral resource industry is very cyclical, and volatility increases closer to the start of the supply/value chain.

Representative companies rated in this sector range from the mid- to high 'A' category down to the low 'B' category. This reflects a sector where participants are price-takers exposed to significant cyclical demand changes and high price volatility, but where higher-rated companies can generate strong profitability and free cash flows on average across a full price cycle. These characteristics are applicable across all the individual commodity sub-sectors (e.g, iron ore and copper) of the mining industry.

The strongest companies offset sector dynamics with robust capital structures, low operating costs, and wide diversification (product, geographic and end-sector exposures). Lower-rated entities are typically less diversified (often focusing on a single-commodity sub-segment), have higher operating cost positions, or burdened by higher debt levels.

Sector-Specific Key Factors – Mining

	Operational Scale and Market Position	Cost Position	Diversification, Environmental and Country Risk	Reserve Life
Rating	**Scale of Operations**	**Cost Position**	**Commodity Diversification**	**Bulk Commodities (Iron Ore, Coal, Bauxite, etc.)**
aa	n.a.	n.a.	n.a.	n.a.
a	Large and diversified.	1st quartile.	Top three participant in at least two major commodity sectors.	>50 years on average at major mines.
bbb	Medium diversified or large single-commodity.	2nd quartile.	Top 10 participant in at least three major commoditysectors or top five participant in single commodity.	20-50 years on average at major mines.
bb	Small diversified or medium single-commodity.	3rd quartile.	Top 10 participant in single commodity.	10-20 years on average at major mines.
b	Junior/small.	4th quartile.	Single commodity (not top 10 participant).	<10 years on average at major mines.
ccc	Sub-scale operations jeopardizing businesseconomics; material greenfield development risks.	Cash costs exceed mid-cycle revenue expectations.	n.a.	Short-life and/or declining grades with little prospect of turnaround.
	EBITDA	**Regulatory Risk**	**Environmental Risk**	**Base (Copper, Lead, etc.) and Precious Metals**
aa	n.a.	n.a.	n.a.	n.a.
a	$10 billion	No material exposure to environmental regulations.	Well-defined sustainability strategy targeting to achieve net zero by 2050 with set milestones. Large and/or increasing portfolio exposure to energy-transition metals	>30 years on average at major mines.
bbb	$3 billion	Limited or manageable exposure to environmental regulations. Remediation costs are comfortably within current cashflows.	Sustainability strategy in line with average participants. Medium exposure to energy transition metals.	20-30 years on average at major mines.
bb	$0.5 billion	Significant exposure to environmental regulations. Remediation costs are within current cashflows, but may weigh more over time.	Limited initiatives in sustainability strategy. Low exposure to energy-transition metals.	10-20 years on average at major mines.
b	$0.2 billion	Material exposure to highly polluting technology. Remediation costs are an incremental strain on projected cashflows.	Lack of sustainability strategy. Portfolio focused on metals with waning demand perspectives in the carbon-free economy.	<10 years on average at major mines.
ccc	Rapidly declining EBITDA	Substantial cash impairment crystallized, or about to, due to multiple, punitive environmental cost burdens.	n.a.	Short-life and/or declining grades with little prospect of turnaround.
	Size of Individual Assets		**Country Risk Relative to Mining Operations**	
aa	n.a.		n.a.	
a	Large assets with a dominant market position		Minimal	
bbb	Significant market share of major assets		Low	
bb	Participant in fragmented market with mid-sized position of major assets		Medium	
b	Small assets		High	
ccc	Small assets with operational weaknesses		Disadvantageous region experiencing major recession or other disruptive conditions.	

Financial-Profile Key Factors — Mining

	Profitability	Financial Structure	Financial Flexibility
Rating	**EBITDA Margin**	**EBITDA Leverage**	**Financial Discipline**
aa	n.a.	n.a.	Publicly announced conservative financial policy. Record of strict compliance.
a	35%	1.5x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	30%	2.0x	Financial policies less conservative than peers but generally applied consistently.
bb	25%	3.0x	Financial policies in place but flexibility in applying them could lead to temporarilyexceeding downgrade guidelines.
b	20%	4.0x	No financial policy or record of ignoring it. Opportunistic behavior.
ccc	Persistently and/or structurally break-even or loss-making at EBITDAlevel.	>7.0x	Financial management has lost much of its discipline, and subject to frequent, suddenchanges consistent with a crisis environment.
	FFO Margin	**EBITDA Net Leverage**	**Liquidity**
aa	n.a.	n.a.	Very comfortable liquidity; no need to use external funding, except for already committed facilities, in the next 24 months even under a severe stress scenario. Well-spread debt maturity. Diversified sources of funding.
a	30%	1.0x	Very comfortable liquidity. No need to use external funding, except for already committed facilities, in the next 12 months even under a severe stress scenario. Well-spread debt maturity schedule. Diversified sources of funding.
bbb	25%	1.7x	One year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
bb	20%	2.7x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
b	15%	3.7x	Liquidity ratio below 1.0x. Overly reliant on one funding source.
ccc	Persistently and/or structurally break-even or loss-making at FFO level.	6.5x	No near-term prospect of recovery in liquidity. All/most funding sources subject tomaterial execution risk.
	FCF Margin	**FFO Leverage**	**FX Exposure**
aa	n.a.	n.a.	No material FX mismatch.
a	FCF positive at all times, regardless of capex plans.	1.5x	Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flowswell matched.
bbb	Positive FCF on average, with the potential for temporary (two-three year) FCF outflows due to capital spending on identified projects.	2.5x	Some FX exposure on profitability and/or debt/cash flow match. Effective hedging inplace.
bb	Neutral FCF on average, with a protracted FCF outflow due to capex plansand price cycle.	3.5x	FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b	Negative FCF profile.	4.5x	Large FX exposure. No significant/ineffective hedging in place.
ccc	Persistently negative FCF margin, with limited scope for raising fundsfrom equity/debt/disposals.	>8.0x	FX exposure dominant in impairing the issuer's ability to service debt in cash terms.
		FFO Net Leverage	**EBITDA Interest Coverage**
aa		n.a.	n.a.
a		1.0x	16.0x
bbb		2.0x	11.0x
bb		3.0x	8.5x
b		4.0x	5.0x
ccc		>7.0x	1.25x
			FFO Interest Coverage
aa			n.a.
a			13.0x
bbb			9.0x
bb			6.5x
b			4.0x
ccc			1.25x

Oil and Gas Production Companies

Sector Risk Profile

Rating Range

Oil companies face numerous risks, including being price takers in what is at times a volatile market for oil and gas, and execution risk in finding and developing oil and gas reserves. The scale and scope of companies' operations can allow them to mitigate many of these factors, resulting in ratings that can stretch into the 'AA' category.

Sector-Specific Key Factors

Sub-Sector

Integrated companies often benefit from diversity and a wide spread of projects across the value chain, which tend to smooth out cyclical volatility, as well as very conservative through-the-cycle leverage profiles. This contributes to rating stability and allows these companies to move into the high investment-grade rating categories of 'AA'.

By contrast, company-specific traits for upstream-only producers indicate ratings up to 'A+', due to a typically lower diversity of projects and greater vulnerability to price volatility, cost overruns and project delays.

Proved Reserves

A company's reserve base is its most valuable asset. Asset quality is a key factor for exploration and production companies. Considerations include size of reserves and percentage developed, and finding and development costs.

Cash Flow Cycle

Lower-cost producers have greater flexibility to deal with end-market fluctuations, so these entities are more likely to remain the "last man standing" in a downturn.

Operational Scale

The oil and gas business is exposed to substantial operational risks. Size allows oil companies more opportunity to diversify these risks. We believe production size is usually the most important indicator of scale.

Diversification and Environmental Risk

Vertical integration and diversification of operations across projects reduce cash flow volatility and susceptibility to geological risk and technical failures. High exposure to environmental and/or regulatory risk may point to lower credit quality.

Financial Profile Key Factors

Financial Profile

The financial metrics are standard corporate rating methodology. In assessing commodity companies' credit rating, Fitch Ratings projects future operational performance and financial profiles using various assumptions, including market-based forward-price indications for the near term, and a "mid-cycle commodity price" for the medium-term profile. For oil and gas companies, this is called a price deck.

Both the market-based and mid-cycle prices used by Fitch are conservative in nature and typically below consensus levels during periods of rising prices. Conversely, they may remain above market prices during severe market downturns where the current market prices are influenced by distorting short-term factors.

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Oil and Gas Production Companies

Industry Characteristics

Oil and gas exploration companies, including independents, pure upstream-focused companies, and integrated oil and gas companies, have a number of common risks associated with the industry:

- Depleting asset bases and a need to continually reinvest in operations.
- Cyclical earnings and cash flows stemming from commodity price exposure; and fluctuations in demand associated with the business cycle.
- Geopolitical considerations, including: changing tax structures/ regimes; potential expropriations of assets; and exposure to man-made disasters (war).
- Environmental policy exposure and resultant taxes/charges.
- The impact of extreme weather on production and demand.
- Technological development enhancing the ability to exploit new and existing resources.

Different companies are exposed to, and mitigate, these risks in different ways, leading to different "natural rating ranges." These companies can be classified as set out in the table below.

Integrated Oil & Gas Entities – Typically 'AA' to 'A' Rating Categories

- Typically, large integrated global operators with economies of scale.
- Diverse operations across fuel mix, geographical locations, and business lines (downstream, chemical, liquified natural gas, pipelines).
- Minimal financial leverage throughout the industry cycle.
- Strong full-cycle economics and positive FCF.
- Strategic importance of entities — often evidenced by international (sovereign) negotiations on their behalf for long-term projects, and a clearly stated sovereign goal, supporting long-term financial stability.

Large Oil & Gas Exploration & Production (E&P) Entities – Typically 'A' to 'BBB' Rating Categories

- Typically, large operators with diverse upstream operations.
- Lacking diversity beyond upstream operations (not present across the entire value chain).
- Increased focus on growth in reserves and production driving higher levels of capex relative to operating cash flows and resulting in stronger reserve replacement metrics.
- Increased use of balance sheet to finance growth.
- Strong full-cycle economics and positive/neutral FCF across industry cycles.

Small Oil & Gas E&P Entities – Typically 'BB' to 'B' Rating Categories

- Small, less diversified operators and potentially single asset or single basin risk.
- Typically lacking economies of scale.
- Strongly growth focused, with consistently negative FCF and heavier reliance on capital markets for funding, as opposed to internally generated cash flows.
- Focus on smaller legacy assets resulting in greater need for cost management acumen.
- Increased use of hedges to mitigate cash-flow volatility.
- Reserve development and replacement requires large initial capital investment relative to cash generation.

Sector-Specific Key Factors — Oil and Gas Production Companies

	Diversification and EnvironmentalRisk	Proved Reserves	Cash Flow Cycle	Operational Scale
Rating	**Diversification**	**Reserve Base (boe)**	**Mid-Cycle Unit Economics**	**Production (thousand boe/day)**
aa	Integrated participants benefitting from diversity and spread of volatility, which smooths out projects. Ratings limited by scale of operations.	>4 billion	Materially positive CFO - capex across the cycle.	>2,000
a	Upstream E&P companies with more diverse projects or smaller integrated. Less vulnerable to price volatility; less exposed to cost overruns and production delays.	2.5 billion-4 billion	Positive CFO - capex through the cycle.	700 - 2,000
bbb	Upstream E&P companies with diverse projects or smaller integrated. Less vulnerable to price volatility; still subject to cost overruns and production delays.	1.5 billion-2.5 billion	Mostly positive CFO - capex through the cycle.	175 - 700
bb	Upstream E&P companies with fewer projects. Vulnerable to price volatility, cost overruns and production delays.	0.4 billion-1.5 billion	Neutral to negative CFO - capex across the cycle.	75 - 175
b	Upstream E&P companies with only a few projects. Vulnerable to price volatility, cost overruns, production delays or disruptions.	<0.4 billion or low reserve or low inventory life	Negative CFO - capex through the cycle or high operational and developmental costs.	<75
ccc	Upstream E&P with concentrated exposure to unprofitable operations and/or material greenfield development risks.	Rapid decline in reserve base threatening long-term sustainability of operations.	Persistently negative cash flow margin, with limited scope for raising funds from equity/debt/disposals.	Rapidly declining production with limited hope of turnaround.
	Regulatory Risk			
aa	n.a.			
a	n.a.			
bbb	Moderate exposure to environmental regulations and/or material but manageable remediation costs relative to projected cash flows.			
bb	Above average exposure to environmental regulations and/or high remediation costs relative to projected cash flows.			
b	Severe exposure to environmental regulations and/or very high remediation costs relative to projected cash flows.			
ccc	Substantial cash impairment crystallized, or about to, due to multiple, punitive environmental remediation costs versus projected cash flows.			
	Environmental Risk			
aa	Net zero emissions targets, including scope 3, with interim goals and an articulated plan to reduce emissions. Significant exposure to natural gas or low carbon intensity technologies.			
a	Issuer has an articulated plan to reduce scope 1, 2 and 3 emissions with stated reduction targets; Significant exposure to natural gas or low carbon intensity technologies.			
bbb	Issuer has an articulated plan to reduce scope 1 and 2 emissions with stated reduction targets; increasing exposure to natural gas or low carbon intensity technologies.			
bb	Only scope 1 and 2 emission reduction goals with less developed emission reduction plans or targets. Moderate to low exposure to natural gas or low carbon intensity technologies.			
b	No greenhouse-gas emission reduction targets or stated plans.			
ccc	n.a.			

Financial Profile Key Factors — Oil and Gas Production Companies

	Profitability	Financial Structure	Financial Flexibility
Rating	**EBITDA ($)**	**EBITDA Leverage**	**Financial Discipline**
aa	$30 billion	1.0x	Publicly announced conservative financial policy. Record of strict compliance.
a	$10 billion	1.7x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	$4.5 billion	2.2x	Financial policies less conservative than peers but generally applied consistently.
bb	$1.5 billion	3.0x	Financial policies in place but flexibility in applying them could lead to temporarilyexceeding downgrade guidelines.
b	$750 million	4.0x	No financial policy or record of ignoring it. Opportunistic behavior.
ccc	Rapidly declining EBITDA	>5.5x	Financial management has lost much of its discipline, and subject to frequent, suddenchanges consistent with a crisis environment.
	Capex/CFO (%)	**EBITDA Net Leverage**	**Liquidity**
aa	67%	<1.0x	Very comfortable liquidity; no need to use external funding, except for already committed facilities, in the next 24 months even under a severe stress scenario. Well-spread debt maturity. Diversified sources of funding.
a	<100%	1.5x	Very comfortable liquidity. No need to use external funding, except for already committed facilities, in the next 12 months even under a severe stress scenario. Well-spread debt maturity schedule. Diversified sources of funding.
bbb	100%	2.0x	One year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
bb	Capex materially covered by cashflow from producing projects in mostperiods but with temporary deviation due to lumpy capex.	2.8x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
b	Capex expected to materially exceed cashflow over the rating horizontypically due to focus on expansionary projects.	3.5x	Liquidity ratio below 1.0x. Overly reliant on one funding source.
ccc	Unsustainable profile.	> 5.2x	No near-term prospect of recovery in liquidity. All/most funding sources subject tomaterial execution risk.
		FFO Leverage	**FX Exposure**
aa		1.2x	No material FX mismatch.
a		2.0x	Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flowswell-matched.
bbb		2.5x	Some FX exposure on profitability and/or debt/cash flow match. Effective hedging inplace.
bb		3.3x	FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b		4.3x	Large FX exposure. No significant/ineffective hedging in place.
ccc		>6.0	FX exposure dominant in impairing the issuer's ability to service debt in cash terms.
			EBITDA Interest Coverage
aa			15.0x
a			13.0x
bbb			9.0x
bb			7.0x
b			5.0x
ccc			1.25x

Oilfield Services

Sector Risk Profile

Rating Range

Oilfield services companies have a higher-than-average risk profile. The sector risk profile can range up to the 'bbb' rating category for more diversified companies providing higher value-added services, such as full-service providers, as well as providers of integrated project management services and engineering services. The ratings of single-service providers, including drillers, are usually limited to the 'bb' category.

The sector's risk profile reflects its vulnerability to cycles and high competition. Company-specific traits, such as asset quality, technical capabilities, geographic and customer diversification, overall market position, order intake and backlog and financial profile – as indicated by capital structure, profitability, and financial flexibility – can result in issuer ratings as high as the 'a' category.

Sector-Specific Key Factors

Size and Operational Scale

Size and scale, as measured by mid-cycle revenue and mid-cycle EBITDA are important indicators of an issuer's resilience during periods of market stress. This factor will be an indicator for an issuer's relative positioning in the market against peers across industry cycles.

In addition, a larger base of mid-cycle revenue and EBITDA will be an indicator of an issuer's ability to use secondary funding sources, such as asset sales, to cover funding gaps during market downturns and to withstand prolonged impairments to individual assets and/ or business lines.

Diversification and Environmental Risk

Large service providers with a geographically diversified operations and a diverse customer base comprised of large, high quality customers are usually rated higher than companies reliant on one region or on a narrow base of higher risk customers to generate revenue. An entrenched position with a large market share in a region or country where key customers are national champion oil companies with strong state support and price inelastic demand for services can mitigate limited geographic diversification. Environmental risk captures the oilfield services sector's ongoing exposure to the energy transition, with consideration given to issuers' business and financial profiles, on average, offer fewer obvious options to pivot towards low-carbon end-markets compared to the energy-transition options available to oil and gas producers, refiners and chemical companies.

Revenue Visibility

This sub-factor evaluates the predictability and stability of revenues through the cycle. Issuers with assets and/or services benefit more constant demand through the cycle and that can maintain premium pricing during periods of low customer spending will be better able to manage market downturns. We also consider the quality of the order book (if there is one) and its through-the-cycle volatility, as well as its projected coverage of revenue. Trends in this metric, if applicable, are an important indicator of overall demand and future revenue.

Revenue/Value Sources

Many oilfield services providers are capital-intensive companies, and the quality of their asset base is an important factor determining the demand for their services and margins through industry cycles. Competition with other service providers can also be significant, adding to pricing pressure and increasing the probability of erosion to market position during downturns.

The scope of provision (single-service versus full-service providers), types of services provided and technical capabilities (ie ability to handle large and complex projects) is another sub-factor that affects the company's business risk, with full-service providers more likely to retain pricing power during periods of market stress.

Financial Profile Key Factors

Financial Profile

The financial metrics are mostly standard corporate rating methodology ratios encompassing mid-point leverage and coverage ratios, and measures of profitability and cash flow, as well ascapital intensity. However, due to the industry's higher than average risk profile and inherently volatile cash flows during market downturns, we maintain leverage thresholds that are tighter than those for other oil and gas industry sub-sectors in order to reflect the lower debt capacity of oilfield services providers.

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Oilfield Services

Industry Characteristics

Cyclical and Seasonal Industry

The oilfield services and contract drilling industry is both long-term cyclical and short-term seasonal in nature. Companies operating in the sector are directly affected by fluctuations in the level of exploration and development activities carried on by customers of these services. Growth in the global oilfield services sector is largely driven by both current levels and long-term expectations for commodity prices

(oil, natural gas, and natural gas liquids), which are in turn driven by general economic activity (GDP growth), and long-term trends such as rising global demand for energy, security of supply considerations, increasing world population and expanding levels of urbanization, but also the energy transition. On the supply side, commodity prices depend on existing technology, geopolitics and the policies of producing countries (eg, OPEC). In addition to business volumes, margins of oilfield services companies can come under pressure from low hydrocarbon prices, as upstream companies attempt to manage their margins by squeezing contractors as well as lower utilization and day rates for assets such as rigs due to oversupply.

Companies operating in this sector are therefore exposed to various long- and short-term factors that can influence the amount of general business activity and lead to periods of both high and low sector growth, or even contraction.

Highly Competitive Industry

Oilfield services companies operate in a highly competitive global industry. Key competitive factors influencing all industry participants include: quality of products and services offered, experience, price, work availability, technical knowledge, and reputation. Companies also face varying scales of competition from larger multinational operators down to regional oilfield services companies. High competition highlights the need to manage market share to support the business profile and to maintain financial headroom to support the financial profile. Oil field services companies also have to ensure compliance with varying degrees of government regulations in the jurisdictions they operate – a strong record of meeting these requirements, together with a solid safety record is critical to maintaining their competitive position or even to remain in business. Operators can be subject to significant fines and compensation for accidents, which can be detrimental to their financial position.

Cost Management and Investment Needs Also Important

Companies participating in the sector tend to be equally influenced by the need to manage costs of field operations, to upgrade ageing fleets and to continually improve technological capabilities as they relate to the extension of a field's life-cycle and as new oil and gas reserves are increasingly coming from technically challenging sources. These factors contribute to the competitive nature of the industry and the need to continually invest in operations to maintain an operating advantage over other industry participants

Sector-Specific Key Factors — Oilfield Services

	Size & Scale	Diversification and Environmental Risk	Revenue Visibility	Revenue/Value Sources
Rating	**Mid-Cycle Revenue**	**Geographic Diversification**	**Order Book Quality / Earnings Visibility**	**Scope of Provision**
aa	n.a.	n.a.	n.a.	n.a.
a	>USD20 billion	Very high, revenue from any individual region <30%.	Solid, regionally diversified order book from high-quality counterparties providing strong earnings visibility.	Comprehensive range of services with integrated project management in line with largest industry participants.
bbb	USD4 billion	High, revenue from any individual region 30%-50%	Strong earnings visibility from a good contract backlog from solid counterparties providing good earnings visibility.	Good range of services with integrated project management but more limited in scope than largest industry participants.
bb	USD1 billion	Medium, revenue from any individual region 50%-75%	Moderate earnings visibility from contracts and/or due to strong relations with customers or strong market position.	Narrower range of services with meaningful presence in a few product lines. Some entry barriers
b	USD0.5 billion	Low, revenue from one region >75%	Weak order book quality or high counter-party risks. Highly dependent on very favorable market conditions.	Single service provider with limited scope of operations. Limited protection from barriers to entry.
ccc	Very small and facing structural decline	Concentrated in an especially disadvantaged region.	Low order book and/or non-payment by customers.	Record of, or prospective, hindered scope of operations.
	Mid-Cycle EBITDA	**Customer Base**	**Order Book Volatility**	**Services**
aa	n.a.	n.a.	n.a.	n.a.
a	>USD5 billion	Highly diversified customer base consisting mostly of large, high quality customers.	A record of maintaining a stable to growing order backlog through-the-cycle.	Project role includes production management and engineering services for very large and complex projects (Incl. equipment manufacturing).
bbb	USD1 billion	Diversified customer base including some high quality customers	A record of maintaining a stable order backlog through-the-cycle.	Project role includes production management and engineering services.
bb	USD0.5 billion	Some customer concentration, with exposure to medium quality customers	Moderate volatility in order backlog through the cycle compared to peers.	More limited project role.
b	<USD0.25 billion	High exposure to a small number of weak customers.	Highly volatile order inflows through-the-cycle.	Very limited project role limited to few simple activities(contract drilling, drilling, cementing, completion).
ccc	Very low or negative EBITDA through the cycle	Very high customer concentration with anchor customers in financial distress	Rapidly deteriorating order book due to lack of new orders and/or cancellations threatening viability of business.	Concentrated, unprofitable, and undifferentiated role in simple activities.
		Environmental Risk	**Demand Dynamics**	**Asset Quality**
aa		n.a.	n.a.	n.a.
a		Low carbon end-markets are already a material contributor to cash flows and/or pivoting existing assets and expertise to low carbon end-markets is deemed manageable with current financial and operational resources. Any remediation costs are immaterial.	Record of very high demand through the cycle for asset or service offering.	Highest asset quality in terms of age, quality andtechnological complexity.
bbb		Credible energy transition strategy in place with a clear path to pivoting existing assets and expertise to low-carbon end-markets. Any remediation costs are immaterial relative to cash flows..	Record of strong demand through the cycle for asset or service offering.	High assets quality in terms of age, quality andtechnological complexity.
bb		Energy transition strategy exists but is more opaque; the company's business does not have obvious carryover to low-carbon end-markets. Remediation costs may be high relative to cash flows.	Moderate through-the-cycle demand for asset or service offering.	Mixed asset quality in terms of age, quality andtechnological complexity.
b		No energy transition strategy in place. Remediation costs may be high relative to cash flows.	Low through the cycle demand for asset or service offering.	Low asset quality in terms of age, quality andtechnological complexity.
ccc		n.a.	Structurally low demand for asset or service offering, threatening overall viability.	Asset quality insufficient to attract profitable levels ofutilisation or day rates.
			Pricing Resilience	**Competition**
aa			n.a.	n.a.
a			Record of maintaining market-leading pricing through the cycle.	Lowest exposure to competition.
bbb			Record of realizing premium pricing with minimal volatility across the cycle.	Low exposure to competition.
bb			Average pricing for asset or service offering through the cycle, subject to some pricing volatility.	Average exposure to competition.
b			Low pricing for asset or service offering through the cycle, and/or subject to very high pricing volatility.	High exposure to competition.
ccc			Pricing for asset or service offering structurally below breakeven levels.	Very weak/impaired competitive position threatening business model.

Financial Profile Key Factors — Oilfield Services

	Profitability	Financial Structure	Financial Flexibility
Rating	**EBITDA Margin**	**EBITDA Leverage**	**Financial Discipline**
aa	n.a.	n.a.	Publicly announced conservative financial policy. Record of strict compliance.
a	30%	<1.0x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	25%	1.5x	Financial policies less conservative than peers but generally applied consistently.
bb	20%	2.5x	Financial policies in place but flexibility in applying them could lead to temporarilyexceeding downgrade guidelines.
b	15%	3.5x	No financial policy or record of ignoring it. Opportunistic behavior.
ccc	Persistently and structurally break-even or loss-making at EBITDA level.	>5.5x	Financial management has lost much of its discipline, and subject to frequent, suddenchanges consistent with a crisis environment.
	EBIT Margin	**EBITDA Net Leverage**	**Liquidity**
aa	n.a.	n.a.	Very comfortable liquidity; no need to use external funding, except for already committed facilities, in the next 24 months even under a severe stress scenario. Well-spread debt maturity. Diversified sources of funding.
a	20%	0.7x	Very comfortable liquidity. No need to use external funding, except for already committed facilities, in the next 12 months even under a severe stress scenario. Well-spread debt maturity schedule. Diversified sources of funding.
bbb	15%	1.2x	One year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
bb	10%	2.2x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
b	5%	3.2x	Liquidity ratio below 1.0x. Overly reliant on one funding source.
ccc	Persistently and structurally break-even or loss-making at EBIT level.	5.2x	No near-term prospect of recovery in liquidity. All/most funding sources subject tomaterial execution risk.
	FFO Margin		**FX Exposure**
aa	n.a.		No material FX mismatch.
a	25%		Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flowswell-matched.
bbb	20%		Some FX exposure on profitability and/or debt/cash flow match. Effective hedging inplace.
bb	15%		FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b	10%		Large FX exposure. No significant/ineffective hedging in place.
ccc	Persistently and structurally break-even or loss-making at FFO level.		FX exposure dominant in impairing the issuer's ability to service debt in cash terms.
	FCF		**EBITDA Interest Coverage**
aa	n.a.		n.a.
a	Positive through the cycle.		7.0x
bbb	Neutral to positive through the cycle.		6.0x
bb	Neutral to negative through the cycle.		4.0x
b	Negative through the cycle.		3.0x
ccc	Persistently negative FCF margin, with limited scope for raising fundsfrom equity/debt/disposals.		1.25x
	Capex/CFO		
aa	n.a.		
a	67%		
bbb	100%		
bb	Capex materially covered by cashflows from operations.		
b	Capex expected to materially exceed cashflow over the rating horizontypically due to focus on expansionary projects.		
ccc	Unsustainable profile.		

Oil Refining and Marketing

Sector Risk Profile

Rating Range

The sector risk profile can be as high as the 'bbb+' rating level reflecting high cyclicality and the capital-intensive nature of oil refining. Cash flows in this sector are vulnerable to changes in input and output prices, and to changes in the demand/supply balance. The fuel marketing business tends to be less cyclical than refining in many markets. Company-specific traits can indicate ratings up to the 'BBB+' rating level depending on business diversification, scale of operations, refinery locations and refining asset quality.

