# Sector Navigators

## Addendum to the Corporate Rating Criteria

#### Scope

Sector Navigators provide guidance for the application of the concepts of the Corporate Rating Criteria to the issuers in the sector the Navigator covers. The Generic Navigator can be used if no appropriate sector Navigator exists. Certain issuers may straddle several sectors, in which case Fitch 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 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 impacting the rating not included in the Navigator. These include in particular cross-sector criteria considerations such as Country Ceiling or the impact of parent-subsidiary relationships.

An issuer's IDR would normally be expected to lie within the three-notch band centred around any reasonable combination of the mid-points of the Navigator's Key Factors. Where this is not the case the difference will be fully explained by the other factors described in the Rating Derivation. Navigators are not expected to be used when issuers fall under the remit of separate sector-specific criteria (investment holding companies in particular).

#### **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 the Key Rating Factors described in the Corporate Rating Criteria (see table below).

#### **Key Rating Factors as per Corporate Rating Criteria**

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

## Source: Fitch

#### **Three-Notch Band**

Each Key Factor is captured on the Navigator as a three-notch wide range rather than a notch-specific assessment as the latter would be artificially precise.

This criteria report updates and replaces Exposure Draft: Sector Navigators, dated December 2017

#### **Related Criteria**

Corporate Rating Criteria

#### **Analysts**

#### Richard Hunter

+44 20 3530 1102

richard.hunter@fitchratings.com

#### Michael Dunning – EMEA

+44 20 3530 1178

michael.dunning@fitchratings.com

#### Mike Simonton – U.S.

+1 312 368 3138

mike.simonton@fitchratings.com

#### Daniel Kastholm - Latin America

+1 312 368 2070

 $daniel. kas tholm \verb"Q" fitch ratings.com"$ 

#### Buddhika Piyasena – Asia-Pacific

+65 6796 7223

buddhika.piyasena@fitchratings.com

## Frédéric Gits - Criteria

+33 1 44 29 91 84

frederic.gits@fitchratings.com

#### Relative Importance

All factors are deemed to be of importance in determining the rating but a relative importance indicator assigned to each Issuer Navigator individually shows which factors are exerting greater or lesser influence on the final rating at the time of the analysis.

# Sector Navigators

## Addendum to the Corporate Rating Criteria

#### Information and Limitations (including Data Sources)

Please refer to the Corporate Rating Criteria.

#### **Rating Sensitivities**

Please refer 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 assisting market participants in understanding the analysis behind our ratings.

A rating committee may adjust the application of these 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, but where the analysis described in the criteria requires modification to address factors specific to the particular transaction or entity.

This report should be read in conjunction with the Corporate Rating Criteria.



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# 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.

#### **Sector Trend**

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.

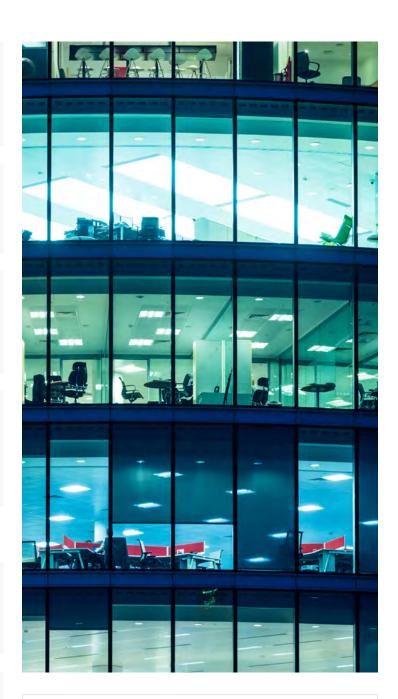
### **Financial Profile Key Factors**

#### **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.



#### Frédéric Gits

frederic.gits@fitchratings.com (+33) 144 299 184



## Sector-Specific Key Factors – Generic Navigator

	Sector Competitive Intensity	Sector Trend	Company's Market Position	Diversification
Rating	Industry Structure	Long-Term Growth Potential	Market Share	Geographic Diversification
a	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.
	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 player in most markets or leader in a well defined and protected niche.	Strong diversification but balance between emerging and growth markets could be better.
bb	Larger number of competitors with some track record of price discipline in downturns.	Mature industry. Traditional markets may be under some pressure but opportunities arise in new markets.	Top-five player 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.
)	Highly competitive industry with multiple players of comparable size.	Industry in slow decline.	Predominantly second-tier player.	Modest geographical diversification.
	Track record of aggressive and opportunistic competitive behavior.	Industry in rapid decline. Players will have to consolidate to survive.	Small player.	Concentrated in one region.
CC	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 player.	Concentrated in an especially disadvantaged region.
	Barriers to Entry/Exit	Volatility of Demand	Competitive Advantage	Product/End-Market
a	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.
	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.
bb	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.
b	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.
	No barrier to entry/exit. Number of industry players follow the cycle.	Highly cyclical and difficult to predict.	No competitive advantage.	One product/market concentration.
СС	No barriers to entry, and industry has a high and/or rapidly accelerating rate of attrition of market players.	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	
a	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.	
	Stronger bargaining power than suppliers and customers.	Substitutes exist but are of lower fundamental quality.	Higher than average return on invested capital.	
bb	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.	
b	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.	
	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.	
DC .	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	FFO Margin	Lease Adjusted FFO Gross Leverage	Financial Discipline
aa	17%	1.5x	Publicly announced conservative financial policy. Track record of strict compliance.
a	14%	2.5x	${\it Clear commitment to maintain a conservative policy with only modest deviations allowed.}$
bbb	12%	3.5x	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%	6.0x	No financial policy or track record of ignoring it. Opportunistic behavior.
ccc	Persistently and structurally break-even or loss-making at FFO level.	>8.0x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	EBIT Margin	Lease Adjusted FFO Net Leverage	Liquidity
aa	17%	1.0x	Very comfortable liquidity, no need to use external funding in the next 24 months. Well-spread debt maturity. Diversified sources of funding.
a	14%	2.0x	Very comfortable liquidity. 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%	3.5x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
b	7%	5.5x	Liquidity ratio below 1.x. 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.
	FCF Margin	Net Debt/(CFO - Capex)	FFO Fixed Charge Cover
aa	7%	1.0x	10x
a	350%	20x	6x
bbb	250%	2.5x	4x
bb	1%	3.5x	3x
b	Neutral to negative FCF margin.	6.0x	2x
ccc	Widening negative FCF margin, with limited/no flexibility on spending reduction and funding gaps.	>8.0x	Net FCF debt service cover < 1.0x. All/most funding sources subject to material execution risk
	Volatility of Profitability	Lease Adjusted Gross Debt/EBITDAR	FX Exposure
aa	Volatility of profits viewed as a positive outlier for the industry.	1.0x	No material FX mismatch.
a	Lower volatility of profits than industry average.	2.0x	Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flows well-matched.
bbb	Volatility of profits in line with industry average.	3.0x	Some exposure of profitability to FX movements and/or debt/cash-flow match. Effective hedging in place.
bb	Higher volatility of profits than industry average.	3.5x	Some exposure of profitability to FX movements 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	$\label{thm:local_problem} Volatility of profits exceeds normal bounds of volatility for corporate sector as a whole.$	>7.0x	FX exposure dominant in impairing the issuer's ability to service debt in cash terms.
	EBITDAR Margin	Funding Structure (LBO only)	EBITDAR/(Gross Interest + Rents)
aa	25%	n.a.	13x
a	22%	na.	7.0x
bbb	20%	na.	45x
bb	18%	Moderately complex parity of debt creditor interests.  Some flexibility for new funding to be obtained in a manner supporting existing debt creditors.	35x
b	15%	Complex interaction of debt creditor interests. Limited flexibility for new funding to be obtained in a manner supporting existing debt creditors.	20x
ccc	Persistently and structurally break-even or loss-making at EBITDAR level.	Highly complex interaction of debt-creditor interests. Additional funding challenging to obtain in a manner supporting existing debt creditors.	1.5xor below

# 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 players 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 impact demand. Ratings can be as high as 'A+' and are capped by a track record of debt-funded M&A appetite among the larger players.

## **Sector-Specific Key Factors**

#### **Industry Operational 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.

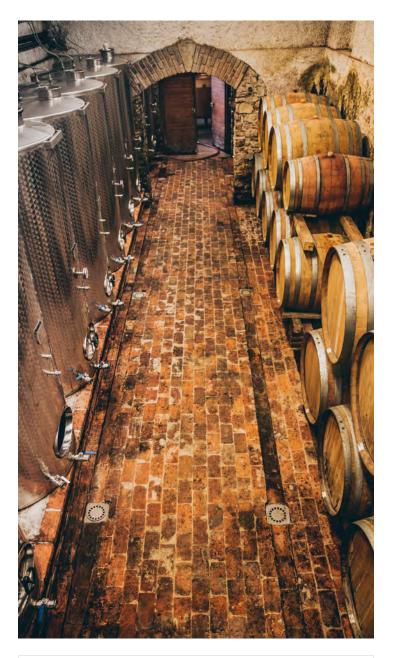
#### Quality of Brand Portfolio

This captures the profile of the company's brand portfolio and the strength of its key brands. Fitch also assesses the company's track 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.



#### Giulio Lombardi

giulio.lombardi@fitchratings.com (+39) 02 879087 214

#### Bill Densmore

bill.densmore@fitchratings.com (+1) 312 368 3125

# 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

Spirits	Beer	Wine producers/ merchants
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 players in the country.	

Source: Fitch

# 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 (eg, 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 Operational Profile	Quality of Brand Portfolio	Market Position	Diversification
Rating	Industry Structure	Brand Awareness	Market Share	Geographic Diversification
aa	na.	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. Limite 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 player in most markets.	Good geographical diversification but some imbalance between stable, declining and growth markets.
bb	Larger number of competitors with some track record of price discipline in downturns.	Brands are well known in countries of operation. Image is consistent with targeted consumers.	Top-five player in most markets.	Modest geographical diversification.
b	Highly competitive markets of operation with multiple players of comparable size.	Weak, under-invested brands.	Small player.	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 player 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	na.	na.	n.a.	n.a.
a	Stronger bargaining power than suppliers and customers.	Strong track 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 track 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 track 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 track 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.	na.	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 track 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 track 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	na.		n.a.	
a	Highly stable demand.		EBITDAR > \$1.5 billion	
bbb	Stable demand, subject to slow-downs.		EBITDAR \$500 million	
bb	Demand can suffer from seasonality.		EBITDAR \$250 million	
b	Demand can suffer from cyclicality linked to consumer spending.		EBITDAR < \$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	FFO Margin	Lease Adjusted FFO Gross Leverage	Financial Discipline
aa	na.	n.a.	Publicly announced conservative financial policy. Track record of strict compliance.
a	14%	3.0x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	12%	4.0x	Financial policies less conservative than peers but generally applied consistently.
bb	10%	5.0x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
b	7%	6.0x	No financial policy or track record of ignoring it. Opportunistic behavior.
ccc	Persistently and structurally break-even or loss-making at FFO level.	>8.0x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	FCF Margin	Lease Adjusted FFO Net Leverage	Liquidity
aa	na.	n.a.	Very comfortable liquidity, no need to use external funding in the next 24 months. Well-spread debt maturity. Diversified sources of funding.
a	5%	2.5x	$\label{thm:conformal} Very comfortable \ liquidity. Well-spread \ debt \ maturity \ schedule. \ Diversified \ sources \ of \ funding.$
bbb	3.5%	3.5x	One year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
bb	1%	4.5x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
b	Neutral to negative FCF margin.	5.5x	Liquidity ratio below 1.x. Overly reliant on one funding source.
ccc	Accelerating negative FCF margin, with limited/no flexibility on spending reduction and funding gaps.	>7.0x	No near-term prospect of recovery in liquidity score above 1.0x. All/most funding sources subject to material execution risk.
	Volatility of Profitability	Net Debt/(CFO - Capex)	FFO Fixed Charge Cover
aa	Volatility of profits viewed as a positive outlier for the industry.	n.a.	na
а	Lower volatility of profits than industry average.	3.5x	7x
bbb	Volatility of profits in line with industry average.	5.0x	5x
bb	Higher volatility of profits than industry average.	6.0x	3x
b	Volatility of profits viewed as a negative outlier for the industry.	8.0x	2x
ccc	Volatility of profits greater than normal bounds for corporate sector as a whole.	>8.0x	<1.0x
	EBITDAR Margin	Lease Adjusted Net Debt/EBITDAR	FX Exposure
aa	na.	na.	No material FX mismatch.
a	25%	2.0x	Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flows well matched.
bbb	20%	3.0x	Some PX exposure on profitability and/or debt/cash flow match. Effective hedging in place.
bb	15%	4.0x	FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b	10%	6.0x	Large FX exposure. No significant/ineffective hedging in place.
ccc	Persistently and structurally break-even or loss-making at EBITDAR level.	>7.0x	$\label{eq:fixed_posterior} FX \ \text{exposure dominant in impairing the issuer's ability to service debt in cash terms.}$
		Lease Adjusted Gross Debt/EBITDAR	Operating EBITDAR/Interest Paid + Rents
aa		na.	na.
a		2.5x	10x
bbb		3.5x	8.0x
bb		4.5x	6.0x
b		6.5x	4.0x
CCC		>7.5x	<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 players 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 track record and larger players' appetites, as large acquisitions may be financed with debt.

### **Sector-Specific Key Factors**

#### **Industry Operational 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.

#### **Quality of Brand Portfolio**

High brand awareness with meaningful market share across the subcategories and a good track 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.

#### Bill Densmore

bill.densmore@fitchratings.com (+1) 312 368 3125



## **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.

#### Giulio Lombardi

giulio.lombardi@fitchratings.com (+39) 02 879087 214

## 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 Operational Profile	Quality of Brand Portfolio	Market Position	Diversification
Rating	Industry Structure	Brand Awareness	Scale and Market share	Geographic Diversification
18	na.	n.a.	n.a.	n.a.
1	Limited competitors with clear leader.	Well established globally known brands. Image is consistent with targeted consumers.	Substantial scale with EBITDAR > \$1.5 bil, share leader in most markets/segments with number one or two brand position.	Strong diversification across stable and growth markets. Limexposure to declining markets. No reliance on any single reg
obb	Larger number of competitors with some track 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 EBITDAR > \$500 mil, top-three share in most markets with leading brand position.	Good geographical diversification but some imbalance between stable, declining and growth markets.
ob	Highly competitive industry with multiple players of comparable size.	Some brands are well known in countries of operation but may not be well established although good potential.	Weak scale with EBITDAR > \$250 mil. predominantly second- tier player with weaker share and lagging brand position.	Meaningful geographical diversification but may be limited to one region of the world.
)	Track record of aggressive and opportunistic competitive behavior.	Weak, under-invested brands, private label focus.	Substandard scale with EBITDAR < \$150 mil, small player with weak/declining share, unbranded or niche position.	The majority of revenues, profits or cash flows are concentrated in one country or region.
DOC	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 player 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
а	n.a.	n.a.	na.	na.
3	Strong bargaining power than suppliers and customers.	Good track 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 track 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.
b	Supplier and/or customer more concentrated with significant bargaining power.	Modest track 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.
	Squeezed between powerful suppliers and customers. Can only retain a marginal share of the value added.	Inadequate track record with limited ability for price increases and product premiumization. Price taker.	Weak distribution network causing competitive disadvantage.	One category concentration.
сс	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.
	<b>Growth Potential</b>	Ability to Leverage Brands	Operating Efficiency	Price Points
ıa	na.	n.a.	n.a.	n.a.
	Above market average growth capability of revenues and profit, supported by strong innovation track record and M&A	Strong "umbrella" brands that are wide ranging, Good innovation track record for product-line extensions.	Superior gross margin. Flexible cost structure and consistent track record of taking costs out.	Wide breadth of pricing points.
bb	Organic growth capability and pace of innovation aligned with market supported by M&A.	Good range of strong brands. Moderate innovation track record for product-line extensions	Gross margin aligned with peers. Good track record of reducing costs to reinvest into the business.	Good breadth of pricing points.
b	Growth capability predominantly reliant on M&A. Weak innovation capabilities.	Modest range of good brands. Weaker innovation track record for product-line extensions.	Cost structure partly affects profitability.	Modest breadth of pricing points.
	Growth capability is below market rate.	One, weak brand. Poor innovation track record.	Heavy and rigid cost structure weighs on profitability.	Focused on the low or high end of the market.
cc	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)	
a	na.		n.a.	
1	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.	
obb	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.	
)	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.	
сс	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	FFO margin	Lease Adjusted FFO Gross Leverage	Financial Discipline
aa	na.	na.	Publicly announced conservative financial policy. Track record of strict compliance.
a	14%	3.0x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	12%	4.0x	Financial policies less conservative than peers but generally applied consistently.
bb	10%	5.0x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
b	7%	6.0x	No financial policy or track record of ignoring it. Opportunistic behavior.
ccc	Break-even or loss-making at FFO level.	>8.0x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	EBITDAR Margin	Lease Adjusted FFO Net Leverage	Liquidity
aa	na.	n.a.	Very comfortable liquidity, no need to use external funding in the next 24 months. Well-spread debt maturity. Diversified sources of funding.
a	20%	2.5x	Very comfortable liquidity. Well-spread debt maturity schedule. Diversified sources of funding,
bbb	16%	3.5x	One year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
bb	12%	4.5x	$Liquidity\ ratio\ around\ 1.0x. Less\ smooth\ debt\ maturity\ or\ concentrated\ funding.$
b	8%	5.5x	Liquidity ratio below 1.x. Overly reliant on one funding source.
ccc	Mid-single digits or lower.	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	Lease Adjusted Net Debt/EBITDAR	FFO Fixed Charge Cover
aa	na.	n.a.	na
a	5.0%	2.0x	7х
bbb	3.5%	3.0x	5x
bb	1%	4.0x	3x
b	Neutral to Negative FCF margin	5.0x	2x
ccc	Break-even or loss-making at FCF level.	>7.0x	Consistently below 1x
		Lease Adjusted Gross Debt/EBITDAR	FX Exposure
aa		n.a.	No material FX mismatch.
a		2.5x	Profitability potentialy exposed to FX but efficient hedging in place. Debt and cash flows well matched.
bbb		3.5x	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		>7.5x	FX exposure dominant in impairing the issuer's ability to service debt in cash terms.
			Op. EBITDAR / (Gross Interest + Rent)
aa			na.
a			8x
bbb			6x
bb			4x
b			2x
ccc			<1x

## **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 players 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.

#### **Operational Scale**

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

#### **Business 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 lease-adjusted metrics within the relevant rating categories.