Sector-Specific Key Factors

Diversification and Environmental Risk

Business diversification may reduce oil refiners' cash flow cyclicality and is positive for their ratings. We typically assign higher ratings to partially diversified refining companies that generate up to 50% of cash flow from subsegments other than refining, e.g. upstream, midstream, petrochemical or chemical sectors. Environmental risk pertaining to the energy transition is becoming an important consideration in the analysis of refining companies.

Operational Scale

Asset size is important, as larger facilities generally have lower costs and higher efficiencies. Fitch Ratings believes refining capacity of at least 100 thousand barrels per day (mbpd) per plant is optimal, but this does not preclude smaller facilities from operating profitably, e.g. those serving regional markets or specialized product categories.

Refinery Location and Asset Quality

Location is crucial, as profitability varies considerably by region and country. More complex refineries have a greater ability to process lower- cost, lower-quality crudes into higher-quality, higher-margin products, allowing higher through-the-cycle profitability. Refinery utilization is a key measure of efficiency.

Financial Profile Key Factors

Financial Profile

The financial metrics are standard corporate rating methodology ratios encompassing mid-point leverage and coverage ratios, and measures of profitability and cash flow, up to the 'BBB+' rating level. Profitability compared to regional peers and/or a benchmark is a reflection of business profile strength.

Investment-grade refining companies will typically have the ability to generate positive free cash flows across the business cycle and would be expected to fund capex mainly from internal sources (cash flow from operations) across the industry cycle.

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Oil Refining and Marketing

Industry Characteristics

Companies in this sector are typically rated in the 'BBB' to 'B' rating categories. This reflects a sector where participants operate in a competitive, capital-intensive and highly cyclical environment subject to volatile raw material and finished product prices, and large fixed-investment requirements. Oil refiners' cash flows and credit metrics vary significantly during the cycle, in line with changes in demand and supply fundamentals, refining margins and refinery utilization rates.

Supply and demand in the oil refining sector have historically been subject to imbalances, due to the fragmented ownership of refining capacity across the globe and the long lead times required for new investment, but also slow progress in bringing refining capacity down if there is oversupply due to the significant impact on local communities and domestic energy security considerations. Furthermore, refiners are exposed to inventory losses (and gains) during large and rapid fluctuations in oil prices.

Sector-Specific Key Factors — Oil Refining and Marketing

	Diversification and EnvironmentalRisk	Operational Scale	Refinery Location	Asset Quality
Rating	**Business Diversification**	**Capacity (bpd)**	**Competitiveness of Markets**	**Complexity**
aa	n.a.	n.a.	n.a.	n.a.
a	n.a.	n.a.	n.a.	n.a.
bbb	Partially integrated with upstream, midstream or petrochemicals. Independent status. Integration with strong fuel distribution network.	Greater than 500,000 with dominant position or goodgeographic diversification.	Markets with average competition or widening supply deficit or low-cost feedstock/energy costs.	High complexity, outstanding product yield compared to competitors.
bb	Very limited integration with non-refining business.	100,000-500,000.	More competitive markets with overcapacity or average-cost feedstock/energy costs.	Average complexity and product yield compared to competitors.
b	Pure oil refiner with no upstream or downstreamintegration.	Less than 100,000.	Very competitive markets with large overcapacity or higher-cost feedstock/energy costs.	Low complexity and product yield compared to competitors.
ccc	Concentrated exposure to unprofitable operations.	n.a.	Very competitive markets or feedstock/energy costs threatening commercial viability.	Obsolete equipment threatening business model.
	Environmental Risk	**Number of Refineries**	**Logistics**	**Utilization rates**
aa	n.a.	n.a.	n.a.	n.a.
a	n.a.	n.a.	n.a.	n.a.
bbb	Issuer has an articulated plan to reduce scope 1 and 2 emissions with stated reduction targets. Biofuels already in production mix with increase in output volume planned. Advanced plans to grow production of other low GHG emission energy sources.	At least two larger refineries.	Close to oil and product pipelines. Low-cost access to end-user markets.	Above-average through-the-cycle utilization rates compared to industry benchmarks.
bb	Scope 1 and 2 emission reduction goals with less developed emission reduction plans or targets. Growth in production of biofuels and other low GHG emission energy sources planned.	One larger single-asset facility.	Higher transportation costs due to less favorable location.	Average through-the-cycle utilization rates compared to industry benchmarks.
b	No GHG emission reduction targets or stated plans.	Medium-sized or small single-asset facility.	High crude oil supply risk with limited alternatives.	Low through-the-cycle utilization rates compared to industry benchmarks.
ccc	n.a.	Refinery failure.	Constant supply or logistical disruptions.	Ongoing problems with technical availability of assets leading to exceptionally low utilization rates compared to industry benchmarks.
	Regulatory Risk			
aa	n.a.			
a	n.a.			
bbb	Moderate exposure to environmental regulations and/or material but manageable remediation costs relativeto projected cash flows.			
bb	Above average exposure to environmental regulationsand/or high remediation costs relative to projectedcash flows.			
b	Severe exposure to environmental regulations and/or very high remediation costs relative to projectedcash flows.			
ccc	Substantial cash impairment crystallized, or about to,due to multiple, punitive environmental remediationcosts versus projected cash flows.			

Sector-Specific Key Factors — Oil Refining and Marketing

	Profitability	Financial Structure	Financial Flexibility
Rating	**Refining Margins**	**EBITDA Leverage**	**Financial Discipline**
aa	n.a.	n.a.	Publicly announced conservative financial policy. Record of strict compliance.
a	n.a.	n.a.	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	Above-average refining margins compared to regional benchmarks/ peers.	2.2x	Financial policies less conservative than peers but generally applied consistently.
bb	Average refining margins compared to regional benchmarks/peers.	3.0x	Financial policies in place but flexibility in applying them could lead to temporarilyexceeding downgrade guidelines.
b	Below-average refining margins compared to regional benchmarks/ peers.	4.0x	No financial policy or record of ignoring it. Opportunistic behavior.
ccc	Persistently and/or structurally unprofitable operations.	>5.5x	Financial management has lost much of its discipline, and subject to frequent, suddenchanges consistent with a crisis environment.
	FCF	**EBITDA Net Leverage**	**Liquidity**
aa	n.a.	n.a.	Very comfortable liquidity; no need to use external funding, except for already committed facilities, in the next 24 months even under a severe stress scenario. Well-spread debt maturity. Diversified sources of funding.
a	n.a.	n.a.	Very comfortable liquidity. No need to use external funding, except for already committed facilities, in the next 12 months even under a severe stress scenario. Well-spread debt maturity schedule. Diversified sources of funding.
bbb	Positive across the cycle.	2.0x	One year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
bb	Neutral to negative across the cycle.	2.8x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
b	Negative across the cycle.	3.5x	Liquidity ratio below 1.0x. Overly reliant on one funding source.
ccc	Persistently negative FCF margin, with limited scope for raising fundsfrom equity/debt/disposals.	>5.2x	No near-term prospect of recovery in liquidity. All/most funding sources subject tomaterial execution risk.
		FFO Leverage	**FX Exposure**
aa		n.a.	No material FX mismatch.
a		n.a.	Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flowswell-matched.
bbb		2.5x	Some FX exposure on profitability and/or debt/cash flow match. Effective hedging inplace.
bb		3.3x	FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b		4.3x	Large FX exposure. No significant/ineffective hedging in place.
ccc		>6.0x	FX exposure dominant in impairing the issuer's ability to service debt in cash terms.
		(CFO-Capex)/Debt	**EBITDA Interest Coverage**
aa		n.a	n.a.
a		n.a	n.a.
bbb		12.5%	6.0x
bb		7.5%	5.0x
b		2.5%	4.0x
ccc		Flat to negative	1.25x
			FFO Interest Coverage
aa			n.a.
a			n.a.
bbb			6.5x
bb			4.5x
b			2.5x
ccc			1.25x

Midstream

Sector Risk Profile

Rating Range

North American midstream entities have a higher-than-average risk profile compared to other corporate sectors. As a result, ratings in the midstream sector are typically in the 'BBB' rating category or lower. The risk profile reflects the essential nature of the infrastructure, exposure to volume and commodity prices that are subject to global economic cycles, cyclical supply and demand conditions, and capital-intensive nature. Company specific traits can lead to ratings up to 'BBB+,' and occasionally 'A-' depending on the scope and scale of operations, geographic and asset diversity, and revenue assurance features.

Sector-Specific Key Factors

Operational Scale

Fitch uses this factor to assess the issuer's scale of operations. Size matters in the midstream sectors, where the largest companies have meaningful competitive advantages. Larger companies typically have greater geographic and asset diversity, which usually moderates the financial effect of negative market trends and events.

Business Characteristics

Fitch uses this factor to assess the issuer's business characteristics within the midstream context and its exposure to environmental regulations. Asset classes within the sector exhibit varying degrees of risk. Many companies operate a mix of assets operating under different contractual structures, requiring a blended analytical approach. In its simplest form, Fitch Ratings segregates a company's gross margins as either "fixed-fee" or "commodity price sensitive".

Market Position

Fitch uses this factor to assess the quality and competitiveness of the issuer's assets, the market position of its asset base within the sector, and its exposure to environmental regulations.

The useful life of assets will become more critical as environmental regulations adapt to the energy transition and companies incur remediation costs, and look to repurpose existing assets and/or shift investments into segments that are supported by environmental regimes.

Cash Flow Characteristics

Fitch uses this factor to assess the volatility of the cash flow stream across the asset base and the capex to support the base. The type and structure of payments vary across contracts, regulatory constructs and counterparties. Companies under long-term take-or-pay contracts with creditworthy counterparties experience significantly less cash flow volatility than those with volume and commodity exposure. The Contracted Revenue and Macro Exposure factor also assesses the execution and complexity of the company's construction programme. Complex construction projects with technology integration risk presents more volatility than a project utilizing fully commercial, proven technology backed by customer contracts. The Counterparty subfactor captures the linkage between customer concentration and long-term volatility of cash flows. Companies with diverse and creditworthy customers can better withstand operational disruption in a single basin or financial difficulties from a key counterparty.

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Midstream

Financial Profile Key Factors

Profitability

This analysis focuses on the stability of earnings and cash flows from the issuer's major business lines. Sustainable operating cash flow supports the issuer's ability to service debt and to access capital markets to finance its operations and capital expansion.

Financial Structure and Flexibility

These factors use various predominantly cash-based metrics to measure an issuer's level of capitalisation and other more flexible factors, such as liquidity. Fitch typically adjusts EBITDA for midstream issuers to exclude non-recurring extraordinary items. Adjusted EBITDA excludes equity in earnings of nonconsolidated affiliates and includes cash distributions from nonconsolidated affiliates.

Industry Characteristics

The midstream energy industry focuses on several broad industry sub-categories, whether in isolation or combination: transportation and storage of natural gas, natural gas liquids, crude oil, refined products and bulk materials; production, gathering and processing, and marketing of natural gas and crude oil; water services; natural gas fractionation, liquefaction or re-gasification and retail propane distribution. Asset classes, such as natural gas and products pipelines and other contractually supported operations, which together generate a large portion of sector cash flows, have predictable operating performances and tend to be less cyclical and less influenced by commodity price fluctuations than other asset classes.

By contrast, riskier single-asset companies or companies with volatile commodity-linked earnings may need to make offsetting adjustments (such as lower leverage or higher liquidity) to achieve a similar level of credit quality. A company's operational scale and asset and geographical diversity are important for its stability.

Midstream entities, particularly those with assets operating in the US, are sometimes structured as master limited partnerships (MLPs) to take advantage of the tax pass through benefits of the MLP structure. A common characteristic of the MLP structure is its facilitation of the distribution of most available cash to general partner and limited partner unit holders, although many MLPs now retain excess cash for growth. Fitch believes that distribution coverage, generally defined as available cash divided by total cash distributions, is an important credit measure. Many MLPs have slowed distribution growth, stopped distribution growth or reduced distributions to retain cash to preserve credit metrics and reduce dependence on capital markets. Cash available for distribution is typically calculated as adjusted EBITDA minus maintenance capex and interest expense.

Sector-Specific Key Factors — Midstream

	Operational Scale	Business Characteristics	Market Position	Cash Flow Characteristics
Rating	**Scale - EBITDA**	**Commodity Exposure**	**Asset Quality**	**Rate Structure and Revenue Profile**
aa	n.a.	n.a.	n.a.	n.a.
a	>$2 billion or quasi monopoly position.	90% fixed; 10% commodity.	Assets highest quality among peers.	Strong contractual protection. Regulated rates or high component of take-or-pay contracts.
bbb	>$500 million or dominant market share.	70% fixed; 30% commodity.	High quality assets.	Mix of regulated rates/take-or-pay and variable revenue streams. Low exposure to change in geographic differentials. Moderate contractual protection.
bb	<$500 million or strong market share.	60% fixed; 40% commodity.	Lower quality assets that operate at a higher level of risk.	High exposure to variable or interruptible revenue streams. Exposure to change in geographic differentials or commodity pricing.
b	<$300 million or small market share in a competitive market	>75% commodity.	Low quality, high risk assets with significant variability of cash flows.	Very high exposure to variable or interruptible revenue streams. High exposure to change in geographic differentials or commodity pricing.
ccc	Rapidly declining scale.	Commodity exposure creating an unprofitable profile for the foreseeable future.	Poor asset quality with little prospect of a profitable profile.	Predominate exposure to variable or interruptible revenue streams. High exposure to change in geographic differentials or commodity pricing.
	Geographic/Asset Diversity	**Business Mix**	**Industry Position/Competitive Advantage**	**Contracted Revenue and Macro Exposure**
aa	n.a.	n.a.	n.a.	n.a.
a	High geographic and asset diversity.	Natural gas, crude oil, and refined product pipelines.	Low cost and/or high demand competitive advantage.	No or very little exposure to macro events/conditions. Limited recontracting risk, capex contractually supported.
bbb	Moderate to high geographic and asset diversity.	Pipelines, diversified midstream, fixed fee predominant medium to large scale gathering, processing.	Strong competitive position.	Limited exposure to macro events/conditions. Recontracting risk moderate, capex contractually supported.
bb	Geographic concentration and/or limited business line diversity and resources.	Medium to large gathering, processing, retail propane, marine transportation, and/or liquefied natural gas production.	High cost and weak competitive advantage.	Minimal contract support and/or exposure to macro events, commodity prices, economic conditions. High recontracting risk. Exposure to investment in capital-intensive or complex technologies that are not fully contractually supported.[1]
b	High geographic concentration and lack of business line diversity.	Small scale or start-up gathering, processing, retail propane, marine transportation, and/or liquefied natural gas production.	Among the highest cost and weak competitive advantage.	No contract support, high exposure to macro events, commodity prices, economic conditions. High recontracting risk. High exposure to investment in capital-intensive or complex technologies without contractual support.[1]
ccc	Concentrated in an especially disadvantaged region with decreasing supply/demand.	Unprofitable or unsustainable business mix.	Uncompetitive and unsustainable cost structure.	Macro events, commodity prices and economic conditions and capex exert strong downward pressure on the company's prospects.
	Size and Support	**Environmental Exposure**		**Counterparty**
aa	n.a.	n.a.		n.a.
a	Significant advantages of scale.	n.a.		Highly diversified, low concentration risk and reliable, predominately investment grade customers. Weighted average credit quality of counterparties is in line with 'A' rating.
bbb	Modest advantages of scale; gains advantages of scale through supportive relationship with larger parent company or sponsor.	Moderate exposure to environmental regulations and/ or material but manageable remediation costs relative to projected cash flows.		Diversified, medium customer concentration risk and majority investment grade customers. Weighted average credit quality of counterparties is in line with 'BBB' rating.
bb	Lacks advantages of scale; limited/no gains to scale through relationship with larger parent company or sponsor.	Above average exposure to environmental regulations and/or high remediation costs relative to projected cash flows.		Low diversification with moderate customer concentration risk. Unregulated and/or significant non-investment grade customers. Weighted average credit quality of counterparties is in line with 'BB' rating.
b	No advantages of scale; no gains to scale through relationship with larger parent company or sponsor.	Severe exposure to environmental regulations and/ or very high remediation costs relative to projected cash flows.		No diversification with high customer concentration risk or event risk. Significant unregulated and/or non-investment grade customers. Weighted average credit quality of counterparties is in line with 'B' rating.
ccc	Small scale a limiting factor for operational, strategic and financial viability.	Substantial cash impairment crystallized, or about to, due to multiple, punitive environmental remediation costs versus projected cash flows.		No diversification with high customer concentration risk or event risk. Non-paying customers. Weighted average credit quality of counterparties is in line or better than 'CCC' rating.

Financial Profile Key Factors — Midstream

	Profitability	Financial Structure	Financial Flexibility
Rating	**Volatility of Profitability**	**EBITDA Leverage**	**Financial Discipline**
aa	n.a.	n.a.	n.a.
a	Higher stability and predictability of profits than industry average.	3.0x	Publicly announced conservative financial policy. Record of strict compliance.
bbb	Stability and predictability of profits in line with industry average.	4.0x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bb	Lower stability and predictability of profits than industry average.	5.5x	Financial policies less conservative than peers but generally applied consistently.
b	Much lower stability and predictability of profits than industry average.	6.5x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
ccc	Volatility of profits greater than normal bounds of volatility for corporate sector as a whole.	>8.0x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
		EBITDA Net Leverage	**Liquidity**
aa		n.a.	n.a.
a		2.7x	Very comfortable liquidity. No need to use external funding, except for already committed facilities, in the next 24 months even under a severe stress scenario. Well spread debt maturity schedule. Diversified sources of funding.
bbb		3.7x	Very comfortable liquidity. No need to use external funding, except for already committed facilities, in the next 12 months even under a severe stress scenario. Well spread debt maturity schedule. Diversified sources of funding.
bb		5.2x	One year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
b		6.2x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
ccc		7.2x	No near-term prospect of recovery in liquidity. All/most funding sources subject to material execution risk.
		FFO Net Leverage	**EBITDA Interest Coverage**
aa		n.a.	n.a.
a		3.5x	6.0x
bbb		4.5x	4.5x
bb		6.0x	3.0x
b		7.0x	2.0x
ccc		>8.0x	1.1x
			FFO Interest Coverage
aa			n.a.
a			6.0x
bbb			4.0x
bb			2.5x
b			1.25x
ccc			<1.0x.
			Distribution Coverage
aa			n.a.
a			>1.5x
bbb			>=1.0x
bb			<1.0x
b			<0.8x
ccc			<0.6x

Steel

Sector Risk Profile

Rating Range

The sector's risk profile can be as high as 'bbb', reflecting exposure to cyclical commodity prices and volumes that are subject to the vagaries of global economic cycles and cyclical supply and demand conditions. Company-specific traits can lead to ratings up to 'BBB+' or occasionally 'A-' according to the level of geographic and product diversification, cost of production, access to raw materials and commodity diversification.

Sector-Specific Key Factors

Cost Position

A competitive cost position is fundamental to robust financial performance and cash generation through the business cycle. This gives participants the flexibility to pay down debt, or if necessary continue to invest in their businesses through cyclical downturns, thus defending their positions.

Raw Material Self-Sufficiency

Vertical integration into raw materials provides producers with a hedge against price volatility and over time allows them to generate higher and/or more stable profit margins. Integration into all stages of the steelmaking process is a key competitive advantage.

Revenue/Value Sources

Steelmakers have the ability to significantly increase the value of basic billet and slab through further processing. Higher value-added products are typically associated with higher profit margins and more integration into customers' processes, which can reduce demand volatility for their products. Scale is an important factor in the analysis of a steel company. Greater scale can support higher financial and operational flexibility.

Diversification

Product and geographical diversification provide steelmakers with a hedge against weakness in any one market, and could also provide opportunities to arbitrage shipments to benefit from favorable currency exchange-rate movements. Environmental risks are becoming increasingly important for steel producers given the requirement to cut emissions in view of net zero pledges.

Financial Profile Key Factors

Financial Profile

The financial metrics are standard corporate rating methodology ratios encompassing mid-point leverage and coverage ratios, and measures of profitability and cash flow, up to the 'BBB+' rating level. Investment-grade entities will typically show the ability to generate positive FCF through the business cycle.

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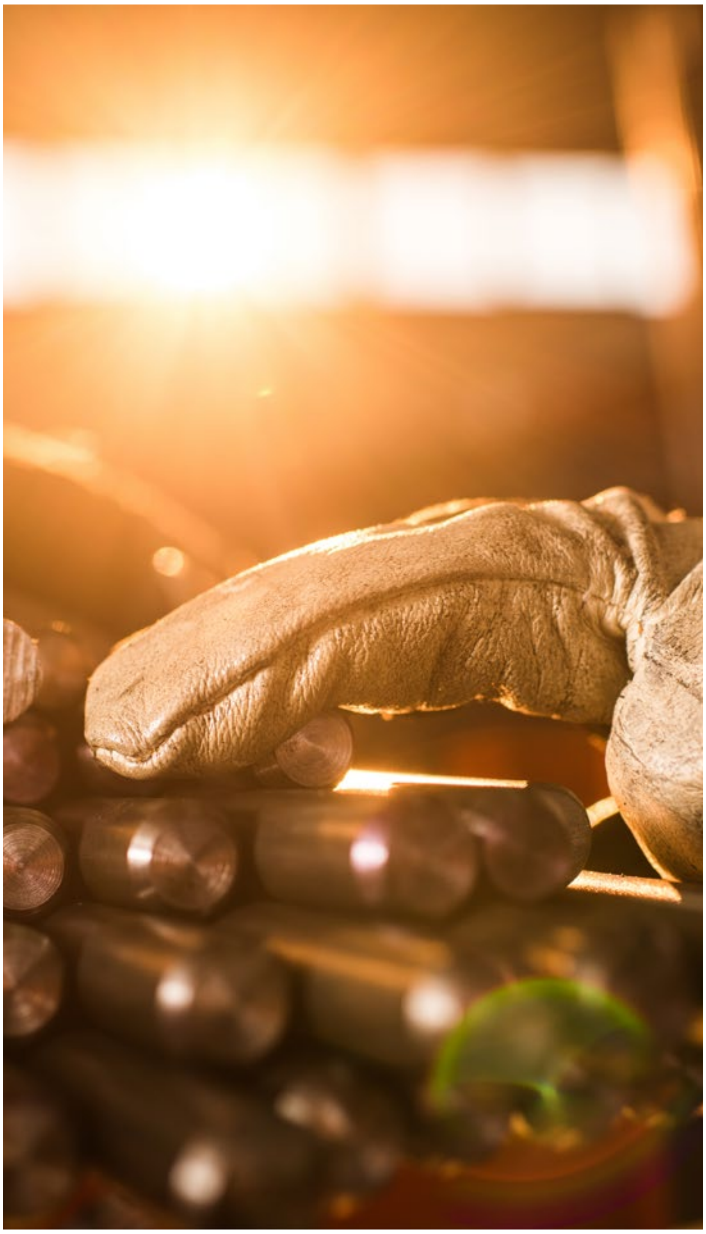
Steel

Industry Characteristics



Representative companies rated in this sector are in the low 'A' rating category down to the 'B' category. The higher than average sector risk reflects exposure to significant cyclical demand changes in core end markets (typically construction, automotive and capital goods), and high volatility in raw material input. More highly rated companies can, however, generate good profitability and positive free cash flows on average across a full industry cycle of three to five years.

The strongest companies (typically 'BBB' or low 'A' rated) offset the sector's inherent weaknesses with strong liquidity, long-dated debt maturity profiles, low operating costs, a high value-added product mix, wide diversification (product, geographical and end- sector exposures), and varying degrees of vertical integration into raw materials.

The lower-rated companies will typically exhibit several of the following characteristics: less diversification in all aspects; higher operating cost positions; weaker liquidity and/or higher absolute debt levels; a more commoditized product mix; or a reliance on individual markets segments.

Sector-Specific Key Factors — Steel

	Cost Position	Raw Material Self-Sufficiency	Revenue/Value Sources	Diversification
Rating	**Cost Position**	**Raw Material Self-Sufficiency**	**Proportion of Higher Value-Added Products**	**Product and Geographical Diversification**
aa	n.a.	n.a.	n.a.	n.a.
a	n.a.	n.a.	n.a.	n.a.
bbb	Low – 1st/2nd quartile.	Control over key raw materials or significant pricing power.	High (>50%).	Significant product/geographic diversification or leading position in niche segment
bb	Medium – 3rd quartile.	Partial control over key raw materials or pricing power.	Medium (20-50%).	Good diversification or good cost position in niche product.
b	High – 4th quartile	No or limited control over key raw materials and no pricing power.	Low (<20%).	Limited diversification.
ccc	Revenues not expected to cover cash costs for foreseeable future.	Adverse developments in supply chain jeopardizing business model.	Market shifts rendering product portfolio unprofitable.	Concentration in disadvantageous region experiencing major recession or disruptive conditions.
	Regulatory Risk		**EBITDA**	**Operational Diversification**
aa	n.a.		n.a.	n.a.
a	n.a.		n.a.	n.a.
bbb	Limited or manageable exposure to environmental regulations. Remediation costs are comfortably within current cashflows.		USD2.5 billion	High (numerous plants and rolling mills)
bb	Significant exposure to environmental regulations. Remediation costs are within current cashflows, but may weigh more over time.		USD0.5 billion	Medium (several plants and mills)
b	Material exposure to highly polluting technology. Remediation costs are an incremental strain on projected cashflows.		USD0.2 billion	Low (single plant)
ccc	Substantial cash impairment crystallized, or about to, due to multiple, punitive environmental cost burdens.		Rapidly declining EBITDA	Record of, or prospects for, failed operations at a single site.
				Environmental Risk
aa				n.a.
a				n.a.
bbb				Well defined sustainability strategy with a target to achieve net zero by 2050. Low emitting EAF based structure of operations or BF/BOF mills with a capacity and feasible plan for emissions reductions.
bb				Less ambitious sustainability strategy in line with average players. Substantial share of BF/BOF operations with less defined emission reduction plan or EAFs with high level of emissions.
b				Lack of sustainability strategy. Operations focused on highly emitting EAFs (largely coal based) or BF/BOF operations without emissions reduction plans.
ccc				n.a.

Financial Profile Key Factors — Steel

	Profitability	Financial Structure	Financial Flexibility
Rating	**EBITDA Margin**	**EBITDA Leverage**	**Financial Discipline**
aa	n.a.	n.a.	Publicly announced conservative financial policy. Record of strict compliance.
a	n.a.	n.a.	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	16%	2.0x	Financial policies less conservative than peers but generally applied consistently.
bb	12%	3.0x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
b	8%	4.0x	No financial policy or record of ignoring it. Opportunistic behavior.
ccc	Persistently and/or structurally break-even or loss-making at the EBITDA level.	>5.0x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	FFO Margin	**EBITDA Net Leverage**	**Liquidity**
aa	n.a.	n.a.	Very comfortable liquidity; no need to use external funding, except for already committed facilities, in the next 24 months even under a severe stress scenario. Well-spread debt maturity. Diversified sources of funding.
a	n.a.	n.a.	Very comfortable liquidity. No need to use external funding, except for already committed facilities, in the next 12 months even under a severe stress scenario. Well-spread debt maturity schedule. Diversified sources of funding.
bbb	12%	1.7x	One year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
bb	10%	2.7x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
b	5%	3.7x	Liquidity ratio below 1.0x. Overly reliant on one funding source.
ccc	Persistently and/or structurally break-even or loss-making at the FFO level.	>5.0x	No near-term prospect of recovery in liquidity. All/most funding sources subject to material execution risk.
	FCF Margin	**FFO Leverage**	**FX Exposure**
aa	n.a.	n.a.	No material FX mismatch.
a	n.a.	n.a.	Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flows well matched.
bbb	Mostly positive through the cycle.	2.5x	Some FX exposure on profitability and/or debt/cash flow match. Effective hedging in place.
bb	Neutral to negative through the cycle.	3.5x	FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b	Negative across the cycle.	4.5x	Large FX exposure. No significant/ineffective hedging in place.
ccc	Persistently negative FCF margin, with limited scope for raising funds from equity/debt/disposals.	>6.0x	FX exposure dominant in impairing the issuer's ability to service debt in cash terms.
		FFO Net Leverage	**EBITDA Interest Coverage**
aa		n.a.	n.a.
a		n.a.	n.a.
bbb		2.0x	11.0x
bb		3.0x	7.0x
b		4.0x	4.0x
ccc		>5.0x	1.25x
			FFO Interest Coverage
aa			n.a.
a			n.a.
bbb			9.0x
bb			6.0x
b			4.0x
ccc			1.25x

Media

Sector Risk Profile

Rating Range

Media companies have an average risk profile. Representative companies rated in this sector are in the 'A' rating category or lower. The sector risk profile reflects the strong asset portfolios, scale characteristics and operating leverage of the companies, enabling them to generate meaningful levels of free cash flow (FCF).