#### David Silverman

david.silverman@fitchratings.com (+1) 212 908 0840

### Giulio Lombardi

giulio.lombardi@fitchratings.com (+39) 02 879087 214

## 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

Return Geographic Scale Organic Growth Competition  All Highly diversified accord metal and descripting economics (980044-45 oltan)  Bill Highly diversified accord metal and descripting economics (980044-45 oltan)  Bill Highly diversified accord metal and descripting economics (980044-45 oltan)  Bill Highly diversified accord metal and description and metal growth and according end embry growth as statistical by accordancy and elementary growth as statistical by accordancy and elementary growth as statistical by accordancy and elementary growth as statistical by accordancy and according end embry growth and promotions according endering popular design popular and popular popular design popular and popular popular design popular and embryometry growth and popular growth		Diversification	Operational Scale	Business Profile	Industry Profile
Products and securing recommend and of the commendation of the com	Rating	Geographic	Scale	Organic Growth	Competition
both Modeste geographical diversification.  EBITICARY-11 Island.  EBITICARY-12 Island.  EBITICARY-11 Island.  EBITICARY-12 Island.  EBITICARY-13 Island.	aa	Highly diversified across mature and developing economies.	EBITDAR >\$5 billion	Majority of product categories enjoy strong, sustainable growth from shifts in consumer preferences.	Minimal or no competition.
Moderne geographical diversification.  ERITDAR-51 billion.  Sable to Low again, a growth.  ERITDAR-55 billion.  ER	a	Diversified regionally (for large economies) and/ or across developing and emerging economies	EBITDAR >\$2.5 billion	Majority of product categories enjoy sustainable growth.	Healthy competition with rational participant behavior. Limited private label presence.
thinks geographic and construction.  Concentrated in one country or region (large economy).  EBITDAR +\$100 million  Amaproportion of constructions or region flags economy.  Concentrated in one country or region (large economy).  EBITDAR +\$100 million  Amaproportion of constructions in rich after go diligines.  Products  Market Share  Brand Strength  Volatility of Demand  Products  Market Share  Brand Strength  Volatility of Demand  Well diversified portfolio across multiple products and central products and central products and central products and cellaptives.  Market share  Market share  Brand Strength  Volatility of Demand  Well diversified portfolio across multiple products and cellaptives.  Market elader with number one or number two share in more captive and products and cellaptives.  Market elader with number one or number two share in more captives and post of the cellaptives and cellaptives.  Market elader with number one or number two share in more captives and post of the cellaptives and cellaptives and cellaptives.  Market elader with number one or number two share in more captives and cellaptives and cellaptives and cellaptives.  Market elader with number one or number two share in more captives and cellaptives.  Market elader with number one or number two share in many categories with proven ability is given where the region profession and post of the cellaptives.  Market elader with number one or number two shares in many categories with proven ability is given the cellaptives.  Well diversified portificia across multiple multiple across products and cellaptives.  Market elader with number one or number two market share in some cellaptives.  Well diversified portificia across multiple multiple share the central condition of the profession and post of the central cellaptives.  Well diversified portificia across multiple multiple share the central cellaptives.  Well diversified portificia across numbers with the central cellaptives.  Well diversified portificia across numbers with the central cella	bbb	Moderate geographical diversification.	EBITDAR>\$1 billion.	Portfolio of products characterized by stable to low organic growth.	promotional activity pressuring sector profits. Some
Concentrated in one region where cash flow are materially contributed.  Concentrated in one region where cash flow are materially contributed.  Concentrated in one region where cash flow are materially contributed.  Products  Market Share  Brand Strength  Volatility of Demand  Well diversified portion across multiple products and categories.  Market share  Market share  Market share  Well diversified portion across multiple products and categories.  Market share in many categories, with proximated products and categories.  Market share in many categories, with proximated products and categories.  Market share in many categories, with proximation grow fave.  Well diversified portion across multiple products and categories.  Market share in many categories, with proximation grow fave.  Market share in many categories, with proximation grow fave.  Market share in many categories, with proximation grow fave.  Market share in many categories, with proximation grow fave.  Market share in many categories, with proximation grow fave.  Market share in many categories, with proximation grow fave.  Market share in many categories, with proximation grow fave.  Market share in many categories, with proximation grow fave.  Market share in many categories, with proximation grow fave.  Market share in many categories, with proximation grow fave.  Market share in many categories, with proximation grow fave.  Market share in many categories, with proximation grow fave.  Market share in many categories, with proximation grow fave.  Well diversified portion across products and categories.  Market share in many categories, with proximation grow fave.  Market share in many categories, with proximation grow fave.  Market share in many categories, with proximation grow fave.  Market share in many categories, with proximation grow fave.  Market share in many categories, with proximation grow fave.  Market share in many categories, with proximation grow fave.  Market share in many categories, with proximation grow fave.  Market share in	bb	Limited geographical diversification.	EBITDAR <\$500 million.	Products characterized by stagnating demand.	Active competition with ongoing promotional activity. Some product categories could have material private label presence.
## Products Market Share Brand Strength Volatility of Eumand    Products Market Share Brand Strength Volatility of Demand	b	Concentrated in one country or region (large economy).	EBITDAR <\$100 million	A major portion of operating profit and cash flow is generated from sales in declining categories.	erosion of market share and profitability over time.
Well diversified portfolio across multiple products and categories.  Melet leader with number one or number two share in most of its categories, with proven ability to grow share.  Well diversified portfolio across products and categories.  Market leader in many categories, with proven ability to grow share.  Well diversified portfolio across products and categories.  Market leader in many categories, with proven and share in many categories, with proven and share in many categories.  Market leader in many categories, with proven and share in many categories.  Market leader in many categories, with proven and share in many categories.  Market leader in many categories, with proven and share in some categories.  Market leader in many categories, with proven and share in many categories.  Namow portfolio diversty.  Namow portfolio.  Namow portfolio.  Predominantly secondary or tertips by tension with low market share in some categories.  Market leader in many categories, with rower and portfolio market share.  Market leader in many categories, with proven actegories.  Well palayer in inche or namow category.  With low or declaring market share.  Concentrated on one product facus.  Small player in inche or namow category.  With low or declaring market share.  Market leader in many category.  With low or declaring market share and low visibility of a lumatorial.  Long-term sustainability of brands questionable.  Demand volatility in line with the economic cycle.  The constitution of the product facus.  Market leader in many categories, with low or declaring market share and low visibility of a lumatorial.  Long-term sustainability of brands questionable.  Demand volatility in line with the economic cycle.  The constitution of the product facus of the product involution of the product i	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.
resolutes and collegions. And access makes the activity of grow share. In the leave yet of the provision of the collegions with proven allality to grow share. In the leave yet of the provision of the collegions with proven allality to grow share.  Well diversified portfolio across products and categories.  Market leader in many categories, with proven ability to maintain or grow share.  Well diversified portfolio across products and categories.  Market leader in many categories, with proven ability to maintain or grow share.  Well diversified portfolio diversity.  Moderate portfolio diversity.  Moderate portfolio diversity.  Predominantly seconday or tertiapy brands with low market share in some categories. Strong brand portfolio with good awareness.  Demand volatility in line with the economic cycle.  Predominantly seconday or tertiapy brands with low market share.  Skewed toward weaker or smaller brands.  Demand volatility is mewhat higher than the economic cycle or business model changes in major market share.  Correctivated on one product facing market share.  Marginal player with declining market share.  Marginal player with declining market share and low visibility of the tumoround.  Marginal player with declining market share and low visibility of the tumoround.  Price Points  Distribution Channels  Innovation  Seasonality  Price Points  Distribution Channels  Innovation  Seasonality  Consistent history of innovation. Generates meaningful across numerous price points and control or cash flow otherwise and or price points providing sufficient.  Diversified presence and positioning across relevant distribution channels including physical retail and online formats.  Diversified presence and positioning across relevant distribution channels including physical retail and online formats.  Procused only on low or high-end price points.  Marginal player and providing sufficient in the economic cycle.  Procused only on low or high-end price points.  Marginal player and price points.  Procused only on low or high-		Products	Market Share	Brand Strength	Volatility of Demand
bbb Moderate portfolio diversity.  Number one or number two market share is some categories.  Number one or number two market share is some categories.  Strong brand portfolio with good awareness.  Demand volatility in line with the economic cycle.  Predominantly secondary or tertiary brands with low market share and stable to declining share.  Skewed toward weaker or smaller brands.  Demand volatility in line with the economic cycle.  Predominantly secondary or tertiary brands with low market share and stable to declining share.  Single or very limited product focus.  Small player in hich or narrow category, with low or declining market share and control in the conomic cycle or business model changes in major market.  Concentrated on one product facing material decline.  Marginal player with declining market share and low visibility of a turnaround.  Marginal player with declining market share and low visibility of a turnaround.  Price Points  Distribution Channels  Innovation  Seasonality  Consistent history of innovation, Generates meaningful revenue and/or pricing power from new product introductions.  No seasonality to revenue, profit or cash flow.  Diversified presence and positioning across relevant distribution channels including physical retail and or inne formats.  Diversified presence and positioning across relevant distribution.  Scroog innovation pleeline to market and or market share and command premium pricing.  Cood breadth of price points.  Diversified presence and positioning across relevant distribution.  Cood presence and positioning across relevant distribution.  Scroog innovation pleeline to market and or market share and original premium pricing.  Cood breadth of price points, including physical retail and orline formats.  Diversified presence and positioning across relevant distribution.  Cood presence and positioning across relevant distribution.  Cood presence and positioning across relevant distribution channels or week positioning in elabel to direct peers.  Diversified presence and	aa			which enjoy high awareness and cannot be	Highly stable demand even in an economic downturn.
Narrow portfolio.  Narrow portfolio.  Predominantly secondary or tertiary brands with low market share.  Seewed toward weaker or smaller brands.  Demand volatility sigher than the economic cycle.  Single or very limited product focus.  Small player in niche or narrow category, with low or declining market share.  Small player in niche or narrow category, with own or declining market share.  Coc.  Concentrated on one product facing material decline.  Marginal player with declining market share and low visibility of a tumaround.  Long-term sustainability of brands questionable.  Demand in secular decline.  Price Points  Distribution Channels  Innovation  Seasonality  Well-balanced portfolio across numerous price points.  Well-balanced portfolio across numerous price points.  Diversified presence and positioning across relevant distribution channels including physical retail and online formats.  Diversified presence and positioning across relevant distribution channels including physical retail and online formats.  Diversified presence and positioning across relevant distribution channels including physical retail and online formats.  Diversified presence and positioning across relevant distribution channels including physical retail and online formats.  Diversified presence and positioning across relevant distribution channels including physical retail and online formats.  Cood presence and positioning across relevant distribution channels or weak positioning across relevant distribution channels or weak positioning across relevant distribution channels or weak positioning relative to direct peers.  Below average ability to generate innovative products.  Average seasonality to profit or cash flow.  Welk positioning relative to direct peers and  Lack of francial flexibility to material flexibility of profit or cash flow.  Welk positioning relative to direct peers and	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.
market shares, and stable to declining share.  Seewed toward weaker or smaller brands.  Single or very limited product focus.  Small player in inhe or narrow category. With low or declining market share and following relevance.  Concentrated on one product facing material decline.  Marginal player with declining market share and low visibility of a turnaround.  Long-term sustainability of brands questionable.  Demand in secular decline.  Demand i	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.
with low for decilining market share.  with decilining relevance.  with decilining relevance.  or business model changes in major markets.  Cocc Concentrated on one product facing material deciline.  Marginal player with decilining market share and low visibility of a tumaround.  Long-term sustainability of brands questionable.  Demand in secular deciline.  Price Points  Distribution Channels  Innovation  Seasonality  Consistent history of innovation. Generates meaningful revenue and/or pricing power from new product introductions physical retail and online formats.  A Portfolio exposure to a variety of price points.  Diversified presence and positioning across relevant distribution channels including physical retail and online formats.  Diversified presence and positioning across relevant distribution share and command premium pricing.  Good breadth of price points providing sufficient flexibility to manage portfolio favorably through different points in the economic cycle.  Cood presence and positioning across relevant distribution favorable in the exposurable price points.  Cood presence and positioning across relevant distribution favorable price points providing sufficient flexibility to manage portfolio favorably through different points in the economic cycle.  Cood presence and positioning across relevant distribution fromats.  Cood presence and positioning across relevant distribution fromats.  Cood presence and positioning across relevant distribution from the portfolio.  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.  Procused 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.  Weak positioning relative to direct peers and  Limited innovation.  High seasonality to profit or cash flow.	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.
Price Points  Distribution Channels  Highly diversified presence and positioning across relevant distribution channels including physical retail and online formats.  Portfolio exposure to a variety of price points.  Diversified presence and positioning across relevant distribution channels including physical retail and online formats.  Diversified presence and positioning across relevant distribution.  Strong innovation pipeline to maintain or increase share and command premium pricing.  Limited seasonality to revenue, profit or cash flow.  Cood breadth of price points providing sufficient flexibility to manage portfolio favorably through through 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.  Procused 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.  High seasonality to profit or cash flow.  High seasonality to profit or cash flow.	b	Single or very limited product focus.	Small player 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.
Highly diversified presence and positioning across numerous price points.  Highly diversified presence and positioning across relevant distribution channels, including physical retail and online formats.  Portfolio exposure to a variety of price points.  Diversified presence and positioning across relevant distribution.  Diversified presence and positioning across relevant distribution.  Strong innovation pipeline to maintain or increase thin the desasonality to revenue, profit or cash flow.  Diversified presence and positioning across relevant distribution.  Strong innovation pipeline to maintain or increase.  Limited seasonality to revenue, profit or cash flow.  Diversified presence and positioning across relevant distribution.  Innovation pipeline of new products allows stable market share and command premium pricing.  Moderate seasonality to profit or cash flow.  Below average ability to generate innovative products.  Average seasonality to profit or cash flow.  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.  Limited innovation.  High seasonality to profit or cash flow.	ccc	Concentrated on one product facing material decline.	Marginal player with declining market share and low visibility of a turnaround.	Long-term sustainability of brands questionable.	Demand in secular decline.
across relevant distribution channels including physical retail and online formats.  Between and/or pricing power from new product introductions. No seasonality to revenue, profit or cash flow.  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.  Cood breadth of price points providing sufficient flexibility to manage portfolio favorably through channels, including physical retail and online formats.  Cood presence and positioning across relevant distribution flexibility to manage portfolio favorably through 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.  Procused 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.  Limited innovation.  High seasonality to profit or cash flow.  Weak positioning relative to direct peers and  Lack of financial flexibility to enable new product launches.  Maintity of rorfit or cash flow weenerated in one season.		Price Points	Distribution Channels	Innovation	Seasonality
d Potition exposure to a variety of pitce points. channels, including physical retail and online formats. share and command premium pricing.  bbb Good breadth of price points providing sufficient flexibility to manage portfolio favorably through channels, including physical retail and online formats.  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.  Focused only on low or high-end price points. Reliance on channels that are in decline. Limited innovation. High seasonality to profit or cash flow.	aa	Well-balanced portfolio across numerous price points.	across relevant distribution channels, including	Consistent history of innovation. Generates meaningful revenue and/or pricing power from new product introductions	No seasonality to revenue, profit or cash flow.
flexibility to manage portfolio favorably through different points in the economic cycle.    Moderate seasonality to 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.
b Focused only on low or high-end price points.  Reliance on channels that are in decline.  Limited innovation.  High seasonality to profit or cash flow.  Consumer appeal.  Weak positioning relative to direct peers.  Limited innovation.  High seasonality to profit or cash flow.	bbb	flexibility to manage portfolio favorably through	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.
with narrow consumer appeal. Read the order of an interval and the substance of the order of the	bb	Focused on only a couple of price points.		Below average ability to generate innovative products.	Average seasonality to profit or cash flow.
	b		Reliance on channels that are in decline.	Limited innovation.	High seasonality to profit or cash flow.
	CCC	Focused on pricing point facing material decline.		Lack of financial flexibility to enable new product launches.	Majority of profit or cash flow generated in one season.
Price Leadership				Price Leadership	
aa Strong ability to command premium pricing or lead price increases in most categories.	aa				
a Good 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.	bbb			Lead pricing in a few categories, follow pricing actions in others.	
bb Mostly a price follower on price changes.	bb			Mostly a price follower on price changes.	
b Always a price follower. Little ability to command premium prices.	b			Always a price follower. Little ability to command premium prices.	
ccc No ability to command premium prices.	CCC			No ability to command premium prices.	



## Financial Profile Key Factors – Consumer Products

	Profitability	Financial Structure	Financial Flexibility
Rating	FFO Margin	Lease Adjusted FFO Gross Leverage	Financial Discipline
aa	16%	2.0x	Publicly announced conservative financial policy. Track record of strict compliance.
a	12%	2.5x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	10%	3.5x	Less conservative policy but generally applied consistently.
bb	8%	4.5x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
b	6%	6.0x	No financial policy or track record of ignoring it. Opportunistic behavior.
CCC	Break-even or loss-making at FFO level.	>8.0x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	EBITDA Margin	Lease Adjusted FFO Net Leverage	Liquidity
aa	22%	1.5x	Very comfortable liquidity, no need to use external funding in the next 24 months. Well-spread debt maturity. Diversified sources of funding.
a	18%	2.0x	$\label{thm:composition} Very comfortable liquidity. Well-spread maturity schedule of debt. Diversified sources of funding.$
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%	4.0x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
b	7%	5.5x	Liquidity ratio below 1.x. Overly reliant on one funding source.
ccc	Mid-single digits or lower.	>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	Total Adjusted Debt/EBITDAR	EBITDAR/(Gross Interest Expense+Rent)
aa	7%	1.5x	8.5x
a	5%	2.0x	70x
bbb	3%	2.5x	5.5x
bb	2%	3.5x	30x
b	1%	4.5x	1.5x
ccc	Break-even or loss-making at FCF level.	>6.5x	Below 1.5x
	Volatility of Profitability	Total Adjusted Net Debt/EBITDAR	FFO Fixed-Charge Cover
aa	Stable or consistent profit generation.	1.2x	8.0x
a	Volatility of profit lower than industry average.	1.5x	6.5x
bbb	Volatility of profit in line with industry average.	20x	5.0x
bb	Volatility of profit higher than industry average.	3.0x	2.5x
b	High volatility of profit relative to the industry.	5.0x	1.0x
ccc	Exceptionally high volatility of profit relative to the industry.	>7.0x	Below 1.0x
		Net Debt/(CFO - Capex)	FX Exposure
aa		2.0x	No material FX mismatch.
a		2.5x	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		5.0x	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.

# Gaming

#### **Sector Risk Profile**

#### **Rating Range**

The gaming sector has 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**

#### **Competitive Environment**

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.

#### **Development Risk**

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.

#### Alex Bumazhny

alex.bumazhny@fitchratings.com (+1) 212 908 9179



## **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.

#### Sophie Coutaux

sophie.coutaux@fitchratings.com (+33) 144 299 132

# 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

	Competitive Environment	Capex Pipeline & Investment Strategy	Company's Market Position	Diversification
Rating	Barriers to Entry	Scale	Market Share	Geographic
ıa	n.a.	n.a.	n.a.	n.a.
1	n.a.	n.a.	n.a.	n.a.
obb	High non-regulated and regulated barriers to entry. Low likelihood of new entrants in core markets.	Project pipeline is minimal relative to discretionary FCF and liquidity profiles. Projects have good ROI prospects or strategic benefits.	A leading player across most land-based and online segments, and/or only player in competitively protected markets.	Exposure to several markets/jurisdictions, potentially including international exposure. For bookmakers sizable physical and online presence.
bb	High non-regulated barriers to entry. Modest potential that new entrants could emerge.	Project pipeline is modest relative to discretionary FCF and liquidity profiles. Projects have decent ROI prospects or strategic benefits.	Significant player in most markets and segments, including online.	Exposure to more than one market/jurisdiction, but still highly concentrated. For bookmakers sizable physical and some online presence.
)	Exposure to markets easily susceptible to new competition. High likelihood that new entrants could emerge.	Project pipeline is heavy relative to discretionary FCF and liquidity profiles. Projects may have poor ROI prospects or strategic benefits.	Small player in most markets and segments, including online.	Exposure to single market, single jurisdiction. For bookmake smaller physical and minimal online presence.
СС	No barriers to entry, and industry has a high and/or rapidly accelerating rate of attrition of market players.	Group cash flow profile negatively dominated by the failure or expected failure of high-profile development projects	n.a.	Concentrated in an especially disadvantaged region experiencing severe recessionary or other disruptive condit
	Supply/Demand	Funding	Competitive Advantage; Brand Recognition	Business and Customer Segment
1a	na.	n.a.	n.a.	n.a.
3	n.a.	п.а.	n.a.	n.a.
bbb	Exposure to markets that have minimal gaming supply growth prospects and/or robust demand from an underpenetrated customer base.	Project/development spending 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 gaming business lines as well as non-gaming business lines (eg hotel, F&B, entertainment, group, retail).
b	Exposure to markets that have modest gaming supply growth prospects, which can be absorbed by stable growth in demand.	Project/development spending 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 gaming business lines as well as non-gaming business lines (eg hotel, F&B, entertainment, group, retail).
	Heavy exposure to markets that are largely saturated and/or facing material gaming supply growth in core local or broader regional markets.	Project/development spending is likely to be funded largely by debt.	Little brand or property identification. Gaming value proposition is largely commodity-based. Intermittent brand maintenance.	Narrow focus on primarily gaming-related activities.
осс	Dominant exposure to over-saturated markets in sharp secular decline. Progress towards consolidation dependent on multiple closures.	Project/development spending funded exclusively with full-recourse debt with a record of materially exceeding projections.	Negative brand identification. Major reputational challenges, with limited funds available to correct.	n.a.
	Promotional Environment		Property Quality	
a	na.		n.a.	
	n.a.		n.a.	
bb	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.	
b	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.	
	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.	
CC	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	
a	n.a.		n.a.	
	n.a.		n.a.	
bb	Exposure to jurisdictions with long histories of stable policies regarding garning regulations and tax regimes.		Attractive opportunities in underserved markets or new distribution channels (eg online) and/ or strong position in stable markets.	
b	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.	
	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.	
cc	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	FFO Margin	Lease Adjusted FFO Gross Leverage	Financial Discipline
aa	na.	n.a.	Publicly announced conservative financial policy. Track record of strict compliance.
a	na.	na.	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	12%, with minimal volatility at the trough.	3.5x	Less conservative policy but generally applied consistently.
bb	10% with some volatility at the trough.	4.0x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines
b	7% with a low of 4% at the trough.	6.0x	No financial policy or track record of ignoring it. Opportunistic behavior.
ccc	Persistently and structurally break-even or loss-making at FFO level.	>8.0x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	EBIT Margin	Lease Adjusted FFO Net Leverage	Liquidity
aa	na.	n.a.	Very comfortable liquidity no need to use external funding in the next 24 months. Well-spread debt maturity Diversified funding sources.
a	na.	na.	Very comfortable liquidity. Well-spread debt maturity schedule. Diversified funding sources.
bbb	12% with medium volatility through average downturn (approx. 11% margin at trough)	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)	3.5x	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)	5.5x	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.
	FCF Margin	Net Debt/(CFO - Capex)	FFO Fixed Charge Cover
aa	na.	na.	na.
a	na.	na.	na.
bbb	2.5% with minimal volatility through average downturn	2.5x	4.0x
bb	1% with medium volatility through average downturn	3.5x	3.0x
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	Net FCF debt service cover below 1.0x. All/most funding sources subject to material execution risk.
	EBITDAR Margin	Adj. Gross Debt/EBITDAR	FX Exposure
aa	na.	na.	No material FX mismatch.
a	na.	na.	Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flows well-matched
bbb	20% with minimal volatility through average downturn	3.5x	Some FX exposure on profitability and/or debt/cash flow match. Effective hedging in place.
bb	15% with medium volatility through average downturn (approx. 13% margin at trough)	5.0x	FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b	10% with higher volatility through average downturn (approx. 7% margin at trough)	7.0x	Large FX exposure. No significant/ineffective hedging in place.
ccc	Persistently and structurally break-even or loss-making at EBITDAR level.	>9.0x	FX exposure dominant in impairing the issuer's ability to service debt in cash terms.

## 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 and Scale**

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.

#### Strength of Brand

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.

#### Anna Zhadnova

anna.zhdanova@fitchratings.com (+7) 495 956 2403



#### **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.

#### Carla Norfleet-Taylor, CFA

carla.norfleettaylor@fitchratings.com (+1) 312 368 3195

## 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 and Scale	Diversification	Branding	Property Management
Rating	Market Share Trend	Geographic Diversification	Brand Recognition of Stores	Store Ownership/Lease Terms
aa	na.	na.	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 term
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.	na.	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 demographic
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	na.	na.		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	FFO Margin	Lease Adjusted FFO Gross Leverage	Financial Discipline
aa	na.	n.a.	Publicly announced conservative financial policy. Track record of strict compliance.
a	4%	30x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	3%	4.0x	Financial policies less conservative than peers but generally applied consistently.
bb	2%	5.0x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
b	1%	6.0x	No financial policy or track record of ignoring it. Opportunistic behavior.
ccc	0% or below	>8.0x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	EBITDAR Margin	Lease Adjusted FFO Net Leverage	Liquidity
aa	na.	n.a.	Very comfortable liquidity with no need to use external funding in the next 24 months or more. Well-spread maturity schedule of debt. Diversified sources of funding.
a	6%	2.5x	Very comfortable liquidity. Well-spread debt maturity schedule. Diversified sources of funding,
bbb	5%	3.5x	One year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
bb	4%	4.5x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
b	3%	5.5x	Liquidity ratio below 1.x. Overly reliant on one funding source.
ccc	below 2%	>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	Lease-Adjusted Gross Debt/EBITDAR	FFO Fixed Charge Cover
aa	na.	n.a.	na
a	2%	2.0x	5.0x
bbb	1%	3.0x	25x
bb	FCF margin neutral	4.0x	2.0x
b	FCF margin negative	5.0x	15x
ccc	FCF margin significantly negative	6.0x	<1.0x
	Volatility of Profitability	Lease-Adjusted Net Debt/EBITDAR	FX Exposure
aa	na.	n.a.	No material FX mismatch.
a	Volatility of profit and cash flow lower than industry average.	1.5x	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.	2.5x	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.	3.5x	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.	4.5x	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.	5.5x	FX exposure dominant in impairing the issuer's ability to service debt in cash terms.
	Profitability Trend		EBITDAR/(Gross Interest Expense + Rent)
aa	na.		na.
a	EBITDAR margin flat to improving and above industry peers.		4.0x
bbb	EBITDAR margin flat to improving and in line with industry peers.		3.0x
bb	EBITDAR margin stable and in line with industry peers.		2.0x
b	EBITDAR margin deteriorating and/or below industry peers.		1.5x
ccc	Breakeven to negative EBITDAR margin.		<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**

#### Sector Profile

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

#### Market Position/Scale

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.

#### Jean Pierre Husband

jean-pierre.husband@fitchratings.com (+44) 20 3530 1155



#### David Silverman

david.silverman@fitchratings.com (+1) 212 908 0840

## Non-Food Retail

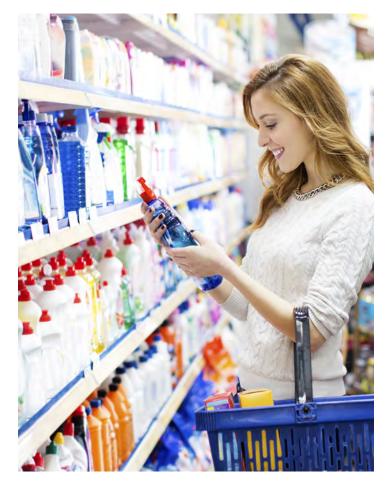
#### **Industry Characteristics**

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 players 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 players 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

	Sector Profile	Market Position / Scale	Diversification	Property Management
Rating	Long-Term Growth Potential	Trend in Market Share	Geographical Diversification	Store Ownership/Lease Terms
18	na.	n.a.	n.a.	n.a.
1	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.
obb	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.
ob	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.
)	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 ten
occ	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
18	n.a.	n.a.	n.a.	n.a.
1	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.
obb	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.
b	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.
	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.
cc	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 operaticash flow; onerous terms preventing expedited restructuring
	Threat From Online Retailers/Discounters	Competitive Advantage	Store Formats/Online Presence	Capex Intensity
ıa	na.	n.a.	n.a.	n.a.
1	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.
bb	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.
)	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.
occ	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			
18	na.			
1	Below average variability from non-economic factors such as shifts in technology and fashion.			
obb	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.			
,	High variability from non-economic factors such as shifts in technology and fashion.			



## Financial Profile Key Factors - Non-Food Retail

	Profitability	Financial Structure	Financial Flexibility
Rating	FFO Margin	Lease Adjusted FFO Gross Leverage	Financial Discipline
aa	na.	n.a.	Publicly announced conservative financial policy. Track record of strict compliance.
a	12%	2.5x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	10%	3.5x	Financial policies less conservative than peers but generally applied consistently.
bb	8%	4.5x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
b	4%	5.5x	No financial policy or track record of ignoring it. Opportunistic behaviour.
ccc	Persistently and structurally break-even or loss-making at FFO level.	>7.5x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a criss environment.
	Volatility of Profitability and Cash Flow	Lease Adjusted FFO Net Leverage	Liquidity
aa	na.	n.a.	Very comfortable liquidity with no need to use external funding in the next 24 months or more. Well-spread maturity schedule of debt. Diversified sources of funding.
a	Volatility of profits and cash flow in line with industry average.	2.0x	Very comfortable liquidity. Well-spread debt maturity schedule. Diversified sources of funding.
bbb	Volatility of profits and cash flow higher than industry average.	3.0x	One year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
bb	Volatility of profits and visibility of cash flow viewed as a negative outlier for the industry.	4.0x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
b	Volatility of profits greater than normal bounds of volatility for corporate sector as a whole.	5.0x	Liquidity ratio below 1.x. Overly reliant on one funding source.
ccc	Volatility of profits greater than normal bounds of volatility for corporate sector as a whole.	>7.0x	No near-term prospect of recovery in liquidity score above 1.0x. All/most funding sources subject to material execution risk.
	Profitability Trend	Net Debt/(CFO-Capex)	FFO Fixed Charge Cover
aa	na.	na.	na
a	EBITDAR margin flat to improving and above industry peers.	2.0x	5.5x
bbb	EBITDAR margin flat to improving and in-line with industry peers.	2.5x	4.0x
bb	EBITDAR margin stable and in-line with industry peers.	3.5x	2.5x
b	EBITDAR margin deteriorating and/or below industry peers.	6.0x	2.0x
CCC	Severe and persistent decline in EBITDAR.	>8.0x	Net FCF debt service cover below 1.0x. All/most funding sources subject to material execution risk.
		Lease Adjusted Gross Debt / EBITDAR	FX Exposure
aa		n.a.	No material FX mismatch.
a		2.0x	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		4.0x	FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b		5.0x	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.
		Lease Adjusted Net Debt/EBITDAR	EBITDAR/(Gross Interest Expense + Rent)
aa		n.a.	na.
a		1.5x	6.0x
bbb		2.5x	5.0x
bb		3.5x	3.0x
b		4.5x	2.0x
CCC		>6.5x	1.5x or below.