Sector-Specific Key Factors

Volatility of Operating Profile

Fitch categorizes the volatility into three general categories: economic sensitivity; hit-driven or other non-economic volatility; and secular shifts towards or away from certain media.

Diversification

Media companies derive revenue from a variety of businesses and geographic regions that face a range of challenges and opportunities. A company's ability to capitalize and monetize content and brands across various business segments, platforms and regions can provide a competitive advantage over its peers.

Market Position

Fitch considers competitive positioning and relative market strength as one of the more important operating factors in the analysis of media companies given barriers to entry and significant investment requirements.

Regulatory Environment

Fitch believes the regulatory burden within the media and entertainment industry is moderate to light and is generally not expected to have a material impact on the operating or credit profile of industry participants.

Financial Profile Key Factors

Financial Profile

The financial metrics are standard corporate rating methodology ratios encompassing midpoint leverage and coverage ratios, and measures of profitability and cash flow, up to the 'A' rating level. Fitch believes that issuers within the media sector have the ability to exercise discretion over capital structure policy and capital allocation strategy. As such, the financial policies adopted by issuers within the sector influence the ratings process.

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Media

Industry Characteristics

Media companies are well positioned to address the secular threats and opportunities presented by emerging alternative distribution platforms and continued audience fragmentation across the media and entertainment landscape.

Changing media consumption, emerging distribution platforms, and technology evolution and adoption will continue to drive audience fragmentation and disrupt traditional models, creating risks and opportunities across the media and entertainment landscape. Content owners and creators, from Fitch's perspective, are best positioned to address the secular threats and opportunities as the media consumption paradigm matures. Through the disruption and audience fragmentation, Fitch believes demand for high-quality content will remain strong across all major end-markets (broadcast, cable networks, alternative distributors and subscription video on demand providers), and large, well-capitalized content providers will remain crucial to the industry and enjoy a strong competitive position. Media companies with a strong record of content creation and distribution are better positioned to capitalize and monetize franchises and brands across the company's various business segments and platforms, providing a sustainable competitive advantage relative to their peers.

The ongoing shift of advertising dollars from traditional media to digital media platforms will likely accelerate. Traditional media, including newspapers, magazines and radio, will continue to cede share to digital media platforms. Television advertising revenues reflect the lag in monetizing changing viewing habits and audience measurement inefficiencies.

Sector-Specific Key Factors — Media

	Volatility of Operating Profile	Diversification	Market Position	Regulatory Environment
Rating	**Revenue Mix Characteristics**	**Geographic Diversification**	**Content Creation**	**Regulatory Environment**
aa	n.a.	n.a.	n.a.	n.a.
a	Revenues are mostly from non-advertising operations across multiple platforms. Advertising revenue is of high quality.	Geographical diversification of cash flow. Modest risk to overall credit profile associated with international business model.	Industry-leading content production and distribution capabilities with broad appeal. Leading producer and aggregator of must-have content.	Benign or low regulatory oversight.
bbb	Less reliant on stable, recurring revenue streams. Revenue derived from advertising-related sources with modest pricing power.	Average geographical diversification of cash flow.	Leading content-production capabilities with more limited distribution competencies. Market-leading aggregation of must-have content.	Moderate regulatory oversight.
bb	Strong reliance on advertising revenue across limited consumption platforms.	Limited geographic diversification.	Limited production of content, more reliant on acquired content. Content tends to lack broad appeal.	Regulatory oversight moderate but trending higher.
b	Heavily reliant on advertising-supported or discretionary spending revenue.	Weak geographic diversification.	No meaningful content production. Solely reliant on acquired content.	Regulatory environment clearly unfavorable.
ccc	n.a.	Concentrated in an especially disadvantaged region.	n.a.	Regulatory direction or intervention a key driver in material decline of prospects.
	Advertising Revenue Quality	**Product-Line Diversification**	**Scale - EBITDA**	**Copyright Protections**
aa	n.a.	n.a.	>$8 billion	n.a.
a	High pricing power for advertising revenue across multiple platforms. Advertising is national and less susceptible to substitution.	Strong operating diversity with more than four businesses each generating 10% of revenue, with nominal correlation to economic cycles.	$5 billion-$8 billion	Strong copyright protection, including transition to digital media. Minimal piracy risk; strong usage of content licensing arrangements.
bbb	Advertising pricing is strong but subject to limited volatility. Media platforms consistently deliver targeted audience.	Product line diversity is limited and business segments tend to have higher correlation to economic cycles.	$1 billion-$5 billion	Markets characterized with average copyright and intellectual property rights. Piracy risk is moderate.
bb	Volatile advertising revenue reflecting weaker pricing and audience accretion characteristics. Advertising base exposed to local markets.	Narrow product focus.	<$500 million	Markets have weak copyright and intellectual property rights. Piracy risk is prevalent.
b	Advertising revenue highly volatile. Most exposed to local markets, unstable media and secular threats.	Narrow product focus subject to secular declines.	<$500 million	Markets have weak copyright and intellectual property rights. Piracy risk is high.
ccc	Rapidly declining fundamentals for advertising revenue. Advanced erosion from alternative channels.	Product focus fundamentally uncompetitive, sustained only by legacy customer base, itself in rapid decline.	Rapidly declining revenue base.	Concentrated in markets with weakest copyright and intellectual property rights. Piracy persistently eroding sources of revenue.
	Economic Sensitivity		**Market Position**	
aa	n.a.		n.a.	
a	Operating profile somewhat susceptible to economic cycles. Maintains discretion over cost structure.		Strong brands and media platforms, secure share of media content consumption. Nominal exposure to substitution threats.	
bbb	Operating profile and volatility in line with economic cycle. Limited ability to manage cost structure during down cycles.		National brands, more competitors, defensible share of media consumption and solid operating efficiency. Moderate substitution risk.	
bb	Operating profile volatility exceeds economic cycle.		Weaker brands and appeal. Declining share of media consumption audience. Vulnerability to substitution.	
b	Highly cyclical operating profile; difficult to predict.		Weaker brands and appeal. Declining share of media consumption audience. Material vulnerability to substitution.	
ccc	Operating profile inflexible, and entirely exposed to cyclical forces.		Weak brands, rapidly eroding share of media consumption, evidence of substitution with multiple competitor failures.	
	Exposure to Hit-Driven Volatility		**Relative Power in Value Chain**	
aa	n.a.		Dominant position in the value chain, with strong bargaining power with broad array of customers and suppliers. Retains most of the value added in the chain.	
a	Business profile has limited vulnerability (<25% of revenue) to hit-driven volatility with marginal impact to credit profile.		Strong position in value chain characterized by competitive bargaining power with broad array of customers and suppliers.	
bbb	Business profile has average exposure to hit-driven volatility that can potentially have a negative impact on credit profile.		Moderately positioned in value chain. Balanced relative bargaining power with suppliers and customers.	
bb	Hit-driven volatility is inherent within the operating profile and is a key rating consideration.		Supplier and/or customer more concentrated with significant bargaining power.	
b	Operates media platforms with high degree of hit-driven volatility, which negatively affects credit profile.		Weak position within the value chain. Nominal influence in bargaining with powerful suppliers and customers.	
ccc	High degree of hit-driven volatility, in advanced stages of content drought, expected to continue.		The weakest position in a value chain, leading to strong downward pressure on prospects.	
	Exposure to Secular Shifts			
aa	n.a.			
a	Strong competitive position. Secular threats from new technologies and media platforms not expected to have material adverse effect.			
bbb	Operating profile has minimal vulnerability to secular risks, requiring minor investment to mitigate risk.			
bb	Meaningful portion of business exposed to secular risks which can lead to weakening of competitive position and erosion of market share.			
b	Significant strategic redirection and investment required. In absence of action, weakening market share and competitive position likely.			
ccc	Rapidly declining market share, limited efficiacy of current strategic redirection efforts and low visbility of improvements.			

Financial Profile Key Factors — Media

	Profitability	Financial Structure	Financial Flexibility
Rating	**EBITDA Margin**	**EBITDA Leverage**	**Financial Discipline**
aa	n.a.	n.a.	Publicly announced conservative financial policy. Record of strict compliance.
a	30%	1.5x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	20%	2.5x	Less conservative policy but generally applied consistently.
bb	15%	3.5x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
b	10%	5.0x	No financial policy or record of ignoring it. Opportunistic behavior.
ccc	Persistently and structurally break-even or loss-making at EBITDA level.	>7.0x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	FFO Margin	**EBITDA Net Leverage**	**Liquidity**
aa	n.a.	n.a.	Very comfortable liquidity; no need to use external funding, except for already committed facilities, in the next 24 months even under a severe stress scenario. Well-spread debt maturity. Diversified sources of funding.
a	20%	1.3x	Very comfortable liquidity. No need to use external funding, except for already committed facilities, in the next 12 months even under a severe stress scenario. Well-spread debt maturity schedule. Diversified sources of funding.
bbb	15%	2.3x	One year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
bb	10%	3.2x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
b	7%	4.5x	Liquidity ratio below 1.0x. Overly reliant on one funding source.
ccc	Persistently and structurally break-even or loss-making at FFO level.	7.0x	No near-term prospect of recovery in liquidity score above 1.0x. All/most funding sources subject to material execution risk.
	FCF Margin	**FFO Leverage**	**FX Exposure**
aa	n.a.	n.a.	No material FX mismatch.
a	3.5%	1.8x	Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flows well-matched.
bbb	2.5%	2.8x	Some FX exposure on profitability and/or debt/cash flow match. Effective hedging in place.
bb	1%	3.8x	FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b	Neutral to negative.	5.5x	Large FX exposure. No significant/ineffective hedging in place.
ccc	Accelerating negative FCF margin, with limited/no flexibility on spending reduction and funding gaps.	>7.0x	FX exposure dominant in impairing the issuer's ability to service debt in cash terms.
	Volatility of Profitability	**(CFO-Capex)/Debt**	**EBITDA Interest Coverage**
aa	Volatility of profits viewed as a positive outlier for the industry.	>30%	n.a.
a	Lower volatility of profits than industry average.	20%	10.5x
bbb	Volatility of profits in line with industry average.	12.5%	7.5x
bb	Higher volatility of profits than industry average.	7.5%	6.0x
b	Volatility of profits viewed as a negative outlier for the industry.	2.5%	3.5x
ccc	Volatility of profits outside normal bounds of volatility for corporate sector as a whole.	Flat to Negative	1.5x
		FCF/Debt	**FCF/Op. EBITDA**
aa		n.a.	n.a.
a		15%	30%
bbb		10%	25%
bb		5%	15%
b		<0%	5%
ccc		Accelerating negative FCF, with limited/no flexibility on spending reductions.	Accelerating negative FCF, with limited/no flexibility on spending reductions.

Technology

Sector Risk Profile

Rating Range

The sector's risk profile is above average with ratings mostly ranging from the 'A' to 'B' rating categories. Higher-rated technology companies demonstrate strong profitability and free cash flow (FCF) from leadership positions in large stable or growing markets. Intellectual property rights, technology and product leadership, or brand strength protect market positions. End-market size and cyclicality and a company's market share and pricing power, product and customer diversification, and investment intensity drive ratings.

Companies with strong contractual arrangements or product leadership translating into greater recurring revenues and high and predictable FCF are higher rated, provided financial discipline is maintained. Lower ratings reflect risks associated with smaller technology companies with limited product, customer and end-market diversification, aggressive financial policies or negative FCF from weak profitability or high capital intensity.

Sector-Specific Key Factors

Sector Competitive Intensity

We analyze incumbents' pricing power and the extent of risk from new entrants with similar or substitute products to assess competition risk. Barriers to entry that can support credit strength include significant investment requirements, technology leadership, and high switching costs.

Industry Profile

We assess a segment's volatility of demand and exposure to broader economic trends. Segments with strong long-term growth potential and lower correlation with the economic cycle will generally support higher ratings than those which are cyclical, which can be characteristic of certain technology segments.

Market Position

We analyze a company's strength within each key segment by assessing competitive advantage. Scale, market share, technological leadership, intellectual property rights, brand and pricing power are important in this respect. Stronger companies will demonstrate higher margins and less volatility of cash flows than weaker competitors.

Diversification

Greater diversification can provide stability to revenue and FCF, depending upon the degree of correlation across geographies, markets and customers.

Financial Profile Key Factors

Financial Profile

Navigators' emphasis on profitability, FCF and leverage metrics reflects the importance of financial flexibility through the cycle.

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Technology

Industry Characteristics

Technology sub-sectors will not always correspond to a particular rating category, due to varying degrees of intellectual property ownership, financial policies and other company-specific factors. Due to the wide diversity of technology sub-sectors, Fitch takes a case-by-case approach when determining a technology company's appropriate sector risk profile.

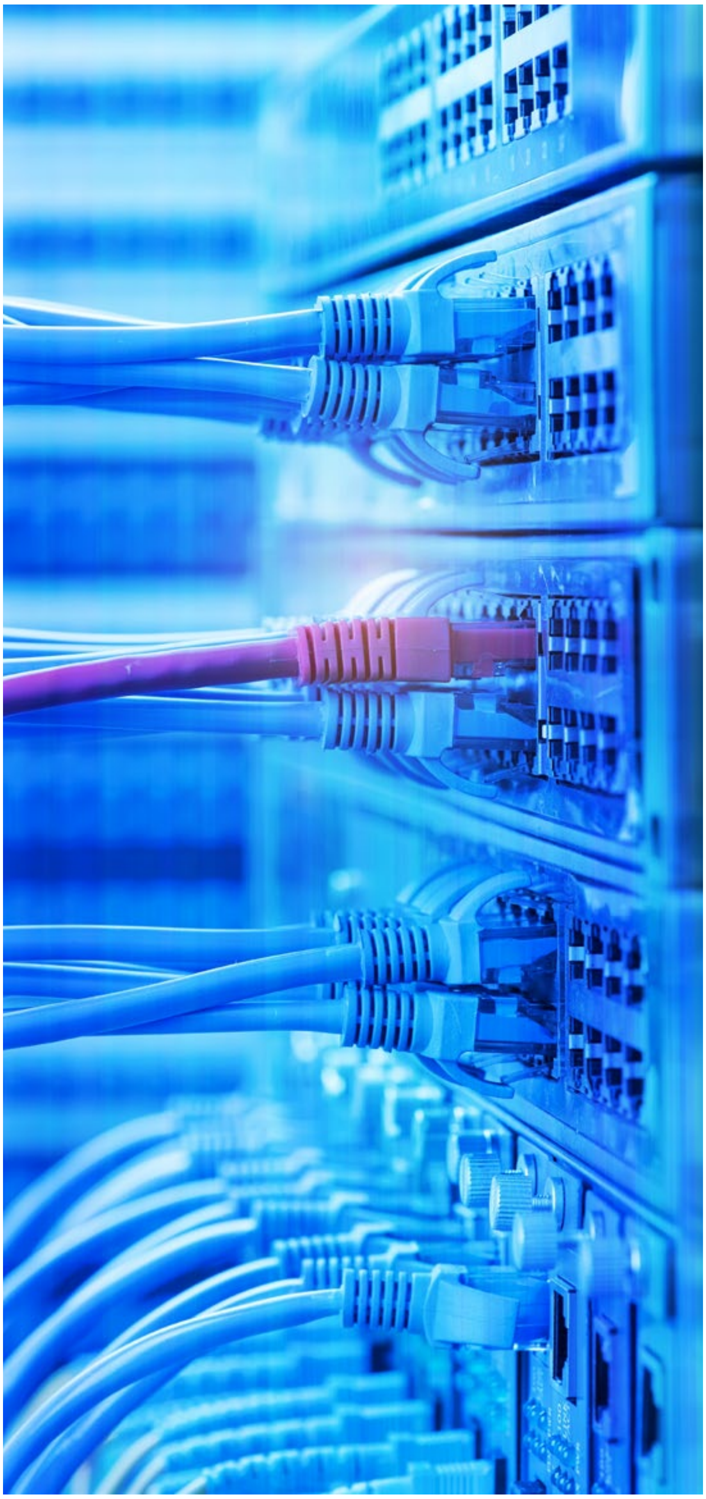
Many speculative-grade technology companies are challenged by generic sector risks — including rapid technology advancement, short product life cycles, cyclical demand patterns and global competition, particularly those with significant exposure to consumer spending.

Consumer-related hardware products, the product life cycles of which often are 12–18 months, tend to experience average selling price (ASP) erosion most acutely. Downward pressure on ASPs, driven by the rapid evolution of new technology, increases the obsolescence rate for existing products. Supply and demand imbalances, especially for commodity components, such as memory and hard disk drives (HDDs), also contribute to meaningful ASP erosion.

Even during a particular product's life, ASPs typically fall sharply, requiring ongoing cost reductions to preserve profit margins. For many technology companies, the development of next-generation products requires high research and development (R&D) investment and significant capex to support the construction of new, and more efficient, production facilities, potentially pressuring FCF.

Investment-grade technology companies offset these risks and provide operational stability via the company-specific traits of significant revenue diversification, high entry barriers for the particular sub-sector, flexible global supply chains and leading global market positions. Moreover, a number of semiconductor companies are increasingly offsetting heavy capex requirements by outsourcing leading-edge manufacturing to foundry partners, reducing fixed costs and enabling increased focus on product R&D.

Original equipment manufacturers are increasingly adopting outsourcing as the variety and number of electronics products — ranging from telecommunications equipment to medical devices — produced by contract manufacturers increases. Outsourcing can result in higher and more consistent FCF generation from lower capex. At the same time, companies that outsource share a portion of gross margins with their manufacturing partners and see reduced benefits from operating leverage during strong growth periods.



Sector-Specific Key Factors — Technology

	Sector Competitive Intensity	Industry Profile	Market Position	Diversification
Rating	**Industry Structure**	**Long-Term Growth Potential**	**Market Share**	**End-Market Diversification**
aa	Oligopolistic industry.	Strong long-term potential with gradual, steady growth.	Market leader in most of its segments.	Well balanced exposure to five or more business lines or markets with different sensitivity to the economic cycle
a	Reduced number of competitors with clear leader.	Strong long-term potential with more volatile growth or very stable industry with moderate but predictable growth over the rating horizon.	Top-three participant in most markets or leader of a well defined and protected niche.	Well balanced exposure to at least three business lines or markets with different sensitivity to the economic cycle
bbb	Larger number of competitors with some record of price discipline in downturns.	Mature industry. Traditional markets may be under some pressure but opportunities arise in new markets.	Top-five participant in most markets or defensible leader of a niche.	Exposure to at least three business lines or markets but with some performance correlation
bb	Highly competitive industry with several companies of comparable size.	Industry in slow decline.	Predominantly second-tier participant.	Focus on a couple of business lines / end markets
b	Record of aggressive and opportunistic competitive behaviour.	Industry in rapid decline. Participants will have to consolidate to survive.	Small participant.	One product/market concentration
ccc	Fragmented industry, participant landscape in aggressively disruptive phase with multiple company failures anticipated.	Industry in accelerated decline. Consolidation may slow failures, but secular resizing of sector likely to claim many companies.	Marginal current or projected market share. Facing market exit across substantial part of product offering.	Product line facing extinction.
	Barriers to Entry/Exit	**Volatility of Demand**	**Competitive Advantage**	**Customer Concentration**
aa	Very high barriers to entry. Emergence of significant new entrants in the rating horizon close to impossible.	Highly stable demand even in economic downturns.	Strong competitive advantages in cost, technology and/or brand that cannot be replicated by competitors in the rating horizon.	Highest level of customer diversification among peers.
a	Time and significant financial commitment required to enter the industry meaningfully.	Generally stable demand, somewhat more sensitive to economic cycles	Strong competitive advantages but at some risk from competitors.	Significant customer diversification.
bbb	Moderate barriers to entry. Incumbents are generally strongly established but successful new entrants have emerged over time.	Demand fluctuates with economic cycles	Some competitive advantages with reasonably good sustainability.	Modestly diversified customer base, but no customers representing 10% or more of total revenue.
bb	Some barriers to entry but incumbents do not benefit from particularly strong positions that new entrants cannot replicate.	Demand fluctuations exceed economic cycles	Modest competitive advantages. Long-term sustainability questionable.	Material customer concentration, including one customer representing 10% or more of total revenue.
b	No barrier to entry/exit. Number of industry participants follow the cycle.	Demand is highly volatile and difficult to predict	No competitive advantage.	Significant customer concentration, including more than one customer representing 10% or more of total revenue.
ccc	No barriers to entry, and industry has a high and/or rapidly accelerating rate of attrition of market participants.	Product demand in accelerated fundamental decline, sustained only by legacy customer base, itself in rapid decline.	Uncompetitive products, may have a record of principal product failures.	Substantial cash impairment crystallized, or about to, based on customer failures.
	Relative Power in the Value Chain	**Threat of Substitutes**		
aa	Dominant position in the value chain with suppliers and customers significantly more dispersed. Retain most of the value added in the chain	No medium-term risk from technological substitution.		
a	Stronger bargaining power than suppliers and customers.	Minimal risk of technological substitution, significant switching costs present.		
bbb	Relative bargaining power balanced with suppliers and customers.	Technology risk present, viable alternative technology available in market, moderate switching cost.		
bb	Supplier and / or customer more concentrated with significant bargaining power	Meaningful technology risk, alternative technology taking market share, low switching costs.		
b	Squeezed between powerful suppliers and customers. Can only retain a marginal share of the value added.	Imminent technology risk, technology available in market possesses better fundamental characteristics, minimal switching costs.		
ccc	The weakest position in a value chain leading to strong downward pressure on company's prospects.	Product line fundamentally uncompetitive, sustained only by legacy customer base, itself in rapid decline.		

Financial Profile Key Factors — Technology

	Profitability	Financial Structure	Financial Flexibility
Rating	**EBITDA Margin**	**EBITDA Leverage**	**Financial Discipline**
aa	32%	0.6x	Publicly announced conservative financial policy. Record of strict compliance.
a	18%	1.5x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	12%	2.5x	Less conservative policy but generally applied consistently.
bb	8%	3.5x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
b	4%	5.0x	No financial policy or record of ignoring it. Opportunistic behaviour.
ccc	Persistently and structurally break-even or loss-making at EBITDA level.	>6.0x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis mode environment.
	EBIT margin	**EBITDA Net Leverage**	**Liquidity**
aa	30%	0.0x	Very comfortable liquidity; no need to use external funding, except for already committed facilities, in the next 24 months even under a severe stress scenario. Well-spread debt maturity. Diversified sources of funding.
a	14%	0.8x	Very comfortable liquidity. No need to use external funding, except for already committed facilities, in the next 12 months even under a severe stress scenario. Well-spread debt maturity schedule. Diversified sources of funding.
bbb	7.5%	1.8x	One year liquidity ratio above 1.25x. Staggered debt maturity schedule but funding may be less diversified.
bb	4%	2.8x	Liquidity ratio around 1.0x. Less staggered debt maturity schedule or concentrated funding.
b	2%	4.5x	Liquidity ratio below 1.0x. Overly reliant on one funding source.
ccc	Persistently and structurally break-even or loss-making at EBIT level.	5.5x	No near-term prospect of recovery in liquidity score above 1.0x. All/most funding sources subject to material execution risk.
	FFO margin	**FFO Leverage**	**FX Exposure**
aa	30%	0.8x	No material FX mismatch.
a	15%	1.7x	Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flow well-matched.
bbb	9%	2.7x	Some FX exposure on profitability and/or debt/cash flow match. Effective hedging in place.
bb	4%	3.7x	FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b	2%	5.0x	Large FX exposure. No significant/ineffective hedging in place.
ccc	Persistently and structurally break-even or loss-making at FFO level.	>6.0x	FX exposure dominant in impairing the issuer's ability to service debt in cash terms.
	FCF margin	**(CFO-Capex)/Debt**	**EBITDA Interest Coverage**
aa	14%	>40%	16.0x
a	8%	33%	13.0x
bbb	3%	20%	9.0x
bb	1%	10%	6.5x
b	0%	5%	3.5x
ccc	Accelerating negative FCF margin, with limited/no flexibility on spending reduction and funding gaps.	n.a.	1.5x
	Volatility of Profitability	**Debt/FCF**	**FFO Interest Coverage**
aa	Volatility of profits viewed as a positive outlier for the industry.	1.0x	13.0x
a	Lower volatility of profits than industry average.	3.0x	11.0x
bbb	Volatility of profits in line with industry average.	5.0x	7.0x
bb	Higher volatility of profits than industry average.	10.0x	5.0x
b	Volatility of profits viewed as a negative outlier for the industry.	20.0x	3.0x
ccc	Volatility of profits greater than normal bounds of volatility for corporate sector as a whole.	Negative	Net FCF debt service cover below 1.0x. All/most funding sources subject to material execution risk.

Telecommunications

Sector Risk Profile

Rating Range

The telecommunications sector has an average risk profile compared to other corporate sectors. Companies are generally in the 'A' rating category or lower. This reflects a sector whose overall risk profile has good defensive qualities, populated by companies that offer essential services with stable profitability and an inherent ability to generate cash. However, these positive factors are somewhat mitigated by fast-moving technological risk and economic regulation.

Sector-Specific Key Factors

Market Position

Fitch Ratings considers competitive market positioning as one of the most important factors in the analysis of telecoms companies. The telecoms industry has significant scale benefits that relate more to local market share in each country of operation, rather than absolute scale on a global basis. Competition may be driven by factors including regulation, the pace of technology adoption, number of operators or demographics.

Diversification

Service platform diversification measures an operator's ability to offer a full range of services. Geographically well-diversified companies are less exposed to downturns or other pressures in a single jurisdiction and have the financial flexibility stemming from the option of selling a business unit without affecting their consolidated operational profile.

Technology and Infrastructure

This captures an operator's network and service capabilities relative to competitors. Companies that have invested in network ownership can have a distinct advantage in creating a barrier to entry if unchecked by regulation.

Regulatory Environment

The regulatory environment determines how operators within a particular market compete, particularly the extent to which alternative network operators can effectively utilize the incumbent's network to bring about services-based competition.