## U.S. Healthcare Providers

#### **Sector Risk Profile**

#### **Rating Range**

U.S. healthcare providers have a higher-than-average risk profile. The sector risk profile reflects exposure to a complex regulatory environment influencing the funding and structure of government healthcare programs. Furthermore, all healthcare providers face some degree of economic cyclicality and secular threats to profitability, including a rising cost of healthcare, increased consumer awareness of and responsibility for healthcare costs, and threats of technological obsolescence.

U.S. healthcare provider ratings are clustered in the 'B'/'BB' rating categories, reflecting an inherently challenging and dynamic operating environment. However, strong company-specific traits such as operating scale, geographic diversification, a favorable patient/payor mix, and a constructive outlook for Medicare and Medicaid payment policies in the primary service lines, can result in ratings as high as the 'BBB+' level.

### **Sector-Specific Key Factors**

#### **Revenue Defensibility**

This factor primarily considers the patient/payor mix and the outlook for Medicare and Medicaid payments in the service lines in which the issuer operates.

## Service Line Trends

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

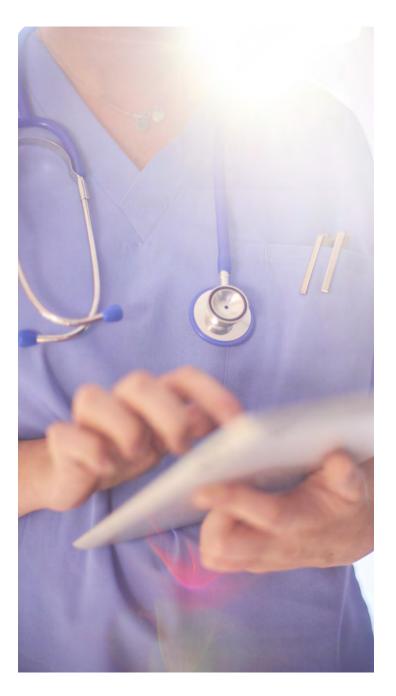
The factor considers both geographic and service line diversification.

#### Megan Neuburger

megan.neuburger@fitchratings.com (+1) 212 908 0501

#### **Britton Costa**

britton.costa@fitchratings.com (+1) 212 908 0524



### **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 'BBB' rating level.

## U.S. Healthcare Providers

### **Industry Characteristics**

The total universe of U.S. healthcare providers is quite diverse, consisting of public and private entities of various sizes operating within many different service lines. Although the broad industry is quite fragmented, the for-profit portion is relatively consolidated, with only a few large companies operating in most major service lines. Major risk factors for the industry include secular threats to profitability, macroeconomic sensitivity of demand and patient/payor mix, and a complex regulatory environment influencing everything from Medicare and Medicaid reimbursement to the structure of payment models and operating practices. The relative impact of these factors naturally varies across service lines, and therefore individual companies, depending upon the particular business mix.

#### **Secular Threats to Profitability**

U.S. healthcare providers are at the center of an ongoing debate about how to control the growing burden of healthcare costs. Medical cost inflation in the U.S. consistently exceeds the overall inflation rate, straining healthcare consumers and insurers. As the U.S. population ages, demands on the healthcare system will only increase. By 2050, the U.S. Census Bureau projects 89 million Americans will be at least 65 years of age and 4% of the total population will be 85 or older.

Higher instances of chronic diseases are also a burden; treating these conditions already consumes an estimated 75% of America's health expenditures. By 2030, the Department of Health and Human Services projects that 60% of individuals 65 years or older will be managing more than one chronic condition, exacerbating cost pressures generated by the traditional fee-for-service healthcare delivery model.

While these demand-driven pressures mount, a large federal budget deficit and comparatively modest growth in state tax revenues are pressuring governments' ability to fund healthcare. The CBO projects that among major budget categories, healthcare spending will represent the largest percentage of GDP through 2023, and Medicaid spending is often the largest line item in state budgets. Spending on hospital care currently represents about 30% of national health expenditure as reported by the Centers for Medicare and Medicaid Services, indicating that healthcare providers are likely to be targeted in any solution to control growth in costs.

### Macroeconomic Sensitivity

Demand for healthcare services is not traditionally highly cyclical. However, this does not mean that companies in the sector are immune to the influence of macroeconomic conditions. High unemployment, particularly of a structural nature, leads to a decreasing number of patients with commercial health insurance. These are the most profitable type of patients, since commercial insurers typically pay hospitals and other healthcare providers more than Medicare or Medicaid for treating a patient of comparable acuity.

Weak demand for certain types of elective healthcare procedures and services is one negative by-product of economic pressure causing drops in the ranks of the commercially insured. A bigger headwind to the industry, however, is an increase in the financial burden of uncompensated care. Certain types of healthcare providers, including acute care hospitals, are generally prohibited by federal regulations from denying care based on a patient's insurance status. Consequently, treating higher numbers of uninsured patients during an economic downturn reduces revenue growth and profitability.

The healthcare provider industry is likely to become more sensitive to consumer financial health. Historically, patients took a relatively passive role in the pricing of healthcare services since they were shielded from most financial responsibility and price visibility by insurers. This is beginning to change because of an increase in the consumer share of healthcare spending, evidenced by growth in high deductible health plans and employer use of tax-advantaged flexible spending accounts (FSAs) for healthcare services, as well as an increasing push for price transparency by patients and politicians.

#### **Complex Regulatory Environment**

The U.S. healthcare provider industry is highly regulated and federal and state government policy decisions are made in a politicized arena, making for an often unpredictable environment. This single but very complicated factor represents the biggest risk to the industry's operating profile. The influence of government policy goes well beyond the direct setting of Medicare and Medicaid payment rates 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. Most healthcare providers are perceived as providing a critically important service, making it quite unlikely that the federal and state governments would adopt reforms to healthcare programs that would lead to widespread bankruptcies in the sector. However, government payors have become increasingly critical of the value proposition of certain service lines, predominantly in the post-acute care sub-segments.

Since healthcare providers have little control over Medicare and Medicaid payment rates, companies should be highly focused on cost control efforts. The need for aggressive cost management agendas is exacerbated by the relatively high operating leverage inherent in the business models of these companies. The 2% sequestration of Medicare payments is one example of a unilateral decision by policy makers that is a headwind to profitability unless costs can be taken out to offset the impact; passing on the costs to patients and commercial health insurers is becoming more difficult because of some of the reasons mentioned above.



## ${\bf Sector\text{-}Specific\ Key\ Factors-U.S.\ Healthcare\ Providers}$

	Revenue Defensibility	Service Line Trends	Company's Market Position	Diversification
Rating	Patient Payor Mix	Long-Term Growth Potential of Major Service Lines	Market Share	Geographic
aa	n.a.	n.a.	п.а.	п.а.
a	na.	n.a.	na.	n.a.
bbb	Favorable payor mix. Well balanced with a high proportion of commercial 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 U.S. state or geographic region (i.e. Southeast U.S.).
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 player 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 U.S. states or geographic region
b	Weak payor mix. Highly concentrated in one payor source (i.e. greater than 70% Medicare patients) or high level of uninsured patients.	Major service lines have weak long-term organic growth potential; unfavorable demographic trends; questionable value proposition.	Smaller player or obviously losing share; industry- lagging organic patient volume growth.	Weak geographic diversification. More than half of revenue concentrated in a single U.S. state or geographic regions.
CCC	Ability to pay of main payor sources questionable and deteriorating.	Major service lines facing rapid decline.	Extremely small and/or undifferentiated player.	Concentrated in one region where projected cash flows are materially affected by severe recessionary or other disruptive conditions.
	Medicare and Medicaid Reimbursement Outlook	Volatility of Demand	Relative Power in the Value Chain	Service Lines
aa	n.a.	n.a.	n.a.	п.а.
a	na.	n.a.	n.a.	n.a.
bbb	Changes in government 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 differe 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 government 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 government 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.	na.	n.a.	
a	na.	na.	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 impact 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 – U.S. Healthcare Providers

	Profitability	Financial Structure	Financial Flexibility
Rating	FFO Margin	Lease Adjusted FFO Gross Leverage	Financial Discipline
aa	na.	n.a.	Publicly announced conservative financial policy. Track record of strict compliance.
a	na.	na.	${\it Clear commitment to maintain a conservative policy with only modest deviations allowed.}$
bbb	12%	3.0x	Financial policies less conservative than peers but generally applied consistently.
bb	9%	4.0x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
b	5%	6.0x	No financial policy or track record of ignoring it. Opportunistic behavior.
ccc	Persistently and structurally break-even or loss-making at FFO level.	8.0x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	EBIT Margin	Lease Adjusted FFO Net Leverage	Liquidity
aa	na.	na.	Very comfortable liquidity, no need to use external funding in the next 24 months. Well-spread debt maturity. Diversified sources of funding.
a	na.	na.	Very comfortable liquidity. Well-spread debt maturity schedule. Diversified sources of funding,
bbb	12%	2.5x	One year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
bb	9%	3.5x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
b	5%	5.5x	Liquidity ratio below 1.0x. Overly reliant on one funding source.
ccc	Persistently and structurally break-even or loss-making at EBIT level.	7.5x	No near-term prospect of recovery in liquidity score above 1.0x. All/most funding sources subject to material execution risk.
	FCF Margin	Net Debt/(CFO - Capex)	FFO Fixed Charge Cover
aa	na.	na.	na
a	na.	n.a.	na
bbb	25%	3.0x	4.0x
bb	1%	4.0x	30x
b	Neutral to negative FCF margin.	7.0x	20x
ccc	Accelerating negative FCF margin, with limited/no flexibility on spending reduction and funding gaps.	9.0x	Consistently below 1x.
	Volatility of Profitability	Total Adjusted Debt/Operating EBITDAR	EBITDAR/(Gross Interest Expense + Rent)
aa	na.	n.a.	na.
a	na.	па.	na
bbb	Volatility of profits in line with industry average.	2.5x	4.0x
bb	Higher volatility of profits than industry average.	3.5x	30x
b	Volatility of profits viewed as a negative outlier for the industry.	5.5x	20x
ccc	Volatility of profits a negative outlier and with a secular downward trend in absolute and relative terms.	7.5x	Consistently below 1x
	Operating EBITDAR Margin		
aa	na.		
a	na.		
bbb	20%		
bb	15%		
b	12%		
ccc	Persistently and structurally break-even or loss-making at EBITDAR level.		
	,		

## 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.

#### **Branding**

This factor incorporates the strength and diversity of the company's brands, including the number of global, international or national brands owned and track 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.

#### **Property Characteristics**

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..

#### Sophie Coutaux

sophie.coutaux@fitchratings.com (+33) 144 299 132



## **Financial Profile Key Factors**

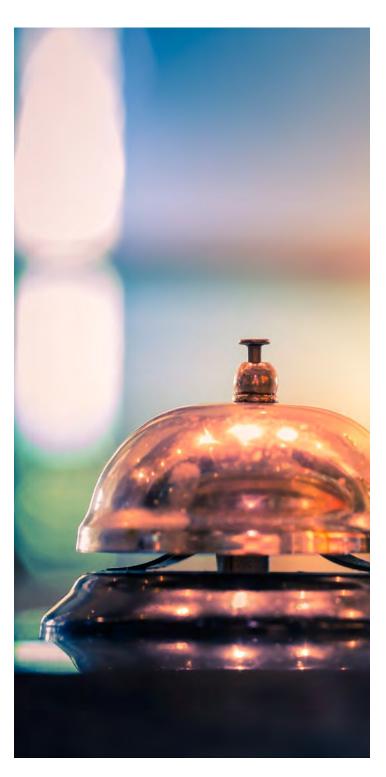
### **Financial Profile**

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.

#### Stephen Boyd

stephen.boyd@fitchratings.com (+1) 212 908 9153

## 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 portfolios¹, 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.

<sup>&</sup>lt;sup>1</sup> 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/Scale	Diversification	Branding	Property Characteristics
Rating	Enterprise value (EUR)	Geographical Rooms System Diversification	Brand Recognition	Op. Model (Own, Lease, Manage, Franchise)
aa	na.	na.	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 player.	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	Track Record in Maintaining Brand	Property Management Ability
aa	n.a.	na.	n.a.	n.a.
a	Critical size across most hotel price tiers/chain scales.	Widely diversified hospitality products and services.	Track 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 occasinal 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 occasinal 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	na.		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	na.		na.	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	na.		n.a.	
a	Rooms system (q. 500,000		High levels of repeat business.	
bbb	Rooms system (Q 250,000		High levels of repeat business.	
bb	Rooms system (q100,000		Good levels of repeat business.	
b	Rooms system (q 100,000		Moderate level of repeat business.	
CCC	Insufficient number of rooms to be competitive.		Lack of repeat business.	
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## Financial Profile Key Factors - Hotels

	Profitability	Financial Structure	Financial Flexibility
Rating	FFO Margin	Lease Adjusted FFO Gross Leverage	Financial Discipline
aa	na.	n.a.	Publicly announced conservative financial policy. Track record of strict compliance.
a	15%	3.0x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	10%	4.0x	Less conservative policy but generally applied consistently.
bb	7%	5.0x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
b	5%	6.0x	No financial policy or track record of ignoring it. Opportunistic behavior.
ccc	Persistently and structurally break-even or loss-making at FFO level.	>8.0x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	EBIT Margin	Lease Adjusted FFO Net Leverage	Liquidity
aa	na.	n.a.	Very comfortable liquidity, no need to use external funding in the next 24 months. Well-spread debt maturity. Diversified sources of funding.
a	10%	2.5x	Very comfortable liquidity. Well-spread maturity schedule of debt. Diversified sources of funding.
bbb	7.5%	3.5x	One year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
bb	5.0%	4.5x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
b	3.0%	5.5x	Liquidity ratio below 1.x. Overly reliant on one funding source.
ccc	Persistently and structurally break-even or loss-making at EBIT 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	Net Debt/(CFO - Capex)	EBITDAR/(Gross Interest Expense + Rent)
aa	na.	n.a.	na
a	2%	4.0x	30x
bbb	FCF margin positive.	6.0x	2.5x
bb	FCF margin neutal to negative.	10x	1.5x
b	FCF margin negative.	15x	1.0x
ccc	Accelerating negative FCF margin, with limited/no flexibility on spending reduction and funding gaps.	>20x	below 1.0x
		Adjusted Net Debt/Operating EBITDAR	FX Exposure
aa		n.a.	No material FX mismatch.
a		2.0x	Profitability potentialy 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		4.0x	FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b		5.0x	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.
			Unencumbered Assets to Unsecured Debt
aa			na.
a			3.0x
bbb			2.0x
bb			1.8x
b			1.5x
ccc			below 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**

#### **Product Portfolio**

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

#### **R&D Profile**

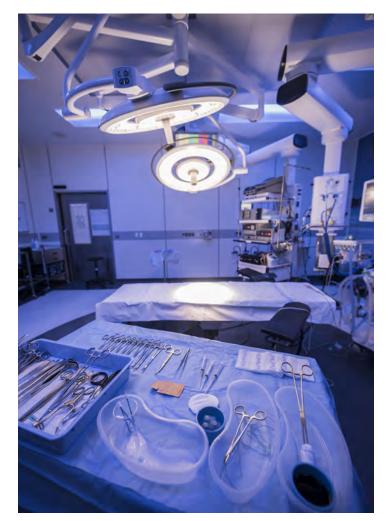
Key factors to evaluate a company's R&D profile include breadth and depth of the new product development pipeline and sufficiency for profitable growth.

## **Scale and Competitive Position**

Key factors to evaluate a firm's scale and competitive position include revenue, EBITDAR 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.

#### **Robert Kirby**

robert.kirby@fitchratings.com (+1) 312 368 3147

#### Megan Neuburger

megan.neuburger@fitchratings.com (+1) 212 908 0501

# 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

	Product Portfolio	R&D Profile	Scale and Competitive Position	Diversification
Rating	Product Strength	Breadth and Depth	Revenue	Geographic Diversification
аа				
i	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.
bb	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.
b	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.
)	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	EBITDAR	Product Diversification
за				
	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
obb	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
)	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.
DOC	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	
аа				
ı	Large majority of expected revenues to be derived from highly differentiated products/technological platforms.		Strong global market positions.	
bb	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.	
)	Small minority of expected revenues to be derived from highly differentiated products/technological platforms.		Weak national and global market positions.	
occ	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	FFO Margin	Lease Adjusted FFO Gross Leverage	Financial Discipline
aa			
a	18%	3.0x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	16%	4.0x	Financial policies less conservative than peers but generally applied consistently.
bb	14%	5.0x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
b	11%	6.0x	No financial policy or track record of ignoring it. Opportunistic behavior.
ccc	Level that could eventually threaten liquidity.	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	Lease Adjusted FFO Net Leverage	Liquidity
aa			
a	18%	2.5x	Very comfortable liquidity. Well-spread debt maturity schedule. Diversified sources of funding.
bbb	16%	3.5x	One year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
bb	14%	4.5x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
b	11%	5.5x	Liquidity ratio below 1.x. 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.
	FCF Margin	Net Debt/(CFO - Capex)	FFO Fixed Charge Cover
aa			
a	8%	2.5x	6х
bbb	7%	3.5x	4x
bb	5%	4.5x	3x
b	Neutral to Negative	6.5x	2x
CCC	Level that could eventually threaten liquidity.	Leverage so weak that it is no longer meaningful relative to cash generation and liquidity.	Net FCF debt service cover below 1.0x. All/most funding sources subject to material execution risk.
	Volatility of Profitability	Lease Adjusted Gross Debt/EBITDAR	FX Exposure
aa			
a	Lower volatility of profits 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 in line with industry average.	3.5x	Some exposure of profitability to FX movements and/or debt/cash-flow match. Effective hedging in place.
bb	Higher volatility of profits than industry average.	4.5x	Some exposure of profitability to FX movements 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	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.
	EBITDAR Margin		EBITDAR/(Gross Interest + Rents)
aa			
a	26%		7.0x
bbb	24%		45x
bb	22%		3.5x
b	19%		20x
CCC			

# Packaged Food

#### **Sector Risk Profile**

#### **Rating Range**

Packaged food companies have a below-average risk profile. Fitch's existing public ratings span a widerange 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**

#### **Operational Scale**

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

#### **Business Profile**

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.

#### Monica Aggarwal

monica.aggarwal@fitchratings.com (+1) 212 908 0282

#### Giulio Lombardi

giulio.lombardi@fitchratings.com (+39) 02 879087 214



## **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 lease-adjusted metrics within the relevant rating categories.

# 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

	Operational Scale	Growth Potential	Business Profile	Diversification
Rating	Size	Organic Growth	Brand Strength	Geographic
aa	EBITDAR >\$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.
3	EBITDAR >\$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
obb	EBITDAR >\$1.5 billion	Organic growth tends to be average.	Strong brand portfolio with good awareness.	Moderate geographical diversification.
ob	EBITDAR >\$500 million	Below average or modest decline in organic growth rate.	Skewed toward weaker or smaller brands.	Limited geographical diversification.
b	EBITDAR <\$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	EBITDAR insufficient to meet fixed obligations	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.
ì	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.
obb	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 porfolio.	Lead pricing in a few categories, follow pricing actions in others.	Moderate portfolio diversity.
ob	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 player 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 player 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.
3	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.
occ	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	FFO Margin	Lease Adjusted FFO Gross Leverage	Financial Discipline
aa	15%	2.0x	Publicly announced conservative financial policy. Track record of strict compliance.
a	11%	3.0x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	9%	4.0x	Less conservative than peers but generally applied consistently.
bb	7%	5.0x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
b	5%	6.0x	No financial policy or track record of ignoring it. Opportunistic behavior.
ccc	Break-even or loss-making at FFO level.	>8.0x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	EBITDA Margin	Lease Adjusted FFO Net Leverage	Liquidity
aa	23%	1.5x	Very comfortable liquidity; no need to use external funding in the next 24 months. Well-spread debt maturity. Diversified sources of funding
a	20%	2.5x	Very comfortable liquidity. Well-spread debt maturity schedule. Diversified sources of funding
bbb	15%	3.5x	One year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
bb	12%	4.5x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
b	8%	5.5x	Liquidity ratio below 1.0x. Overly reliant on one funding source.
ccc	Mid-single digits or lower	>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	Lease Adjusted Gross Debt/EBITDAR	EBITDAR/(Gross Interest Expense + Rent)
aa	6%	1.5x	11.0x
a	4%	2.5x	8.0x
bbb	3%	3.5x	6.0x
bb	2%	4.5x	4.0x
b	1%	6.5x	3.0x
ccc	Break-even or loss-making at FCF level.	>8.0x	<1.0x
	Volatility of Profitability	Lease Adjusted Net Debt/EBITDAR	FFO Fixed Charge Cover
aa	Stable or consistent profit generation.	1.0x	10χ
a	Volatility of profit lower than industry average.	2.0x	7x
bbb	Volatility of profit in line with industry average.	3.0x	5x
bb	Volatility of profit higher than industry average.	40x	3x
b	High volatility of profit relative to the industry.	6.0x	2x
ccc	Exceptionally high volatility of profit relative to the industry.	>7.0x	<1.0x
			FX Exposure
aa			No material FX mismatch.
a			Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flows well matched.
bbb			Some FX exposure on profitability and/or debt/cash flow match. Effective hedging in place.
bb			PX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b			Large FX exposure. No significant/ineffective hedging in place.
ccc			FX exposure dominant in impairing the issuer's ability to service debt in cash terms.

## **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**

#### **Size and Market Positioning**

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

#### **Patent Protection Profile**

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.

#### Research & Development Product Pipeline

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.

#### **Robert Kirby**

robert.kirby@fitchratings.com (+1) 312 368 3147

#### Frank Orthbandt

frank.orthbandt@fitchratings.com (+44) 20 3530 1037



## **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.

## **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

	Size and Market Positioning	Patent Protection Profile	R&D Product Pipeline	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 condition
	Market Position	Sales Opportunity (Generic) From Expiry	R&D Productivity (Innovative)	<b>Top Product Concentration</b>
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	FFO Margin	FFO Adjusted Leverage	Financial Discipline
aa	Stable and durably at or above 26% throughout product development and patent expiration cycles.	2.0x	Publicly announced conservative financial policy. Track record of strict compliance.
a	Stable and durably at or above 20% throughout product development and patent expiration cycles.	3.0x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	Stable and durably at or above 12% throughout product development and patent expiration cycles.	4.0x	$\label{thm:constraint} Financial policies less conservative than peers but generally applied consistently.$
bb	Stable and durably at or above 10% throughout product development and patent expiration cycles.	5.0x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
b	Stable and durably at or above 7% throughout product development and patent expiration cycles.	6.0x	No financial policy or track record of ignoring it. Opportunistic behavior.
ccc	Persistently and structurally break-even or loss-making at FFO level.	>8.0x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	EBIT Margin	FFO Adjusted Net Leverage	Liquidity
aa	Stable and durably at or above 26% throughout product development and patent expiration cycles.	1.5x	Very comfortable liquidity, no need to use external funding in the next 24 months. Well-spread debt maturity. Diversified sources of funding.
a	Stable and durably at or above 20% throughout product development and patent expiration cycles.	2.5x	Very comfortable liquidity, Well-spread debt maturity schedule. Diversified sources of funding
bbb	Stable and durably at or above 12% throughout product development and patent expiration cycles.	3.5x	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.	4.5x	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.	5.5x	Liquidity ratio below 1.x. 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.
		Net Debt/(CFO - Capex)	FFO Fixed Charge Cover
aa		1.5x	10x
a		2.5x	бх
bbb		3.5x	4x
bb		4.5x	3x
b		6.5x	2x
ccc		>8.0x	Net FCF debt service cover below 1.0x. All/most funding sources subject to material execution risk.
		Lease Adjusted Gross Debt/EBITDAR	FX Exposure
aa		1.5x	No material FX mismatch.
a		2.5x	Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flows well-matched.
bbb		3.5x	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.
			EBITDAR/(Gross Interest Expense + Rent)
aa			13x
a			7x
bbb			45x
bb			3.5x
b			2.0x
CCC			Persistently and structurally break-even or loss-making at EBITDAR level.

## 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 players 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

#### **Operational Scale and Market Position**

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

#### **Operating Efficiency**

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.

#### **Commodity 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.

#### Anna Zhdanova

anna.zhdanova@fitchratings.com (+7) 495 956 2403



## **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.

#### Carla Norfleet-Taylor, CFA

carla.norfleettaylor@fitchratings.com (+1) 312 368 3195

## 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. Caseready 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

	Scale and Market Position	Operating Efficiency	Commodity Risk Management	Diversification
Rating	Size (Annual EBITDAR)	Veterinary Standards	Risk Management	End Markets
aa	na.	n.a.	n.a.	n.a.
a	n.ā.	n.a.	na.	n.a.
bbb	USD1.5bn	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 track 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<="" td=""><td>Materially weak veterinary standards.</td><td>Speculative management of risks.</td><td>Domestic player in a market suffering from a downturn.</td></usd0.1>	Materially weak veterinary standards.	Speculative management of risks.	Domestic player 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.	na.	n.a.	n.a.
a	n.a.	n.a.	na.	na.
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	na.			n.a.
a	n.a.			n.a.
bbb	Top-five global player in its protein industry.			Broadly diversified by animal protein type.
bb	Mid-size player 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				na.
a				na.
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	FFO Margin (%)	Lease-Adjusted FFO Gross Leverage (x)	Financial Discipline
aa	na.	na.	Publicly announced conservative financial policy. Track record of strict compliance.
a	na.	na.	${\it Clear commitment to maintain a conservative policy with only modest deviations allowed.}$
bbb	6%	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	below 3%	5.0x	No financial policy or record of ignoring it. Opportunistic behaviour.
ccc	Persistently and structurally breaking even or loss-making at FFO level.	>7.5x	Financial management has lost much of its discipline, and is subject to frequent, sudden changes consistent with a crisis.
	EBITDAR Margin (%)	Lease-Adjusted FFO Net Leverage (x)	Liquidity
aa	na.	n.a.	Very comfortable liquidity, no need to use external funding in the next 24 months. Well-spread debt maturity. Diversified sources of funding.
a	na.	na.	Very comfortable liquidity. Well-spread debt maturity schedule. Diversified sources of funding.
bbb	8%	2.5x	One-year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
bb	6%	3.5x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
b	4%	4.5x	Liquidity ratio below 1.0x. Overly reliant on one funding source.
ccc	Persistently and structurally breaking even or loss-making at EBITDAR 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.
	EBIT Margin (%)	Lease-Adjusted Net Debt/EBITDAR (x)	FFO Fixed Charge Cover
aa	na.	na.	na
a	na.	na.	na
bbb	5%	20x	5.0x
bb	3%	3.0x	3.0x
b	1%	4.0x	2.0x
ccc	Persistently and structurally breaking even or loss-making at EBIT level	>6.5x	Net FCF debt service cover < 1.0x. All/most funding sources are subject to material execution risk.
	FCF Margin (%)	Debt/EBITDA (x)	FX Exposure
aa	na.	na.	No material FX mismatch.
a	na.	na.	Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flows well matched.
bbb	25%	20x	Some exposure of profitability to FX movements and/or debt/ cash-flow match. Effective hedging in place.
bb	1%	3.0x	Some exposure of profitability to FX movements and/or debt/cash flow match. Some hedging in place but only partly effective.
b	Neutral to negative	4.0x	Large FX exposure. No significant/ ineffective hedging in place.
ccc	Accelerating negative FCF margin, with limited/no flexibility on spending reduction.	>6.5x	FX exposure is dominant in impairing the issuer's ability to service debt in cash terms.
	Volatility of Profitability		EBITDAR/ (Gross Interest + Rents) (x)
aa	na.		na
a	na.		na
bbb	Volatility of profits viewed as a positive outlier for the industry.		5.5x
bb	Volatility of profits in line with industry average.		35x
b	Higher volatility of profits than industry average.		20x
ccc	Volatility of profits exceeds normal bounds of volatility for corporate sector as a whole.		<1.0x
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# 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**

#### Scale

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.

#### Carla Norfleet-Taylor, CFA

carla.norfleettaylor@fitchratings.com (+1) 312 368 3195



## **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'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.

#### Anna Zhadnova

anna.zhdanova@fitchratings.com (+7) 495 956 2403

# 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

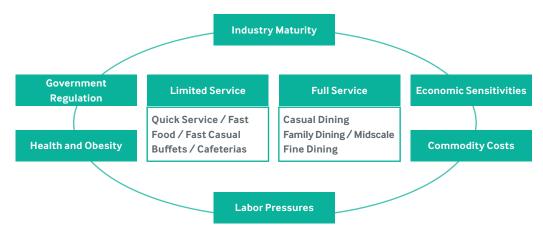
Casual dining is the largest segment of the full service subsector, which is typically the most economically sensitive due to higher per person average check. Average per person check for midscale or family dining restaurants is \$6–\$10, for casual dining \$10–\$25, and for fine dining over \$20 according 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.

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.

#### **Restaurant Sector Risk Factors**



Source: Fitch Ratings

# Restaurant Companies

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**

	Scale	Brand Strength	System Health	Diversification
Rating	Systemwide Units	Brand Perception and Customer Satisfaction	Same-Store Sales Trends	Geographic
aa	na.	na.	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 exposur
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
18	na.	n.a.	n.a.	n.a.
3	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 player 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.
)	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	na.	na.		n.a.
ì	EBITDAR > \$5 billion		Financially strong franchisees or licensees that have a good working relationship with franchisor. Franchisor has equity interest in large franchisees.	
obb	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.	
)	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.			
1	Strong growth profile with mid-single- digit or more net unit growth.			
obb	Relatively mature brand (s) with low-to- mid single-digit net unit growth.			
ob	Mature brand (s) with low single-digit net unit growth.			
)	Mature brand (s) with limited unit growth opportunities.			
occ	Shrinking brand presence with net unit closures.			



## Financial Profile Key Factors – Restaurant Companies

	Profitability	Financial Structure	Financial Flexibility
Rating	EBITDAR Margin	Lease Adjusted FFO Gross Leverage	Financial Discipline
aa	n.a.	na.	Publicly announced conservative financial policy. Track record of strict compliance.
a	25%	2.3x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	20%	3.3x	Financial policies less conservative than peers but generally applied consistently.
bb	15%	4.3x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
b	10%	5.3x	No financial policy or track record of ignoring it. Opportunistic behavior.
ccc	<5%	6.3x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis mode environment.
	Restaurant Level Margin (%)	Lease Adjusted FFO Net Leverage	Liquidity
aa	na.	na.	Very comfortable liquidity, no need to use external funding in the next 24 months. Well-spread debt maturity. Diversified sources of funding.
a	>17%	20x	Very comfortable liquidity. 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%	5.0x	Liquidity ratio below 1.x. Overly reliant on one funding source.
ccc	<5%	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 (%)	Net Debt/(CFO - Capex)	FFO Fixed Charge Cover
aa	na.	n.a.	na.
а	>20%	2.0x	3.5x
bbb	17%	4.0x	2.5x
bb	13%	6.0x	1.5x
b	8%	10x	1.0x
ccc	<5%	12x	Below 1x.
	FCF Margin (%)	Total Adjusted Debt/Operating EBITDAR	EBITDAR/(Gross Interest Expense + Rent)
aa	na.	na.	na.
a	5%	2.0x	4
bbb	3%	3.0x	3
bb	2%	4.0x	2
b	1%	5.0x	1.5
CCC	Negative	6.0x	Below 1.0x
	Volatility of Profit and Cash Flow	Net Adjusted Debt/Operating EBITDAR	FX Exposure
aa	na.	n.a.	No material FX mismatch.
a	Lower volatility of profit and cash flow than industry average.	1.5x	Profitability potentialy exposed to FX but efficient hedging in place. Debt and cash flows well matched
bbb	Volatility of profit and cash flow in line with the industry.	2.5x	Some FX exposure on profitability and/or debt/cash flow match. Effective hedging in place.
bb	Moderately higher volatility of profit and cash flow than industry average.	3.5x	FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b	Higher volatility of profit and cash flow than industry average.	4.5x	Large FX exposure. No significant/ineffective hedging in place.
DCC	Volatility of profit and cash flow viewed as a negative outlier for industry.	5.5x	FX exposure dominant in impairing the issuer's ability to service debt in cash terms.

# **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 players, 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**

#### **Business Risk**

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.

#### **Brand Portfolio**

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.

#### **Competitive 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.

#### Bill Densmore

bill.densmore@fitchratings.com (+1) 312 368 3125

#### Giulio Lombardi

giulio.lombardi@fitchratings.com (+39) 02 879087 214

# 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 players operate in an individual market. A few smaller players 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 players 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 players 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

	Business Risk	Brand Portfolio	Competitive Position	Diversification
Rating	Litigation	Organic Growth	Market Share	Geographic Diversification
aa	na.	na.	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 player with declining market share.	Concentrated in one region where cash flows are materially affected by severe recessionary or other disruptive condition
	Regulatory	Pricing Power	Size (EBITDAR)	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.
)	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 player.	Product line facing extinction.
		Innovation	Distribution Channel	Price Tiering
aa		na.	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		na.		
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	FFO Margin	Lease Adjusted FFO Gross Leverage	Financial Discipline
aa	n.a.	n.a.	Publicly announced conservative financial policy. Track record of strict compliance.
a	20%	3.0x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	15%	4.0x	$\label{policies} Financial policies less conservative than peers but generally applied consistently.$
bb	10%	5.0x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
b	5%	6.0x	No financial policy or track record of ignoring it. Opportunistic behavior.
ccc	Persistently and structurally break-even or loss-making at FFO level.	8.0x+	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	FCF Margin	Lease Adjusted FFO Net Leverage	Liquidity
aa	na.	n.a.	Very comfortable liquidity, no need to use external funding in the next 24 months, Well-spread debt maturity. Diversified sources of funding.
a	4%	2.5x	$\label{thm:local_problem} Very comfortable liquidity. Well-spread debt maturity schedule. Diversified sources of funding.$
bbb	2%	3.5x	One year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
bb	Neutral FCF margin	4.5x	$Liquidity\ ratio\ around\ 1.0x.\ Less\ smooth\ debt\ maturity\ or\ concentrated\ funding.$
b	Neutral to negative FCF margin	5.5x	Liquidity ratio below 1.x. Overly reliant on one funding source.
ccc	Accelerating negative FCF margin, with limited/no flexibility on spending reduction and funding gaps.	>7.0x	No near-term prospect of recovery in liquidity score above 1.0x, All/most funding sources subject to material execution risk.
	Volatility of Profitability	Net Debt/(CFO - Capex)	FFO Fixed Charge Cover
aa	n.a.	n.a.	na.
a	Lower volatility of profits than industry average.	2x	бх
bbb	Volatility of profits in line with industry average.	4x	4x
bb	Higher volatility of profits than industry average.	6x	3x
b	Volatility of profits viewed as a negative outlier for the industry.	8x	2κ
ccc	Volatility of profits greater than normal bounds of volatility for corporate sector as a whole.	>11x	Consistently below 1x
	EBITDAR Margin	Total Adjusted Debt/EBITDAR	FX Exposure
aa	na.	n.a.	No material FX mismatch.
a	40%	2.5x	Profitability potentialy exposed to FX but efficient hedging in place. Debt and cash flows well-matched.
bbb	30%	3.5x	Some FX exposure on profitability and/or debt/cash flow match. Effective hedging in place.
bb	20%	4.5x	FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b	<20%	5.5x	Large FX exposure. No significant/ineffective hedging in place.
ccc	Persistently and structurally break-even or loss-making at EBITDAR level.	>7.0x	FX exposure dominant in impairing the issuer's ability to service debt in cash terms.
		Net Adjusted Debt/EBITDAR	Cash Flow Return to Shareholders
aa		n.a.	na.
a		2.0x	Moderate FFO surplus despite capital spending, dividends and share repurchasing.
bbb		3.0x	Modest excess FFO despite capital spending dividends and share repurchasing
bb		4.0x	FFO completely consumed by capital spending, dividends and share repurchasing.
b		5.0x	Incremental debt needed to fund capital requirements and/or special dividends.
ccc		>7.0x	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.

#### **Technology**

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

#### **Cost Structure and Size**

This captures the company's cost competitiveness, relative size, 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.

## **Strategic Position**

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

#### Craig Fraser

craig.fraser@fitchratings.com (+1) 212 908 0310

## **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. 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.

#### Tom Chruszcz

tom.chruszcz@fitchratings.com (+48) 22 338 6294

# 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 players 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

19. 19. 19. 19. 19. 19. 19. 19. 19. 19.		Diversification	Technology	Cost Structure and Size	Strategic Position
September of groupe fields of the control of the control of groupe fields and september of gr	Rating	Geographic Diversification	Level of Self-Funded R&D/History of Innovation	Cost Competitiveness and Flexibility	Prime Contracting/Key Programs
Research and warm an improper study of the study for the Ministry of the study of t	aa	na.	n.a.	n.a.	n.a.
See Source Extramostory and a sear of all agents of the Controlled See See See See See See See See See S	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.	most tenders. Works on majority of key programs.
Market in intercontry mengages, "I was because the data for the base of the ba	bbb	Revenue base moderately well spread out geographically.	Moderate level of self-funded R&D some history of innovation.	to 12 months. A sizable portion (30% - 40%) of	Occasional prime contractor. Wins a large portion of tenders. Works on a large number of key programs.
Security of the process of the proce	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
commercial vs Defense Spills	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.
The impart of section of the comment and determined or interest and sections of the comment and determined or interest and sections of the comment and determined or interest and sections of the comment and determined or interest and sections of the comment and determined or interest and sections of the comment and determined or interest and sections of the comment and determined or interest and sections of the comment and determined or interest and sections of the comment a	CCC	Reliance on a single, high-risk location or a single high-risk purchaser.	Recent track record of repeated, material deficiencies in product technology.	Inflexible cost structure. Would face prolonged negotiations with high execution risk in a downturn.	obsolescence or experiencing a prolonged tender
Learning to the Statistic optimization of the respect of the event and appropriate and control of processors and statistic control of the respect of deposition of the program of the respect of the respect of the program of the respect		Commercial vs Defense Split	Fin. Exp. to New Tech Projects (Excl. Aircraft Dev.)	Backlog Quality, Diversity and Size	Market Position
And the following of the product of	aa	na.	n.a.	n.a.	n.a.
Segments altered products where it.  Note the product product products are products. The products are products are products are products are products are products. The products are products are products are products are products. The products are products are products are products are products. The products are products are products are products are products. The products are products are products are products are products. The products are products are products are products are products are products are products. The products are products are products are products are products are products. The products are products are products are products are products are products. The products are products. The products are products are products are products are products are products are products. The products are products. The products are products. The products are products. The products are product	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.
Sold y richer in diagrame emera commencial aerogación derival.  Sold y richer individual program de la commencial aerogación y color sol bost de la color del color del color de la color	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.
Selection   Sele	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.
Program/Product Diversification  Acheen a large number of program.  Acheen a large number of program.  Acheen a large number of program.  Between 54 bits on and \$1 bits on \$1 bits on and \$1 bits on \$1 bi	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.
Active in a large number of programs.  Active in a large number of programs.  Active in a moderate number of programs.  Between \$1 billion and \$1 billion programs.  Products are graphy active program commentation.  Between \$1 billion and \$1 billion programs.  Products are program commentation.  Products are	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.	display weak creditworthiness and contract	Extremely small and/or undifferentiated player.
Active in a large number of programs.  One \$100 Micro  Residence \$4 Active in a large number of programs.  Between \$4 bitin and \$8 biti		Program/Product Diversification		Revenue Size	Strategic Importance of Products
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Essentially a one-program company.  Linder \$1 billion  Roducts are generic and are easily replaced.  Aftermarket Presence  Aftermarket Presence.  Aftermarket presence.  An a. na. na. na. na. na. na. na. na. na.	bbb	Active in a moderate number of programs.		Between \$4 billion and \$8 billion	Products are strategically important to customers and programs. Can be replaced but at significant cost.
Section of the program company approaching or at the end of that program company approaching or at the end of that program company approaching or at the end of that program with no suddedle replacement plans.  Aftermarket Presence  as na.	bb	High level of program concentration.		Between \$1 billion and \$4 billion	Products are somewhat important to customers and programs. Replacement is readily available.
Aftermarket Presence  as na.	b	Essentially a one-program company.		Under \$1 billion	Products are largely generic but carry some value to customers and programs. Replacement is readily available.
na.	ccc	A one-program company approaching or at the end of that program with no suitable replacement plans.		Under \$500 million	Products are generic and are easily replaced.
a Strong aftermarket presence.  bbb Moderate aftermarket presence.  b No aftermarket presence.  ccc No ourrent aftermarket presence.  ccc No ourrent aftermarket presence.  ccc No ourrent aftermarket presence.  ccc Vestomer Concentration (Non-Prime Suppliers)  aa n.a.  Limited exposure to a particular customer top customer lost provides and top free proposure to a top customer ranges from 10% to 20%.  b Atop customer renges from 20% to 50%.  A angle top customer represents more than 50% of revenue.  A single top customer of either low creditworthiness or		Aftermarket Presence			
Moderate aftermarket presence.  b No aftermarket presence.  ccc No current aftermarket presence but financial or legal exposures that weight materially on the future profile.  Customer Concentration (Non-Prime Suppliers)  aa n.a.  Limited exposure to a particular customer; top customer less than 10% of revenue and top five programs less than 10% of revenue and top five programs less than 30% of revenue.  b Exposure to a top customer ranges from 20% to 50%.  A single top customer expresents more than 50% of revenue.  A single top customer of either low creditworthiness or	aa	п.а.	n.a.	n.a.	na.
Low aftermarket presence.  No aftermarket presence, but financial or legal exposures that weigh materially on the future profile:  Customer Concentration (Non-Prime Suppliers)  aa na.  Limited exposure to a particular customer, top customer sest than 10% of revenue and top five programs less than 10% of revenue.  bb Exposure to a top customer ranges from 20% to 50%.  A top customer represents more than 50% of revenue.  A single top customer of either low creditivorthiness or	a	Strong aftermarket presence.			
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tive programs less than 30% of revenue.  Exposure to a top customer ranges from 10% to 20%.  Exposure to a top customer ranges from 20% to 50%.  A top customer represents more than 50% of revenue.  A single top customer of either low creditivorthiness or	aa	n.a.			
Exposure to a top customer ranges from 10% to 20%.  Exposure to a top customer ranges from 20% to 50%.  A top customer represents more than 50% of revenue.  A single top customer of either low creditworthiness or	a	Limited exposure to a particular customer; top customer less than 10% of revenue and top five programs less than 30% of revenue.			
b A top customer represents more than 50% of revenue.  A single top customer of either low creditworthiness or	bbb				
A single top customer of either low creditworthiness or	bb	Exposure to a top customer ranges from 20% to 50%.			
A single top customer of either low creditworthiness or high volatility in purchase and/or payment patterns.	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	FFO Margin	Lease Adjusted FFO Gross Leverage	Financial Discipline	
aa	n.a.	n.a.	Publicly announced conservative financial policy. Track record of strict compliance.	
a	11%	2.0x	Clear commitment to maintain a conservative policy with only modest deviations allowed.	
bbb	9%	3.0x	$\label{thm:constraint} Financial policies less conservative than peers but generally applied consistently.$	
bb	8%	4.0x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.	
b	6%	6.0x	No financial policy or track record of ignoring it. Opportunistic behavior.	
ccc	Persistently and structurally break-even or loss-making at FFO level.	>8x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.	
	EBIT Margin	Lease Adjusted FFO Net Leverage	Liquidity	
aa	na.	n.a.	Very comfortable liquidity; no need to use external funding in the next 24 months. Well-spread debt maturity. Diversified sources of funding.	
a	11%	1.0x	Very comfortable liquidity. Well-spread debt maturity schedule. Diversified sources of funding	
bbb	9%	20x	One year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.	
bb	7%	3.0x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.	
b	5%	5.0x	Liquidity ratio below 1.x. Overly reliant on one funding source.	
ccc	Persistently and structurally break-even or loss-making at EBIT level.	>7x	No near-term prospect of recovery in liquidity score above 1.0x. All/most funding sources subject to material execution risk.	
	FCF Margin	Net Debt/(CFO - Capex)	FFO Fixed Charge Cover	
aa	na.	n.a.	na.	
a	5%	1.0x	70x	
bbb	3%	2.5x	4.5x	
bb	1%	3.5x	3.5x	
b	Neutral to negative FCF margin.	6.0x	2.5x	
ccc	Accelerating negative FCF margin with limited/no flexibility on spending reductions and funding gaps.	>9.0x	Consistently below 1x	
	Volatility of Profitability	Lease Adjusted Debt/EBITDAR	FX Exposure	
aa	na.	n.a.	No material FX mismatch.	
a	Lower volatility of profits than industry average.	1.5x	Profitability potentially exposed to PX but efficient hedging in place. Debt and cash flows well-matched.	
bbb	Volatility of profits in line with industry average.	3.0x	Some FX exposure on profitability and/or debt/cash flow match. Effective hedging in place.	
bb	Higher volatility of profits than industry average.	4.0x	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 a negative outlier, and experiencing a secular downward trend in absolute and relative terms.	>7.5x	FX exposure dominant in impairing the issuer's ability to service debt in cash terms.	
		Lease Adjusted Net Debt/EBITDAR	Pension Plan Funding	
aa		n.a.	na	
a		0.5x	Required cash contributions to fund pension plans are less than 10% of FFO.	
bbb		1.5x	Required cash contributions to fund pension plans are less than 20% of FFO.	
bb		2.5x	Required cash contributions to fund pension plans are between 20% to 40% of FFO.	
b		4.5x	Required cash contributions to fund pension plans are higher than 40% of FFO.	
ccc		>7x	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**

#### **Competitive 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 Positioning**

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 Structure**

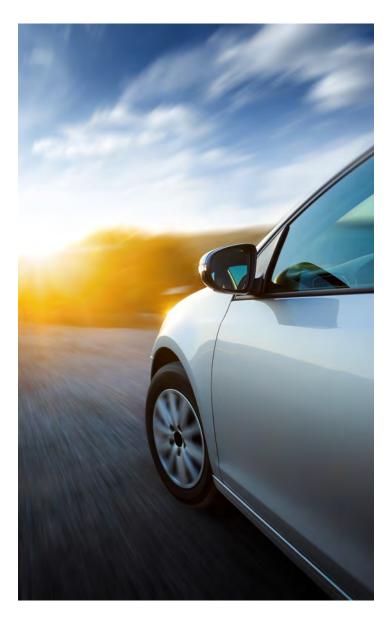
The flexibility of the cost structure, measured notably by the issuer's capacity utilization rates and its ability to generate synergies either internally or through external alliances, is a key factor.