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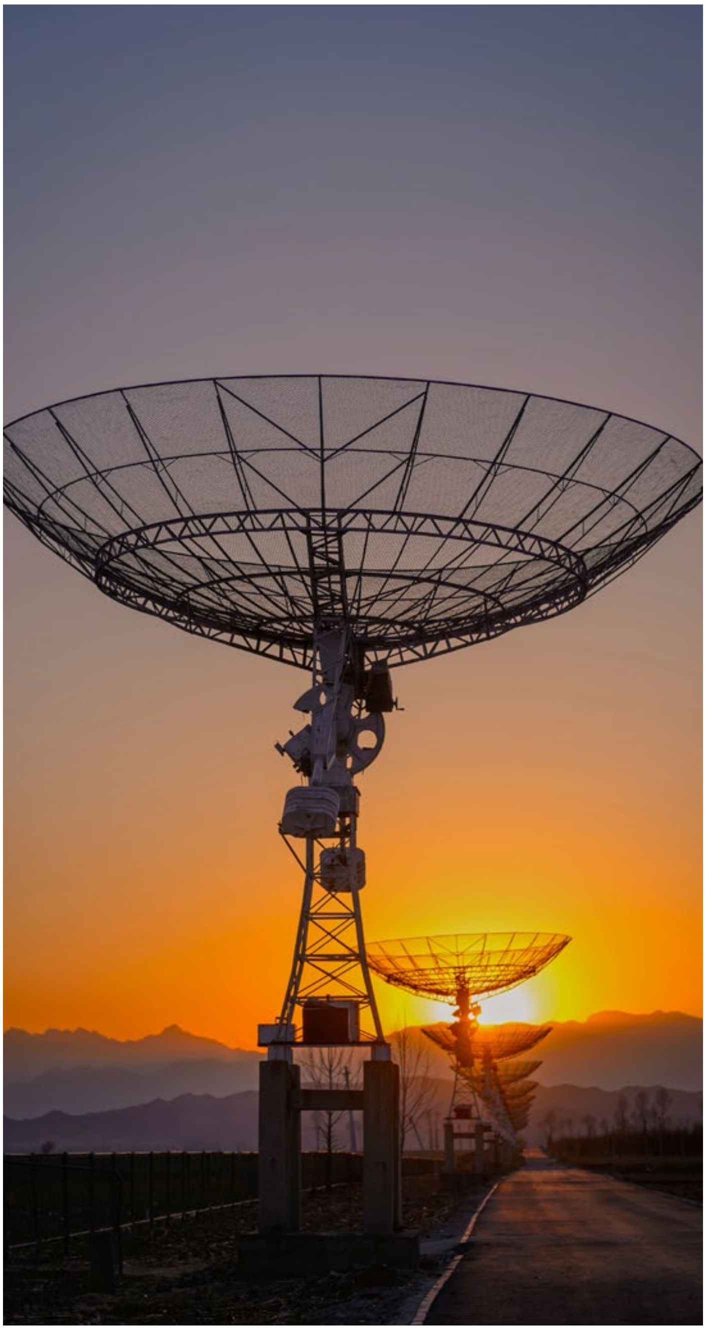


Financial Profile Key Factors

Financial Profile

The financial metrics are standard corporate rating methodology ratios encompassing mid-point leverage and coverage ratios, and measures of profitability and cash flow, up to the 'A' rating level. As the telecoms sector is capital-intensive and cash-generative, quantitative measures which define our ratings focus on the sustainability of cash-flow generation to cover ongoing investment requirements while meeting debt-service requirements.

Telecommunications

Industry Characteristics

Companies which sit at the top of the rating range have demonstrated an ability to deal with the sector risk by offering a broad range of services across various customer classes. These companies generally also have commanding regional market shares and experienced management teams which are able to react to market dynamics, including the challenges pertaining to shifts in technology. However, companies at the lower end of the category may be less diversified, and more exposed to cash-flow volatility caused by sector risks such as regulation, competition and changing technology, or because they are burdened by debt.

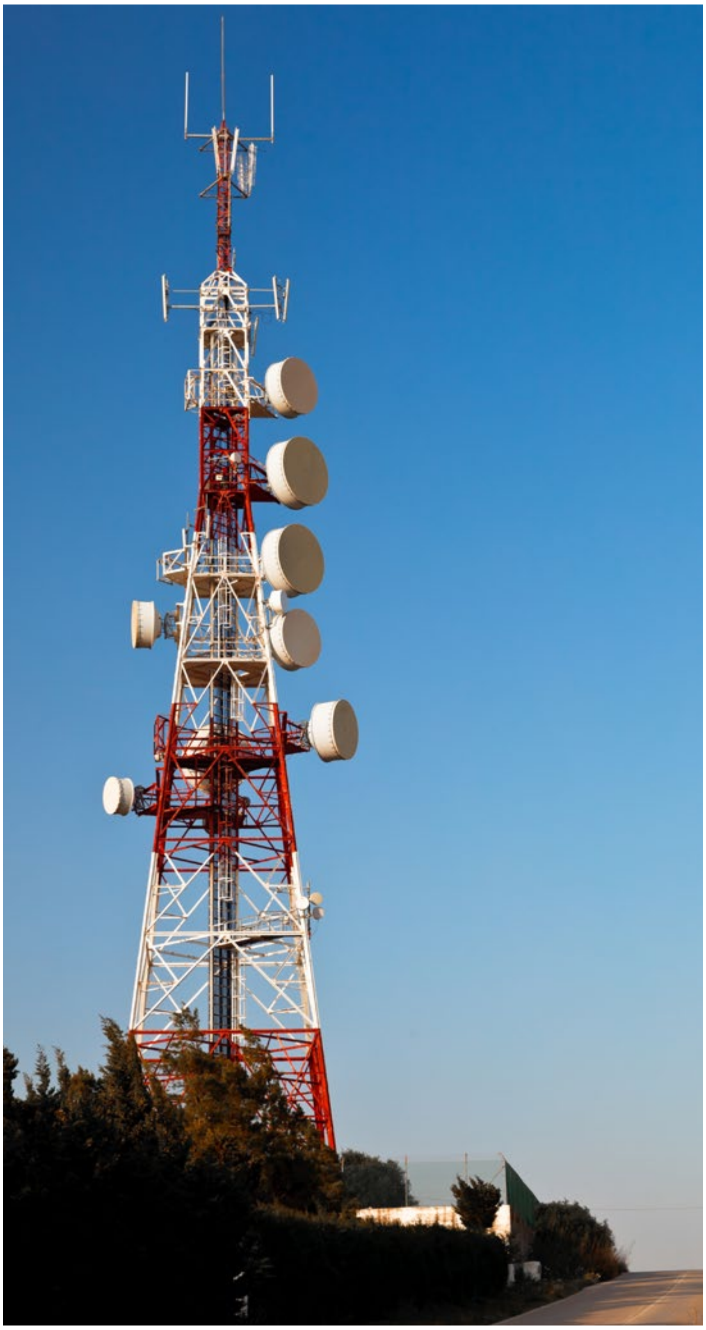
The following summary of inherent risks of entities operating in the telecoms sector indicates risk parameters commensurate with the following ratings.

Incumbent Fixed, Mobile, and Cable Network Operators: 'A' to Speculative Grade

- Operators offer essential services and a proven and stable customer demand.
- The sector comprises large operators with strong domestic market shares.
- The sector is highly capital-intensive, which creates barriers to entry.
- The regulated nature of the sector limits new licensees.

Emerging or "Niche" Providers: 'BBB' to Speculative Grade

- Companies in this rating category typically present a challenger status to incumbent operators.
- Large capital requirements and marketing activity are needed to establish a sustainable market share.
- As they may lease network capacity from the incumbent operators, alternative network operators (altnets) can be exposed to margin squeeze.
- Companies with sub-investment grade ratings may have operational qualities comparable to higher-rated peers, but may be held back by capital structure and financial considerations.



Sector-Specific Key Factors — Telecommunications

	Market Position	Diversification	Technology and Infrastructure	Regulatory Environment
Rating	**Market Position**	**Service Platform Diversification**	**Ownership of Network**	**Regulatory Risk**
aa	n.a.	n.a.	n.a.	n.a.
a	Very strong and sustainable market share in primary markets (>30%).	Operates several service platforms in primary markets.	Owns almost all of its infrastructure.	Positive or benign.
bbb	Strong and sustainable market share in primary markets (>20%).	Operates several service platforms in primary markets but one is dominant.	Owns its most important infrastructure but may lease some.	Moderate.
bb	Weak market share in primary markets (>10%).	Operates one established service platform in primary markets.	Even balance between ownership and leasing of infrastructure.	Medium or trending higher.
b	Market challenger/low market share (<10%).	Developing one service platform in primary markets.	Leases most of its infrastructure.	Clearly unfavorable.
ccc	Nascent, start-up challenger or share in double-digit decline over multiple years.	Solely dependent on service platforms in set-up phase, in high state of attrition, or in tertiary markets facing disruptive environments.	n.a.	Regulatory network absent or abandoned; licence or network access rules either absent or entirely unenforced.
	Competition	**Geographic Diversification**	**Network and Service Quality**	
aa	n.a.	n.a.	n.a.	
a	Primary markets characterized by low competitive intensity and/or high barriers to entry.	Very good geographic diversification.	Market leading network in terms of coverage and technology deployment, with good quality of service.	
bbb	Primary markets characterized by medium competitive intensity and/or moderate barriers to entry.	Average geographic diversification.	Solid network coverage and capacity, using some up-to-date technology, with average service quality.	
bb	Primary markets characterized by moderate competitive intensity and/or some barriers to entry.	Limited geographic diversification.	Questionable network coverage and capacity and/or poor service quality. Latest technology not deployed.	
b	Primary markets characterized by high competitive intensity and/or no barrier to entry/exit.	Weak geographic diversification.	Significant network underinvestment with poor service quality.	
ccc	No barriers to entry, and industry has a high and/or rapidly accelerating rate of attrition of market participants.	Concentrated in an especially disadvantaged region experiencing adverse recessionary or other disruptive conditions.	Poor network and/or service quality a dominant factor in severe customer attrition, with minimal opportunity for reinvestment.	
	Scale - EBITDA			
aa	n.a.			
a	>$5 billion			
bbb	>$1 billion			
bb	>$500 million			
b	<$500 million			
ccc	Persistently and structurally break-even or loss-making at EBITDA level.			
aa				
a				
bbb				
bb				
b				
ccc				

Financial Profile Key Factors — Telecommunications

	Profitability	Financial Structure	Financial Flexibility
Rating	**Volatility of Cash Flow**	**EBITDA Leverage**	**Financial Discipline**
aa	n.a.	n.a.	Publicly announced conservative financial policy. Record of strict compliance.
a	Lower volatility and better visibility of cash flow than industry average.	1.8x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	Volatility and visibility of cash flow in line with industry average.	2.8x	Financial policies less conservative than peers but generally applied consistently.
bb	Higher volatility and weaker visibility of cash flow than industry average.	3.8x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
b	Volatility and visibility of cash flow viewed as a negative outlier for the industry.	5.5x	No financial policy or record of ignoring it. Opportunistic behavior.
ccc	Volatility of cash flow greater than normal bounds of volatility for corporate sector as a whole.	>7.5x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	EBITDA Margin	**EBITDA Net Leverage**	**Liquidity**
aa	n.a.	n.a.	Very comfortable liquidity; no need to use external funding, except for already committed facilities, in the next 24 months even under a severe stress scenario. Well-spread debt maturity. Diversified sources of funding.
a	35%	1.6x	Very comfortable liquidity. No need to use external funding, except for already committed facilities, in the next 12 months even under a severe stress scenario. Well-spread debt maturity schedule. Diversified sources of funding.
bbb	30%	2.6x	One year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
bb	25%	3.6x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
b	20%	5.3x	Liquidity ratio below 1.0x. Overly reliant on one funding source.
ccc	Persistently and structurally break-even or loss-making at EBITDA level.	7.0x	No near-term prospect of recovery in liquidity score above 1.0x. All/most funding sources subject to material execution risk.
	FFO Margin	**FFO Leverage**	**FX Exposure**
aa	n.a.	n.a.	No material FX mismatch.
a	30%	2.0x	Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flows well-matched.
bbb	24%	3.0x	Some FX exposure on profitability and/or debt/cash flow match. Efficient hedging in place.
bb	18%	4.0x	FX exposure on profitability and/or debt/cash flow match. Some hedging in place.
b	12%	5.7x	Large FX exposure. No significant hedging in place.
ccc	Persistently and structurally break-even or loss-making at FFO level.	>7.5x	FX exposure dominant in impairing the issuer's ability to service debt in cash terms.
		FFO Net Leverage	**EBITDA Interest Coverage**
aa		n.a.	n.a.
a		1.8x	10.5x
bbb		2.8x	7.5x
bb		3.8x	6.0x
b		5.5x	3.5x
ccc		>7.5x	1.5x
		(CFO-Capex)/Debt	**FFO Interest Coverage**
aa		>25%	n.a.
a		20%	9.0x
bbb		12.5%	6.0x
bb		7.5%	4.5x
b		2.5%	3.0x
ccc		Flat to Negative	<1.0x

Airlines

Sector Risk Profile

Rating Range

Airlines have a higher-than-average risk profile. As a result, ratings in the airline sector are typically in the 'BBB' rating category or lower. The risk profile reflects this sector's competitive, cyclical and capital-intensive nature. All participants are prone to exogenous shocks. Company-specific traits indicate ratings within these rating categories, using factors such as competitive strength and cost structure.

Sector-Specific Key Factors

Diversification

This factor considers an airline's hub positioning (location and dominance), its regional and international network breadth (including alliances) and access to markets with growth potential or exposure to business travel.

Market Position

Fitch evaluates an airline's traffic share of its top markets alongside the competitive landscape in those markets. An airline with strong and defensible market penetration can have a significant competitive advantage.

Management Strategy/Effectiveness

Considerations concerning management strategy include the airline's fleet plan and whether the airline has an effective strategy to mitigate fuel price and foreign- exchange fluctuations. Strategy also incorporates growth expectations and Fitch's view of whether the company's plans are manageable or overly aggressive.

Cost Position

Fitch evaluates an airline's unit cost structure as it relates to primary competitors, along with its ability to reduce those costs in a downturn. Related considerations include the company's labor relations and unfunded pension obligations.

Financial Profile Key Factors

Financial Risk Profile

The financial metrics are standard Corporate Rating Criteria ratios encompassing mid-point leverage and coverage ratios, and measures of profitability and cash flow, up to the 'BBB' rating category. Leverage ratios primarily focus on gross rather than net metrics, as airline cash can fall quickly in a downturn, though Fitch may also evaluate net leverage metrics in its analysis. Fitch uses lease-adjustment leverage metrics to enable peer analysis between owned and leased aircraft.

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Airlines

Industry Characteristics

The airline industry is inherently a high-risk sector, given that it is a cyclical, capital-intensive business with various structural challenges and one that is also prone to exogenous shocks. High fixed costs combined with swings in demand and fuel prices typically translate into volatile profitability and cash flows. Combined with their heavy debt burden, including leasing of aircraft, most rated carriers are rated speculative grade, although carriers with a solid profile are rated investment grade.

Demand for air travel is highly correlated with key economic indicators and social trends such as GDP growth, unemployment levels, disposable income, consumer confidence and demographics. Corporate travel, which represents a larger share of some airlines' revenues, tends to fluctuate far more with swings in the business cycle.

Conversely, the industry's cost structure is highly fixed. Aircraft purchases require significant commitment both in terms of capital and years, and carriers may not always have the flexibility to fully adjust their fleet to changing times. The cost of jet fuel is volatile and difficult to manage. Labor costs also tend to be relatively fixed in the short run due to a high proportion of organized labor. Union contracts determine pay, benefits, work rules and also impose scheduling and route limitations. A largely unionized workforce also makes a carrier potentially vulnerable to operating disruptions from strikes and a pension burden. Airlines also have other long-term commitments to airports, gates/hangars, landing rights, investments in technology and other equipment.

The ready availability of aircraft capital in the post-deregulation "open skies" world lowers barriers to entry, but barriers to exit remain high, leading to systemic overcapacity and heavy competition. Furthermore, government interference adds a heavy regulatory and tax burden for many global carriers. Finally, the airline industry is prone to various types of external shocks. Natural disasters such as hurricanes, tsunamis, and volcanic eruptions, and epidemics (SARS, H1N1), political unrest, accidents, war and terrorism have all played a role in temporarily reducing demand for air travel.

Sector-Specific Key Factors — Airlines

	Diversification	Market Position	Management Strategy/ Effectiveness	Cost Position
Rating	**Network Diversity**	**Position in Key Markets**	**Fleet Strategy**	**Cost Structure**
aa	n.a.	n.a.	n.a.	n.a.
a	n.a.	n.a.	n.a.	n.a.
bbb	Extensively diversified domestic and international network. History of successful network enhancement through joint ventures or partnerships.	Strong/leading positions in key, cash flow generative and/or protected markets (reflected in market share and/or PRASK advantage over peers).	Fuel-efficient/young aircraft, or well-managed older fleet, manageable deliveries. LCCs/smaller carriers: high fleet commonality.	Low fixed-cost structure. Sustainable CASM advantage compared with peers.
bb	Extensively diversified domestic/regional network. Limited international network. Some network enhancement through joint ventures or partnerships.	Strong presence in some key markets. Carriers may exhibit secondary/weaker positions in a portion of markets served.	Adequate fleet management. Mostly efficient/young aircraft, some obsolete/inefficient models, heavy upcoming deliveries.	Moderate fixed-cost structure. CASM in line with peers.
b	Limited domestic network; some degree of geographic concentration. Few or ineffective alliances or partnerships.	Secondary market positions and/or concentrations in weaker markets.	Mostly older/inefficient aircraft, significant/unfunded upcoming deliveries. LCCs/smaller carriers: low level of fleet commonality.	High fixed-cost structure. CASM at the high end of the airline's peer group.
ccc	Over-concentration in disadvantagous region(s).	Market position in accelerated decline in main markets.	Fleet management leading to unprofitable profile.	Unprofitable cost position for the foreseeable future.
	Hub Structure	**Cost Leadership**	**Fuel Hedging**	**Cost Flexibility**
aa	n.a.	n.a.	n.a.	n.a.
a	n.a.	n.a.	n.a.	n.a.
bbb	Strong/rationalized hub structure. Hubs (or bases for point-to-point carriers) are profitable/located in strategic markets.	Low cost carrier price leader in most markets served.	Consistently employs effective strategies to mitigate fuel price risk (i.e. hedging, maintaining solid liquidity, fuel-efficient fleet).	Above average ability to reduce costs relative to peers.
bb	Most hubs/bases are profitable and/or located in strategic markets.	Low cost carrier leader in some markets.	Employs less consistent or effective fuel mitigation strategies (less consistent hedging, weaker liquidity, older fleet).	Limited ability to quickly reduce costs, or cost flexibility generally in line with peers.
b	Maintains inefficient or money-losing hubs/bases, and/or hubs located in secondary markets.	No cost leadership position.	Inconsistent or no use of strategies to mitigate fuel price risk.	Limited or no ability to reduce costs quickly relative to peers.
ccc	Unprofitable hub structure.	Unprofitable cost base for the foreseeable future.	Cash losses from hedging a critical outflow.	Uncompeititve cost base detrimental to activities.
			Growth Strategy	**Pensions**
aa			n.a.	n.a.
a			n.a.	n.a.
bbb			Conservative and/or sound growth strategy.	No defined benefit plan obligations.
bb			Growth strategy considered somewhat aggressive or questionable.	Limited or no defined benefit plan obligations.
b			Aggressive or questionable growth strategy.	Sizable/inflexible defined benefit obligations.
ccc			Failed growth strategy.	Cash contributions a material ongoing drain on cash flows, hampering operational investment and access to external funding.
				Labor Relations
aa				n.a.
a				n.a.
bbb				Non-unionized labor and/or flexible work rules.
bb				Unionized and/or inflexible work rules, constructive relationship with labor groups.
b				Unionized or inflexible work rules/difficult labor relations.
ccc				Labour relations severely compromising operations.

Financial Profile Key Factors — Airlines

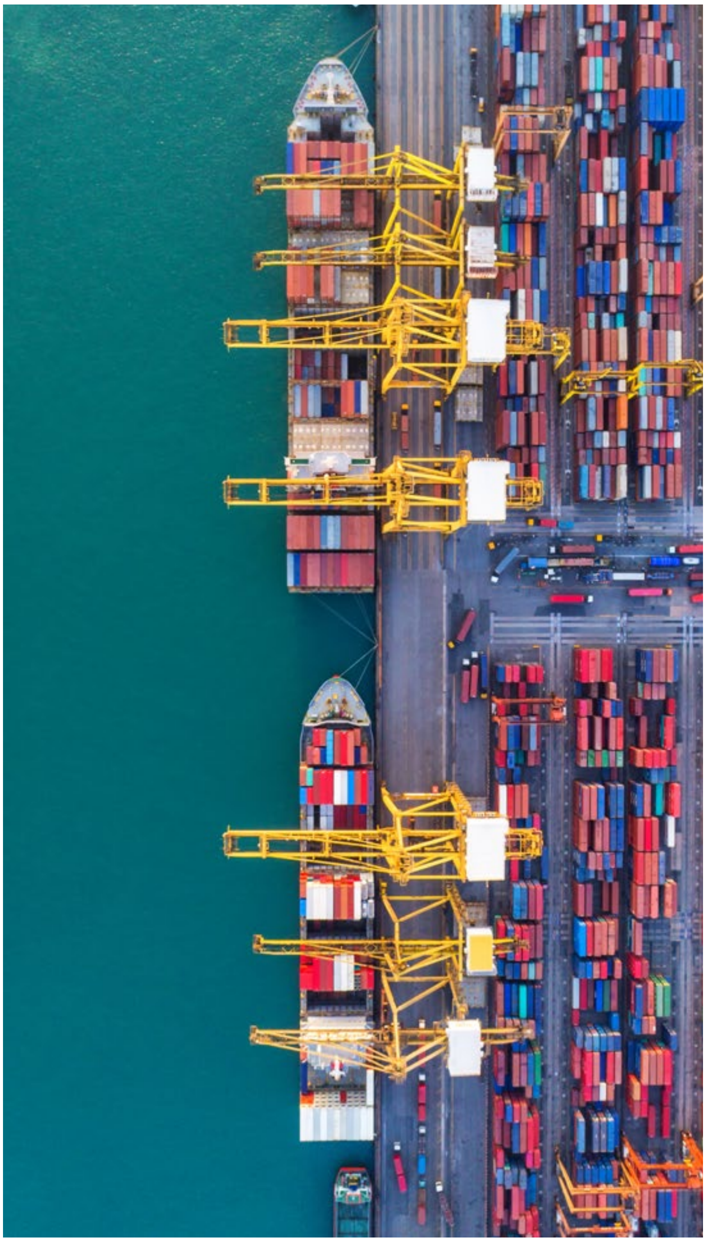
	Profitability	Financial Structure	Financial Flexibility
Rating	**EBITDAR Margin**	**EBITDAR Leverage**	**Financial Discipline**
aa	n.a.	n.a.	Publicly announced conservative financial policy. Record of strict compliance.
a	n.a.	n.a.	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	25%	2.3x	Less conservative policy but generally applied consistently.
bb	20%	3.3x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
b	10%	4.3x	No financial policy or record of ignoring it. Opportunistic behavior.
ccc		>7.0x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	EBIT Margin	**FFO Adjusted Leverage**	**Liquidity as % of LTM Revenue**
aa	n.a.	n.a.	n.a.
a	n.a.	n.a.	n.a.
bbb	12%	2.3x	20%
bb	10%	3.3x	15%
b	7%	4.3x	10%
ccc	Persistently and structurally break-even or loss-making at EBIT level.	>7.0x	No near-term prospect of recovery in liquidity. All/most funding sources subject to material execution risk.
	FFO Margin		**FX Exposure**
aa	n.a.		No material FX mismatch.
a	n.a.		Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flow well-matched.
bbb	12%		Some FX exposure on profitability and/or debt/cash flow match. Effective hedging in place.
bb	10%		FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b	7%		Large FX exposure. No significant/ineffective hedging in place.
ccc	Persistently and structurally break-even or loss-making at FFO level.		FX exposure dominant in impairing the issuer's ability to service debt in cash terms.
	FCF Margin		**Capital Market Access; Unencumbered Asset Base**
aa	n.a.		n.a.
a	n.a.		n.a.
bbb	Positive across the cycle.		Demonstrated access to capital markets and/or sizable unencumbered asset base.
bb	Neutral to negative across the cycle.		Demonstrated access to capital markets; some unencumbered assets.
b	Negative across the cycle.		Limited access to capital or limited history of accessing capital markets; minimal unencumbered assets.
ccc	Accelerating negative FCF margin, with limited/no flexibility on spending reduction and funding gaps.		
	Volatility of Profitability		**EBITDA Fixed Charge Coverage**
aa	n.a.		n.a.
a	n.a.		n.a.
bbb	Volatility of profits in line with industry average.		4.5x
bb	Higher volatility of profits than industry average.		3.0x
b	Volatility of profits viewed as a negative outlier for the industry.		2.0x
ccc	Volatility of profits above normal bounds for corporate sector as a whole.		1.0x

Shipping

Sector Risk Profile

Rating Range

The shipping sector has a higher-than-average risk profile. This reflects the volatility of shipping markets (both freight rates and asset values), a high level of industry fragmentation, high operating leverage, highly capital-intensive operations and poor earnings visibility for many sub-sectors. The sector risk profile spans up to the 'BBB' rating category, although most shipping companies tend to be sub-investment grade.



Sector-Specific Key Factors

Diversification

The breadth of the trading lane network and the diversification of operations across sub-sectors, geographies and customers, along with the ability to achieve cost and network optimisation through alliances and vessel sharing agreements (VSAs) determine the competitive strengths of shipping companies.

Market Position

A strong and/or protected position on more stable and cash-flow generative trading lanes and a large share of contracted revenue with strong counterparties can support cash-flow predictability. Fitch also assesses scale of operations reflected in the size of EBITDAR and of the company's fleet. Scale supports higher operating and financial flexibility, cost efficiencies and is generally associated with higher diversification, while not necessarily implying market or pricing power.

Strategic Position

The quality of a shipping company's fleet affects profitability, the attractiveness of the company to shippers, cost competitiveness, future capex needs and financial flexibility. Fitch considers the fleet age profile, compliance with maritime regulations and fuel hedging polices to assess operating efficiency, competitiveness and the future investment needs of a shipping company.

Cost Position

Shipping companies' cost advantage is key to their financial sustainability due to the highly competitive and fragmented nature of the shipping industry.

Financial Profile Key Factors

Financial Risk Profile

The financial metrics are standard Corporate Rating Criteria ratios encompassing mid-point leverage and coverage ratios, and measures of profitability and cash flow, up to the 'BBB+' rating level. These ratios are augmented by an unencumbered assets-to-unsecured debt ratio. Lease-adjusted metrics take into account leases, long-term charters and direct vessel ownership.

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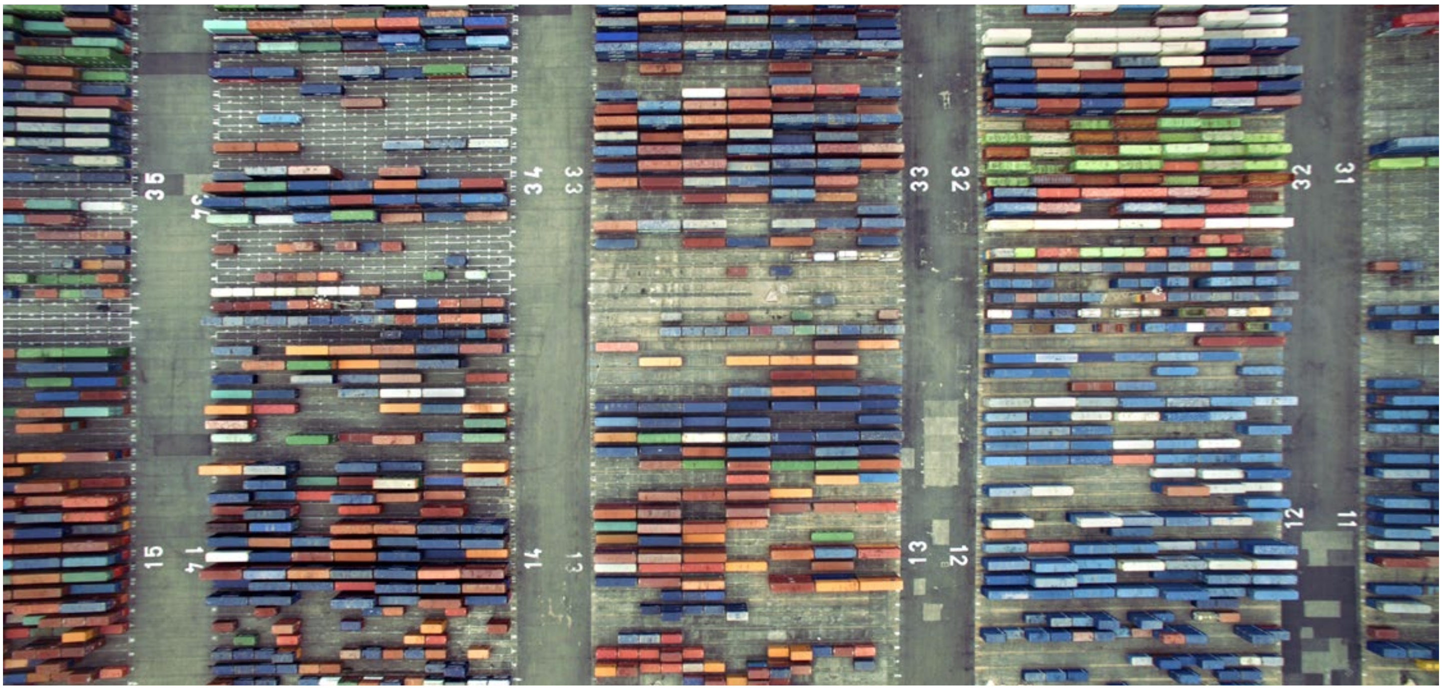
Shipping

Industry Characteristics

Shipping companies tend to be rated in the sub-investment grade ('BB' and 'B' or lower rating categories). The large shipping companies (or conglomerates with significant shipping activities) with the benefit of diversity of shipping lines, fairly good cash-flow visibility and strong market positions can be investment grade, but are rarely rated above the 'BBB' rating category.