#### **Emmanuel Bulle**

emmanuel.bulle@fitchratings.com (+39) 93 323 8411

#### Stephen Brown

stephen.brown@fitchratings.com (+1) 312 368 3139



#### **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.

## **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.

### 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.



## **Automotive Manufacturers**



#### **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 players 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 players. 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

	Compatitive Position	Diversification	Brand Positioning	Cost Structure
	Competitive Position	Diversification		
Rating	Product Positioning	Product Range	Brand Value	Capacity Utilization
aa	na.	na.	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.	na.	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 player 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	FFO Margin	Lease Adjusted FFO Gross Leverage	Financial Discipline
аа	na.	n.a.	Publicly announced conservative financial policy. Track record of strict compliance.
a	9%	0.5x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
obb	7%	1.5x	Financial policies less conservative than peers but generally applied consistently.
ob	4%	2.5x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
)	2%	4.0x	No financial policy or track record of ignoring it. Opportunistic behavior.
coc	Persistently and structurally break-even or loss-making at FFO level.	6.0x and above.	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	EBIT Margin - Group	Lease Adjusted FFO Net Leverage	Liquidity
aa aa	n.a.	na.	Very comfortable liquidity, no need to use external funding in the next 24 months. Well-spread debt maturity. Diversified sources of funding.
	6%	Negative	$\label{thm:comfortable} Very comfortable \ liquidity. Well-spread \ debt \ maturity \ schedule. \ Diversified \ sources \ of \ funding,$
bb	4%	1.0x	One year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
b	2%	2.0x	Liquidity ratio around 1.0x Less smooth debt maturity or concentrated funding.
	Negative	3.5x	Liquidity ratio below 1x Overly reliant on one funding source.
cc	Persistently and structurally break-even or loss-making at EBIT level.	5.5x and above.	No near-term prospect of recovery in liquidity score above 1.0x. All/most funding sources subject to material execution risk.
	FCF Margin	Net Debt/(CFO - Capex)	FFO Fixed Charge Cover
a	n.a.	na.	na.
	25%	Net cash position	15x
bb	1.5%	1.0x	9x
b	0.5%	2.0x	бх
	Negative	4.0x	3x
сс	Accelerating negative FCF margin, with limited/no flexibility on spending reduction and funding gaps.	6.0x and above.	Consistently below 1x
	Volatility of Margins	CFO/Lease Adjusted Debt	FX Exposure
ia	na.	na.	No material FX mismatch.
	Low volatility of margins.	80%	Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flows well matched
bbb	More volatility leading to low but positive margins at cycle trough.	50%	Some FX exposure on profitability and/or debt/cash flow match. Effective hedging in place.
b	Some more volatility can lead to moderate and temporary losses at cycle trough.	25%	FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
	Significant volatility leading to operating losses at cycle trough.	15%	Large FX exposure. No significant/ineffective hedging in place.
DC DC	Very volatile and sustainably negative margins.	5%	FX exposure dominant in impairing the issuer's ability to service debt in cash terms.

# **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.

#### **Competitive 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.

#### **Technology Leadership**

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.



#### **Emmanuel Bulle**

emmanuel.bulle@fitchratings.com (+39) 93 323 8411

#### Stephen Brown

stephen.brown@fitchratings.com (+1) 312 368 3140

# **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 players 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 players 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	<b>Competitive Position</b>	Diversification	Technology Leadership
Rating	Position in the Supply Chain	Overall Scale	Original Equipment Manufacturer	Product Portfolio
aa	na.	na.	na.	n.a.
а	Top 10 tier-one core suppliers with strong relationships with most original equipment manufacturers.	Very large global player (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 player (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 player (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 player (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	na.	na.	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 manafacturers (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	na.	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	FFO Margin	Lease Adjusted FFO Gross Leverage	Financial Discipline
а	na.	n.a.	Publicly announced conservative financial policy. Track record of strict compliance.
1	12%	1.0x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bb	10%	1.5x	Financial policies less conservative than peers but generally applied consistently.
bb	7%	3.0x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
	5%	4.0x	No financial policy or track record of ignoring it. Opportunistic behavior.
сс	Persistently and structurally break-even or loss-making at FFO level.	6.0x+	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	EBIT Margin	Lease Adjusted FFO Net Leverage	Liquidity
ıa	na.	n.a.	Very comfortable liquidity, no need to use external funding in the next 24 months. Well-spread debt maturity. Diversified sources of funding.
	11%	0.5x	$\label{thm:conformable} Very comfortable liquidity. Well-spread debt maturity schedule. Diversified sources of funding the conformal c$
bb	9%	1.0x	One year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
b	6%	2.5x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding
	4%	3.5x	Liquidity ratio below 1.0x. Overly reliant on one funding source.
CC	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.
	FCF Margin	FCF/Total Adjusted Debt (%)	FFO Fixed Charge Cover
3	n.a.	n.a.	na.
	3.0%	20%	9x
bb	2.5%	15%	7x
)	1.5%	8%	4x
	0.0%	0%	2x
DC C	Accelerating negative FCF margin, with limited/no flexibility on spending reduction and funding gaps.	Consistently negative.	Consistently below 1x.
	Margin Volatility	CFO/Lease Adjusted Debt	FX Exposure
a	na.	na.	No material FX mismatch.
	Low volatility of margins.	75%	Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flows well match
bb	More volatility leading to low but positive margins at cycle trough.	50%	Some FX exposure on profitability and/or debt/cash flow match. Effective hedging in place.
b	Some more volatility can lead to moderate and temporary losses at cycle trough.	25%	FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
	Significant volatility leading to operating losses at cycle trough.	10%	Large FX exposure. No significant/ineffective hedging in place.
c	Very volatile and sustainably negative margins.	2%	FX exposure dominant in impairing the issuer's ability to service debt in cash terms.

# **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 players or highly leveraged companies tend to be rated in the 'B' category or lower.

## **Sector-Specific Key Factors**

#### **Market Position and Barriers**

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.



## Ha Anh Bui

ha-anh.bui@fitchratings.com (+49) 69 768076 126

#### Robert Rulla

robert.rulla@fitchratings.com (+1) 312 606 2311

# **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 economic 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 players 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 and Barriers to Entry	<b>End-Market Diversification</b>	Geographical Diversification	Cost Position
Rating	Market Position	Cyclicality	Production	Cost Leadership
aa	n.a.	na.	n.a.	n.a.
a	na.	n.a.	n.a.	n.a.
obb	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.
ob	Top-five player 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 player 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.	па.	n.a.	n.a.
ì	na.	n.a.	n.a.	n.a.
obb	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.
)	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 succesful 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.	na.	n.a.	n.a.
3	na.	n.a.	n.a.	n.a.
obb	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.
)	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.
occ	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	FFO Margin	FFO Adjusted Leverage	Financial Discipline
aa	n.a.	na.	Publicly announced conservative financial policy. Track record of strict compliance.
a	na.	na.	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	14%	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	6%	5.0x	No financial policy or track record of ignoring it. Opportunistic behaviour.
CCC	3%	>7.0x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a criss environment.
	FCF Margin	FFO Adjusted Net Leverage	Liquidity
aa	na.	na.	Very comfortable liquidity, no need to use external funding in the next 24 months. Well-spread debt maturity, Diversified sources of funding,
a	na.	n.a.	Very comfortable liquidity, Well-spread debt maturity schedule. Diversified sources of funding
bbb	Positive FCF margin	2.5x	One year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
bb	Neutral to negative FCF margin	3.5x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding
b	Negative FCF margin	4.5x	Liquidity ratio below 1.x Overly reliant on one funding source.
ccc	Accelerating negative FCF margin, with limited/no flexibility on spending reduction and funding gaps.	>6.5x	No near-term prospect of recovery in liquidity score above 1.0x. All/most funding sources are subject to material execution risk.
		Lease Adjusted Net Debt/EBITDAR	FFO Fixed Charge Cover
aa		na.	na.
a		na.	na
bbb		2.0x	45x
bb		3.0x	3.5x
b		4.0x	<2.5x
CCC		6.0x+	Consistently below 1x
			FX Exposure
aa			No material PX mismatch.
a			Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flows well-matched
bbb			Some FX exposure on profitability and/or debt/cash flow match. Effective hedging in place.
bb			FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b			Large FX exposure. No significant/ineffective hedging in place.
ccc			FX exposure dominant in impairing the issuer's ability to service debt in cash terms.

## **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**

#### Scale and Breadth of Offering

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.

#### **Competitive Position**

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

#### **Industry Dynamics**

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.

#### Robert Rulla

robert.rulla@fitchratings.com (+1) 312 606 2311

#### Ha Anh Bui

ha-anh.bui@fitchratings.com (+49) 69 768076 126

# **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 players 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

Long-Term Growth Potential  n.a.  Strong long-term potential with volatile growth characteristics.  Strong long-term potential but with more volatile cyclical growth characteristics.
-known brands and strong mand premium pricing.  Strong long-term potential with volatile growth characteristics.  Strong long-term potential but with more
mand premium pricing. volatile growth characteristics.  Strong long-term potential but with more
to premium pricing. Volatile cyclical growth characteristics.
ut pricing plays a Mature industry. Traditional markets may be under decision. Some pressure but opportunities arise in new ma
fferings Industry in decline.
value. Industry in rapid decline.
Raw Material Volatility
n.a.
uct innovation that delivers Volatility of input costs are mitigated by the strong ability to epted by the marketplace. pass through input cost inflation (although on a lagged base
Intages in product Moderate ability to pass through input cost inflation somewhat offsets input cost volatility, initiatives help minimize margin compression.
tages in product Volatility of input costs can result in moderate margin compeplicated by competitors. due to limited ability to pass through input cost inflation.
Highly sensitive to input cost inflation and/or supply concentration.
ffering. Margins regularly negative due to input cost pressure.
Industry Capacity
n.a.
Emergence of significant High industry utilization rates norizon is somewhat limited. Support higher returns.
Industry utilization rates fluctuate in line with overall construction spending, resulting in somewhat volatile pricing.
nbents are generally strongly Excess capacity exists, putting pressure on selling prices and margins.
lumber of Significant excess capacity expected to continue in the intermediate to long term.
entrants. Significant excess capacity leading to severe price competition.
LE IN



## Financial Profile Key Factors – Building Products

	Profitability	Financial Structure	Financial Flexibility
Rating	FFO Margin	FFO Adjusted Leverage	Financial Discipline
aa	n.a.	n.a.	Publicly announced conservative financial policy. Track record of strict compliance.
a	11%	2.5x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	9%	3.5x	Financial policies less conservative than peers but generally applied consistently.
bb	7%	4.5x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
b	5%	5.5x	No financial policy or track record of ignoring it. Opportunistic behavior.
CCC	Persistently and structurally break-even or loss-making at FFO level.	>7.5x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	EBIT Margin	FFO Adjusted Net Leverage	Liquidity
aa	n.a.	n.a.	Very comfortable liquidity; no need to use external funding in the next 24 months. Well-spread debt maturity. Diversified sources of funding.
a	10%	2.0x	Very comfortable liquidity. Well-spread debt maturity schedule. Diversified sources of funding.
bbb	8%	2.5x	One year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
bb	6%	3.5x	$Liquidity\ ratio\ around\ 1.0x.\ Less\ smooth\ debt\ maturity\ or\ concentrated\ funding.$
b	3%	4.5x	Liquidity ratio below 1.0x. Overly reliant on one funding source.
ссс	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.
	FCF Margin	Net Debt/(CFO - Capex)	FFO Fixed Charge Cover
aa	n.a.	n.a.	n.a.
a	5%	2.0x	4x
bbb	3%	4.0x	3.5x
bb	2%	6.0x	3x
b	Neutral to negative FCF margin.	8.0x	1x
CCC	Accelerating negative FCF margin, with limited/no flexibility on spending reduction and funding gaps.	>10x	Below 1x
	Volatility of Profitability	Lease Adjusted Gross Debt/EBITDAR	FX Exposure
aa	n.a.	n.a.	No material FX mismatch.
a	Lower volatility of profits than industry average.	2.0x	Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flows well matched.
bbb	Volatility of profits in line with industry average.	3.0x	Some FX exposure on profitability and/or debt/cash flow match. Effective hedging in place.
bb	Higher volatility of profits than industry average.	4.0x	FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
Ь	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 a negative outlier, with a secular downward trend in absolute and relative terms.	>7.5x	FX exposure dominant in impairing the issuer's ability to service debt in cash terms

## **Business Services**

#### **Sector Risk Profile**

#### **Rating Range**

The business 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 players. More highly leveraged and smaller business services companies tend to be rated sub-investment grade.

## **Sector-Specific Key Factors**

#### **Market Position and Scale**

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.

#### **Contracts and Renewal Risk**

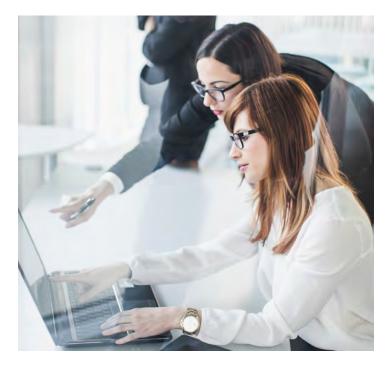
This factor assesses the proportion of earnings that are contracted and the degree of visibility that provides over future cash flows by considering the typical length of contracts and their maturity profile. Fitch takes into account the degree of renewal risk upon expiry of contracts as evidenced by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

#### **Contract Execution and Expertise**

This key factor assesses the reputation and record of the company in executing contracts and providing high-quality and reliable services. Fitch also assesses contract profitability through an understanding of pricing mechanisms, cost-sharing agreements between parties and how the relationship with the end customer is managed.

#### Pablo Mazzini

pablo.mazzini@fitchratings.com (+44) 20 3530 1021



#### **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.

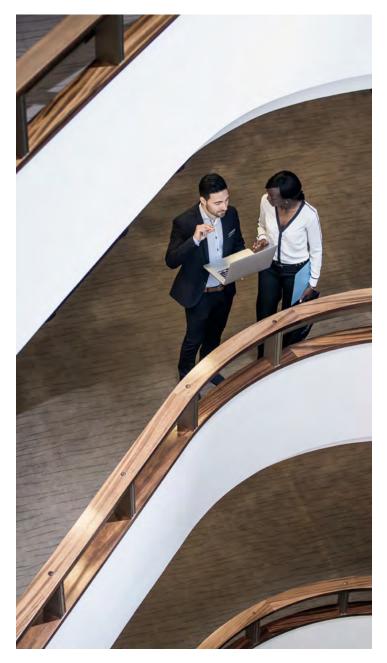
Contracts in the food and facility management segment usually fall into two main categories: profit and loss (whereby the service provider is paid for the service and bears the entire cost); and feebased contracts. Cost and fee is more developed in the U.S., but the trend has been toward profit and loss. 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.

Moreover, in case of leased assets that are linked to a specific contract with a finite term, where the lease obligations on bespoke assets co-terminate with completion or expiry of the contract, Fitch would not typically capitalize lease commitments in its adjusted debt and leverage computation.

#### Paul Antoine Conti

paulantoine.contiQfitchratings.com (+44) 20 3530 1292

## **Business 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. Bolton 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. 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 in contract tenders and the extent to which contracts are executed or subcontracted.

However, not all business services 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**

Business services 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. Business 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 business 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 business 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 – Business Services

	Market Position and Scale	Diversification	Contracted Income and	Contract Execution and
D-4			Renewal Risk	Expertise  Prand Population and Quality
Rating	Market Share	Range of Services	Proportion of Contracted Earnings	Brand, Reputation and Quality
aa	na.	nā.	n.a.	n.a.
a	Leading global market share and established position.	Broadly diversified range of services.	90% of total revenue and EBITDA is contracted.	Global brand associated with high service quality standards and expertise.
bbb	Within top-ten market position globally.	Moderately diversified range of services but with opportunity to expand the services proposition.	75% to 90% of total revenue and EBITDA is contracted.	Brand generally associated with good reputation for expertise and quality of service.
bb	Leading market share on a regional scale	Limited range of services with little opportunity to expand the services proposition.	50% to 75% of total revenue and EBITDA is contracted.	Moderate brand reputation with somewhat erratic track 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.	Instances of reputational damage on poor execution of some contracts.
ccc	Insignificant market share.	Narrow range of services facing rapid decline.	Vast majority of total revenue and EBITDA not contracted.	Impaired reputation.
	Scale	End-Markets	Length of Contracts	Pricing Mechanisms and Cost-Sharing
aa	n.a.	na.	n.a.	n.a.
a	Large size (EBITDAR > 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).	Contractual terms provide high visibility over future revenue and expenses over the life of the contracts
bbb	Size (EBITDAR > 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).	Proven ability to monitor operating costs and contract profitability through price increases and favourable cost-sharing agreements.
bb	Size (EBITDAR between EUR250m and EUR750m) 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).	Ability to offset the impact of some unprofitable contracts with highly profitable ones.
b	Small size (EBITDAR < EUR250m) confers little or no bargaining power with supliers. 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.	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.	Record of poorly profitable contracts. Ability to win profitable contracts questionable.
	Customisation of Services	Customer Base	Maturity Profile of Contracts	Staff Retention and Subcontracting
aa	n.a.	na.	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.	Maturity of contracts is well spread and evenly balanced.	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.	A few contracts expire simultaneously but do not present a meaningful risk to earnings if not renewed.	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.	Some meaningful contracts are up for renewal in bulk, presenting a substantial risk to earnings if not renewed.	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.	Significant or near-term renewal risk on one key contract that would materially impact the credit profile if not renewed.	Poor track 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 short-term risk of non-renewal of contracts on which the company depends for its survival.	Lack of skilled staff preventing the company winning new contracts.
	Multi-Service/Bundled Contracts	Geographic Diversification	Customer Churn and Switching Costs	
aa	n.a.	na.	n.a.	
a	Proven ability to bid for and secure international multi-service and bundled contracts.	Highly diversified with significant presence in both developed and emerging markets.	Extremely low customer churn (<5%) due to essential nature of services and high switching costs for customers.	
bbb	Some success in winning large and possibly cross-border contracts.	Broadly diversified with limited presence in emerging markets.	Limited customer churn (5% to 10%) due to lack of credible alternatives and high switching costs for customers.	
bb	Successful on local contracts but limited track record of winning large international contracts.	Moderately diversified within developed markets only.	Moderate customer churn (above 10%) as switching costs are limited.	
b	Often outbid or marginalised in contract tenders.	Concentrated on one region or country.	High customer churn (above 15%). Limited or no switching costs.	
ccc	Ability to win profitable contracts seriously impaired.	Concentrated on one region or country where market is rapidly declining.	High customer churn (above 15%), Limited or no switching costs. Ability to replace lost customers questionable.	
			In-Sourcing Risk	
aa			n.a.	
a			Low in-sourcing risk regardless of economic environment or other macro trends.	
bbb			Moderate in-sourcing risk, subject to economic environment or other macro trends.	
bb			Meaningful in-sourcing risk due to economic environment or other macro trends.	
b			High in-sourcing risk. Changing economic environment or other macro trend can make demand for such services uneconomic.	
ccc			demand for such services uneconomic.  Clear in-sourcing trend significantly reducing market size.	





## Financial Profile Key Factors — Business Services

	Profitability	Financial Structure	Financial Flexibility
Rating	FFO margin	Lease Adjusted FFO Gross Leverage	Financial Discipline
за	na.	n.a.	Publicly announced conservative financial policy. Track record of strict compliance.
1	10%	2.5x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
obb	7%	3.5x	Financial policies less conservative than peers but generally applied consistently.
bb	5%	4.5x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
)	below 5%	5.5x	No financial policy or track record of ignoring it. Opportunistic behavior.
cc	Persistently and structurally break-even or loss-making at FFO level.	>7.5x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	EBIT margin	Lease Adjusted FFO Net Leverage	Liquidity
13	na.	n.a.	Very comfortable liquidity, no need to use external funding in the next 24 months. Well-spread debt maturity. Diversified sources of funding.
	10%	20x	thm:confortable liquidity. Well-spread debt maturity schedule. Diversified sources of funding.
bb	7%	3.0x	One year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
b	5%	4.0x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
	below 5%	5.0x	Liquidity ratio below 1.x. Overly reliant on one funding source.
СС	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.
	FCF margin	Net Debt/(CFO - Capex)	FFO Fixed Charge Cover
a	n.a.	na.	na.
	6%	2.5x	5.0x
bb	3%	4.0x	4.0x
b	1%	5.0x	3.0x
	Neutral to Negative FCF margin	6.0x	2.5x
cc	Accelerating negative FCF margin, with limited/no flexibility on spending reduction and funding gaps.	>8.0x	Below 1.0x
	Volatility of Profitability and Cash Flows		FX Exposure
a	na.		No material FX mismatch.
	Inexistent or very low throughout the cycle.		Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flows well match
bb	Limited throughout the cycle.		$Some FX \ exposure \ on \ profitability \ and/or \ debt/cash \ flow \ match. \ Effective \ hedging \ in \ place.$
b	Substantial throughout the cycle.		FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
	High throughout the cycle.		Large FX exposure. No significant/ineffective hedging in place.
DC DC	Volatility of profits a negative outlier and experiencing a secular downward trend in absolute and relative terms.		FX exposure dominant in impairing the issuer's ability to service debt in cash terms.

## **Business Services DAP**

#### **Sector Risk Profile**

#### **Rating Range**

Business Services — DAP companies have a lower than average risk profile. Representative companies rated in this sector are in the 'A' rating category or lower. 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.

## **Sector-Specific Key Factors**

#### **Competitive 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.

#### **Customer Dynamics**

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.

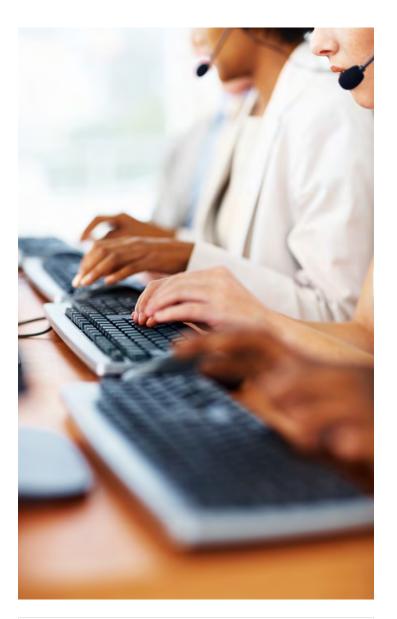
#### **Sector Environment**

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.



### David Peterson

david.peterson@fitchratings.com (+1) 312 368 3177

#### Damien Chew

damien.chew@fitchratings.com (+44) 20 3530 1424

## **Business 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 have engaged in aggressive restructuring to contain fixed costs through the downturn and should be in a good position to deliver solid EBITDA growth as revenue begins to grow. 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 – Business Services DAP

	Competitive Position	Diversification	Customer Dynamics	Sector Environment
Rating	Barriers to Entry	Asset Class/Verticals/Products	Proportion of Revenues Under Contract	Regulatory Environment
aa	na.	na.	na.	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 succesful 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	na.	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 customers represent 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 customers represent 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 customers represent 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 player 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.	na.	na.	n.a.
a	Large size/scale, EBITDAR >USD1bn	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 track record.
bbb	Midsize/scale, EBITDAR >USD500m	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 track record.
bb	Midsize/scale, EBITDAR <usd500m< td=""><td>Material portion of business profile exposed to secular risks that can lead to weakening of competitive position and erosion of market share.</td><td>Less than 80% of total revenues may be considered recurring.</td><td>Aggressive acquisition strategy. Potential of integration risk due to multiple acquisitions in a short period of time.</td></usd500m<>	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, EBITDAR < USD100m	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 company at risk.
	Product Strategy			
aa	na.			
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 of competitive disadvantage.			