Ratings rarely exceeding the BBB rating category reflects the above-average sector risk profile for shipping due to its cyclicality, high capital intensity and various structural challenges. Issuers' ratings are restricted by their exposure to swings in volumes and varying trade flows, to fuel price changes, and their limited ability to mitigate vulnerability to repeated bouts of fleet overcapacity and to historically significant changes in yield. A mixture of a lack of visibility, long lead-times for ship construction and lack of general discipline amongst participants has led to periods of oversupply of vessels, exacerbated by the fragmented nature of the industry. Furthermore, operators are generally price-takers and despite its capital intensity, parts of the industry have low barriers to entry.

The operating leverage of the industry is extremely high. In addition, given its capital-intensive nature, most companies in the sector tend to be highly leveraged financially with high levels of secured debt.



Sector-Specific Key Factors — Shipping

	Diversification	Market Position	Strategic Position	Cost Position
Rating	**Trading Lanes Density and Diversity**	**Position on Key Routes**	**Fleet Strategy**	**Cost Structure**
aa	n.a.	n.a.	n.a.	n.a.
a	n.a.	n.a.	n.a.	n.a.
bbb	Highly geographically diversified and extensive trading lanes network.	Strong and/or protected competitive position on key cash flow-generative and/or growth trading lanes.	Young, fuel-efficient fleet with average age below the sector average.	Moderate level of fixed costs in the cost structure.
bb	Moderate and relatively geographically diversified trading lanes network.	Moderate presence on key cash flow-generative and/or growth trading lanes.	Relatively young and/or well maintained fleet with average age in line with the sector average.	Manageable level of fixed costs in the cost structure.
b	Limited trading lanes network with low geographic diversification.	Weak position or no presence on key cash flow-generative and/or growth trading lanes.	Old and inefficient fleet with average age above the sector average.	High level of fixed costs in the cost structure.
ccc	Failing trading lanes.	Heavy exposure to non-viable routes.	Uncompetitive fleet.	Unprofitable cost position for the foreseeable future.
	Customer and Sub-Sector Diversification	**Revenue Visibility**	**Compliance with Maritime Regulations**	**Cost Competitiveness**
aa	n.a.	n.a.	n.a.	n.a.
a	n.a.	n.a.	n.a.	n.a.
bbb	Significant customer diversification and/or diversification/operation in more stable and cash flow-generative sub-sectors.	Large share of revenue (above 40%) from long-term contracts with strong counterparties.	Fleet fully compliant with current and expected maritime regulations.	Strong and demonstrated ability to implement cost-containment measures compared to peers.
bb	Adequate customer diversification and/or some exposure to more stable and cash flow-generative sub-sectors.	Moderate share of revenue (15%-40%) from long-term contracts with sound counterparties.	Fleet compliant with current maritime regulations.	Some record of successful cost-containment measures compared to peers.
b	Customer concentration with no exposure to more profitable and stable sub-sectors.	Low revenue visibility (less than 15% of revenue from long-term contracts) and/or financially weak counterparties.	Considerable share of fleet not compliant with current and expected maritime regulations.	Limited ability or no record of successful cost-containment compared to peers.
ccc	Disadvantageous customer concentration and exposure to unprofitable sub-sector(s).	Reliance on deteriorating spot market and/or weak counterparties.	Poor fleet management.	Failed cost-containment policy.
	Network Optimization	**EBITDAR Size**	**Fuel Hedging**	
aa	n.a.	n.a.	n.a.	
a	n.a.	n.a.	n.a.	
bbb	Strong and demonstrated ability to achieve cost and network optimization through vessel-sharing agreements and/or alliances.	Greater than $2 billion.	Conservative fuel hedging strategy and/or efficient pass-through of fuel costs.	
bb	Average record of cost and network optimization through vessel-sharing agreements and/or alliances.	$150 million-$2 billion.	Conservative fuel hedging policy.	
b	Inefficient or no vessel-sharing agreements and/or alliances.	Less than $150 million.	Inefficient or no fuel hedging.	
ccc	Uncompetitive costs and/or network.	Rapidly declining EBITDAR.	Cash losses from hedging a critical outflow.	
		Fleet Size		
aa		n.a.		
a		n.a.		
bbb		More than 300 vessels.		
bb		50-300 vessels.		
b		Fewer than 50 vessels.		
ccc		Rapidly declining number of operating vessels.		

Financial Profile Key Factors — Shipping

	Profitability	Financial Structure	Financial Flexibility
Rating	**EBITDAR Margin (Container Shipping)**	**EBITDAR Leverage**	**Financial Discipline**
aa	n.a.	n.a.	Publicly announced conservative financial policy. Record of strict compliance
a	n.a.	n.a.	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	22%	2.3x	Less conservative policy but generally applied consistently.
bb	15%	3.3x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
b	7%	4.3x	No financial policy or record of ignoring it. Opportunistic behavior.
ccc	Persistently and structurally break-even or loss-making at EBITDAR level.	7.0x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	EBITDAR Margin (Other Segments)	**EBITDAR Net Leverage**	**Cash as % of Total Assets**
aa	n.a.	n.a.	n.a.
a	n.a.	n.a.	n.a.
bbb	45%	1.8x	10%
bb	30%	2.8x	7%
b	15%	3.8x	5%
ccc	Persistently and structurally break-even or loss-making at EBITDAR level.	6.0x	No near-term prospect of recovery in cash resources, exposing the group to material execution risk.
	FCF	**FFO Adjusted Leverage**	**FX Exposure**
aa	n.a.	n.a.	No material FX mismatch.
a	n.a.	n.a.	Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flow well matched.
bbb	Positive across the cycle.	2.3x	Some FX exposure on profitability and/or debt/cash flow matching. Effective hedging in place.
bb	Neutral to negative across the cycle.	3.3x	FX exposure on profitability and/or debt/cash flow matching. Some hedging in place but only partly effective.
b	Negative across the cycle.	4.3x	Large FX exposure. No significant/ineffective hedging in place.
ccc	Accelerating negative FCF margin, with limited/no flexibility on spending reduction and funding gaps.	>7.0x	FX exposure dominant in impairing the issuer's ability to service debt in cash terms.
	Volatility of Profitability	**FFO Adjusted Net Leverage**	**EBITDA Fixed Charge Coverage**
aa	n.a.	n.a.	n.a.
a	n.a.	n.a.	n.a.
bbb	Volatility of profits in line with industry average.	1.8x	4.0x
bb	Higher volatility of profits than industry average.	2.8x	3.0x
b	Volatility of profits a negative outlier for the industry.	3.8x	2.0x
ccc	Volatility of profits greater than normal bounds of volatility for corporate sector as a whole.	>6.0x	1.0x
		Unencumbered Assets to Unsecured Debt	**FFO Fixed-Charge Coverage**
aa		n.a.	n.a.
a		n.a.	n.a.
bbb		2x	4.0x
bb		1.8x	3.0x
b		1.5x	2.0x
ccc		Rapidly shrinking unencumbered pool with adverse selection.	Below 1.0x.

Asia-Pacific Regulated Network Utilities

Sector Risk Profile

Rating Range

Regulated network utilities demonstrate a very strong business risk profile and can be rated as high as 'A+'. This reflects the strong defensive qualities of companies operating essential services in natural monopolies with stable profitability and predictable cash flow. Company-specific traits – including regulatory environment, asset base and operations-specific characteristics – determine ratings within this rating range.

Sector-Specific Key Factors

Sector Positioning

Fitch assesses the size and location of the network business (from local distribution networks to national transmission ownerships), and the proportion of non-regulated earnings.

Regulatory Environment

This addresses the extent that regulation provides support to the credit quality of the network company. We assess the regulatory body, its record and the network's insulation from price and volume risks. We also review the degree to which network licences effectively ring-fence the creditworthiness of the network through debt limitations.

Asset Base

This assesses the diversification of the asset base across geographical boundaries or by regulation, the overall effect of size on the efficiency of operations and the overall quality of the asset base and its maintenance.

Operational Profile

Fitch measures the strength of revenues derived from the network's service area, its operational performance and its exposure to counterparty risk.

Financial Profile Key Factors

Financial Profile

The financial profile factors show mid-points of leverage (based on cash flow or regulated asset base) and coverage metrics within relevant rating categories, potentially reaching 'A+'.

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Asia-Pacific Regulated Network Utilities

Industry Characteristics

Representative companies in the regulated utility sector can be rated in the range of 'A+' to low speculative-grade, but more often in investment grade. This reflects a sector whose overall risk profile is characterised by strong defensive qualities, including non-cyclical and inelastic demand in the residential customer segment. The sector is populated by companies operating essential services in natural monopolies with stable profitability and predictable cash flow. These positive factors are partially offset by the high capital-intensity for network expansion (expansionary capex) and asset quality maintenance to ensure the safety, security and efficiency of the service (maintenance capex), resulting in large investment commitments and negative free cash flow (FCF) generation.

Companies at the top of the rating range are incumbent operators (like national electricity or gas transmission companies, which are also known as TSOs, or transmission system operators) providing a public service under concession licences, often with unlimited time duration and full ownership or control over the assets. Companies rated in the mid to low end of the natural range are largely those with regional or local assets operating with and without full ownership or control of the assets or with specified durations for their service concession agreements.

Sector-Specific Key Factors — Asia-Pacific Regulated Network Utilities

	Sector Positioning	Regulatory Environment	Asset Base	Operational Profile
Rating	**Sector Positioning**	**Independence, Transparency, Predictability**	**Diversification**	**Performance Measures**
aa	n.a.	n.a.	n.a.	n.a.
a	National or regional monopolies, transmission or distribution asset owners	Transparent frameworks with strong record and multi-year predictable tariffs set by independent regulators; little political risk.	Partially diversified geographically (multi-regional assets) or by regulation; multi-jurisdictional utility or regional multi-utility	Key performance measures in line with or above sector average and/or regulatory target.
bbb	Local or regional monopoly asset owners, regional monopoly asset operators	Less transparent frameworks, with emerging record and multi-year tariffs; exposed to political risk. Medium-term predictability.	Limited diversification by geography without regulatory diversification; regional utility	Key performance measures below average and/or regulatory target.
bb	Regional or local monopoly asset operators	Opaque or overly demanding frameworks with limited record, short-term tariffs; significant political risk.	No geographical or regulatory diversification; local utility	Underperformance on key measures with financial and/or legal implications.
b	Local monopoly asset operators	Opaque, arbitrary frameworks without record, short-term tariffs; significant political risk. Limited medium-term predictability	No geographical or regulatory diversification; local utility	Underperformance on key measures with significant financial and/or legal implications. Prone to event risk.
ccc	n.a.	Regulatory framework formally or informally abandoned, with substantial uncertainty around future mechanisms.	Concentration in one location with disruptive economic or logistical characteristics impairing either operation or cash collections.	Subject to advanced regulatory intervention based on operational performance, with material risks for licence/concession ownership.
	Non-Regulated Earnings (% of Total Earnings)	**Licensing, Ring-fencing, Concessioning**	**Critical Mass**	**Counterparty Risk**
aa	n.a.	n.a.	n.a.	n.a.
a	10%	Licensing includes effective ring-fencing provisions with creditworthiness requirements; limited concession renewal risk.	Critical mass in one regulated asset; does not affect efficiency of operations (cost base, customer base, key personnel).	Low counterparty risk. Diversified regulated counterparties or pooled counterparty risk; high collection rates
bbb	15%	Less demanding licensing and ring-fending provisions; moderate concession renewal risk.	Asset base size potentially affects efficiency of operations (cost base, customer base, key personnel).	Medium counterparty risk. Less diversified, but good collection rates
bb	20%	Undemanding licensing and less effective ring-fencing; significant concession renewal risk.	Small size affects efficiency of operations (cost base, customer base, key personnel).	High counterparty risk. Some customer concetration; high doubtful debt levels.
b	25%	Undemanding licensing and ineffective ring-fencing; significant concession renewal risk.	Small size affects efficiency of operations (cost base, customer base, key personnel) with high exposure to core network failure	High counterparty and event risk. Customer concetration, weak counter-party quality; high doubtful debt levels/ late collections.
ccc	n.a.	Regulatory framework formally or informally abandoned, with substantial uncertainty around future mechanisms.	Customer base, key personnel or material operational facilities experiencing a level of flux that significantly impairs cash generation.	Substantial cash impairment crystallised, or about to, based on counterparty or systemic collection-level failures.
		Cost and Investment Recovery	**Asset Quality**	**Revenue Profile and Market Risk**
aa		n.a.	n.a.	n.a.
a		Tariff setting with challenging mechanisms that may marginally limit cost and investment recovery, with little regulatory lag	High asset quality: maturity of asset, state of maintenance, customer mix, low weather events risk, likely benefit opex/ capex requirements	Strong revenue profile and low market risk. Economy of area served provides structurally stable background, favourable customer mix.
bbb		Tariff setting with challenging mechanisms that may limit efficiently incurred cost and investment recovery, with moderate regulatory lag	Mid-range asset quality: maturity of asset, state of maintenance, customer mix, low weather events risk, do not affect opex/ capex requirements	Medium revenue profile and market risk. Some exposure to cyclical industries and/or customers.
bb		Inadequate tariff setting mechanism for recovery of costs and investments, significant regulatory lag	Low asset quality: maturity of asset, state of maintenance, customer mix, weather events risk likely affecting opex and capex requirements	Weak revenue profile and high market risk. Structurally challenged economy of area served; some exposure to cyclical industries.
b		Little formal cost and investment recovery included in tariff setting mechanism	Poor asset quality: maturity of asset, state of maintenance, customer mix, high exposure to weather events affect opex and capex requirements	Weak revenue profile, high market risk. High concentration of cyclical industries. Sensitivity to extreme weather or disaster disruptions.
ccc		Regulatory framework formally or informally abandoned, with substantial uncertainty around future mechanisms.	Asset quality in state of disrepair, without near-term prospects of adequate opex and capex; concession disputed with authorities.	Substantial cash impairment crystallized, or about to, based on market risks exposure.
		Volume and Price Risk		
aa		n.a.		
a		High insulation from price and volume risk, little revenue under-recovery		
bbb		Moderate insulation from price and volume risk and revenue under-recovery		
bb		Little insulation from price and volume risk and high revenue under-recovery		
b		No insulation from price and volume risk and high revenue under-recovery		
ccc		Regulatory framework formally or informally abandoned, with substantial uncertainty around future mechanisms.		

Financial Profile Key Factors — Asia-Pacific Regulated Network Utilities

	Profitability	Financial Structure	Financial Flexibility
Rating	**Return on Capital**	**EBITDA Leverage**	**Financial Discipline**
aa	n.a.	n.a.	Publicly announced conservative financial policy. Record of strict compliance.
a	Return on capital at, or comfortably above, the regulatory benchmark	4.5x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	Return on capital comparable with the regulatory benchmark	5.7x	Less conservative policy but generally applied consistently.
bb	Return on capital below the regulatory benchmark	6.7x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
b	Weak return on capital relative to the regulatory benchmark	7.7x	No financial policy or record of ignoring it. Opportunistic behaviour.
ccc	Disruption to capital markets access or the regulatory system have fundamentally rebased the cost of capital beyond the available return.	9.5x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	Volatility of Profitability	**EBITDA Net Leverage**	**Liquidity**
aa	n.a.	n.a.	Very comfortable liquidity; no need to use external funding, except for already committed facilities, in the next 24 months even under a severe stress scenario. Well-spread debt maturity. Diversified sources of funding.
a	Higher stability and predictability of profits relative to utility peers	4.0x	Very comfortable liquidity. No need to use external funding, except for already committed facilities, in the next 12 months even under a severe stress scenario. Well-spread debt maturity schedule. Diversified sources of funding.
bbb	Stability and predictability of profits in line with utility peers	5.2x	One year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
bb	Less stability and predictability of profits relative to utility peers	6.2x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
b	Stability and predictability of profits viewed as negative outliers relative to utility peers	7.2x	Liquidity ratio below 1.0x. Overly reliant on one funding source.
ccc	Extreme volatility of profitability or persistently and structurally loss-making.	9.2x	No near-term prospect of recovery in liquidity score above 1.0x. All/most funding sources subject to material execution risk.
		FFO Leverage	**FX Exposure**
aa		n.a.	No material FX mismatch.
a		4.5x	Profitability potentialy exposed to FX but efficient hedging in place. Debt and Cashflows well-matched.
bbb		6.0x	Some FX exposure on profitability and/or debt/cash flow match. Effective hedging in place.
bb		7.0x	FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b		8.0x	Large FX exposure. No significant/ineffective hedging in place.
ccc		>10.0x	FX exposure dominant in impairing the issuer's ability to service debt in cash terms.
		FFO Net Leverage	**EBITDA Interest Coverage**
aa		n.a.	n.a.
a		4.0x	5.0x
bbb		5.5x	4.0x
bb		6.5x	2.3x
b		7.5x	1.5x
ccc		>9.5x	1.0x
		Net Debt/Asset Base	**FFO Interest Coverage**
aa		n.a.	n.a.
a		60%	4.5x
bbb		70%	3.5x
bb		80%	2.0x
b		90%	1.5x
ccc		A step-change in either debt structure or regulatory asset values created a near-term unsustainable leverage structure.	Net FCF debt service cover below 1.0x. All/most funding sources subject to material execution risk.

Australian Regulated Network Utilities

Sector Risk Profile

Rating Range

Regulated network utilities demonstrate a very strong business risk profile and can be rated as high as 'A+'. This reflects the strong defensive qualities of companies operating essential services in natural monopolies, with stable profitability and predictable cash flow. Company-specific traits indicate ratings within this rating range according to the regulatory environment, asset base and operation-specific characteristics.

Sector-Specific Key Factors

Sector Positioning

Fitch Ratings assesses the size and location of the network business, from local distribution networks to state transmission ownerships, and the proportion of non-regulated earnings.

Regulatory Environment

This factor indicates the supportiveness of regulation to the credit quality of the network company. We assess the regulatory body, its record and the network's insulation from price and volume risks. We also review the degree to which network licences effectively ring-fence the creditworthiness of the network through debt limitations.

Asset Base

We assess the diversification of the asset base across geographical boundaries or by regulation, the effect of size on operational efficiency and the overall quality of the asset base and its maintenance.

Operational Profile

Fitch measures the strength of revenue derived from the network's service area, its operational performance and exposure to counterparty risk.

Financial Profile Key Factors

Financial Profile

Shows mid-points of leverage, based on cash flow or regulated asset base, and coverage metrics within relevant rating categories, potentially reaching 'A+'.

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Australian Regulated Network Utilities

Industry Characteristics

Representative companies in the regulated utility sector can be rated in the range of 'A+' to low-investment grade. This reflects a sector whose overall risk profile is characterised by strong defensive qualities, including non-cyclical and relatively inelastic demand in the residential customer segment, populated by companies operating essential services in natural monopolies with stable profitability and predictable cash flow. These positive factors are partially offset by the high capital-intensity of network expansion (expansionary capex) and asset quality maintenance to ensure the safety, security and efficiency of the service (maintenance capex), resulting in large investment commitments and negative free cash flow generation.

Companies at the top of the rating range are incumbent operators – such as national or regional electricity or gas transmission companies, also known as transmission system operators – that provide a public service under concession licences, often with unlimited time duration and full ownership and control over the assets. Companies rated in the mid- to low-end of the natural range are largely those with local assets operating with or without full ownership and control of the assets or with time-definite service concession agreements.

Sector-Specific Key Factors — Australian Regulated Network Utilities

	Sector Positioning	Regulatory Environment	Asset Base	Operational Profile
Rating	**Sector Positioning**	**Independence, Transparency, Predictability**	**Diversification**	**Performance Measures**
aa	n.a.	n.a.	n.a.	n.a.
a	Regional monopolies, distribution asset owners	Transparent frameworks with strong record and multi-year predictable tariffs set by independent regulators; little political risk.	Partially diversified - multi-regional asset base and/or by regulation; multi-jurisdictional utility or regional multi-utility	Key performance measures in line with or above sector average and/or regulatory target.
bbb	Local monopoly asset owners, regional monopoly asset operators	Less transparent frameworks, with emerging record and multi-year tariffs; exposed to political risk. Medium-term predictability.	Limited diversification by geography without regulatory diversification; regional utility	Key performance measures below average and/or regulatory target.
bb	Regional or local monopoly asset operators	Opaque or overly demanding frameworks with limited record, short-term tariffs; significant political risk.	No geographical or regulatory diversification; local utility	Underperformance on key measures with financial and/or legal implications.
b	Local monopoly asset operators	Opaque, arbitrary frameworks without record, short-term tariffs; significant political risk. Limited medium-term predictability	No geographical or regulatory diversification; local utility	Underperformance on key measures with significant financial and/or legal implications. Prone to event risk.
ccc	n.a.	Regulatory framework formally or informally abandoned, with substantial uncertainty around future mechanisms.	Concentration in one location with significant disruptive economic or logistical characteristics, significantly impairing either operations or cash collections.	Subject to advanced regulatory intervention based on operational performance, with material risks for license/concession ownership.
	Non-Regulated Earnings (as % of Total Earnings)	**Licensing, Ring-fencing, Concessioning**	**Critical Mass**	**Counterparty Risk**
aa	n.a.	n.a.	n.a.	n.a.
a	10%	Licensing includes effective ring-fencing provisions with creditworthiness requirements; limited concession renewal risk.	Critical mass in one or more regulated asset; does not affect efficiency of operations (cost base, customer base, key personnel).	Low counterparty risk. Diversified regulated counterparties or pooled counterparty risk; high collection rates
bbb	15%	Less demanding licensing and ring-fending provisions; moderate concession renewal risk.	Asset base size potentially affects efficiency of operations (cost base, customer base, key personnel).	Medium counterparty risk. Less diversified, but good collection rates
bb	20%	Undemanding licensing and less effective ring-fencing; significant concession renewal risk.	Small size affects efficiency of operations (cost base, customer base, key personnel).	High counterparty risk. Some customer concetration; high doubtful debt levels.
b	25%	Undemanding licensing and ineffective ring-fencing; significant concession renewal risk.	Small size affects efficiency of operations (cost base, customer base, key personnel) with high exposure to core network failure	High counterparty and event risk. Customer concetration, weak counter-party quality; high doubtful debt levels/ late collections.
ccc	n.a.	Regulatory framework formally or informally abandoned, with substantial uncertainty around future mechanisms.	Customer base, key personnel or material operational facilities experiencing a level of flux that significantly impairs cash generation.	Substantial cash impairment crystallised, or about to, based on counterparty or systemic collection-level failures.
		Cost and Investment Recovery	**Asset Quality**	**Revenue Profile and Market Risk**
aa		n.a.	n.a.	n.a.
a		Tariff setting with challenging mechanisms that may marginally limit cost and investment recovery, with little regulatory lag	High asset quality: maturity of asset, state of maintenance, customer mix, low weather events risk, likely benefit opex/ capex requirements	Strong revenue profile and low market risk. Economy of area served provides structurally stable background, favourable customer mix.
bbb		Tariff setting with challenging mechanisms that may limit efficiently incurred cost and investment recovery, with moderate regulatory lag	Mid-range asset quality: maturity of asset, state of maintenance, customer mix, low weather events risk, do not affect opex/ capex requirements	Medium revenue profile and market risk. Some exposure to cyclical industries and/or customers.
bb		Inadequate tariff setting mechanism for recovery of costs and investments, significant regulatory lag	Low asset quality: maturity of asset, state of maintenance, customer mix, weather events risk likely affecting opex and capex requirements	Weak revenue profile and high market risk. Structurally challenged economy of area served; some exposure to cyclical industries.
b		Little formal cost and investment recovery included in tariff setting mechanism	Poor asset quality: maturity of asset, state of maintenance, customer mix, high exposure to weather events affect opex and capex requirements	Weak revenue profile, high market risk. High concentration of cyclical industries. Sensitivity to extreme weather or disaster disruptions.
ccc		Regulatory framework formally or informally abandoned, with substantial uncertainty around future mechanisms.	Asset quality in state of disrepair, without near-term prospects of adequate opex and capex; concession disputed with authorities.	Substantial cash impairment crystallized, or about to, based on market risks exposure.
		Volume and Price Risk		
aa		n.a.		
a		High insulation from price and volume risk, little revenue under-recovery		
bbb		Moderate insulation from price and volume risk and revenue under-recovery		
bb		Little insulation from price and volume risk and high revenue under-recovery		
b		No insulation from price and volume risk and high revenue under-recovery		
ccc		Regulatory framework formally or informally abandoned, with substantial uncertainty around future mechanisms.		

Financial Profile Key Factors — Australian Regulated Network Utilities

	Profitability	Financial Structure	Financial Flexibility
Rating	**Return on Capital**	**FFO Leverage**	**Financial Discipline**
aa	n.a.	n.a.	Publicly announced conservative financial policy. Record of strict compliance.
a	Return on capital at, or comfortably above, the regulatory benchmark	4.5x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	Return on capital comparable with the regulatory benchmark	6.0x	Less conservative policy but generally applied consistently.
bb	Return on capital below the regulatory benchmark	7.0x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
b	Weak return on capital relative to the regulatory benchmark	8.0x	No financial policy or record of ignoring it. Opportunistic behaviour.
ccc	Disruption to capital markets access or the regulatory system have fundamentally rebased the cost of capital beyond the available return.	>10.0x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	Volatility of Profitability	**FFO Net Leverage**	**Liquidity**
aa	n.a.	n.a.	Very comfortable liquidity; no need to use external funding, except for already committed facilities, in the next 24 months even under a severe stress scenario. Well-spread debt maturity. Diversified sources of funding.
a	Higher stability and predictability of profits relative to utility peers	4.0x	Very comfortable liquidity. No need to use external funding, except for already committed facilities, in the next 12 months even under a severe stress scenario. Well-spread debt maturity schedule. Diversified sources of funding.
bbb	Stability and predictability of profits in line with utility peers	5.5x	One year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
bb	Less stability and predictability of profits relative to utility peers	6.5x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
b	Stability and predictability of profits viewed as negative outliers relative to utility peers	7.5x	Liquidity ratio below 1.0x. Overly reliant on one funding source.
ccc	Extreme volatility of profitability or persistently and structurally loss-making.	>9.5x	No near-term prospect of recovery in liquidity score above 1.0x. All/most funding sources are subject to material execution risk.
		Net Debt/Regulated Asset Base	**FX Exposure**
aa		n.a.	No material FX mismatch.
a		60%	Profitability potentialy exposed to FX but efficient hedging in place. Debt and Cashflows well-matched.
bbb		70%	Some FX exposure on profitability and/or debt/cash flow match. Effective hedging in place.
bb		80%	FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b		90%	Large FX exposure. No significant/ineffective hedging in place.
ccc		A step-change to either debt structure or regulatory asset values created a near-term unsustainable leverage structure.	FX exposure dominant in impairing the issuer's ability to service debt in cash terms.
			FFO Interest Coverage
aa			n.a.
a			1.75x
bbb			1.5x
bb			1.1x
b			1.0x
ccc			Net FCF debt service cover below 1.0x. All/most funding sources subject to material execution risk.

EMEA Regulated Networks

Sector Risk Profile

Rating Range

Regulated network utilities have a very strong business risk profile and can be rated as high as 'A+'. This reflects the strong defensive qualities of companies operating essential services in natural monopolies with stable profitability and predictable cash flow. Company-specific traits indicate ratings within this rating range according to regulatory environment, asset base and operations-specific characteristics.

Sector-Specific Key Factors

Sector Positioning

Fitch assesses the size and location of the network business (from local distribution network to multiple national transmission ownerships), and the proportion of non-regulated earnings – typically up to 25% of total earnings (EBITDA).

Regulatory Environment

This factor indicates the supportiveness of regulation to the credit quality of the network company. We assess the regulatory body, its record and the network's insulation from price and volume risks. We also review the cost and investment recovery through tariffs and the degree to which network licenses ring-fence the creditworthiness of the network through debt limitations or minimum credit quality criteria.

Asset Base

This factor assesses the diversification of the asset base across geographical boundaries, the overall effect of size on the efficiency of operations, and the overall quality of the asset base and its residual life.

Operational Profile

Fitch measures the network's operational performance (also compared with regulatory target) and its exposure to counterparty risk.

Financial Profile Key Factors

Financial Risk Profile

The financial profile factors show mid-points of leverage (based on cash flow and regulated asset base) and coverage metrics, return on capital, volatility of profitability and investment cycle position within relevant rating categories, potentially reaching 'A+'. The regulated utilities network sector has a lower risk profile than the average for the aggregate corporate curve

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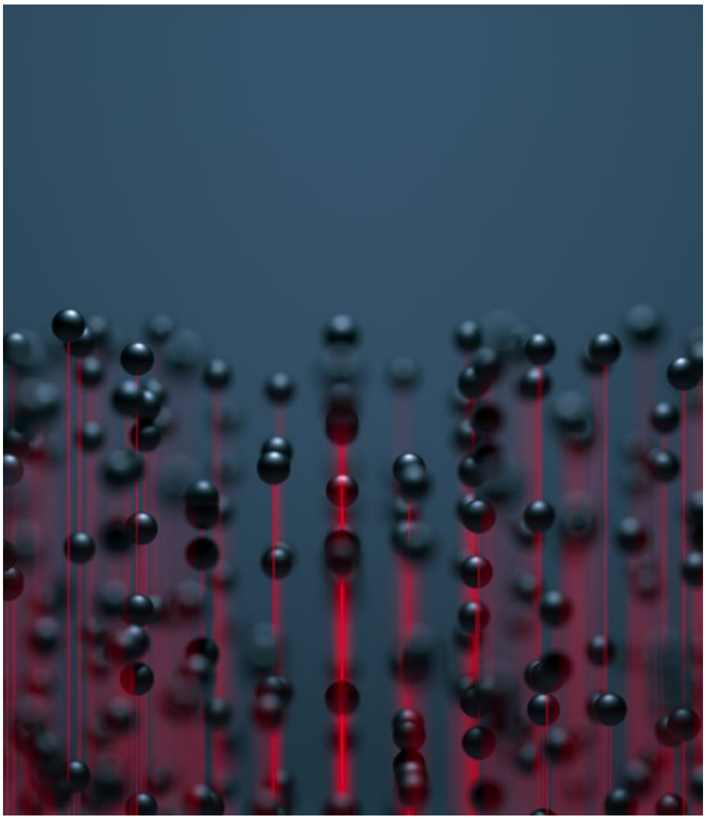
EMEA Regulated Networks

Industry Characteristics

Networks

Transparency and maturity of the regulatory framework is key for the stability and predictability of networks' cash flows. Tariffs approved by the regulator typically provide adequate allowances for operating expenditure, a reasonable rate of return to facilitate continued investment and visibility over asset recovery. Variability of turnover due to volume risk, unrealistic efficiency challenges, political interference or disallowance of material cost components would be negative for the ratings.

The principal operational challenges for networks include balancing the load or pressure, minimizing transmission losses (or leakage), safety of operations and safeguarding the integrity of the infrastructure in a context of increasing intermittent wind and solar capacity as well as shifting demand patterns, or managing water quality and scarcity. This reinforces the capital-intensive nature of the business, which can be significantly free cash-flow negative during investment cycles, using fresh debt to fund networks expansion. In view of their long-term assets, relatively stable earnings and high financing requirements, networks tend to have long-term debt maturity profiles. Generally, they have good access to funding via the capital markets at reasonable cost. In some cases overly leveraged capital structures affect networks' credit profiles.



Sector-Specific Key Factors — EMEA Regulated Networks

	Sector Positioning	Regulatory Environment	Asset Base	Operational Profile
Rating	**Operation Type**	**Independence, Transparency, Predictability**	**Diversification**	**Performance Measures**
aa	n.a.	n.a.	n.a.	n.a.
a	National or regional monopolies, transmission or distribution asset owners.	Transparent frameworks with strong record and multi-year predictable tariffs set by independent regulators; little political risk.	Partially diversified geographically and/or by regulation; multi-jurisdictional utility or regional multi-utility.	Key performance measures in line with or above sector average and/or regulatory target.
bbb	Local or regional monopoly asset owners, regional monopoly asset operators.	Less transparent frameworks, with emerging record and multi-year tariffs; exposed to political risk. Medium-term predictability.	Limited diversification by geography without regulatory diversification; regional utility.	Key performance measures in line with sector average and/or regulatory target.
bb	Regional or local monopoly asset operators.	Opaque or overly demanding frameworks with limited record, short-term tariffs; significant political risk.	No geographical or regulatory diversification; local utility.	Underperformance on key measures with financial and/or legal implications.
b	Local monopoly asset operators.	Opaque, arbitrary frameworks without record, short-term tariffs; significant political risk. Limited medium-term predictability.	No geographical or regulatory diversification; local utility.	Underperformance on key measures with significant financial and/or legal implications. Prone to event risk.
ccc	n.a.	Regulatory framework formally or informally abandoned, with substantial uncertainty about future mechanisms.	n.a.	Subject to advanced regulatory intervention based on operational performance, with material risks for licence/concession ownership.
	Non-Regulated Earnings (% of Total Earnings)	**Licensing, Ring-Fencing, Concessioning**	**Critical Mass**	**Counterparty Risk**
aa	n.a.	n.a.	n.a.	n.a.
a	up to 10%	Licensing includes effective ring-fencing provisions with creditworthiness requirements; limited concession renewal risk.	Critical mass in one regulated asset; does not affect efficiency of operations (cost base, customer base, key personnel).	Low counterparty risk; high collection rates for water suppliers. Economy of area served provides structurally stable background.
bbb	up to 15%	Less demanding licensing and ring-fencing provisions; moderate concession renewal risk.	Asset base size potentially affects efficiency of operations (cost base, customer base, key personnel).	Medium counterparty risk; medium collection rates for water suppliers. Some exposure to cyclical industries and/or customers.
bb	up to 20%	Undemanding licensing and less effective ring-fencing; significant concession renewal risk.	Small size affects efficiency of operations (cost base, customer base, key personnel).	High counterparty risk; water suppliers with high doubtful debt levels. Structurally challenged economy in area served.
b	up to 25%	Undemanding licensing and ineffective ring-fencing; significant concession renewal risk.	Small size affects efficiency of operations (cost base, customer base, key personnel) with high exposure to core network failure.	High counterparty and event risk; water suppliers with high doubtful debt levels. High concentration of cyclical industries.
ccc	n.a.	Regulatory framework formally or informally abandoned, with substantial uncertainty around future mechanisms.	Customer base, key personnel or material operational facilities experiencing a level of flux that significantly impairs cash generation.	Substantial cash impairment crystallised, or about to, based on counterparty or systemic collection-level failures.
		Cost and Investment Recovery	**Asset Quality and Residual Life**	
aa		n.a.	n.a.	
a		Tariff setting with challenge mechanisms that may marginally limit cost and investment recovery, with little regulatory lag.	High asset quality likely to benefit opex and capex requirements compared with peers. The residual life of regulatory assets is long.	
bbb		Tariff setting with challenge mechanisms that may limit efficiently incurred cost and investment recovery, with moderate regulatory lag.	Mid-range asset quality not affecting opex and capex requirements compared with peers. The residual life of regulatory assets is average.	
bb		Inadequate tariff-setting mechanism for recovery of costs and investments, significant regulatory lag.	Low asset quality likely affecting opex and capex requirements compared with peers. The residual life of regulatory assets is limited.	
b		Little formal cost and investment recovery included in tariff-setting mechanism.	Poor asset quality affecting opex and capex requirements compared with peers. The residual life of regulatory assets is limited with a heavy capex requirement.	
ccc		Regulatory framework formally or informally abandoned, with substantial uncertainty around future mechanisms.	Asset quality in state of disrepair, without near-term prospects of adequate opex and capex; concession contunuity disputed with authorities.	
		Volume and Price Risk		
aa		n.a.		
a		High insulation from price and volume risk, little revenue under-recovery.		
bbb		Moderate insulation from price and volume risk and revenue under-recovery.		
bb		Little insulation from price and volume risk and high revenue under-recovery.		
b		No insulation from price and volume risk and high revenue under-recovery.		
ccc		Persistent inability to recover opex and capex.		

Financial Profile Key Factors — EMEA Regulated Networks

	Profitability and Cash Flow	Financial Structure	Financial Flexibility
Rating	**Return on Capital**	**FFO Leverage**	**Financial Discipline**
aa	n.a.	n.a.	Publicly announced conservative financial policy. Record of strict compliance.
a	Return on capital at, or comfortably above, the regulatory benchmark.	4.5x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	Return on capital comparable with the regulatory benchmark.	6.0x	Financial policies less conservative than peers but generally applied consistently.
bb	Return on capital below the regulatory benchmark.	7.0x	Financial policy in place but flexibility in applying it could lead to downgrade guidelines being temporarily exceeded.
b	Weak return on capital relative to the regulatory benchmark.	8.0x	No financial policy or record of ignoring it. Opportunistic behaviour.
ccc	Disruption to capital markets access or the regulatory system have fundamentally rebased the cost of capital beyond the available return.	>10.0x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis mode environment.
	Volatility of Profitability	**FFO Net Leverage**	**Liquidity**
aa	n.a.	n.a.	Very comfortable liquidity; no need to use external funding, except for already committed facilities, in the next 24 months even under a severe stress scenario. Well-spread debt maturity. Diversified sources of funding.
a	Higher stability and predictability of profit than utility peers.	4.0x	Very comfortable liquidity. No need to use external funding, except for already committed facilities, in the next 12 months even under a severe stress scenario. Well spread debt maturity schedule. Diversified sources of funding.
bbb	Stability and predictability of profit in line with utility peers.	5.5x	One-year liquidity ratio above 1.25x. Well spread debt maturity schedule but funding may be less diversified.
bb	Less stability and predictability of profit than utility peers.	6.5x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
b	Stability and predictability of profit negative outliers relative to utility peers.	7.5x	Liquidity ratio below 1.0x. Overly reliant on one funding source.
ccc	Extreme volatility of profitability or persistently and structurally loss-making.	>9.5x	No near-term prospect of recovery in liquidity score above 1.0x. All/most funding sources subject to material execution risk.
	Investment Cycle	**Adjusted Net Debt/Asset Base (or Regulated Asset Base)**	**FX Exposure**
aa	n.a.	n.a.	No material FX mismatch.
a	Investment cycle position and dividend policy leading to broadly neutral free cash flow. High flexibility in smoothing capex plans.	60%	Profitability potentially exposed to FX but efficient hedging. Debt and cash flow well matched.
bbb	Investment cycle position and dividend policy contributing to negative free cash flow. Moderate flexibility in smoothing capex plans.	70%	Some FX exposure on profitability and/or debt/cash flow match. Effective hedging.
bb	Investment cycle position and dividend policy leading to significantly negative free cash flow. Limited flexibility in smoothing capex plans.	80%	FX exposure on profitability and/or debt/cash flow match. Some hedging but only partly effective.
b	Investment cycle position and dividend policy leading to significantly negative FCF where funding is not secured. Very limited possibility to postpone capex.	90%	Large FX exposure. No significant/ineffective hedging.
ccc	Negative FCF burden greater than all projected regulatory parameters, and negative operational cash flow the norm.	A step-change to either debt structure or regulatory asset values has created a leverage structure that is unsustainable in the near term.	FX exposure dominant in impairing the issuer's ability to service debt in cash terms.
		Cash PMICR	**FFO Interest Coverage**
aa		n.a.	n.a.
a		2.2x	4.5x
bbb		1.6x	3.5x
bb		1.2x	2.0x
b		1.0x	1.5x
ccc		Persistently below 1.0x	Below 1.25x. All/most funding sources are subject to material execution risk.
		Nominal PMICR	**Dividend Cover**
aa		n.a.	n.a.
a		2.5x	n.a.
bbb		1.8x	4.75x
bb		1.4x	3.25x
b		1.1x	1.75x
ccc		Persistently below 1.0x	Below 1.0x

Global Electricity Generation

Sector Risk Profile

Rating Range

Ratings categories for electricity generation companies (GenCos) globally range from 'B' to 'A', although with very few instances of 'A' category ratings. A significant portion of ratings is clustered in the 'BB' and 'BBB' rating categories, with a close to even split between investment-grade and non-investment-grade rating levels.

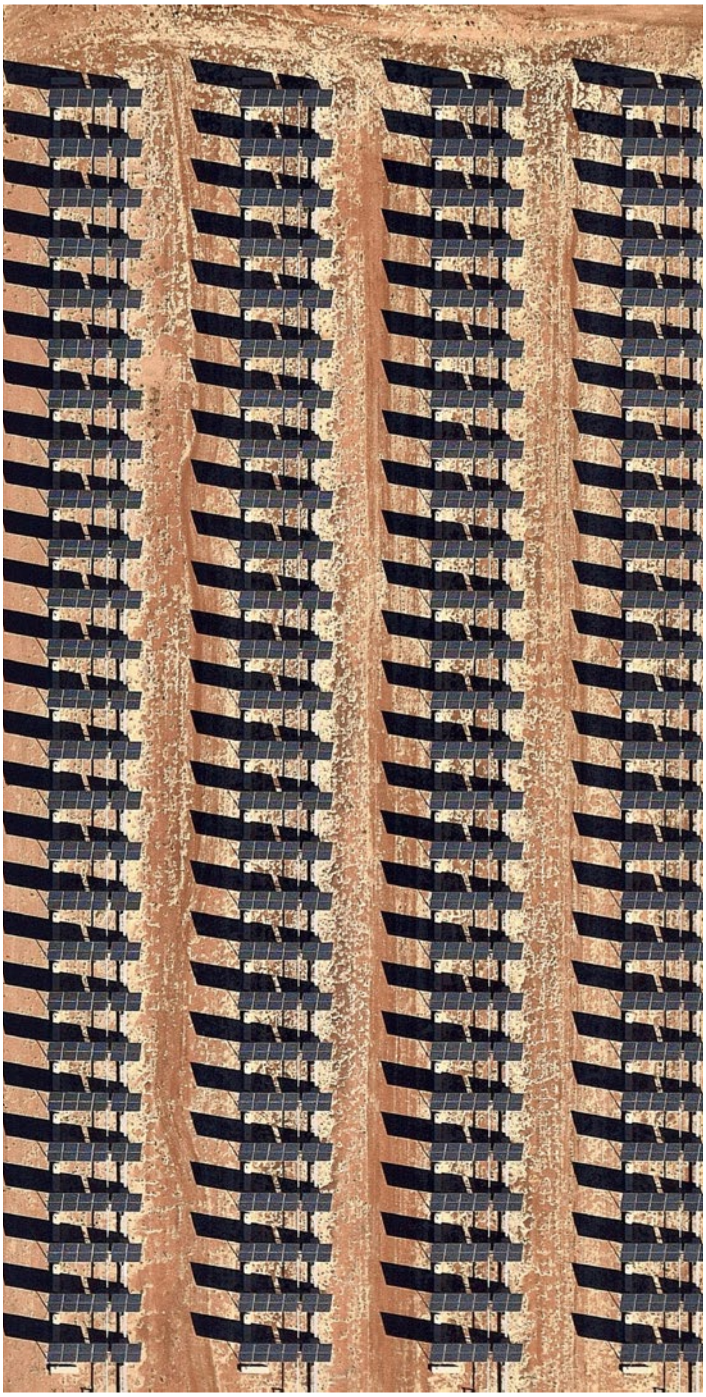
Investment-grade GenCos tend to have above-average cash flow stability and predictability afforded by contractual structures that protect revenues from price and potentially volume risk. Combined with low exposure to changes in supplies costs (either as a result of cost pass-through mechanisms or financial hedges) and an adequate capital structure, this can lead to investment-grade ratings. Uncontracted GenCos with high exposure to merchant risk and uncompetitive cost structures tend to be rated at non-investment-grade levels due to their higher cash flow volatility.

Sector-Specific Key Factors

Revenues Visibility: Key factors in assessing a GenCo's revenue visibility include its contractual position and ability to renew contracts at expiration, as well as system or capacity payments that provide pricing visibility. A GenCo's revenue visibility is also affected by its degree of supply integration and predictability of resources, i.e. its capacity factor, or contracted position versus owned or contracted generation position relating to market exposure.

Market Position: When analysing a GenCo's market and competitive position, Fitch assesses the supply and demand dynamics of the system in which it operates. Fitch also analyses the GenCo's competitive position amongst its peers and its relative size in the system in which it operates.

Asset Base and Operations: Asset Base and Operations focuses on a qualitative and comparative (peer group) assessment of a company's physical infrastructure that may influence its relative price competitiveness, both current and expected, and drive capital reinvestment needs. Fitch takes into consideration the type, size and diversity of the generating fleet when evaluating the underlying quality of a GenCo's asset base. This evaluation includes the fuel mix and certainty of fuel supply, geographic location and overall position along the dispatch curve.



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Global Electricity Generation

Commodity Exposure: A GenCo's counterparty risk is paramount when assessing its credit quality. GenCos can at times mitigate counterparty risk through diversification of their customer base, vertical integration into retail supply or the ability to replace customers. When analysing a GenCo, Fitch primarily observes the credit quality of both its contracted off-taker and its potential off-takers. A diverse customer mix is an important credit factor in assessing exposure to counterparty risk. Companies with a high portion of merchant activities can carry higher risk, especially if they are not selling into a pool of solid counterparties, than companies with customer concentration to a single high-quality counterparty.

Financial Profile Key Factors

Financial Profile: Fitch's financial metrics are mostly standard corporate rating methodology ratios encompassing gross leverage and coverage ratios, and cash flow measures up to the 'A' rating category. Fitch analyses the issuer's capital structure to ensure it is commensurate with the cash flow stability and predictability for the relevant rating level.

Industry Characteristics

GenCos are characterised by an array of technologies, business and market structures that can create different credit risks. These criteria cover all conventional and non-conventional electricity generation technologies, including but not limited to single-asset or multi-unit electricity generation plants of any and all technologies: thermoelectric; geothermal; biomass; waste-to-energy; all types of hydroelectric generation (whether run off the river, reservoir-based, or with pumped storage); nuclear; and non-conventional renewables such as solar, wind, and small-scale hydroelectricity.

Waste-to-energy companies that can generate a meaningful share of revenue from gate fees are to be rated under these criteria. Companies that are vertically integrated into regulated segments and generate (or are expected to generate) approximately 20% or more of EBITDA from business segments other than generation and supply are rated under the regional Utilities Navigator. The Utilities Navigators are designed for utilities with generation, electricity, gas or water distribution, or transmission.

Fitch's evaluation of a GenCo considers the qualitative and quantitative risks associated with the company's business and corporate structure in combination with the company's financial strength and liquidity. The financial assessment emphasises cash flow financial measures rather than equity- or earnings-based ratios. The analytical focus is on the adequacy of the issuer's expected cash flow relative to its fixed charges, debt obligations and capex, as well as its capital structure and liquidity.

Qualitative factors with the most significant credit effect include a GenCo's revenue predictability as well as its market and competitive position.

Power generators typically enter into financial contracts called Power Purchase Agreements (PPAs) with tenures often ranging from two to 20 years. The main objective of PPAs is to enhance a company's revenue predictability so that it can raise funds for highly capital-intensive investments. PPAs can improve the revenue predictability of GenCos by minimising price risk and (partially) volume risk, especially for non-intermittent technologies.

An electricity system's supply-demand dynamics can directly affect a GenCo's cash flow generation ability because it affects electricity prices. Fitch views electricity systems with adequate efficient capacity reserve margins as positive for a GenCo's business risk profile and the likelihood of an investment-grade rating. This is because adequate reserve margins support price stability and predictability. GenCos with relatively low generation costs within a system tend to have lower business risk as their ability to generate and sell electricity at a sustainable rate is high, reducing volume risk. At the other end of the spectrum, GenCos with the lowest competitive position and poor prospects for dispatching electricity in the system have higher business risk and uncertain cash flow generation.

GenCos that are based on non-conventional renewables technologies are often affected by resource predictability. Their generation volumes can also be affected by the cyclicality, intermittency and seasonality of their resources. In assessing a GenCo's resource predictability, Fitch observes the stability or relative volatility of its capacity factor (not the absolute level of capacity factor by itself) because high capacity factor stability can result in high revenue predictability. The capacity factor (which might be referred to under a different name, depending on the region) is the ratio of actual electrical energy output in a period of time to the maximum possible electrical energy output in that period. Fitch gains visibility over a GenCo's resource predictability through historical data or, for newer plants, through projections based on historical resource measurements. Fitch may also evaluate the ability of a GenCo to source fuel, materials and labour to maintain capacity availability and contribution to profit margins.

Quantitative factors for GenCos are for the most part standard corporate rating methodology ratios encompassing gross leverage and coverage ratios, and cash flow measures. Fitch may complement this analysis by looking at a GenCo's debt service coverage ratio (DSCR) when it issues predominately amortising debt within its capital structure. This is typical for small-to-medium GenCos that are in a strong position with regards to their contracts. DSCR is a forward-looking metric calculated as the ratio of cash flow available for debt service to annual debt service. Cash flow available for debt service is calculated as the revenue generated by the asset less its operating expenses, maintenance and life-cycle costs or major maintenance reserve account deposits, changes in working capital, cash taxes, pension contributions where appropriate, and interest on cash balances.

Sector-Specific Key Factors — Global Electricity Generation

	Revenues Visibility	Market Position	Asset Base and Operations	Commodity Exposure
Rating	**Contracted Position**	**Supply/Demand Dynamics**	**Asset Quality and Diversity**	**Counterparty Risk**
aa	n.a.	n.a.	n.a.	n.a.
a	Balanced position under long term PPAs or incentives (typically more than 7 year average remaining life).	Beneficial outlook for prices. Adequate or tight reserve margins and limited capacity expansion prospects in market over the medium to long-term.	High-quality assets with large diversification by geography and/or generation source.	Highly diversified, low counterparty risk or weighted average credit quality of actual and potential off-takers is in line with 'A' rating. Single 'A' rated off-taker under well- structured PPA.
bbb	Balanced position with medium remaining life of PPAs or incentives of 5 to 7 years. PPAs or incentives amount between 80% and 100% of firm generation capacity.	Moderately favorable outlook for prices. Balanced reserve margin with capacity addition pace matching demand growth. Supply/Demand balance aided by regulatory system mechanism.	Good single asset quality or partial diversification by geography and/or generation source.	Diversified, medium counterparty risk or weighted average credit quality of actual and potential off-takers is in line with 'BBB' rating. Single 'BBB' rated off-taker under well-structured PPA.
bb	Moderate visibility under PPAs or incentives with short to medium (3 years) term residual life, with manageable merchant risk. 50% to 80% contracted or incentivised.	Lower certainty outlook for prices. Potential price volatility from bulky capacity/demand expansion in system.	Below average or dated single asset quality or very limited diversification by geography and/or generation source.	Low diversification with moderate counterparty risk or weighted average credit quality of actual and potential off-takers is in line with 'BB' rating. Single 'BB' rated off-taker under PPA structure.
b	Merchant contractual position with low likelihood of entering into long-term PPAs or getting incentives. More than 50% merchant position or materially over-contracted.	Material overcapacity in system repress prices (to often negative spots) with low to moderate demand growth expectations.	Low asset quality with no meaningful diversification by geography and/or generation source.	No diversification with high counterparty and event risk or weighted average credit quality of actual and potential off-takers is in line with 'B' rating.
ccc	Merchant risk in a weak pricing or unsustainable contracted position at prices below generation costs	Unsustainably high or unsustainably low electricity prices, which may cause regulatory intervention and price volatility.	Stranded assets concentrated in one location with significant disruptive economic characteristics impairing operations or cash collections.	No diversification with high counterparty and event risk or weighted-average credit quality of actual and potential off-takers in line with 'CCC' rating.
	Contract Renewal Risk	**Competitive Position**	**Exposure to Environmental Regulations**	**Costs Pass-Through and Supply Mix**
aa	n.a.	n.a.	n.a.	n.a.
a	High re-contracting probability into similar to potentially better contractual terms.	Lowest cost, highly dispatched, reliable fleet of generating assets.	No exposure to environmental regulations. Energy generation mostly from clean sources and low carbon exposure.	Complete pass-through of commodity costs to off-taker or end user. Extremely low cost and flexible/ certain supply.
bbb	Likely re-contracting prospects with similar to potentially moderately worse contractual terms.	Efficient generation with recurrent merit dispatch.	Limited or manageable exposure to environmental regulations. Balanced generation between clean and thermal sources; medium carbon exposure.	Limited exposure to changes in commodity costs with ability to pass cost changes to end users. Low variable costs and moderate flexibility/certain of supply.
bb	Moderate re-contracting prospects with weaker contractual terms.	Marginal cost unit with recurrent merit dispatch.	Significant exposure to environmental regulations. Energy production largely deriving from thermal sources; high carbon exposure.	Inability to pass through all changes in commodity costs. High variable costs and limited flexibility/ certainty of supply.
b	Low re-contracting prospects with weak contractual terms. Generation costs likely above expected clearing market prices.	Marginal cost unit with sporadic merit dispatch.	Material exposure to highly polluting technology. Largely thermoelectric generation, particularly coal and lignite; high carbon exposure.	High exposure to commodity price changes. Extreme variability in costs and minimal flexibility of supply.
ccc	No re-contracting prospects. End of life or stranded assets.	Stranded assets with limited expectation of merit dispatch.	Substantial cash impairment crystallized, or about to, due to multiple, punitive environmental cost burdens.	Substantial cash impairments crystallized or about to as a result of the failure of derivative and physical hedging measures.
	System / Capacity Payments	**Relative Size and Scale**	**Capital and Technological Intensity of Capex**	**Hedging Strategy**
aa	n.a.	n.a.	n.a.	n.a.
a	Well established and transparent market pricing structure with minimal political interference providing long-term price visibility for power generators.	Large scale operations with diverse generation asset base or company supplies more than 50% of electricity to the systems where it operates or strong competitive position in a localized market	Low levels of reinvestment requirements.	Strong portfolio/cash flow smoothing effects from extensive contractual hedge.
bbb	Less transparent or shorter duration market pricing structures with some risk of political interference proving medium term price visibility for power generators.	Large scale operations with diverse generation asset base or company supplies more than 20% of electricity to the systems where it operates or strong competitive position in a localized market.	Moderate reinvestments requirements in established technologies.	Portfolio/cash flow smoothing effects from extensive contractual hedge.
bb	Less transparent or frequently changing market pricing structure with moderate risk of regulatory/ political intervention.	Company supplies more than 10% of electricity to the systems where it operates or strong competitive position in a regional market.	Reinvestment concentrated in capital-intensive or unproven technologies.	Minimal portfolio/cash flow smoothing effects from contractual hedge.
b	Unpredictable or lack of market pricing structures often subject to political intervention including retroactive.	Company supplies more than 5% of electricity to the systems where it operates or moderate competitive position.	High exposure to execution risk for projects involving large outlays or unproven technologies.	No portfolio/cash flow smoothing effects from contractual hedge or highly speculative trading positions.
ccc	n.a.	Company lags size and relative scale and is a marginal cost producer.	Substantial cash impairment crystallized, or about to, due to the failure or cost over-run of a major project.	Substantial cash impairments crystallized or about to as a result of the failure of derivative and physical hedging measures.
	Degree of Supply Integration			
aa	n.a.			
a	n.a.			
bbb	Balanced supply integration with strong retail position contributing to cash flow stability and predictability.			
bb	Below average supply integration or high competitive pressure in retail operations.			
b	Minimal supply integration. Significant long or short generation position.			
ccc	n.a.			
	Resource Predictability			
aa	n.a.			
a	Highly stable and predictable capacity factor.			
bbb	Stable and predictable capacity factor.			
bb	Somewhat volatile capacity factor.			
b	Volatile or unpredictable capacity factor.			
ccc	n.a.			