## Financial Profile Key Factors – Business Services DAP

	Profitability	Financial Structure	Financial Flexibility
Rating	FFO Margin	Lease Adjusted FFO Gross Leverage	Financial Discipline
aa	na.	n.a.	Publicly announced conservative financial policy. Track record of strict compliance.
a	23.0%	2.8x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	15%	3.8x	Financial policies less conservative than peers but generally applied consistently.
bb	10%	4.8x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
b	7.5%	6.0x	No financial policy or track record of ignoring it. Opportunistic behavior.
ccc	Persistently and structurally break-even or loss-making at FFO level.	7.8x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	FCF Margin	Lease Adjusted FFO Net Leverage	Liquidity
aa	na.	n.a.	Very comfortable liquidity, no need to use external funding in the next 24 months. Well-spread debt maturity. Diversified sources of funding.
a	10.0%	2.3x	Very comfortable liquidity, Well-spread debt maturity schedule. Diversified sources of funding.
bbb	65%	3.3x	One year liquidity ratio above 1.25x Well-spread maturity schedule of debt but funding may be less diversified.
bb	5.0%	4.3x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
b	Neutral to negative FCF margin	5.5x	Liquidity ratio below 1.0x. Overly reliant on one funding source.
ccc	Accelerating negative FCF margin, with limited/no flexibility on spending reduction and funding gaps.	7.3x	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 Flows	Net Debt/(CFO - Capex)	FFO Fixed Charge Cover
aa	na.	n.a.	na.
a	Lower volatility of profits than industry average.	2.8x	45x
bbb	Volatility of profits in line with industry average.	4.3x	4.0x
bb	Higher volatility of profits than industry average.	6.3x	3.0x
b	Volatility of profits viewed as a negative outlier for the industry.	8.3x	2.5x
CCC	Volatility of profits a negative outlier and experiencing a secular downward trend in absolute and relative terms.	Above 10x.	Below 1x.
	Operating EBITDAR Margin	FCF/Gross Debt	FX Exposure
aa	n.a.	na.	No material FX mismatch.
a	30%	15%	Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flows well matched.
bbb	25%	11%	$Some FX \ exposure \ on profitability \ and/or \ debt/cash \ flow \ match. \ Effective \ hedging \ in \ place.$
bb	16%	5%	FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b	125%	25%	Large FX exposure. No significant/ineffective hedging in place.
ccc	below 7.5%	0.0%	FX exposure dominant in impairing the issuer's ability to service debt in cash terms.
		Total Adjusted Debt/Operating EBITDAR	EBITDAR/(Gross Interest Expense + Rent)
aa		n.a.	na.
a		2.3x	5.5x
bbb		3.3x	5.0x
bb		4.3x	4.0x
b		5.5x	35x
ccc		7.3x+	below2x

# **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 track 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**

#### **Diversification and 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.

#### **Order Book and 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**

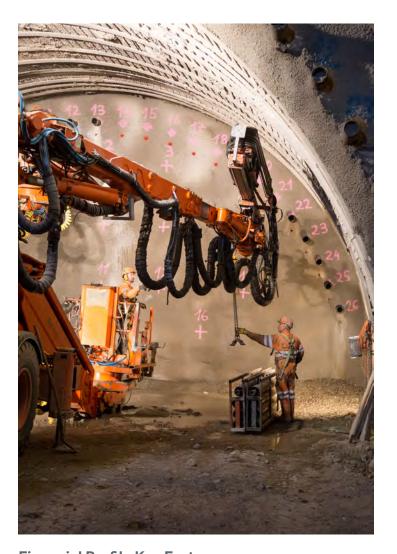
This assesses the issuer's working-capital seasonality and any dependence on the use of factoring and confirming lines to smooth volatility. The risk of structural unwinding and the amount of freely available cash is also analyzed.

#### **Contract Risk Management**

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

#### Diego della Maggiore

diego.dellamaggiore@fitchratings.com (+44) 20 3530 1797



## **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 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.

#### **Bram Cartmell**

bram.cartmell@fitchratings.com (+44) 20 3530 1874

# **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 track 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 subcontractors	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

	Diversification & Market Position	Order Book and Revenue Visibility	Working Capital	Contract Risk Management
Rating	Geographic	Order Book Sustainability	Working Capital Seasonality	Risk Management and Contract Execution
aa	n.a.	na.	n.a.	n.a.
a	n.a.	na.	na.	n.a.
bbb	Globally diversified with a mix of developed and stable emerging markets.	Strong order book with a track 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 track 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 track 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 track 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.	na.	na.	n.a.
a	na.	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 track 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	na.	n.a.		
a	na.	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.	na.		
a	n.a.	n.a.		
bbb	Large, mature, concession portfolio with a track 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	na.			
а	na.			
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	Lease Adjusted FFO Gross Leverage	Financial Discipline
aa	na.	na.	Publicly announced conservative financial policy. Track record of strict compliance.
a	na.	na.	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	Volatility of profits in line with industry average.	1.5x	Less conservative policy but generally applied consistently.
bb	Higher volatility of profits than industry average.	3.0x	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	4.5x	No financial policy or track record of ignoring it. Opportunistic behavior.
CCC	Volatility of profits greater than normal bounds of volatility for corporate sector as a whole.	>6.0x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	Profitability on Investments in Concessions	Lease Adjusted FFO Net Leverage	Liquidity
aa	na.	n.a.	Very comfortable liquidity, no need to use external funding in the next 24 months. Well-spread debt maturity, Diversified sources of funding.
a	na.	n.a.	thm:confortable liquidity. Well-spread maturity schedule of debt. Diversified sources of funding support of the confortable liquidity of the confortable liquidity. Well-spread maturity schedule of debt. Diversified sources of funding support of the confortable liquidity. Well-spread maturity schedule of debt. Diversified sources of funding support of the confortable liquidity. Well-spread maturity schedule of debt. Diversified sources of funding support of the confortable liquidity. Well-spread maturity schedule of debt. Diversified sources of funding support of the confortable liquidity. Well-spread maturity schedule of debt. Diversified sources of funding support of the confortable liquidity. Well-spread maturity schedule of debt. Diversified sources of funding support of the confortable liquidity. Well-spread maturity schedule of the confortable liquidity. Well-spread maturity schedule of the confortable liquidity sche
bbb	Good track record of crystallizing profit or generating recurring dividends from investments made in concessions.	0.5x	One year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
bb	Track record of generating profits or dividends from concessions with some volatility. Value of concessions covers corporate gross debt.	2.0x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
b	Limited track record of crystallizing profit or dividends from concessions. Concession value does not cover corporate gross debt.	3.5x	Liquidity ratio below 1.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.	>5.0x	No near-term prospect of recovery in liquidity score above 1.0x. All/most funding sources subject to material execution risk.
	Free Cash Flow	Corporate Gross Debt/Concession Book Value	FFO Fixed Charge Cover
aa	n.a.	n.a.	na
a	n.a.	na.	na
bbb	Positive three-year average free cash flow with some degree of volatility.	Concession portfolio value is liquid and comfortably able to repay corporate (recourse) debt. Concession book value/corporate debt greater than 2.0x.	6x
bb	Neutral three-year average free cash flow with some degree of volatility.	Concession portfolio value is liquid and able to repay corporate (recourse) debt. Concession book value/corporate debt about 1.0x.	4x
b	Negative three-year average free cash flow.	Concession portfolio value is fairly illiquid and unable to repay corporate (recourse) debt. Concession book value/corporate debt less than 1.0x.	2x
ccc	Accelerating negative FCF margin, with limited/no flexibility on spending reduction and funding gaps.	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.
			FX Exposure
aa			No material PX mismatch.
a			Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flows well-matched.
bbb			$Some FX \ exposure \ on \ profitability \ and/or \ debt/cash \ flow \ match. \ Effective \ hedging \ in \ place.$
bb			FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b			Large FX exposure. No significant/ineffective hedging in place.
ссс			FX exposure dominant in impairing the issuer's ability to service debt in cash terms.

## 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 track 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**

#### Competition and Land/Bargaining Positions

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.

#### **Growth, Volatility and Production Strategy**

"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 Ranking, Competitive Advantages and Operating Efficiencies

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.

#### Robert Rulla

robert.rulla@fitchratings.com (+1) 312 606 2311



## **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

#### Alex Bumazhny

alex.bumazhny@fitchratings.com (+1) 212 908 9179

## 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

			Commonwie Market Position	Diversification
	Sector Competitive Intensity	Sector Trend	Company's 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 player in most markets or leader on a well defined and relatively protected niche.	National focus.
bb	Highly competitive industry with many players of comparable size.	Cyclical industry. Average weighting to higher-growth metro markets.	Top 10 to 15 player in most markets or leader on a niche.	Multi-regional focus.
b	Track record of aggressive and opportunistic competitive behavior.	Cyclical industry. Under-weighting to higher-growth metro markets.	Predominantly second-tier player.	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 player.	Concentrated in an especially disadvantaged region.
	Barriers to Entry/Exit	Volatility of Demand	Competitive Advantage	End-Market Diversification
aa	na.	na.	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 players 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 players.	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.	na.	n.a.	n.a.
a	na.	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 proftability, likely to remain materially below cost of capital.	
	Relative Power in the Value Chain			
aa	na.	n.a.	n.a.	n.a.
a	n.a.	na.	n.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	FFO Margin	Lease Adjusted FFO Gross Leverage	Financial Discipline
aa	na.	n.a.	Publicly announced conservative financial policy. Track record of strict compliance.
a	na.	na.	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	9%	2.5x	Less conservative policy but generally applied consistently.
bb	7.5%	4.0x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
b	35%	4.5x	No financial policy or track record of ignoring it. Opportunistic behavior.
ccc	Persistently and structurally break-even or loss-making at the FFO level.	>8.0x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	EBITDAR Margin	Net Debt/Capitalization	Liquidity
aa	na.	n.a.	Very comfortable liquidity, no need to use external funding in the next 24 months. Well-spread debt maturity. Diversified sources of funding.
a	na.	na.	$\label{thm:confortable} Very comfortable liquidity. Well-spread debt maturity schedule. Diversified sources of funding and the confortable liquidity of the confortable liquidity. Well-spread debt maturity schedule. Diversified sources of funding and the confortable liquidity. Well-spread debt maturity schedule. Diversified sources of funding and the confortable liquidity. Well-spread debt maturity schedule. Diversified sources of funding and the confortable liquidity. Well-spread debt maturity schedule. Diversified sources of funding and the confortable liquidity. Well-spread debt maturity schedule. Diversified sources of funding and the confortable liquidity is a supplication of the confortable liquidity. Well-spread debt maturity schedule. Diversified sources of funding and the confortable liquidity is a supplication of the confortable liquidity. Well-spread debt maturity schedule. Diversified sources of the confortable liquidity is a supplication of the confortable liquidity is a supplication$
bbb	13%	35%	One year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
bb	12%	50%	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
b	8%	60%	Liquidity ratio below 1.0x. Overly reliant on one funding source.
ccc	Persistently and structurally break-even or loss-making at EBITDAR level.	70%	No near-term prospect of recovery in liquidity. All/most funding sources subject to material execution risk.
	EBIT Margin	Net Debt/(CFO - Capex)	Cash & RCF Avail./Next Three Years Maturities
aa	n.a.	n.a.	na.
a	na.	na.	na.
bbb	11.5%	1.5x	4.5x
bb	10.5%	1.75x	3.5x
b	8%	2.25x	1.5x
ccc	Persistently and structurally break-even or loss-making at EBIT level.	>8.0x	All/most cash and RCF availability funding sources subject to material execution risk.
	FCF Margin	Total Adjusted Debt/Operating EBITDAR	FFO Fixed Charge Cover
aa	na.	n.a.	na
a	n.a.	na.	n.a.
bbb	16%	2.5x	4.0x
bb	13%	4.0x	3.25x
b	10%	4.5x	1.75x
ccc	Accelerating negative FCF margin, with limited/no flexibility on spending reduction and funding gaps.	>10.0x	1.0x
	Volatility of Profitability	Inventory/Debt	Adjusted EBITDA Interest Coverage
aa	na.	na.	na
a	na.	na.	na
bbb	Volatility of profits in line with industry average.	20x	5.5x
bb	Higher volatility of profits than industry average.	1.5x	3.5x
b	Volatility of profits viewed as a negative outlier for the industry.	1.0x	1.5x
CCC	Volatility of profits greater than normal bounds of volatility for corporate sector as a whole.	<0.5x	<1.0x

## Chinese Homebuilders

#### **Sector Risk Profile**

#### **Rating Range**

Chinese homebuilders have volatile cash inflows mainly because they are derived from property sales, which are easily impacted by government policies and macroeconomic performance (both of which are beyond management's control), in a multi-participant competitive sector. Therefore, the sector's risk profile has a ceiling at the 'BBB+' rating level.

The pre-sale system is a major credit strength that provides substantial financial flexibility to homebuilders. Normally, pre-sales take place early in the development phase and homebuilders receive the full sales proceeds before they pay for the remaining, substantial share of construction costs to complete a project. Attributable profit margins can be affected by average selling prices (ASPs), the cost of land or inventory and product positioning.

#### Sector-Specific Key Factors

#### **Customer Recognition**

Fitch assesses brand image, market position and land bank quality, which affect homebuilders' profit margins and the resilience of their prospective sales, especially during a downturn.

#### Scale

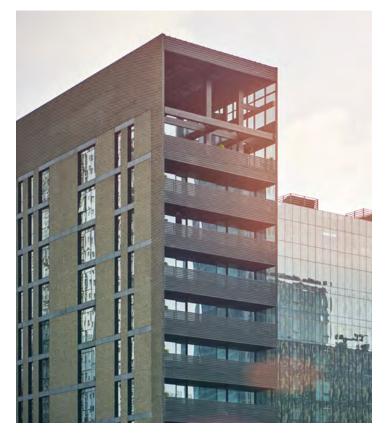
This is usually measured by annual contracted sales disclosed. A larger business scale can make a homebuilder's operating cash flow more stable and provide more financial resources to acquire land, which requires increasingly large investment because higher urbanisation rates are driving up land costs. Small scale would limit a homebuilder's ability to acquire a meaningful amount of land at government auctions, so it would instead have to participate via minority stakes in joint-venture development through private deals.

#### **Operational Depth**

This captures operational characteristics, including geographical diversification, funding diversification, and exposure to more cyclical commercial-property development. Geographical diversification, which is measured by the balance of land across Tier 1, Tier 2 and smaller cities, and the degree of concentration or diversification of saleable resources in a province or geographical zone, determines a homebuilder's vulnerability to demographic and economic development trends in each local market. These demographic and economic changes are often exacerbated by local governments' housing policies, which may vary greatly across different regions.

#### Sales Efficiency

Asset turnover is another key measure of how fast cash is generated to maintain healthy liquidity and of business efficiency, especially of the large homebuilders.



#### **Financial Profile Key Factors**

#### **Financial Profile**

This covers profitability, funding cost, leverage and financial management style, which reflect the current financial profile and indicate its future trend. The leverage measure focuses on asset-to-debt matching using the net debt/adjusted inventory ratio. Adjusted inventory measures total property-related assets, including joint-venture (JV) net assets, and deducts deposits from sales proceeds received. When information is available, Fitch proportionately consolidates JVs in analyzing the financial profile. Where information about JVs is not available and guarantees are given to JVs or other third parties, such contingent debts are added to the net debt.

#### Su Aik Lim

suaik.lim@fitchratings.com (+852) 22639914

#### Kalai Pillay

kalai.pillay@fitchratings.com (+65) 6796 7221

## Chinese Homebuilders

#### **Industry Characteristics**

Chinese homebuilders' operating cash flows are unpredictable due to the high uncertainty of land acquisition spending, which is discretionary and may be paid upfront or divided into phases, and due to fluctuations in housing sales, which can be affected by a wide range of factors, including operational factors within management's control and market and regulatory factors beyond the management's control. The more established a homebuilder's operations, the more resilient they are in the face of exogenous factors, and the lower its business risk profile. It is consequently more likely to be rated in the 'BBB' category. However, most Chinese homebuilders tend to be rated within the speculative-grade ('BB' and 'B' or lower) rating categories.

#### **High Cyclicality**

The major risk to Chinese homebuilders is unstable operating cash flow, which encompasses large lump-sum cash outflows for land acquisitions, net of cash inflows from sales proceeds according to the phasing of receipts as projects are released. A homebuilder's land premium budget can have a substantial influence on its liquidity and credit profile. Furthermore, this cash outlay 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 performance of the wider economy. There will be substantial end-user demand driven by urbanization in China over the coming decades, but government housing policies create huge uncertainties for homebuilders' operations. For example, in 2010 and 2011, the government implemented home-purchase restrictions in major cities that limited the number of apartments a qualified resident could own. However, most of the cities ended the restrictions in 2014 — only to be re-implemented more forcefully in the fourth quarter of 2016. In addition, monetary policies, mortgage rules and regulations on funding channels affecting the industry are also subject to change.

#### **Access to Funding Channels**

Chinese homebuilders are not allowed to take out onshore bank loans to fund land acquisitions and are also very highly constrained in raising new equity on onshore stock exchanges. This means access to different funding channels is critical if they want to rapidly expand their business. Therefore, homebuilders have explored alternative funding channels, including offshore bonds, offshore syndicated loans, onshore trust loans, and onshore perpetual capital securities to seek new capital or to lower funding costs.

#### **Development Expenditure Pre-Funded**

The major credit strength of Chinese homebuilders is the pre-sales system. A typical fast asset-turnover project is likely to have the following schedule: six months after a homebuilder acquires land, construction will start and pre-sales will be launched six months after that, or within a year of land acquisition. Therefore full collection of pre-sale proceeds happens within a few months of receiving the initial down payment from home buyers and the mortgage loan disbursements from the banks. The completed apartment is, however, only delivered 1.5 to two years after the sale was contracted. The homebuilder's profit and loss statement would reflect the attributable profits for these completed transactions 1.5 to two years after the pre-sales.

Based on the above schedule, Chinese homebuilders receive full payment upfront for the units sold, even though the substantial portion of the construction costs have yet to be incurred. This lowers the project funding needs and provides ample financial flexibility while the market is expanding.





## Sector-Specific Key Factors – Chinese Homebuilders

	Customer Recognition	Scale	Operational Depth	Sales Efficiency
Rating	Market Leadership	Annual Contracted Sales	Geographical Diversification	Contracted Sales/Total Debt
13	na.	па.	na.	n.a.
1	na.	n.a.	n.a.	n.a.
bb	Top-three player in most of the cities where it has operations.	CNY80bn	Nationwide diversification.	1.8x
ob	Top-five player in its core markets, or leading player in its niche market nationwide.	CNY30bn	Multi-regional diversification.	1.3x
	Faces strong competition in its core markets.	CNY10bn	Concentrated in one or two regions.	1.0x
ccc	Undifferentiated player in competitive markets.	High variability in contracted sales.	Concentrated in an especially disadvantaged region.	Unsustainable profile.
	Brand Recognition		Access to Funding	Contracted Sales/Net Inventory
a	na.		n.a.	n.a.
	na.		n.a.	n.a.
bb	Strong brand name recognition nationwide.		Track record in accessing debt and equity offshore and onshore. Priority borrower for onshore banks	1.0x
b	Moderate level of brand awareness nationwide.		Access to debt and equity offshore and onshore.	0.8x
	Limited brand awareness beyond its core market.		Limited offshore financing track record and/ or limited onshore banking relationships.	0.6x
сс	Record of unresolved project defects, untrusted brands.		Access to domestic bank funding closed.	Unsustainable profile.
	Track Record, Stability and Execution		Exposure to Commercial Property Development	
aa	na.		n.a.	
ı	na.		n.a.	
bb	Track record of more than five years in most of its markets. Strong product lines that are successful across several regions.		Commercial development sales accounts for less than 20%.	
b	Track record of more than five years in its core markets. Established several standardised product lines.		Commercial development sales accounts for 20% to 50%.	
	Long track record only in its home market. Very few standardised product lines.		Commercial development sales accounts for more than 50%.	
occ	Unknown player in its markets.		Substantial exposure to new classes of commercial property projects.	
	Land Quality			
аа	na.			
	n.a.			
bb	Prime and good secondary; 100 projects under development generating sales of at least CNY100m.			
b	Prime and good secondary; 50 projects under development generating sales of at least CNY100m.			
	Secondary and teriary land; 20 projects under development generating sales of at least CNY100m.			
CC	Very high single project risks outside major cities.			





## Financial Profile Key Factors — Chinese Homebuilders

	Profitability	Financial Structure	Financial Flexibility
Rating	EBITDA Margin	Net Debt/Net Inventory	Financial Discipline
аа	na.	na.	Publicly announced conservative financial policy. Track record of strict compliance.
	na.	na.	Clear commitment to maintain a conservative policy with only modest deviations allowed.
obb	25%	25%	Less conservative policy but generally applied consistently.
bb	20%	35%	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
	15%	50%	No financial policy or track record of ignoring it. Opportunistic behavior.
СС	Persistently and/or structurally break-even or loss-making at the EBITDA level.	Rising persistently and above 70%.	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	Funding Cost		Land Acquisition Discipline
a	na.		na.
	na.		na.
bb	5%		Land acquisition follows management guidance and generates small negative-to-neutral cash flow from operations over the cycle.
b	8%		Land acquisition follows management guidance and generates small negative cash flow from operations on average relative to contracted sales.
	10%		Reliance on debt to fund land acquisition resulting in sustainably large negative cash flow from operations relative to contracted sales.
oc	Unsustainable funding cost.		Land acquisition appetite jeopardises near-term liquidity.

# Diversified Industrials and Capital Goods

#### **Sector Risk Profile**

#### **Rating Range**

The sector has an "at/above-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**

#### **Technology Leadership**

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 and Size**

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.



#### Eric Ause

eric.ause@fitchratings.com (+1) 312 606 2302

## Cigdem Cerit

cigdem.cerit@fitchratings.com (+34) 93 467 8740

# 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 aftermarket 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

	Technology Leadership	Market Position and Size	Diversification	Business Stability
Rating	Technology Content	Market Position	Product Range	Cyclicality
aa	na.	n.a.	n.a.	n.a.
a	High technology content in products and services.	Top-three player in broad range of markets.	Broad range of products, covering numerous technologies or end-markets.	Little exposure to cyclical end-markets.
bbb	Medium technology content in products and services.	Top-five player 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 end-markets, but aided by diversification.
bb	Low technology content in products and services.	Second-tier player in broad range of markets, top-five player in few markets or top-three player in niche markets.	Limited range of products.	Somewhat high exposure to cyclical end-markets.
b	Commoditized products and services.	Second-tier player in few markets or top- five player in niche markets.	Focus on one or two products.	High exposure to cyclical end-markets.
CCC	Commoditized products and services facing compeltion from superior substitutes.	Marginal player.	Focus on one or two products in secular decline.	High exposure to cyclical end-markets in long-term decline.
	Barriers to Entry	Growth	Geographic Diversification	Operating Leverage
aa	n.a.	na.	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	Customers and Suppliers	Mix of End-Markets	Services and Aftermarket Revenue
aa	n.a.	n.a.	n.a.	n.a.
a	High commitment to innovation (eg R&D/sales >5%). Note:R&D includes externally funded R&D.	No reliance on any one customer or supplier.	Balanced exposure to industries and customers.	Services and aftermarket revenue > 40%.
bbb	Moderate commitment to innovation (eg R&D/sales >3%). Note:R&D includes externally funded R&D.	No significant reliance on any one customer or supplier.	Limited presence in certain industries or applications.	Services and aftermarket revenue 25%-40%.
bb	Limited commitment to innovation (eg R&D/sales <3%). Note:R&D includes externally funded R&D.	Some concentration risks around a number of customers and suppliers.	Exposure to a narrow range of end-users.	Services and aftermarket revenue 10%-25%.
b	No meaningful R&D.	Reliant on one or two key customers and suppliers.	Focus on a single application or industry.	Services and aftermarket revenue < 10%.
CCC	Continued lack of innovation jeopardizing the viability of the product lines.	Impaired relationship with customers and suppliers on which the company depends for most of its business.	Focus on a single application or industry facing secular decline.	



## Financial Profile Key Factors — Diversified Industrials and Capital Goods

	Profitability	Financial Structure	Financial Flexibility
Rating	FFO Margin	FFO Adjusted Leverage	Financial Discipline
aa	na.	n.a.	Publicly announced conservative financial policy. Track record of strict compliance.
а	above 10%	2.5x	${\it Clear commitment to maintain a conservative policy with only modest deviations allowed.}$
bbb	above 8%	3.5x	Financial policies less conservative than peers but generally applied consistently.
bb	above 6%	4.5x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
b	above 4%	5.5x	No financial policy or track record of ignoring it. Opportunistic behavior.
ccc	Persistently and structurally break-even or loss-making at FFO level.	7.5x+	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis mode environment.
	EBIT Margin	FFO Adjusted Net Leverage	Liquidity
aa	na.	na.	Very comfortable liquidity, no need to use external funding in the next 24 months. Well-spread debt maturity. Diversified sources of funding.
a	above 10%	1.5x	Very comfortable liquidity. Well-spread debt maturity schedule. Diversified sources of funding
bbb	above 8%	2.5x	One year liquidity ratio above 1.25x, Well-spread maturity schedule of debt but funding may be less diversified.
bb	above 6%	3.5x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
b	above 4%	4.5x	Liquidity ratio below 1x 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.
	FCF Margin	Net Debt/(CFO - Capex)	FFO Fixed Charge Cover
aa	na.	na.	na.
a	above 4%	1.5x	6.0x
bbb	above 2.5%	2.5x	4.0x
bb	Positive	4.0x	3.0x
b	Minimal	6.0x	20x
CCC	Consistently negative FCF margin, with limited/no flexibility on spending reduction and funding gaps.	8.0x+	below1.0x
	on specialing reduction and running gaps.	Lease Adjusted Gross Debt/EBITDAR	FX Exposure
aa		na.	No material FX mismatch.
-			
a		2.0x	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		4.0x	FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b		5.0x	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.
		FCF/Total Adjusted Debt	
aa		n.a.	
a		20%	
bbb		15%	
bb		10%	
b		FCF / Total Adjusted Debt: positive	
CCC		Negative	

# 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.

#### **Asset-Liability Matching**

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.

#### Su Aik Lim

suaik.lim@fitchratings.com (+852) 22639914

#### Kalai Pillay

kalai.pillay@fitchratings.com (+65) 6796 7221

# 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	Asset-Liability Matching	Access to Capital
Rating	Portfolio Liquidity and Ability to Leverage Assets	Occupancy	Debt Maturity Profile	Sources of Capital
aa	n.a.	na.	na.	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.
Ь	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	п.а.	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.	Rapidily shrinking unencumbered pool with adverse selection.
	Asset Scale	Lease Expiration Schedule	Laddered Debt Maturity Profile	
aa	na.	na.	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	п.а.	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.	na.		
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 Operating EBITDA Margin	Net Debt/Recurring Operating EBITDA	Financial Discipline
ıa	na.	n.a.	na
1	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 track 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	na.	na.	na.
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%	lem:lem:lem:lem:lem:lem:lem:lem:lem:lem:
b	Highly cyclical and difficult to predict.	65%	$\label{limited} Liquidity ratio below 1.0x. Weak local banking market or limited portfolio of unencumbered assets as an alternative source of liquidity.$
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	Recurring Income EBITDA Interest Cover
aa		na.	na.
a		2.5x	4.0x
obb		2.0x	2.5x
ob		1.5x	1.5x
b		1.0x	1.0x
ccc		Rapidly shrinking unencumbered pool.	1.0x or lower.
			FX Exposure
aa			No material FX mismatch.
a			Profitability potentially exposed to FX but efficient hedging. Debt and cash flow well matched.
bbb			Some FX exposure on profitability and/or debt/cash flow match. Effective hedging
bb			$\label{eq:proposed_prop} FX exposure on profitability and/or debt/cash flow match. Some hedging but only partly effective.$
b			Large FX exposure. No significant/ineffective hedging.
ccc			FX exposure dominant in impairing the issuer's ability to service debt in cash terms.

## **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.

#### Bram Cartmell

bram.cartmell@fitchratings.com (+44) 20 3530 1874

#### Fredric Liljestrand

fredric.liljestrand@fitchratings.com (+44) 20 3530 1285



#### **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.

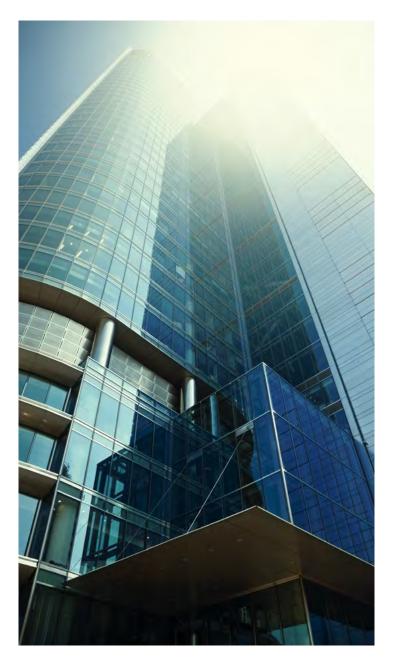
## **EMEA Real Estate and Property**

### **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 cashflow 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 players 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	Asset-Liability Matching	Access to Capital
Rating	Portfolio Liquidity and Ability to Leverage Assets	Occupancy	Debt Maturity Profile	Sources of Capital
aa	na.	na.	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%. Track 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%. Track 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%. Track 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%. Track 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 track 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 track 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	na.	na.		n.a.
a	Track 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	na.			
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

	<u> </u>		
	Profitability	Financial Structure	Financial Flexibility
Rating	FFO Dividend Cover	Loan-to-Value	Financial Discipline
aa	na.	na.	Publicly announced conservative financial policy. Track record of strict compliance.
a	1.4x	40%	${\it Clear commitment to maintaining a conservative policy with only modest deviations allowed.}$
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 track 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	na.	na.	na.
a	Portfolio values change less than 15% peak to trough with strong track record of recovery.	2.5x	1.25x
bbb	Portfolio values change less than 30% peak to trough with a track record of recovery	2.0x	1.0x
bb	Portfolio values change less than 40% peak to trough with a track 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 track record to assess recovery.	1.0x	$\label{limited} Liquidity ratio below 1.0x. Weak local banking market or limited portfolio of unencumbered assets as an alternative source of liquidity.$
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	Recurring Income EBITDA Interest Cover
aa		n.a.	na.
a		Proven track record of balance-sheet management through the cycle. Maintenance of a suitable LTV taking asset volatility into account.	25x
bbb		Maintenance of a suitable LTV taking asset volatility into account.	1.75x
bb		Poor balance-sheet management. Some opportunistic re- leveraging of the balance sheet as property values increase.	1.25x
b		Poor balance-sheet management. Aggressive re-leveraging of the balance sheet as property values increase.	1.1x
CCC		No control over balance-sheet leveraging,	1.0x or lower.
		Net Debt/Recurring Operating EBITDA	FX Exposure
aa		na.	No material FX mismatch.
a		8.0x	Profitability potentially exposed to FX but efficient hedging, Debt and cash flow well matched.
bbb		9.0x	Some FX exposure on profitability and/or debt/cash flow match. Effective hedging
bb		10.0x	FX exposure on profitability and/or debt/cash flow match. Some hedging but only partly effective.
b		11.0x	Large FX exposure. No significant/ineffective hedging.
ccc		>11.0x	FX exposure dominant in impairing the issuer's ability to service debt in cash terms.

## 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.

#### **Asset-Liability Matching**

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

#### **Access to Capital**

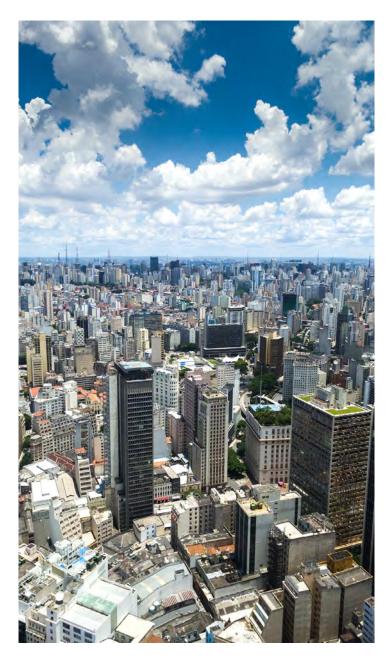
Sources of capital and an unencumbered asset pool constitute another key factor.

#### Jose Vertiz

jose.vertiz@fitchratings.com (+1) 212 908 0641

#### Joe Bormann

joe.bormann@fitchratings.com (+1) 312 368 3349



### **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.

## Latin America Real Estate

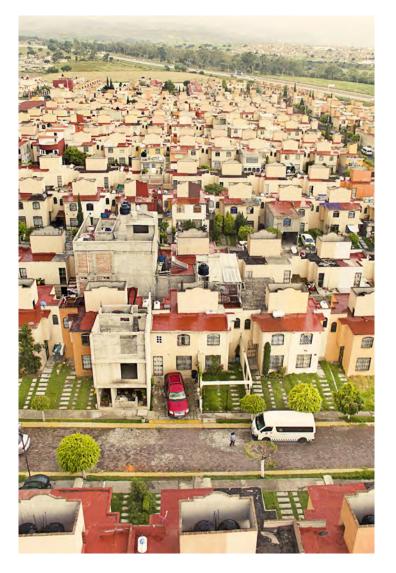
### **Industry Characteristics**

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	na.	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	na.	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 liqudity shortfall.	Rapidly shrinking unencumbered pool with adverse selection.
	Geographic Strategy	Lease Expiration Schedule		
aa	na.	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 Operating EBITDA Margin	Net Debt/Recurring Operating EBITDA	Financial Discipline
aa	na.	na.	Publicly announced conservative financial policy. Track record of strict compliance.
a	80%	4.0x	${\it Clear commitment to maintain a conservative policy with only modest deviations allowed.}$
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 track 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	na.	na.	na.
a	Limited demand volatility with economic cycles.	20%	1.5x
bbb	Demand volatility in line with economic cycles.	40%	125x
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	Recurring income EBITDA interest cover
aa		na.	na.
a		4.0x	4.0x
bbb		3.0x	25x
bb		2.0x	1.75x
b		1.0x	1.0x
ccc		Rapidly shrinking unencumbered pool.	1.0x or lower.
			FX Exposure
aa			No material FX mismatch.
a			Profitability potentialy exposed to FX but efficient hedging in place. Debt and cash flow well-matched
bbb			Some FX exposure on profitability and/or debt/cash flow match. Effective hedging in place.
bb			FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b			Large FX exposure. No significant/ineffective hedging in place.
ccc			FX exposure dominant in impairing the issuer's ability to service debt in cash terms.

# 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.



#### Steven Marks

steven.marks@fitchratings.com (+1) 212 908 9161

#### Stephen Boyd

stephen.boyd@fitchratings.com (+1) 212 908 9153

# 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.	na.	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.	na.	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	Track 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.			
	Development cost-to-complete above 15% of			
b	undepreciated assets. High speculative development.			



## Financial Profile Key Factors – U.S. Equity REITs and REOCs

	Profitability	Financial Structure	Financial Flexibility
Rating	AFFO Payout Ratio	Net Debt/Recurring Operating EBITDA	Financial Discipline
aa	na.	n.a.	Publicly announced conservative financial policy. Track record of strict compliance.
а	60%	5.5x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
obb	80%	6.5x	Less conservative policy but generally applied consistently.
ob	100%	7.5x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
)	110%	10x	No financial policy or track 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		na.	n.a.
а		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 Fixed Charge Coverage
aa			na.
a			3.5x
bbb			2.5x
bb			2.0x
b			1.5x
DOC			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, Scale

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.

#### **Product Leadership**

Fitch analyses a producer's geographical footprint to determine how it may be positioned to capture regional growth disparities in its core products. Exposure to emerging economies is generally regarded as a positive factor, as it supports stronger growth prospects than the mature western European and North American markets. Exposure to certain countries or regions can also entail regulatory constraints (eg, regulated domestic prices) or incentives that will influence the rating.

#### **Product Nature**

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. A presence in markets with oligopolistic structures (eg, industrial gases), or with barriers to entry such as patents, licenses or technological know-how, are also regarded as positive rating factors. 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.

#### Amee Attri

amee.attri@fitch.ratings.com (+44) 203 530 1617



#### **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 lease-adjusted metrics within relevant rating categories. Compared with the aggregate corporate curve, the chemicals sector has a higher risk profile than the average.

#### Monica Bonar

monica.bonar@fitchratings.com (+1) 212 908 0579

## 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

	<b>Product Nature</b>	Product Leadership	Diversification, Scale	Cost Position
Rating	Portfolio Characteristics (Specialty Chemicals)	Market Position	Portfolio Diversification	Raw Material & Energy Costs
aa	na.	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 or average 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 player.	Concentration in disadvantageous market.	High cash costs exceeding mid-cycle revenue expectations.
	Portfolio Characteristics (Commodity Chemicals)		End-Market Diversification	Degree of Integration
aa	n.a.		n.a.	n.a.
a	Commodity chemicals with highly concentrated market structure, high barriers to entry and demonstrated supply-discipline.		Above-average end-market diversification with very low 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.		Strong end-market market diversification with low cyclicality 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.		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.		High cyclicality, no diversification and/ or high customer concentration.	No integration with high operating gearing.
ccc	Commodity chemicals portfolio facing severe price pressure and/or extreme weak demand.		n.a.	n.a.
			Number of Sites	Production Flexibility
aa			n.a.	n.a.
a			Multiple site operations (10+).	High raw material diversification, high feedstock flexibility or high production process flexibility to match demand
bbb			Three or more large scale integrated production complexes.	Moderate raw material diversification, limited feedstock flexibility or average production process flexibility
bb			At least two large scale integrated sites or more than two lower-complexity sites.	Low raw material diversification, no feedstock flexibility, some supplier concentration or limited production process flexibility
b			Single site operations.	No raw material diversification, high supplier concentration, no feedstock flexibility or no production process flexibility
ccc			Failure at one or more sites threatens overall business economics.	n.a.
			Regional Footprint	Environmental Exposure
aa			n.a.	n.a.
a			Global player with significant presence in three or more regions.	No material exposure to environmental regulations and/or penalties.
bbb			Significant presence in two or more regions.	Limited or manageable exposure to environmental regulations. Remediation costs and/or likely penalties are comfortably covered within current cashflows.
bb			Presence in one to two regions.	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			Little or no regional diversification.	Material exposure to highly polluting technology. Remediation costs and/or penalties are an incremental strain on projected cashflows.
ccc			Concentration in severely disadvantageous region.	Substantial cash impairment crystallized, or about to, due to multiple, punitive environmental cost burdens and/or penalties.
			EBITDAR (\$)	
aa			na.	
a			\$1.4 billion	
bbb			\$0.6 billion	
bb			\$0.4 billion	
b			\$0.1 billion	
ccc			Rapidly declining in size.	





## Financial Profile Key Factors - Chemicals

	Profitability	Financial Structure	Financial Flexibility
Rating	FFO Margin	Lease Adjusted FFO Gross Leverage	Financial Discipline
aa	na.	n.a.	$Publicly announced conservative financial policy: {\it Track record of strict compliance}.$
3	12%	1.5x	${\it Clear commitment to maintain a conservative policy with only modest deviations allowed.}$
bbb	10%	2.5x	Financial policies less conservative than peers but generally applied consistently.
ob	8%	3.5x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
)	6%	5.0x	No financial policy or track record of ignoring it. Opportunistic behavior.
000	Persistently and/or structurally break-even or loss-making at the FFO level.	>8.0x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	FCF Margin	Lease Adjusted FFO Net Leverage	Liquidity
38	na.	na.	Very comfortable liquidity, no need to use external funding in the next 24 months. Well-spread debt maturity. Diversified sources of funding.
a	3.0%	1.0x	Very comfortable liquidity. Well-spread debt maturity schedule. Diversified sources of funding.
obb	1.5%	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 FCF across the cycle.	3.0x	Liquidity ratio around 1.0x Less smooth debt maturity or concentrated funding.
)	Negative FCF across the cycle.	4.5x	$\label{eq:Liquidity ratio} Liquidity ratio  below  1\times  Overly  reliant  on  one  funding  source.$
DOC	Persistently negative FCF margin, with limited scope for raising funds from equity/debt/disposals.	>7.0x	No near-term prospect of recovery in liquidity, All/most funding sources are subject to material execution risk.
	EBITDAR Margin	Total Adjusted Debt/Operating EBITDAR	FFO Fixed Charge Cover
аа	na.	n.a.	na.
1	15%	1.0x	7.0x
bbb	12%	2.0x	6.0x
ob	8%	3.0x	3.0x
b	5%	4.5x	20x
ccc	Persistently and/or structurally break-even or loss-making at EBITDAR level.	>7.0x	1.25x
			FX Exposure
38			No material FX mismatch.
3			Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flows well matched
obb			Some FX exposure on profitability and/or debt/cash flow match. Effective hedging in place.
bb			FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
)			Large FX exposure. No significant/ineffective hedging in place.
occ			FX exposure dominant in impairing the issuer's ability to service debt in cash terms.

# 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.

#### **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 Structure**

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.

### **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.

#### **Market Access and 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 impact 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.

#### Bill Densmore

bill.densmore@fitchratings.com (+1) 312 368 3125

#### Giulio Lombardi

giulio.lombardi@fitchratings.com (+39) 02 879087 214

# 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	Market Access and Risk Management	Asset Structure	Diversification
Rating	Operational Scope	Financial Risk Policy	Operational Structure	Geographic
aa	na.	na.	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 condition
	Size (Annual EBITDAR)	Market and Counterparty Access	Asset Ownership	Commodity
aa	na.	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.	п.а.	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	FFO Margin	RMI, Lease-Adjusted Gross Debt/EBITDAR	Financial Discipline	
aa	na.	n.a.	Publicly announced conservative financial policy. Track record of strict compliance.	
a	3%	2.0x	Clear commitment to maintain a conservative policy with only modest deviations allowed.	
bbb	2%	3.0x	Less conservative policy but generally applied consistently.	
bb	1%	4.0x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.	
b	below1%	5.0x	No financial policy or track record of ignoring it. Opportunistic behavior.	
ccc	Persistently and structurally break-even or loss-making at FFO level.	6.0x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.	
	Op. EBITDAR/Gross Profit (RMI-Adjusted)	RMI, Lease-Adjusted Net Debt/EBITDAR	Liquidity (RMI adjusted)	
aa	na.	na.	Very comfortable liquidity; no need to use external funding in the next 24 months. Well-spread debt maturity. Diversified sources of funding.	
a	85%	1.5x	One-year liquidity ratio 1.2x. Very comfortable liquidity; Well-spread maturity schedule of debt. Diversified sources of funding.	
bbb	70%	2.5x	One-year liquidity ratio 1.0x Well-spread maturity schedule of debt but funding may be less diversified.	
bb	40%	3.5x	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 EBITDAR level.	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	RMI, Lease-Adjusted FFO Net Leverage	RMI-Adjusted FFO Fixed Charge Cover	
aa	na.	n.a.	na.	
a	1.0%	1.5x	3.5x	
bbb	0.5%	2.5x	2.0x	
bb	Neutral FCF margin.	3.5x	below 2.0x	
b	Neutral to Negative FCF margin.	4.5x	below 2.0x	
ccc	Accelerating negative FCF margin, with limited/no flexibility on spending reduction and funding gaps.	5.5x	Net FCF debt service cover below 1.0x. All/most funding sources subject to material execution risk.	
		Gross Debt/(Cash + Working Capital)	FX Exposure	
aa		n.a.	No material FX mismatch.	
a		0.5x	Profitability potentially exposed to PX but efficient hedging in place. Debt and cash flows well matched.	
bbb		0.75x	Some FX exposure on profitability and/or debt/cash flow match. Effective hedging in place.	
bb		1.0x	PX 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		па.	FX exposure dominant in impairing the issuer's ability to service debt in cash terms.	
			RMI-Adjusted EBITDAR Gross Interest Cover	
aa			na.	
a			5.0x	
bbb			4.0x	
bb			2.0x	
b			1.0x	
ccc			below 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 'BBB' 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**

#### Scale

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 of Key Operations**

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 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.

#### Mine Life

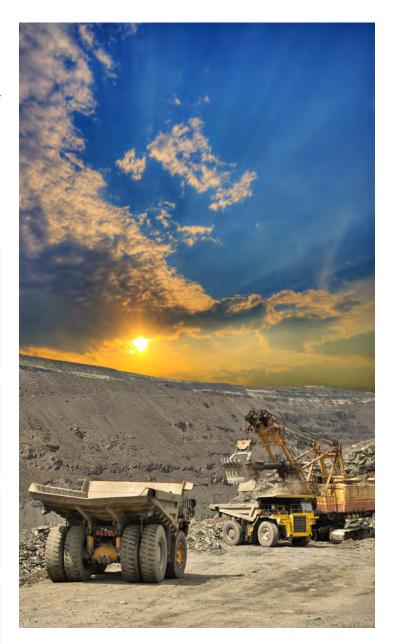
An ongoing issue for miners is the replacement of mine reserves in order to maintain future production volumes.

#### Peter Archbold

peter.archbold@fitchratings.com (+44) 20 3530 1172

#### Monica Bonar

monica.bonar@fitchratings.com (+1) 212 908 0579



#### **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 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.

# 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 (eg, 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

	Scale of Operations	Cost Position of Key Operations	Diversification and Country Risk	Mine Life		
Rating	Scale of Operations	Market Position	Commodity Diversification	Bulk Commodities (Iron Ore, Coal, Bauxite, Etc.)		
aa	na.	n.a.	n.a.	n.a.		
a	Large and diversified.	1st quartile.	Top three player 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 player in at least three major commodity sectors or top five player in single commodity.	20-50 years on average at major mines.		
bb	Small diversified or medium single-commodity.	3rd quartile.	Top 10 player in single commodity.	10-20 years on average at major mines.		
b	Junior/small.	4th quartile.	Single commodity (not top 10 player).	<10 years on average at major mines.		
CCC	Sub-scale operations jeopardizing business economics; material greenfield development risks.	Cash costs exceed mid-cycle revenue expectations.	n.a.	Short-life and/or declining grades with little prospect of turnaround.		
			Environmental Exposure	Base (Copper, Lead, Etc.) and Precious Metals		
aa			n.a.	n.a.		
a			No material exposure to environmental regulations.	>30 years on average at major mines.		
bbb			Limited or manageable exposure to environmental regulations. Remediation costs are comfortably within current cashflows.	20-30 years on average at major mines.		
bb			Significant exposure to environmental regulations. Remediation costs are within current cashflows, but may weigh more over time.	10-20 years on average at major mines.		
b			Material exposure to highly polluting technology. Remediation costs are an incremental strain on projected cashflows.	<10 years on average at major mines.		
ccc			Substantial cash impairment crystallized, or about to, due to multiple, punitive environmental cost burdens.	Short-life and/or declining grades with little prospect of turnaround.		
			Country Risk Relative to Mining Operations			
aa			na.			
a			Minimal			
bbb			Low			
bb			Medium			
b			High			
ccc			Disadvantageous region experiencing major recession or other disruptive conditions.			





## Financial Profile Key Factors - Mining

	Profitability	Financial Structure	Financial Flexibility
Rating	FFO Margin	Lease Adjusted FFO Gross Leverage	Financial Discipline
аа	n.a.	n.a.	Publicly announced conservative financial policy. Track record of strict compliance.
a	30%	1.5x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	25%	2.5x	Financial policies less conservative than peers but generally applied consistently.
ob	20%	3.0x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
)	15%	4.0x	No financial policy or track record of ignoring it. Opportunistic behavior.
CCC	Persistently and/or structurally break-even or loss-making at FFO level.	>8.0x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a criss environment.
	FCF Margin	Lease Adjusted FFO Net Leverage	Liquidity
aa	n.a.	n.a.	Very comfortable liquidity, no need to use external funding in the next 24 months. Well-spread debt maturity. Diversified sources of funding.
a	FCF positive at all times, regardless of capex plans.	1.0x	Very comfortable liquidity. Well-spread debt maturity schedule. Diversified sources of funding.
obb	Positive FCF on average, with the potential for temporary (two-three year) FCF outflows due to capital spending on identified projects.	2.0x	One year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
bb	Neutral FCF on average, with a protracted FCF outflow due to capex plans and price cycle.	2.5x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding
)	Negative FCF profile.	3.0x	Liquidity ratio below 1.x. Overly reliant on one funding source.
000	Persistently negative FCF margin, with limited scope for raising funds from equity/debt/disposals.	>7.0x	No near-term prospect of recovery in liquidity, All/most funding sources subject to material execution risk.
	Operating EBITDAR Margin	Total Adjusted Debt/Operating EBITDAR	FFO Fixed Charge Cover
aa	na.	n.a.	na.
1	35%	1.5x	13x
obb	30%	2.0x	8x
ob	25%	2.5x	6х
b	20%	3.5x	5x
CCC	Persistently and/or structurally break-even or loss-making at EBITDAR level.	>7.0x	1.25x
			FX Exposure
38			No material FX mismatch.
3			Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flows well matches
obb			Some FX exposure on profitability and/or debt/cash flow match. Effective hedging in place.
bb			FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b			Large FX exposure. No significant/ineffective hedging in place.
occ			FX exposure dominant in impairing the issuer's ability to service debt in cash terms.

# 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' or even 'AAA' 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 higher investment-grade rating categories of 'AAA'/'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.

#### **Cost of Production**

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.