Financial Profile Key Factors — Global Electricity Generation

	Profitability	Financial Structure	Financial Flexibility
Rating	**Free Cash Flow**	**EBITDA Leverage**	**Financial Discipline**
aa	n.a.	n.a.	Publicly announced conservative financial policy. Record of strict compliance.
a	Structurally neutral to positive FCF across the investment cycle.	<1.8x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	Structurally neutral to slightly negative FCF across the investment cycle.	3.3x	Less conservative policy, but generally applied consistently.
bb	Structurally moderately negative FCF across the investment cycle.	4.8x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
b	Structurally materially negative FCF across the investment cycle.	5.8x	No financial policy or record of ignoring it. Opportunistic behavior.
ccc	Negative FCF burden greater than all projected regulatory parameters, and negative operational cash flow the norm.	>7.3x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	Cash Flow Predictability	**FFO Leverage**	**Liquidity**
aa	n.a.	n.a.	Very comfortable liquidity; no need to use external funding, except for already committed facilities, in the next 24 months even under a severe stress scenario. Well-spread debt maturity. Diversified sources of funding.
a	High cash flow stability and predictability relative to peers.	<2.0x	Very comfortable liquidity. No need to use external funding, except for already committed facilities, in the next 12 months even under a severe stress scenario. Well spread debt maturity schedule. Diversified sources of funding.
bbb	Stability and predictability cash flow in line with peers.	3.5x	One-year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
bb	Lower stability and predictability of cash flow relative to peers.	5.0x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
b	Stability and predictability of cash flow viewed as negative outliers relative to peers.	6.0x	Liquidity ratio below 1.0x. Overly reliant on one funding source.
ccc	Cash flow volatility greater than normal bounds of volatility for corporate sector as a whole.	>7.5x	No near-term prospect of recovery in liquidity score above 1.0x. All/most funding sources subject to material execution risk.
		FFO Net Leverage	**FX Exposure**
aa		n.a.	No material FX mismatch.
a		<1.0x	Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flows well-matched.
bbb		3.0x	Some FX exposure on profitability and/or debt/cash flow match. Effective hedging in place.
bb		4.5x	FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b		5.5x	Large FX exposure. No significant/ineffective hedging in place.
ccc		>7.0x	FX exposure dominant in impairing the issuer's ability to service debt in cash terms.
			FFO Interest Coverage
aa			n.a.
a			5.5x
bbb			4.5x
bb			3.5x
b			2.0x
ccc			All/most funding sources subject to material execution risk
			DSCR
aa			n.a.
a			Expected average DSCR >2.0 for amortizing debt with no merchant exposure.
bbb			Expected average DSCR of >1.8 for high merchant exposure or >1.3 for amortizing debt with well contracted business profile.
bb			Expected average DSCR between 1.3 and 1.1 for amortizing debt.
b			Expected average DSCR of 1.1 for amortizing debt.
ccc			Expected average DSCR = or <1.0x.

EMEA Utilities

Sector Risk Profile

Rating Range

Utilities have a lower-than-average risk profile. The sector risk profile reflects the industry's low cyclicality and volatility for integrated companies, its muted correlation to economic indicators and social trends, and returns backed by regulatory determinations. Exposure to political interference is mitigated where regulatory bodies are independent, but structural shifts in the power generation segment lead to increased market risks.

Utilities' ratings are clustered in the 'A'/'BBB' rating categories due to their relatively low operational and financial risks, although strong credit characteristics can lift ratings up to 'A+' rating. Conversely, a weak operating environment, low integration or a weak asset base and financial profile can drag companies' ratings to the 'BB'/'B' rating categories.

Sector-Specific Key Factors

Revenue Visibility

We view vertical integration, strong market position and a high contribution from regulated earnings as a credit strength within the sector, despite the unbundling provisions in much of the region, and pressure on returns across the value chain.

Regulatory Environment

Predictable regulatory environments for networks and quasi-regulated assets with low policy risk supports utilities' credit profiles.

Market Position

The rollout of renewables has altered the structure of many power generation markets. Where these changes are advanced, this has a significant impact on the available profit margins if not offset by merit order position in generation. Similarly, demand-side patterns and counterparty risk can differ significantly across geographies and supplied services.

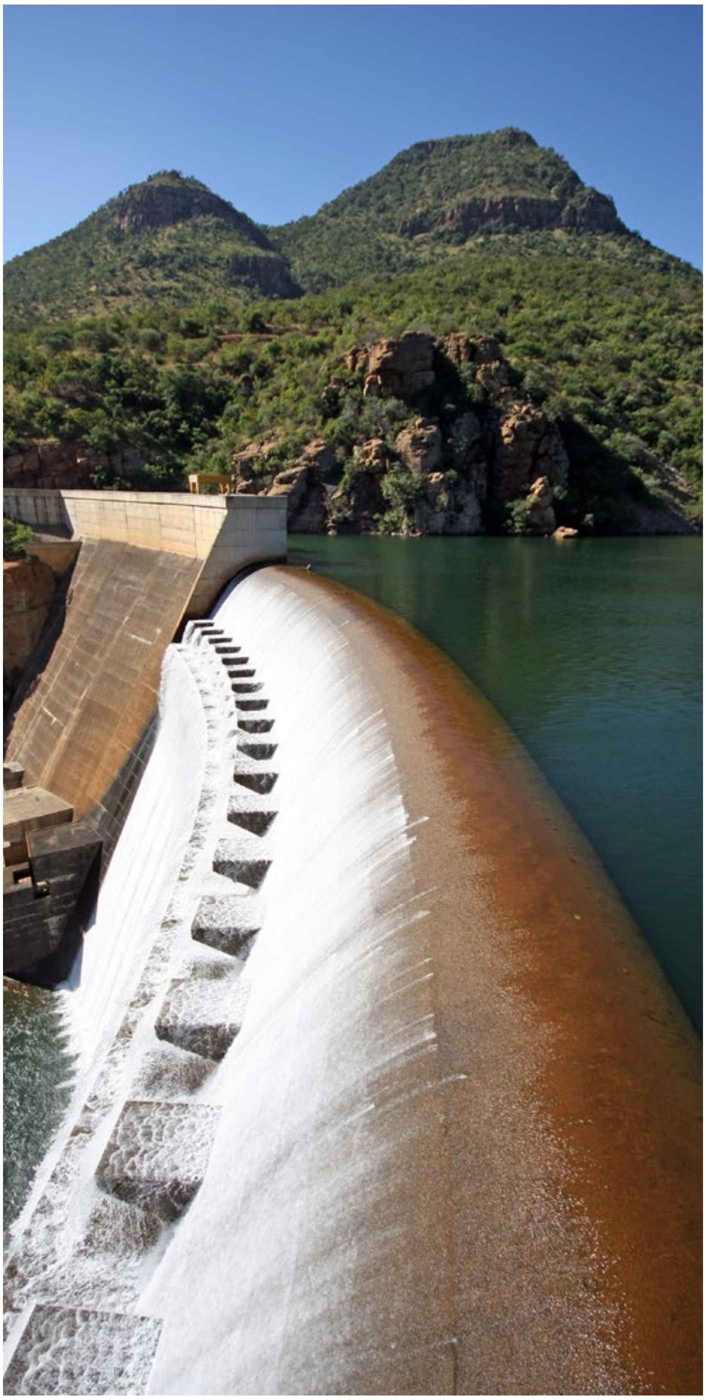
Asset Base and Operations

Good-quality assets and low carbon exposure support an efficient cost base. Diversification enhances cash-flow predictability and offsets some of the inherent exposure to policy risk, demand and pricing patterns.

Financial Profile Key Factors

Financial Profile

The financial profile factors show mid-points of leverage, interest coverage, volatility of profitability and level of free cash flow (FCF) within relevant rating categories, potentially reaching the 'A' category.



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EMEA Utilities

Industry Characteristics

Networks and renewables benefit from revenue visibility linked to regulation and support mechanisms. Given that yields in the debt markets have declined, regulators are reassessing "reasonable returns" for networks. Furthermore, governments are monitoring efficient costs and encouraging auctions for renewables installations in order to reduce support. Conventional power generators are to varying degrees exposed to environmental and policy limitations, commodity price and volume risk, depending on technology and fuel type. Part of the commodity price and volume risk can be mitigated through hedging/trading strategies with market participants and vertical integration into supply activity.

Utilities are capital-intensive businesses. They can be significantly FCF negative during investment cycles, using new debt to fund replacement and expansion capital expenditure. Due to long-term assets, comparatively predictable earnings and high financing requirements, utilities tend to have long-term debt maturity profiles. This may not be the case in some EMEA countries with less developed capital markets, with short-term, comparatively expensive financing used to fund the construction or maintenance of assets.

Renewable Generation Companies

To rate renewable generation companies/utilities that invest in a diversified portfolio of existing wind and/or solar generation assets, Fitch uses the issuers' historical average renewable production as the starting point in the determination of its rating-case production assumption, and a suitable haircut based on observable factors as the starting point in the determination of its stress-case production assumption. If, based on operational history and observable factors, the volatility of production is particularly high, a more conservative assumption may be used for the rating case.

Sector-Specific Key Factors — EMEA Utilities

	Revenue Visibility	Regulatory Environment	Market Position	Asset Base and Operations
Rating	**Size and Integration**	**Regulatory Framework and Policy Risk**	**Fundamental Market Trends**	**Asset Quality**
aa		n.a.	n.a.	n.a.
a	Top-tier position in more than one market. Vertically integrated (typically including generation, transmission, distribution and supply).	Transparent frameworks with strong record and multi-year predictable tariffs set by independent regulators; little political risk.	Structurally balanced markets.	High asset quality likely to benefit opex and capex requirements compared with peers.
bbb	Top-tier position in at least one market. Partially integrated (typically including generation, distribution and supply).	Less transparent frameworks, with emerging record and multi-year tariffs; exposed to political risk. Medium-term predictability.	Markets with emerging structural challenges.	Mid-range asset quality not likely to affect opex and capex requirements compared with peers.
bb	Medium-sized participant in one market. Minimal integration (typically limited to generation and supply).	Opaque or overly demanding frameworks with limited record, short-term tariffs; significant political risk.	Markets with structural challenges.	Low asset quality likely to affect opex and capex requirements. High, but diversified concession renewal risk.
b	Small participant in one market. Minimal integration (typically limited to generation and supply).	Opaque, arbitrary frameworks without record, short-term tariffs; significant political risk. Limited medium-term predictability.	Markets with entrenched structural challenges.	Poor asset quality likely to affect opex and capex requirements. High level of concession renewal risk.
ccc	n.a.	Regulatory framework formally or informally abandoned, with substantial uncertainty around future mechanisms.	Exposure to failed market structures crystallised, or about to, with substantial negative cash flow implications.	Asset quality in state of disrepair, without near-term prospects of adequate opex and capex; concession continuity disputed with authorities.
	Earnings from Regulated Network Assets	**Cost Recovery and Risk Exposure**	**Generation and Supply Positioning**	**Asset Diversity**
aa	n.a.		n.a.	n.a.
a	40%-75% of EBITDA comes from high-quality regulated network assets.	Tariff setting that may marginally limit cost and investment recovery, with little regulatory lag, price and volume risk.	Strong position in the merit order; effective hedging; flexible fuel procurement. Generation balanced with strong position in supply and services.	High diversification by geography, generation source, supplied product; multi-jurisdictional utility or regional multi-utility.
bbb	Less than 40% of EBITDA comes from high-quality regulated network assets.	Tariff setting that may limit efficiently incurred cost and investment recovery, with moderate regulatory lag, price and volume risk.	Average position in the merit order; short term hedging. Generation largely balanced with medium position in supply and services.	Partial diversification by geography, generation source, supplied product.
bb	Less than 25% of EBITDA comes from high-quality regulated network assets.	Inadequate tariff-setting mechanism for recovery of costs and investments, significant regulatory lag, price and volume risk.	Weak position in the merit order; limited hedging. Own generation not in balance with marginal position in supply and services.	Limited diversification by geography, generation source, supplied product.
b	Minimal EBITDA comes from high-quality regulated networks or quasi-regulated assets.	Little formal cost and investment recovery included in tariff-setting mechanism, no insulation from price and volume risk.	Weak position in the merit order; ineffective hedging. Own generation not in balance with weak position in supply and services.	No meaningful diversification by geography, generation source, supplied product.
ccc	n.a.	Regulatory framework formally or informally abandoned, with substantial uncertainty around future mechanisms, inability to recover costs.	Uncompetitive cost position and unsustainable market presence; substantial cash impairments due to the failure of hedging.	Concentration in one location with significant disruptive economic characteristics impairing operations or cash collections.
	Quasi-Regulated Earnings		**Customer Base and Counterparty Risk**	**Carbon Exposure**
aa	n.a.		n.a.	
a	Over 20% of EBITDA comes from quasi-regulated assets in markets or from long-term contracted sales with creditworthy counterparties.		Economy of area served provides structurally stable background; low counterparty risk; high collection rates for supply operations.	Energy production mostly from clean sources and low carbon exposure (< 300gCO2/kWh).
bbb	10%-20% of EBITDA comes from quasi-regulated assets or from long-term contracted sales with creditworthy counterparties.		Economy of area served provides structurally stable background; medium counterparty risk; fair collection rates for supply operations.	Energy production balanced between clean and thermal sources; medium carbon exposure (< 450gCO2/kWh).
bb	Less than 10% of EBITDA comes from quasi-regulated assets or from long-term contracted sales with creditworthy counterparties.		Structurally challenged economy in area served; high counterparty risk; supply operations with high doubtful debt levels.	Energy production largely deriving from thermal sources; high carbon exposure (<600gCO2/kWh).
b	Small amounts of income from quasi-regulated assets or long-term contracts.		Structurally shrinking economy in area served. High counterparty and event risk; supply operations with high doubtful debt levels.	Energy production largely deriving from thermal sources, particularly coal and lignite; high carbon exposure (>600gCO2/kWh).
ccc	n.a.		Substantial cash impairment crystallised, or about to, based on counterparty or systemic collection-level failures.	n.a.

Financial Profile Key Factors — EMEA Utilities

	Profitability and Cash Flow	Financial Structure	Financial Flexibility
Rating	**Free Cashflow**	**FFO Leverage**	**Financial Discipline**
aa	n.a.	n.a.	Publicly announced conservative financial policy. Record of strict compliance.
a	Structurally neutral to positive FCF across the investment cycle.	3.5x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	Structurally neutral to negative FCF across the investment cycle.	5.0x	Financial policies less conservative than peers but generally applied consistently.
bb	Structurally negative FCF across the investment cycle.	6.5x	Financial policy in place but flexibility in applying it could lead to downgrade guidelines being temporarily exceeded.
b	Structurally heavily negative FCF (more than 20% of EBITDA) across the investment cycle.	7.5x	No financial policy or record of ignoring it. Opportunistic behavior.
ccc	Negative FCF burden greater than all projected regulatory parameters, and negative operational cash flow the norm.	>9.0x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	Volatility of Profitability	**FFO Net Leverage**	**Liquidity**
aa	n.a.	n.a.	Very comfortable liquidity; no need to use external funding, except for already committed facilities, in the next 24 months even under a severe stress scenario. Well-spread debt maturity. Diversified sources of funding.
a	Higher stability and predictability of profits than utility peers.	3.0x	Very comfortable liquidity. No need to use external funding, except for already committed facilities, in the next 12 months even under a severe stress scenario. Well-spread debt maturity schedule. Diversified sources of funding.
bbb	Stability and predictability of profits in line with utility peers.	4.5x	One-year liquidity ratio above 1.25x. Well-spread debt maturity schedule but funding may be less diversified.
bb	Lower stability and predictability of profits than utility peers.	6.0x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
b	Stability and predictability of profits negative outliers relative to utility peers.	7.0x	Liquidity ratio below 1.0x. Overly reliant on one funding source.
ccc	Persistently and structurally break-even or loss-making.	>8.0x	No near-term prospect of recovery in liquidity score above 1.0x. All/most funding sources subject to material execution risk.
			FX Exposure
aa			No material FX mismatch.
a			Profitability potentially exposed to FX but efficient hedging. Debt and cash flows well matched.
bbb			Some FX exposure on profitability and/or debt/cash flow match. Effective hedging.
bb			FX exposure on profitability and/or debt/cash flow match. Some hedging but only partly effective.
b			Large FX exposure. No significant/ineffective hedging.
ccc			FX exposure dominant in impairing the issuer's ability to service debt in cash terms.
			FFO Interest Coverage
aa			n.a.
a			5.5x
bbb			4.5x
bb			3.5x
b			2.0x
ccc			Below 1.25x. All/most funding sources subject to material execution risk.

Asia-Pacific Utilities

Sector Risk Profile

Rating Range

Utilities have a lower-than-average risk profile. The sector's risk profile reflects the industry's low cyclicality and volatility for integrated participants, and returns backed by regulatory determinations. Exposure to political interference is mitigated where regulatory bodies are independent. Some operations in the value chain face higher market risks than others, the extent of which vary depending on the structure present in each country.

With relatively low operational and financial risks, utilities' ratings are likely to be clustered in the 'A'/'BBB' categories. Strong credit characteristics can lift the ratings up to 'A+'. Conversely, a weak operating environment, low integration or a weak asset base and financial profile can drag companies' ratings to the 'B' category.

Sector-Specific Key Factors

Asset Base and Operations

Good quality assets, a supportive cost base and thus merit order position, diversification, critical mass and strong performance measures are traits supporting cash flow predictability and countering some of the inherent exposure to demand and pricing patterns.

Market Position

Volume risk and counterparty exposure can be significantly different across geographies and supplied service. Price drivers and ability to pass through costs are important considerations.

Revenue Visibility and Regulatory Environment

We view vertical integration as a credit strength within the sector, as this typically reduces business risks and earnings volatility. High contribution of regulated or quasi-regulated earnings in predictable regulatory environments with low policy risk support utilities' credit profiles.

Financial Profile Key Factors

Financial Risk Profile

The financial profile factors show mid-points of leverage, interest coverage, financial flexibility and free cash flow (FCF) within relevant rating categories, potentially reaching 'A' category.

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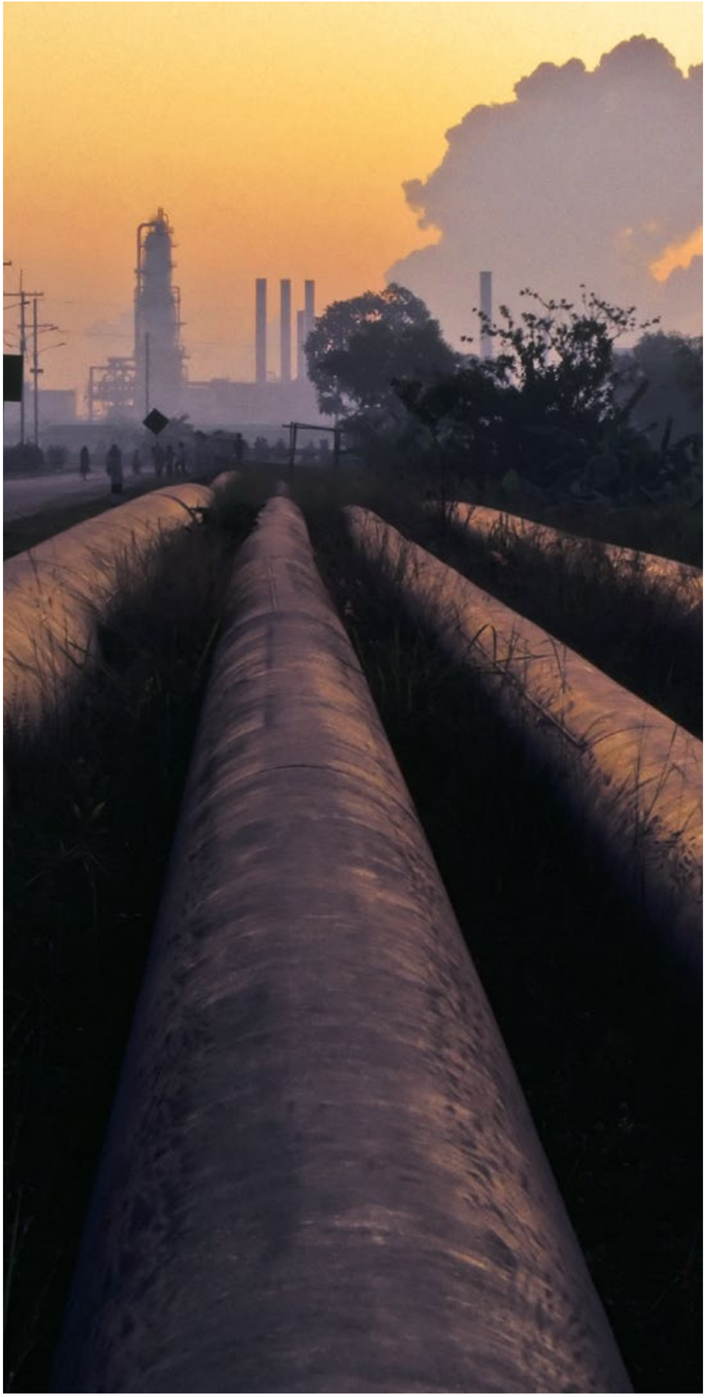
Asia-Pacific Utilities

Industry Characteristics



Utilities are capital-intensive businesses. During investment cycles, these businesses can be significantly FCF negative, using new debt to fund replacement and expansion capital expenditure. Utilities tend to have long-term debt maturity profiles with their long-term assets, comparatively predictable earnings and high financing requirements. In certain Asian countries with less developed capital markets, this may not be the case, with short-term, comparatively expensive financing used to fund the construction or maintenance of assets.

Operationally, utilities can be exposed to significant price risk, although this may be substantially mitigated by vertical integration, monopoly-like characteristics and/or effective hedging. They are also subject to varying degrees of volume risk.

Renewable Generation Companies

To rate renewable generation companies/utilities that invest in a diversified portfolio of existing wind and/or solar generation assets, Fitch uses the issuers' historical sustained renewable production as the starting point in the determination of its rating case production assumption and a suitable haircut based on observable factors as the starting point in the determination of its stress case production assumption. If, based on operational history and observable factors, the volatility of the natural resource and the uncertainty in the production forecast is high, a more conservative probability of exceedance scenario may be applied than if a less conservative scenario is assumed.

Sector-Specific Key Factors — Asia-Pacific Utilities

	Regulatory Environment	Asset Base and Operations	Market Position	Revenue Visibility
Rating	**Regulatory Framework and Policy Risk**	**Asset Quality**	**Fundamental Market Trends**	**Earnings From Regulated Network Assets**
aa	n.a.	n.a.	n.a.	n.a.
a	Transparent frameworks with strong record and multi-year predictable tariffs set by independent regulators; little political risk.	High asset quality: asset life, state of maintenance, low exposure to environmental costs, likely to benefit opex/ capex requirements.	Company has low exposure to changes in price and costs; Exposure to volume risk is low.	30-75% of EBITDA comes from regulated network assets
bbb	Less transparent frameworks, with emerging record and multi-year tariffs; exposed to political risk. Medium-term predictability.	Mid-range asset quality: asset life, state of maintenance, exposure to environmental costs, not-likely to benefit opex/ capex requirements.	Moderate exposure to price and volume risks, reasonably good ability to pass-through variations in costs	Less than 30% of EBITDA comes from high quality regulated network assets, more than 30% when including quasi-regulated assets
bb	Opaque or overly demanding frameworks with limited record, short-term tariffs; significant political risk.	Low asset quality likely to affect opex and capex requirements. High concession renewal risk, but diversification provides some protection.	Markets with structural challenges. Exposure to price risk is high and or costs past-through is allowed with long lags and uncertainty.	Less than 30% of EBITDA comes from regulated network assets
b	Opaque, arbitrary frameworks without record, short-term tariffs; significant political risk. Limited medium-term predictability.	Poor asset quality likely to affect opex and capex requirements. High level of concession renewal risk.	Markets with entrenched structural challenges.Very high exposure to volume or price risk. Cost pass-through not allowed or highly uncertain.	Minimal EBITDA comes from regulated networks or quasi-regulated assets
ccc	Regulatory framework formally or informally abandoned, with substantial uncertainty about future mechanisms.	Asset quality in state of disrepair, without near-term prospects of adequate opex and capex; concession disputed with authorities.	Exposure to failed market structures crystallised, or about to, with substantial negative cash flow implications.	n.a.
		Asset Diversity	**Customer Base**	**Degree of Integration**
aa		n.a.	n.a.	n.a.
a		High diversification by geography, generation source/ product; multi-jurisdictional utility, regional multi-utility or national monopoly	Economy of area served provides structurally stable background; average customer mix.	Vertically integrated (typically including generation, transmission, distribution, supply).
bbb		Partial diversification by geography, generation source or supplied product.	Economy of area served provide structurally stable background, some exposure to cyclical industries/ customers.	Partially integrated (typically including generation, distribution, supply).
bb		Limited diversification by geography, generation source or supplied product.	Structurally challenged economy of area served; some exposure to cyclical industries.	Minimal integration (typically limited to generation, supply).
b		No meaningful diversification by geography, generation source or supplied product or high asset concentration risk.	Structurally shrinking economy of area served. Sensitivity to extreme weather or disaster disruptions.	Minimal integration (small generators and/or extremely weak on merit order dispatch, supply).
ccc		Concentration in one location with significant disruptive economic characteristics impairing operations or cash collections.	Substantial cash impairment crystallised, or about to, based on counterparty or systemic collection-level failures.	n.a.
		Critical Mass	**Counterparty Risk**	**Natural Hedge and Cash-Flow Smoothing**
aa		n.a.	n.a.	n.a.
a		Critical mass in one asset/business line, not affecting efficiency of operations (cost base, customer base, key personnel).	Low counterparty risk. Diversified counterparties, pooled/codified counterparty risk; high collection rates for supply operations.	Strong portfolio/cash flow smoothing effects from extensive natural hedge. Presence of midstream assets; low exposure to fuel cost.
bbb		Asset base size potentially affecting efficiency of operations (cost base, customer base, key personnel).	Medium counterparty risk. Diversified counterparties, pooled/codified counterparty risk; high collection rates for supply operations.	Portfolio/cash flow smoothing effects from extensive natural or contractual hedge. Presence of midstream assets; high exposure to fuel cost.
bb		Small size affecting efficiency of operations (cost base, customer base, key personnel).	High counterparty risk. High customer concentration; supply operations with high doubtful debt levels.	Minimal portfolio/cash flow smoothing effects from natural or contractual hedge. Minimal midstream assets; high exposure to fuel cost.
b		Small size affecting efficiency of operations (cost base, customer base, key personnel) with high exposure to core asset failure.	High counterparty and event risk. Counterparty concentration or weak credit profiles; supply operations with high doubtful debt levels.	No portfolio/cash flow smoothing effects from natural or contractual hedge. Lack of midstream assets; high exposure to fuel cost
ccc		Customer base, key personnel or material operational facilities experiencing a level of flux that significantly impairs cash generation.	Substantial cash impairment crystallised, or about to, based on counterparty or systemic collection-level failures.	Substantial cash impairments crystallized, or about to, due to the failure of derivative and physical hedging measures.
		Operational Performance	**Market Position**	
aa		n.a.	n.a.	
a		Key performance measures (availability rates, environmental indicators, safety, efficiencies) above industry average.	Strong market position due to a combination of structural factors and effective hedging. Cost of production below market clearing price.	
bbb		Key performance measures (availability rates, environmental indicators, safety, efficiencies) on par with industry average.	Average market position. Cost of production close to market clearing price or reasonably good ability to pass-through costs.	
bb		Key performance measures (availability rates, environmental indicators, safety, efficiencies) below industry average.	Weak market position. Limited ability to pass-through costs affecting margins or production costs at time above market clearing price.	
b		Key performance measures (availability rates, environmental indicators, safety, efficiencies) at the bottom of industry.	Niche market position in competitive markets. Cost of production often above market clearing price or weak ability to pass-through costs.	
ccc		Subject to advanced regulatory intervention based on operational performance, with material risks for licence/concession ownership.	Uncompetitive cost position and unsustainable market presence, with substantial negative cash flow implications.	

Financial Profile Key Factors — Asia-Pacific Utilities

	Profitability	Financial Structure	Financial Flexibility
Rating	**Free Cash Flow**	**EBITDA Leverage**	**Financial Discipline**
aa	n.a.	n.a.	Publicly announced conservative financial policy. Record of strict compliance.
a	Structurally neutral to positive FCF across the investment cycle	3.2x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	Structurally neutral to negative FCF across the investment cycle	4.2x	Financial policies less conservative than peers but generally applied consistently.
bb	Structurally negative FCF across the investment cycle	5.7x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
b	Structurally heavily negative FCF across the investment cycle	6.7x	No financial policy or record of ignoring it. Opportunistic behavior.
ccc	Negative FCF burden exceeding all projected regulatory parameters, and negative operational cash flow the norm.	8.5x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis mode environment.
	Volatility of Profitability	**EBITDA Net Leverage**	**Liquidity**
aa	n.a.	n.a.	Very comfortable liquidity; no need to use external funding, except for already committed facilities, in the next 24 months even under a severe stress scenario. Well-spread debt maturity. Diversified sources of funding.
a	Higher stability and predictability of profits relative to utility peers	2.7x	Very comfortable liquidity. No need to use external funding, except for already committed facilities, in the next 12 months even under a severe stress scenario. Well-spread debt maturity schedule. Diversified sources of funding.
bbb	Stability and predictability of profits in line with utility peers	3.7x	One year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
bb	Lower stability and predictability of profits relative to utility peers	5.2x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
b	Stability and predictability of profits viewed as negative outliers relative to utility peers	6.2x	Liquidity ratio below 1.0x. Overly reliant on one funding source.
ccc	Persistently and structurally break-even or loss-making.	7.5x	No near-term prospect of recovery in liquidity score above 1.0x. All/most funding sources are subject to material execution risk.
		FFO Leverage	**FX Exposure**
aa		n.a.	No material FX mismatch.
a		3.5x	Profitability potentialy exposed to FX but efficient hedging in place. Debt and cash flow well-matched.
bbb		4.5x	Some FX exposure on profitability and/or debt/cash flow match. Effective hedging in place.
bb		6.0x	FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b		7.0x	Large FX exposure. No significant/ineffective hedging in place.
ccc		>9.0x	FX exposure dominant in impairing the issuer's ability to service debt in cash terms.
		FFO Net Leverage	**EBITDA Interest Coverage**
aa		n.a.	n.a.
a		3.0x	6.0x
bbb		4.0x	4.8x
bb		5.5x	4.0x
b		6.5x	2.0x
ccc		>8.0x	1.0x
			FFO Interest Coverage
aa			n.a.
a			5.0x
bbb			4.5x
bb			3.5x
b			2.0x
ccc			Net FCF debt service cover below 1.0x. All/most funding sources subject to material execution risk.

Latin America Utilities

Sector Risk Profile

Rating Range

Latin American utilities and regulated networks have an average-to-lower-than-average risk profile. The sector's risk profile ranges from 'B' to 'A' rating categories, with (in Fitch Ratings' view) the electricity transmission subsector having the lowest level of business risk, followed by fairly diversified, vertically integrated utilities. Fitch views utilities operating in weak regulatory frameworks with frequent and uncertain tariff reviews as having a higher level of business risk.

A significant portion of ratings in the sector are clustered in the 'BB' and 'BBB' rating categories. The 'A' rating level could be assigned to issuers operating under a solid regulatory framework and with strong credit characteristics such as an operational record, limited commodity risk, and a conservative management strategy coupled with a strong capital structure.

Sector-Specific Key Factors

Regulatory Environment

This Key Factor assesses the independence and transparency of the regulatory framework under which a utility operates. Fitch Ratings sees a well-established regulatory system with transparent rules, free of political influences and economic cost-based tariffs as conducive to investment-grade ratings.

Commodity Exposure

Effective mechanisms for matching pricing to commodity inputs' costs or no commodity procurement exposure are expected for investment-grade ratings. At times, the offtakers' credit quality can affect an issuer's ability to transfer commodity exposure.

Asset Base and Operations

This factor assesses a company's physical infrastructure with respect to age, technology, cost competitiveness and reliability of operations that may influence its relative price competitiveness and drive capital reinvestment needs.

Market Position

This captures the stability and growth profile of demand and whether or not the utility has an explicit monopoly license or high barriers to entry.

Financial Profile Key Factors

Financial Profile

The financial metrics are mostly standard corporate rating methodology ratios encompassing gross leverage and coverage ratios, and cash flow measures up to the 'A' rating category. Fitch analyses the issuer's capital structure to ensure it is commensurate with the cash flow stability and predictability of the relevant rating level.

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Latin America Utilities

Industry Characteristics

The Latin American electricity, gas and water utilities sector encompasses a range of risk profiles and business interests. This includes regulated, integrated or state-owned utilities; water services; gas distribution; and electricity transmission companies. Operational and business risks are important elements in determining a rating. These risks often vary greatly from one company to another, even within the same sector.

The rating evaluation of an electricity, gas or water utility or generator includes the qualitative and quantitative risks associated with a company's business and corporate structure in combination with its financial strength and liquidity. The financial assessment emphasises cash flow financial measures rather than equity- or earnings-based ratios. The analytical focus is on the adequacy of the issuer's expected cash flow relative to its fixed charges, debt obligations and capex, as well as its capital structure and liquidity.

Qualitative factors with the most significant credit effect include the regulatory and political environment in which the utility operates; in particular, factors such as price-setting and cost-recovery mechanisms, the transparency and predictability of the regulatory regime, exposure to competition, and the nature of the customer franchise. Fitch considers the regulatory and political environments in Chile, Colombia and Peru to be the most constructive for utility companies. This contrasts with the regulatory and political environments of Argentina and Venezuela.

Unfavorable regulatory policies and unpredictable regulatory outcomes (i.e. a lack of a transparent or independent regulatory process) are among the largest risk factors for regulated utilities. This increases cash flow volatility and negatively affects ratings. If the jurisdiction's rate-setting climate is confiscatory or capricious, a utility cannot uproot its assets and move to a more attractive jurisdiction. A utility may be obliged to meet levels of service quality or specific investment levels that exceed the utility's financial capability or ability to attract capital. In markets in which the regulatory authority's goal is to reduce end-user prices, utility tariffs may be lowered to the point that no further economies can be extracted from the expense base, and profit margins and financial protection measures are eroded as a result. Disallowing or significantly delaying the recovery of prudently incurred costs would cause similarly unfavorable results and negatively affect credit quality.

In evaluating the regulatory environment, Fitch considers both the laws that dictate the terms and conditions of utility service provision as well as commonly employed policies and recent regulatory actions. We incorporate the review of the regulatory environment in the analysis of the utility's business risk and financial condition. The tariff-setting procedure is often the most critical regulatory factor that affects regulated utilities.

Fitch's operational and business evaluation considers the degree to which the utility has financial exposure to variations in commodity costs and, in the case of utilities, the responsibility for reliable supply. For example, one key consideration for Fitch when assessing Central American and Caribbean utility companies is those countries' dependence on hydrocarbon imports to power their generation facilities. Fitch carefully assesses the structure of utility contracts and how they account for possible variations in commodity prices to assess the credit quality of utility companies in these countries. The business risk profile is also influenced by other factors that affect the predictability or volatility of a utility's cash flow.

Sector-Specific Key Factors — Latin America Utilities

	Regulatory Environment	Commodity Exposure	Market Position	Asset Base and Operations
Rating	**Independence**	**Price and Volume Risk**	**Consumption Growth Trend**	**Asset Diversity**
aa	n.a.	n.a.	n.a.	n.a.
a	Strong regulatory independence from central government.	Company has low exposure to changes in price and costs (i.e. all costs are timely passed through). Exposure to volume risk is low.	Economically vibrant market or service territory with strong sales growth.	High quality and/or large-scale diversified assets.
bbb	Low government interference in utility regulations.	Moderate exposure to price risk. Long-term contracts provide high revenue visibility and most costs variations are passed through.	Customer and usage growth in line with industry averages.	Good quality and/or reasonable scale diversified assets.
bb	Moderate government Interference in utility regulations.	High price risk exposure and/or long and uncertain cost pass-throughs. Company operates with some exposure to spot price volatility.	Exposure to declining usage or volumes, or self-generation.	Small size and/or limited diversification.
b	Strong government interference in utility regulations.	Uncontracted revenues. High price risk exposure. Highly uncertain cost pass-throughs. Capacity payments do not cover fixed costs.	Rapidly shrinking market or service territory and falling unit consumption.	Low quality, small size and highly concentrated assets.
ccc	Regulatory framework formally or informally abandoned, with substantial uncertainty around future mechanisms.	Direct exposure to failed market pricing structures crystallized, or about to, with substantial negative cash flow implications.	Concentration in one location with disruptive economic or logistical characteristics, significantly impairing either operations or cash collections.	Asset quality in state of disrepair, without near-term prospects of adequate opex and capex; concession continuity disputed with authorities.
	Balance	**Counterparty Risk**	**Customer Mix**	**Reliability of Operations and Cost Position**
aa	n.a.	n.a.	n.a.	n.a.
a	Balanced framework between end users' and sector participants' needs. It seeks low tariffs for users and attractive return on capital.	Weighted average credit quality of actual and potential offtakers is in line with 'A' rating.	Well diversified customer mix.	Record of reliable, low-cost operations with low operating losses.
bbb	Regulatory framework is moderately biased toward the needs of end users at the expense of sector participants.	Weighted average credit quality of actual and potential offtakers is in line with 'BBB' rating.	Somewhat diversified customer base.	Reliability and cost of operations at par with industry averages with moderate operating losses.
bb	Regulatory framework is biased toward the needs of end users at the expense of sector participants.	Weighted average credit quality of actual and potential offtakers is in line with 'BB' rating.	High concentration of customers.	Below average system reliability and cost structure with high operating losses.
b	Regulatory framework is strongly biased toward the needs of end users at the expense of sector participants.	Weighted average credit quality of actual and potential offtakers is in line with 'B' rating.	High concentration to risky, less-creditworthy customers.	Poor system reliability and disadvantageous cost structure with high operating losses.
ccc	Regulatory framework formally or informally abandoned, with substantial uncertainty around future mechanisms.	Weighted-average credit quality of actual and potential offtakers in line with 'CCC' rating.	Substantial cash impairment crystallized, or about to, based on counterparty or systemic collection-level failures.	Subject to advanced regulatory intervention with material risks for concession ownership/preservation of capital structure.
	Transparency		**Geographic Location**	**Exposure to Environmental Regulations**
aa	n.a.		n.a.	n.a.
a	Clear tariff structure, predictable and timely; limited subsidies; companies recover costs of service from end users through tariffs.		Favorable location or high geographic diversity.	No exposure to environmental regulations.
bbb	The tariff-setting procedure is transparent and includes the participation of industry participants.		Beneficial location or reasonable locational diversity.	Limited or manageable exposure to environmental regulations.
bb	Somewhat transparent tariff settings, not timely, and may not include the participation of industry participants.		High sensitivity to extreme weather or disaster disruptions.	Significant exposure to environmental regulations.
b	The tariff-setting procedure is unclear and does not include the participation of industry participants.		High exposure to event risk.	Merchant generator with a material exposure to highly polluting technology.
ccc	Regulatory framework formally or informally abandoned, with substantial uncertainty around future mechanisms.		Concentration in one location with disruptive economic or logistical characteristics, significantly impairing either operations or cash collections.	Substantial cash impairment crystallized, or about to, based on multiple, punitive environmental cost burdens.
	Recourse of Law		**Supply Demand Dynamics**	**Capital and Technological Intensity of Capex**
aa	n.a.		n.a.	n.a.
a	Procedures to appeal regulatory rulings are clear and processing periods short. Companies can oppose or comment on regulations.		Beneficial outlook for prices and rates.	Low levels of reinvestment requirements.
bbb	Procedures to appeal regulatory rulings are clear but long processing periods. Companies can oppose or comment on regulations.		Moderately favorable outlook for prices and rates.	Moderate reinvestment requirements in established technologies.
bb	Procedures to appeal rulings are lengthy; appeals could be untested; companies can comment on regulations.		Uncertain outlook for prices and rates.	Reinvestment concentrated in capital-intensive or unproven technologies.
b	Procedures to appeal rulings are unclear or nonexistent, and companies have limited participation on regulations.		Unfavorable outlook for prices and rates.	High exposure to execution risk for projects involving large outlays or unproven technologies.
ccc	Regulatory framework formally or informally abandoned, with substantial uncertainty around future mechanisms.		Severe market imbalance caused by supply deficit.	Substantial cash impairment crystallized, or about to, based on the failure or cost over-run of a major project.
	Timeliness of Cost Recovery			
aa	n.a.			
a	Minimal lag to recover capital and operating costs.			
bbb	Moderate lag to recover capital and operating costs.			
bb	Significant lag to recover capital and operating costs.			
b	Material delays in recovering capital and operating costs.			
ccc	Regulatory framework formally or informally abandoned, with substantial uncertainty around future mechanisms.			

Financial Profile Key Factors — Latin America Utilities

	Profitability	Financial Structure	Financial Flexibility
Rating	**Volatility of Profitability**	**EBITDA Leverage**	**Financial Discipline**
aa	n.a.	n.a.	Publicly announced conservative financial policy. Record of strict compliance.
a	Higher stability and predictability of profits relative to utility peers.	<2.5x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	Stability and predictability of profits in line with utility peers.	4.0x	Less conservative policy but generally applied consistently.
bb	Less stability and predictability of profits relative to utility peers.	5.0x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines
b	Stability and predictability of profits viewed as negative outliers relative to utility peers.	6.0x	No financial policy or record of ignoring it. Opportunistic behavior.
ccc	Volatility of profits greater than normal bounds of volatility for corporate sector as a whole.	>8.0x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	Free Cash Flow	**EBITDA Net Leverage**	**Liquidity (Cash+CFO)/S-T Debt**
aa	n.a.	n.a.	Very comfortable liquidity; no need to use external funding, except for already committed facilities, in the next 24 months even under a severe stress scenario. Well-spread debt maturity. Diversified sources of funding.
a	Structurally neutral to positive FCF across the investment cycle.	2.0x	Very comfortable liquidity. No need to use external funding, except for already committed facilities, in the next 12 months even under a severe stress scenario. Well spread debt maturity schedule. Diversified sources of funding.
bbb	Structurally neutral to negative FCF across the investment cycle.	3.5x	One year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
bb	Structurally negative FCF across the investment cycle.	4.3x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
b	Structurally heavily negative FCF across the investment cycle.	5.0x	Liquidity ratio below 1.0x. Overly reliant on one funding source.
ccc	Negative FCF burden greater than all projected regulatory parameters, and negative operational cash flow the norm.	7.0x	No near-term prospect of recovery in liquidity score above 1.0x. All/most funding sources subject to material execution risk.
		FFO Leverage	**FX Exposure**
aa		n.a.	No material FX mismatch.
a		<2.5x	Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flows well-matched.
bbb		4.25x	Some FX exposure on profitability and/or debt/cash flow match. Effective hedging in place.
bb		5.75x	FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b		6.75x	Large FX exposure. No significant/ineffective hedging in place.
ccc		>8.0x	FX exposure dominant in impairing the issuer's ability to service debt in cash terms.
		FFO Net Leverage	**EBITDA Interest Coverage**
aa		n.a.	n.a.
a		<2.0x	6.5x
bbb		3.5x	5.5x
bb		5.0x	4.5x
b		6.0x	3.0x
ccc		>7.5x	1.0x
			FFO Interest Coverage
aa			n.a.
a			5.5x
bbb			4.5x
bb			3.5x
b			2.0x
ccc			Net FCF debt service cover less than 1.0x. All/most funding sources subject to material execution risk.

North American Utilities

Sector Risk Profile

Rating Range

Regulated utilities, which include integrated electric utilities, electric transmission and distribution utilities, regulated electric transmission companies and local gas distribution utilities, can be rated up to the 'A' category. Utility parent companies that own a mix of regulated and nonregulated businesses also tend to be rated up to the 'A' category, while the nonregulated businesses, such as competitive generators, retail electric and gas providers and propane distributors rarely exceed the 'BBB' rating category. North America in this Navigator refers to the U.S. and Canadian market.

Sector-Specific Key Factors

Regulatory Environment

This Key Factor assesses the regulatory framework in which a utility operates. The nature of tariff-setting mechanisms, consistency in rule-making and regulatory outcomes, and the level of political influence exerted on regulations have a significant bearing on the stability of cash flows. State regulatory frameworks do not affect a competitive generator by a similar magnitude, yet regulatory and political interests can still interfere with market mechanisms.

Market Position

This factor considers customer mix, economic health and vibrancy of a service territory, and sensitivity of sales and cash flows to extreme weather or disaster disruptions. Location plays an important role for a competitive generator, since power prices are driven by the demand/supply balance, fuel mix and prices of key fuel inputs in a region.

Asset Base and Operations

This factor assesses a company's physical infrastructure with respect to age, technology, cost competitiveness and reliability of operations that may influence its relative price competitiveness and drive capital reinvestment needs.

Commodity Exposure

This factor measures the insulation provided in regulated tariff mechanisms against variability in commodity costs. For a competitive generator, this factor assesses the hedging practices employed to mitigate the effect of fuel and selling price volatility.

Financial Profile Key Factors

The financial profile factors show midpoints of leverage (based on FFO and EBITDA), FFO interest cover, volatility of profitability and level of FCF within relevant rating categories, potentially reaching the 'A' category.

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North American Utilities

Industry Characteristics

The overall risk profile of the sector is characterized by strong defensive qualities since the demand for electricity and natural gas tends to be relatively noncyclical and inelastic, in particular for residential customers. The sector exhibits high capital intensity. New electricity generation and transmission usually involves significant capital investment, often with long lead times. Electricity and gas distribution services typically require significant maintenance capex to ensure reliability and safety of the service. During investment cycles, these businesses can be significantly FCF negative, thus requiring external financing to fund expansion and replacement capex.

State regulation has a material bearing on the risk profile of the sector as certain states in the U.S. and provinces in Canada have deregulated electricity generation while the rest continue to follow the legacy structure of fully vertically integrated regulated utilities. Companies that provide utility service with monopolistic service territories are typically subject to tariff regulation and regulatory oversight of their service levels and terms of service, and generate relatively stable and predictable cash flow. Competitive generation companies bear the full risk of market competition and can be exposed to significant price and volume risk, although these risks can be substantially mitigated by long-term fuel and power sales agreements and/or effective hedging.

The rated issuers in the North American Utilities sector exhibit a wide range of participants from multi-utility giants to smaller, specialized participants. As such, this sector exhibits both segmentation and diversity of business risk profiles.

Given the sector risk profile described above, the following summary indicates risk characteristics of North American Utilities commensurate with different rating categories for the Issuer Default Ratings (IDRs).

Fully Regulated Utilities: 'A+' to Speculative Grade

These businesses provide electric and/or gas services in natural monopolies and are subject to conducive tariff regulation. There exists significant regulatory oversight regarding costs of service, operating performance, financing and other strategic activities.

These include electric transmission and distribution utilities, vertically integrated electric utilities, regulated transmission companies and local gas distribution companies. These companies bear little or no commodity sensitivity and relatively modest cyclical or volumetric risk, and generate relatively stable and predictable cash flow profiles.

Utility Parent Companies: 'A+' to Speculative Grade

These holding companies by themselves are rated lower than their operating subsidiaries, but when they have varied holdings, as described above, company-specific traits may provide rating uplifts to the 'A' category.

These companies may be passive investors or operationally integrated with their operating subsidiaries, providing centralized treasury activities and operational or administrative services. The overall earnings stream is a function of the underlying business portfolio of utility and/or non-utility activities.

Utility holding companies may own competitive businesses that do not have a market monopoly position and are thus exposed to market competition.

These include competitive power generators, retail electric and gas providers, and propane distributors. These companies are subject to greater commodity sensitivity, market risk or cyclical variation.

Renewable Generation Companies

To rate renewable generation companies/utilities that invest in a diversified portfolio of existing wind and/or solar generation assets, Fitch uses the issuers' historical sustained renewable production as the starting point in the determination of its rating case production assumption and a suitable haircut based on observable factors as the starting point in the determination of its stress case production assumption. If, based on operational history and observable factors, the volatility of the natural resource and the uncertainty in the production forecast is high, a more conservative probability of exceedance scenario may be applied; if low, then a less conservative scenario would be assumed.

Sector-Specific Key Factors — North American Utilities

	Regulatory Environment	Market Position	Asset Base and Operations	Commodity Exposure
Rating	**Degree of Transparency and Predictability**	**Market Structure**	**Diversity of Assets**	**Ability to Pass Through Changes in Fuel**
aa	n.a.	n.a.	n.a.	n.a.
a	Record of transparent and predictable regulation.	Well-established market structure with complete transparency in price-setting mechanisms.	High-quality and/or large-scale diversified assets.	Complete pass-through of commodity costs.
bbb	Generally transparent and predictable regulation with limited political interference.	Established market structure but some level of uncertainty in price-setting mechanisms.	Good quality and/or reasonable scale diversified assets.	Limited exposure to changes in commodity costs.
bb	Poor or uncertain record of regulation and high political interference.	Still evolving market structure and uncertain price-setting mechanisms.	Small size and limited diversification.	Inability to pass through all changes in commodity costs.
b	Hostile regulatory or political jurisdiction or frequent regulatory interference in market-based mechanisms.	High risk to market structure from regulatory or political interference.	Low quality, small size and highly concentrated assets.	High exposure to commodity price changes.
ccc	Regulatory framework formally or informally abandoned, with substantial uncertainty around future mechanisms.	Market framework formally or informally abandoned, with substantial uncertainty around future mechanisms.	n.a.	Substantial cash impairments crystallized or about to as a result of the failure of derivative and physical hedging measures.
	Timeliness of Cost Recovery	**Consumption Growth Trend**	**Operations Reliability and Cost Competitiveness**	**Underlying Supply Mix**
aa	n.a.	n.a.	n.a.	n.a.
a	Minimal lag to recover capital and operating costs.	Economically vibrant market or service territory with strong sales growth.	Record of reliable, low-cost operations.	Extremely low cost and flexible supply.
bbb	Moderate lag to recover capital and operating costs.	Customer and usage growth in line with industry averages.	Reliability and cost of operations at par with industry averages.	Low variable costs and moderate flexibility of supply.
bb	Significant lag to recover capital and operating costs.	Exposure to declining usage or volumes or self-generation.	Below-average system reliability and cost structure.	High variable costs and limited flexibility of supply.
b	Material delays in recovering capital and operating costs.	Rapidly shrinking market or service territory and falling unit consumption.	Poor system reliability and disadvantageous cost structure.	Extreme variability in costs and minimal flexibility of supply.
ccc	Regulatory framework formally or informally abandoned, with substantial uncertainty around future mechanisms.	Customer base, key personnel or material operational facilities experiencing a level of flux that significantly impairs cash generation.	Subject to advanced regulatory intervention with material risks for concession ownership/preservation of capital structure.	Substantial cash impairments crystallized or about to as a result of the failure of supply purchasing strategies.
	Trend in Authorized ROEs	**Customer Mix**	**Exposure to Environmental Regulations**	**Hedging Strategy**
aa	n.a.	n.a.	n.a.	n.a.
a	Above-average authorized ROE.	Favorable customer mix.	No exposure to environmental regulations.	Highly captive supply and customer base.
bbb	Average authorized ROE.	Less diversified customer base.	Limited or manageable exposure to environmental regulations.	Long-term supply and sales contracts with creditworthy counterparties.
bb	Significantly below-average authorized ROE.	High concentration of customers in cyclical industries.	Significant exposure to environmental regulations.	Medium-term hedging strategy for supply and sales.
b	Absence of regulatory ROE.	High concentration to risky, less creditworthy customers.	Merchant generator with a material exposure to highly polluting technology.	Minimal hedging of supply and sales or highly speculative trading positions.
ccc	Regulatory framework formally or informally abandoned, with substantial uncertainty around future mechanisms.	Substantial cash impairment crystallized or about to, due to counterparty failures, including systemic collection failures.	Substantial cash impairment crystallized, or about to, due to multiple, punitive environmental cost burdens.	Substantial cash impairments crystallized or about to as a result of the failure of derivative and physical hedging measures.
	Mechanisms Available to Stabilize Cash Flows	**Geographic Location**	**Capital and Technological Intensity of Capex**	
aa	n.a.	n.a.	n.a.	
a	Revenues fully insulated from variability in consumption.	Favorable location or high geographic diversity.	Low levels of reinvestment requirements.	
bbb	Revenues partially insulated from variability in consumption.	Beneficial location or reasonable locational diversity.	Moderate reinvestments requirements in established technologies.	
bb	Revenues fully exposed to variability in consumption.	High sensitivity to extreme weather or disaster disruptions.	Reinvestment concentrated in capital-intensive or unproven technologies.	
b	Revenues fully exposed to declining consumption.	High exposure to event risk.	High exposure to execution risk for projects involving large outlays or unproven technologies.	
ccc	Regulatory framework formally or informally abandoned, with substantial uncertainty around future mechanisms.	Concentration in one location with disruptive economic or logistical characteristics impairing either operation or cash collections	Substantial cash impairment crystallized, or about to, due to the failure or cost over-run of a major project.	
	Mechanisms Supportive of Creditworthiness	**Supply Demand Dynamics**		
aa	n.a.	n.a.		
a	Effective regulatory ring-fencing.	Beneficial outlook for prices/rates.		
bbb	Effective regulatory ring-fencing or minimum creditworthiness requirements.	Moderately favorable outlook for prices/rates.		
bb	Limited regulatory ring-fencing or minimum creditworthiness requirements.	Uncertain outlook for prices/rates.		
b	Absence of minimum creditworthiness requirements.	Extremely unfavorable outlook for prices/rates.		
ccc	Regulatory framework formally or informally abandoned, with substantial uncertainty around future mechanisms.	Direct exposure to failed market structures crystallized or about to, with substantial negative cash flow implications.		

Financial Profile Key Factors — North American Utilities

	Profitability	Financial Structure	Financial Flexibility
Rating	**Free Cash Flow**	**EBITDA Leverage**	**Financial Discipline**
aa	n.a.	n.a.	Publicly announced conservative financial policy. Record of strict compliance.
a	Structurally neutral to positive FCF across the investment cycle.	3.25x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	Structurally neutral to negative FCF across the investment cycle.	3.75x	Less conservative policy, but generally applied consistently.
bb	Structurally negative FCF across the investment cycle.	4.75x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
b	Structurally heavily negative FCF across the investment cycle.	6.0x	No financial policy or record of ignoring it. Opportunistic behavior.
ccc	Negative FCF burden greater than all projected regulatory parameters, and negative operational cash flow the norm.	>8.0x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	Volatility of Profitability	**FFO Leverage**	**Liquidity**
aa	n.a.	n.a.	Very comfortable liquidity; no need to use external funding, except for already committed facilities, in the next 24 months even under a severe stress scenario. Well-spread debt maturity. Diversified sources of funding.
a	Higher stability and predictability of profits relative to utility peers.	3.5x	Very comfortable liquidity. No need to use external funding, except for already committed facilities, in the next 12 months even under a severe stress scenario. Well-spread debt maturity schedule. Diversified sources of funding.
bbb	Stability and predictability of profits in line with utility peers.	5.0x	One-year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
bb	Lower stability and predictability of profits relative to utility peers.	6.5x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
b	Stability and predictability of profits viewed as negative outliers relative to utility peers.	7.0x	Liquidity ratio below 1.0x. Overly reliant on one funding source.
ccc	Volatility of profits greater than normal bounds of volatility for corporate sector as a whole.	>9.0x	No near-term prospect of recovery in liquidity score above 1.0x. All/most funding sources subject to material execution risk.
			FFO Interest Coverage
aa			n.a.
a			5.5x
bbb			4.5x
bb			3.5x
b			2.0x
ccc			Net FCF debt service cover below 1.0x. All/most funding sources subject to material execution risk.

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