#### **Production Size**

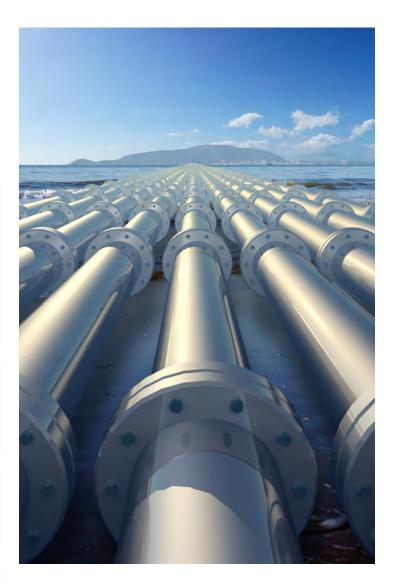
The oil and gas business is exposed to substantial operational risks. Size allows oil companies more opportunity to diversify these risks. We believe production size is usually the most important indicator of scale.

#### Lucas Aristizabal

lucas.aristizabal@fitchratings.com (+1) 312 368 3260

#### **Dmitry Marinchenko**

dmitry.marinchenko@fitchratings.com (+44) 20 3530 1056



#### **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.

## Oil and Gas Production Companies

#### **Industry Characteristics**

Oil and gas exploration companies, including independents, pure upstreamfocused 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 manmade 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 'AAA' 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 longterm 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
- 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 Environmental Risk	Proved Reserves	Cash Flow Cycle	Production Size
Rating	Diversification	Reserve Base (boe)	Free Cash Flow	Production (thousand boe/day)
aa	Integrated players benefitting from diversity and spread of volatility, which smooths out projects. Ratings limited by scale of operations.	>4 billion	Positive 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	Mostly positive across 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	Neutral across 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 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	Negative across the cycle.	<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 FCF margin, with limited scope for raising funds from equity/debt/disposals.	Rapidly declining production with limited hope of turnaround.
	Environmental Risk			
aa	na.			
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.			



## Financial Profile Key Factors — Oil and Gas Production Companies

	Profitability	Financial Structure	Financial Flexibility
Rating	FFO (\$)	Lease Adjusted FFO Gross Leverage	Financial Discipline
aa	\$25 billion	1.2x	Publicly announced conservative financial policy. Track record of strict compliance.
a	\$8 billion	2.2x	${\it Clear commitment to maintain a conservative policy with only modest deviations allowed.}$
bbb	\$4 billion	2.8x	Financial policies less conservative than peers but generally applied consistently.
bb	\$1.5 billion	3.8x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
b	< \$750 million	5.0x	No financial policy or track record of ignoring it. Opportunistic behavior.
ccc	Rapidly declining FFO.	>8.0x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	Capex/CFO (%)	Lease Adjusted FFO Net Leverage	Liquidity
aa	67%	1.0x	Very comfortable liquidity, no need to use external funding in the next 24 months. Well-spread debt maturity. Diversified sources of funding.
a	<100%	2.0x	Very comfortable liquidity. Well-spread debt maturity schedule. Diversified sources of funding.
bbb	100%	2.5x	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 most periods but with temporary deviation due to lumpy capex.	3.5x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
b	Capex expected to materially exceed cashflow over the rating horizon typically due to focus on expansionary projects.	4.5x	Liquidity ratio below 1.x. Overly reliant on one funding source.
ccc	Unsustainable profile.	>7.0x	No near-term prospect of recovery in liquidity. All/most funding sources subject to material execution risk
		Total Adjusted Debt/Operating EBITDAR	FFO Fixed Charge Cover
aa		1.0x	10.0x
a		2.0x	8.0x
bbb		2.5x	6.0x
bb		3.5x	4.0x
b		4.5x	3.0x
CCC		7.0x+	1.25x
			FX Exposure
aa			No material FX mismatch.
a			Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flows well-matched.
bbb			Some FX exposure on profitability and/or debt/cash flow match. Effective hedging in place.
bb			FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b			Large FX exposure. No significant/ineffective hedging in place.
ccc			FX exposure dominant in impairing the issuer's ability to service debt in cash terms.
			EBITDAR/(Gross Interest Expense + Rent)
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' rating level.

## **Sector-Specific Key Factors**

### **Asset Quality**

Most 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. Sub-factors to assess asset quality include age and technological complexity of the assets, average utilization and day rates compared to industry peers, and the level of competition.

#### **Scale and Diversification**

Large service providers with a geographically diversified customer base are usually rated higher than companies reliant on one region or a narrow base of customers to generate revenue. However, an entrenched position with a large market share in a region or country that has an oil and gas industry that has good prospects is a positive attribute and can compensate to an extent for limited geographic diversification. Scale, in this regard, reflects the market position, ability to withstand industry downturns as well as relative level of displacement from customers — upstream companies — cutting capex and expenses during periods of low hydro-carbon prices.

#### Order Intake/Backlog

This sub-factor evaluates the quality of the order book and its through-the-cycle volatility, as well as its projected coverage of revenue. Trends in this metric are an important indicator of the overall demand situation and future revenue.

#### Dino Kritikos

dino.kritikos@fitchratings.com (+1) 312 368 3150



#### **Revenue Sources**

The scope of provision (single-service providers versus full-service providers), types of services provided and technical capabilities (ie ability to handle large and complex projects) is a sub-factor which affects the company's business risk.

### 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 as the capital intensity, up to the 'A' rating level.

#### **Dmitry Marinchenko**

dmitry.marinchenko@fitchratings.com (+44) 203 530 1056

## Oilfield Services

#### **Industry Characteristics**

#### Cyclical and Seasonal Industry

The oilfield services and oil 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, increasing world population and expanding levels of urbanisation. 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 longand 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. Competition is a fact of life for all companies operating in the sector. 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

	Asset Quality	Geographic Revenue Diversification	Order Intake/Backlog	Revenue Sources
Rating	Asset Quality	Diversification	Order Book Quality / Earnings Visibility	Scope of Provision
ia	n.a.	na.	n.a.	n.a.
1	Highest asset quality in terms of age, quality and technological complexity.	Very high; revenue from one region <30% and highly diverse, high-quality counterparties.	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 players.
obb	High assets quality in terms of age, quality and technological complexity.	High; revenue from one region 30-50% and diverse, high-quality counterparties.	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 players.
bb	Mixed asset quality in terms of age, quality and technological complexity.	Medium; revenue from one region 50%-75% and/or concentrated, medium-quality counter-party exposure.	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
	Low asset quality in terms of age, quality and technological complexity.	Low; revenue from one region >75% and/or high exposure to a few counterparties of weak quality.	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.
сс	Asset quality insufficient to attract profitable levels of utilisation or day rates.	Concentrated in an especially disadvantaged region.	Low order book and/or non-payment by customers.	Record of, or prospective, hindered scope of operations.
	Utilisation rate	Revenue	Order Book Volatility	Services
a	na.	n.a.	n.a.	n.a.
1	Highest through-the-cycle utilization compared to industry peers.	>USD20bn	A track 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).
bb	High through-the-cycle utilization compared to industry peers.	USD4bn	A track record of maintaining a stable order backlog through-the-cycle.	Project role includes production management and engineering services.
b	Moderate through-the-cycle utilization compared to industry peers.	USD1bn	Moderate volatility in order backlog through the cycle compared to peers.	More limited project role.
	Low through-the-cycle utilization compared to industry peers.	USD0.5bn	Highly volatile order inflows through the cycle.	Very limited project role limited to few simple activities (contract drilling, drilling, cementing, completion).
cc	Low utilisation threatening to overall profitability/viability.	Record of, or prospective, failed compliance. Very small and facing structural decline	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.
	Day Rates	Environmental Risk		
ıa	na.	na.		
	Highest day rates compared to industry peers.	na.		
bb	High day rates compared to industry peers.	Moderate exposure to environmental regulations and/or material but manageable remediation costs relative to projected cash flows.		
b	Moderate day rates compared to industry peers.	Above average exposure to environmental regulations and/ or high remediation costs relative to projected cash flows.		
	Low day rates compared to industry peers.	Severe exposure to environmental regulations and/or very high remediation costs relative to projected cash flows.		
сс	Day rates below operating costs.	Substantial cash impairment crystallized, or about to, due to multiple, punitive environmental remediation costs versus projected cash flows.		
	Competition			
a	na.			
	Lowest exposure to competition.			
bb	Low exposure to competition.			
b	Average exposure to competition.			
	High exposure to competition.			
c	Very weak/impaired competitive position threatening business model.			



## Financial Profile Key Factors — Oilfield Services

	Profitability	Financial Structure	Financial Flexibility
Rating	FFO Margin	Lease Adjusted FFO Gross Leverage	Financial Discipline
aa	na.	na.	Publicly announced conservative financial policy. Track record of strict compliance.
a	25%	2.3x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	20%	2.8x	Financial policies less conservative than peers but generally applied consistently.
bb	15%	3.8x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
b	10%	4.8x	No financial policy or track record of ignoring it. Opportunistic behavior.
ccc	Persistently and structurally break-even or loss-making at FFO level.	>8.0x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	EBIT Margin	Lease Adjusted FFO Net Leverage	Liquidity
aa	na.	n.a.	Very comfortable liquidity, no need to use external funding in the next 24 months. Well-spread debt maturity. Diversified sources of funding.
a	20%	2.0x	Very comfortable liquidity. 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	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
	FCF	Total Adjusted Debt/Operating EBITDAR	FFO Fixed Charge Cover
aa	na.	n.a.	na.
a	Positive through the cycle.	2.0x	6.0x
bbb	Neutral to positive through the cycle.	2.5x	5.0x
bb	Neutral to negative through the cycle.	3.5x	3.0x
b	Negative through the cycle.	4.5x	20x
ccc	Persistently negative FCF margin, with limited scope for raising funds from equity/debt/disposals.	>7.0x	1.25x
	Capex/CFO		FX Exposure
aa	na.		No material FX mismatch.
a	67%		Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flows well-matched.
bbb	100%		Some FX exposure on profitability and/or debt/cash flow match. Effective hedging in place.
bb	Capex materially covered by cashflows from operations.		FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b	Capex expected to materially exceed cashflow over the rating horizon typically due to focus on expansionary projects.		Large FX exposure. No significant/ineffective hedging in place.
ccc	Unsustainable profile.		PX exposure dominant in impairing the issuer's ability to service debt in cash terms.
			EBITDAR/(Gross Interest Expense + Rent)
aa			na.
a			7x
bbb			6х
bb			4x
b			3x
CCC			1.25x

# 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**

#### **Business Diversification**

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, eg upstream, midstream, petrochemical or chemical sectors.

#### **Scale of Operations**

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, eg 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 lowercost, lower-quality crudes into higher-quality, higher-margin products, allowing higher through-the-cycle profitability; this advantage is reflected in the ratings. Refinery utilization is a key measure of efficiency. Higher utilization rates generally translate into higher profitability.

## **Access to Capital**

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

#### Jakub Zasada

jakub.zasada@fitchratings.com (+48) 22 338 6295

#### Lucas Aristizabal

lucas.aristizabal@fitchratings.com (+1) 312 368 3260



## **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 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.

# 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 larger imbalances than in the upstream sector, 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. Oil refining is therefore subject to much greater cash flow cyclicality and to slower recovery after a downturn than oil production.





## Sector-Specific Key Factors – Oil Refining and Marketing

	<b>Business Diversification</b>	Scale of Operations	Refinery Locations	Refining Asset Quality
Rating	Business Diversification	Capacity (bpd)	Competitiveness of Markets	Complexity
aa	na.	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 good geographic diversification.	Markets with low competition or widening supply deficit.	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.	Average complexity and product yield compared to competitors.
b	Pure oil refiner with no upstream or downstream integration.	Less than 100,000.	Very competitive markets with large overcapacity.	Low complexity and product yield compared to competitors.
CCC	Concentrated exposure to unprofitable operations.	n.a.	Very competitive markets threatening commercial viability.	Obsolete equipment threatening business model.
	Environmental Risk	Number of Refineries	Logistics	Margins and Utilization rates
aa	n.a.	n.a.	n.a.	
		1 100	1.03.	n.a.
a	n.a.	na.	na.	na.
a bbb	n.a.  Moderate exposure to environmental regulations and/or material but manageable remediation costs relative to projected cash flows.			
	Moderate exposure to environmental regulations and/or material but manageable remediation	na	n.a.  Close to oil and product pipelines. Low-	n.a.  Above-average margins and utilization rates
bbb	Moderate exposure to environmental regulations and/or material but manageable remediation costs relative to projected cash flows.  Above average exposure to environmental regulations and/	n.a. At least two larger refineries.	n.a.  Close to oil and product pipelines. Low- cost access to end-user markets.	n.a.  Above-average margins and utilization rates compared to industry benchmarks.  Average margins and utilization rates
bbb bb	Moderate exposure to environmental regulations and/or material but manageable remediation costs relative to projected cash flows.  Above average exposure to environmental regulations and/or high remediation costs relative to projected cash flows.	n.a.  At least two larger refineries.  One larger single-asset facility.	n.a.  Close to oil and product pipelines. Low-cost access to end-user markets.  Higher transportation costs due to less favorable location.	n.a.  Above-average margins and utilization rates compared to industry benchmarks.  Average margins and utilization rates compared to industry benchmarks.  Low margins and utilization rates compared



## Financial Profile Key Factors - Oil Refining and Marketing

	Profitability	Financial Structure	Financial Flexibility
Rating	FFO Margin	Lease Adjusted FFO Gross Leverage	Financial Discipline
aa	n.a.	na.	Publicly announced conservative financial policy. Track record of strict compliance.
а	na.	na.	${\it Clear commitment to maintain a conservative policy with only modest deviations allowed.}$
bbb	4%	2.5x	Financial policies less conservative than peers but generally applied consistently.
bb	3%	3.5x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
b	1%	4.5x	No financial policy or track record of ignoring it. Opportunistic behavior.
ccc	Persistently and/or structurally break-even or loss-making at FFO level.	>8.0x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	EBIT Margin	Lease Adjusted FFO Net Leverage	Liquidity
aa	na.	n.a.	Very comfortable liquidity, no need to use external funding in the next 24 months. Well-spread debt maturity. Diversified sources of funding.
a	na.	na.	Very comfortable liquidity, Well-spread debt maturity schedule. Diversified sources of funding
bbb	4%	2.0x	One year liquidity ratio above 1.25x Well-spread maturity schedule of debt but funding may be less diversified.
bb	2%	3.0x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding
b	1%	4.0x	Liquidity ratio below 1.x Overly reliant on one funding source.
ccc	Persistently and/or 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
	FCF		FFO Fixed Charge Cover
aa	na.		n.a.
a	na.		na
bbb	Positive across the cycle.		5.0x
bb	Neutral to negative across the cycle.		4.0x
b	Negative across the cycle.		3.0x
ccc	Persistently negative FCF margin, with limited scope for raising funds from equity/debt/disposals.		1.25x
			FX Exposure
aa			No material FX mismatch.
a			Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flows well-matched.
bbb			Some FX exposure on profitability and/or debt/cash flow match. Effective hedging in place.
bb			FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b			Large FX exposure. No significant/ineffective hedging in place.
CCC			FX exposure dominant in impairing the issuer's ability to service debt in cash terms.
			EBITDAR/(Gross Interest Expense + Rent)
aa			na
a			na
bbb			6.0x
bb			5.0x
b			4.0x
CCC			1.25x

# Midstream, Pipelines and Master Limited Partnerships

### **Sector Risk Profile**

## **Rating Range**

North American midstream and pipeline entities have a number of common characteristics. Sector ratings fall into three distinct tiers. The highest-rated entities range between 'BBB+' and 'A'. These entities generally have lower leverage relative to peers and stable cash flow generated under fixed-fee contracts. Their ratings are not constrained by a weaker affiliate. High-quality master limited partnerships (MLPs), large midstream entities and pipeline operating companies often fall in the 'BBB' and 'BBB-' rating levels. Aggressive growth, structural constraints and distribution practices frequently limit rating upside. High-yield companies, 'BB+' and below, are typically characterized by limited scale of operations, high leverage, less predictable or lower-quality cash flows and weaker liquidity.

## **Sector-Specific Key Factors**

## **Scale of Operations**

This factor helps assess the scale of operations in question. Size matters in the pipeline, midstream and MLP sector, with the largest companies having meaningful competitive advantages. Typically, the breadth of operations for larger companies provides geographic and asset diversity, which tends to moderate the financial effect of negative market trends and events.

#### **Business Characteristics**

This factor assesses an issuer's business characteristics within the midstream context. Asset classes within the sector exhibit varying degrees of risk. Many companies operate a mix of assets requiring a blended analytical approach, while within each asset class there are varying degrees of risk. In its simplest form, Fitch Ratings segregates a company's gross margins as being "fixed-fee" or "commodity price sensitive."

## **Company Position**

This factor assesses the market position of an issuer's asset base within the sector, its revenue predictability, and the quality and competitiveness of its assets.

#### **Legal Structure**

This factor considers the issuer's legal structure and its impact on the issuer's financial and operating profile. Understanding the structural features of midstream issuers and the alignment of economic incentives and any structural considerations are critical to understanding credit risk.



#### Peter Molica

peter.molica@fitchratings.com (+1) 212 908 0288

#### Shalini Mahajan

shalini.mahajan@fitchratings.com (+1) 212 908 0351

# Midstream, Pipelines and Master Limited Partnerships

## **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 to access capital markets to finance its operations and capital expansion.

## **Financial Structure and Flexibility**

These factors use an array of predominantly cash-based metrics to measure the level of capitalization of an issuer and other flexibility measures such as liquidity. Fitch typically adjusts EBITDA for MLPs and other midstream issuers to exclude non-recurring extraordinary items. Adjusted EBITDA excludes equity in earnings of nonconsolidated affiliates and includes cash distributions from nonconsolidated affiliates.

The relationship between limited partners (LPs) and their general partner (GP) within MLP structured issuers and the linkage of ratings between affiliated entities can be complex. The analysis itself is no different than for corporate parent and subsidiary relationships (see Fitch's criteria report, "Parent and Subsidiary Rating Linkage"), which shows how Fitch assesses the legal, financial and operating ties between entities. As a result, Fitch has consolidated ratings of some sponsors and LPs, notched the GP below the MLP, notched the GP above the MLP and rated the MLP on a standalone basis. Ratings for several subsidiary pipelines with lower-rated parent companies remain constrained due to their parent/subsidiary relationship.

Partnership companies can be structured effectively as bankruptcyremote from the sponsor or holding company established by the sponsor to own its partnership units. Equally, in the case of a financially weak sponsor, partnership lenders would be protected against a default occurring above the GP level.

## **Industry Characteristics**

The midstream energy industry is focused on several broad industry sub-categories or a combination thereof: 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; 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 performance and tend to be less cyclical and less influenced by commodity price fluctuations. By contrast, entities with volatile commodity-linked earnings or riskier single-asset companies may need to make offsetting adjustments such as lower leverage or more liquidity to achieve similar credit quality. Scale of operations and geographic and asset diversity have proven important in providing stability.

Midstream entities, particularly those with assets operating in the U.S., are very often structured as MLPs in order to take advantage of the tax pass-through benefits of the MLP structure. A common characteristic of the MLP structure is that it facilitates the distribution of most of its available cash to its GP and LP unit holders. Cash available for distribution is typically calculated as adjusted EBITDA minus maintenance capex and interest expense. In the case of a low-growth MLP, the partner's capital base will erode over time if the partnership is not booking sufficient growth-related capex and/or acquisitions to offset its depreciation, depletion, and amortization. This can lead to a subsequent increase in balance-sheet leverage measures, such as debt to capitalization and debt to equity, even during periods of favorable financial performance.

Fitch believes that distribution coverage, generally defined as available cash divided by total cash distributions, is an important credit measure. Although the payment of cash distributions is clearly subordinated to debt service, a reduction or suspension of an MLP's quarterly distribution can quickly wipe out its equity market value and render access to public equity markets nearly impossible.



## Sector-Specific Key Factors – Midstream, Pipelines and Master Limited Partnerships

	Scale of Operations	<b>Business Characteristics</b>	Company Position	Legal Structure
Rating	Scale - EBITDA	Commodity Exposure	Asset Quality	Standalone or Structural Subordination
aa	na.	n.a.	n.a.	n.a.
a	>\$1 billion.	90% fixed; 10% commodity.	Assets highest quality among peers.	Corp. stand-alone or subsidiary of strong parent company with strong linkages. MLP with no or limited exposure to GP sponso
bbb	>\$500 million.	70% fixed; 30% commodity.	High quality assets.	Corp. or MLP. Strong stand-alone profile constrained by parent company. Weak profile enhanced by parent or GP sponsor.
bb	<\$500 million	60% fixed; 40% commodity.	Lower quality assets that operate at a higher level of risk.	Holding company with subordinated cash flow from operating subsidiaries.
b	<\$500 million.	>75% commodity.	Low quality, high risk assets with significant variability of cash flows.	Highly levered holding company with deeply subordinated cash flow from operating subsidiaries.
CCC	Rapidly declining scale.	Commodity exposure creating an unprofitable profile for the foreseeable future.	Poor asset quality with little prospect of a profitable profile.	Highly leveraged holding company with interrupted cash receipts from operating subsidiaries.
	Geographic/Asset Diversity	Business Mix	Industry Position/Competitive Advantage	
aa	na.	na.	n.a.	
a	High geographic and asset diversity.	Natural gas, crude oil, and refined product pipelines.	Low cost and/or high demand competitive advantage.	
bbb	Moderate to high geographic and asset diversity.	Pipelines, diversified midstream, fixed fee predominant gathering, processing.	Strong competitive position.	
bb	Geographic concentration and/or limited business line diversity and resources.	Gathering, processing, retail propane, marine transportation, or frac sand production.	High cost and weak competitive advantage.	
b	High geographic concentration and lack of business line diversity.	Gathering, processing, retail propane, marine transportation, or frac sand production.	Among the highest cost and weak competitive advantage.	
ccc	Concentrated in an especially disadvantaged region.	Unprofitable or unsustainable business mix.	Uncompetitive and unsustainable cost structure.	
	Access to General Partner/ Drop-Down	Rate Structure and Revenue Profile	Contracted Revenue and Macro Exposure	
aa	na.	n.a.	n.a.	
a	Significant advantages of scale.	Strong contractual protection and reliable counterparties. FERC-regulated rates.	No or very limited exposure to macro events/conditions. Limited recontracting risk; capex contractually supported.	
bbb	Modest advantages of scale; gains advantages of scale through supportive relationship with larger parent company or General Partner sponsor.	Mix of FERC-regulated rates and exposure to change in geographic differentials. Moderate contractual protection.	Limited exposure to macro events and conditions. Recontracting risk moderate; capex contractually supported.	
bb	Lacks advantages of scale; limited/no gains to scale through relationship with larger parent company or GP sponsor.	High exposure to commodity prices. Unregulated and/ or significant non-investment grade counterparties	Minimal contractual support, and/or exposure to macro events, commodity prices, conditions. High recontracting risk.	
b	No advantages of scale; no gains to scale through relationship with larger parent company or General Partner sponsor.	Very high exposure to commodity prices. Unregulated and/ or significant non-investment grade counterparties	No contractual support, high exposure to macro events, commodity prices, and conditions. High recontracting risk.	
CCC	Small scale a limiting factor for operational, strategic and financial viability.	Exposure to highly cyclical commodity prices. Non-paying customers.	Revenue prospects exert strong downward pressure on the company's prospects.	
		Environmental Exposure		
aa		na.		
a		na.		
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.		



## Financial Profile Key Factors - Midstream, Pipelines and Master Limited Partnerships

	Profitability	Financial Structure	Financial Flexibility
Rating	Volatility of Profitability		Financial Discipline
aa	n.a.		na
а	Higher stability and predictability of profits than industry average.		Publicly announced conservative financial policy. Track record of strict compliance.
bbb	Stability and predictability of profits in line with industry average.		${\it Clear commitment to maintain a conservative policy with only modest deviations allowed.}$
bb	Lower stability and predictability of profits than industry average.		Financial policies less conservative than peers but generally applied consistently.
b	Much lower stability and predictability of profits than industry average.		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.		Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
		Lease Adjusted FFO Net Leverage	Liquidity
aa		n.a.	na
a		3.5x	Very comfortable liquidity, no need to use external funding in the next 24 months. Well-spread debt maturity. Diversified sources of funding.
bbb		4.5x	Very comfortable liquidity. Well-spread debt maturity schedule. Diversified sources of funding.
bb		6.0x	One year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
b		7.0x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
ccc		>8.0x	No near-term prospect of recovery in liquidity. All/most funding sources subject to material execution risk.
		Total Debt/Adjusted EBITDA	FFO Fixed Charge Cover
aa		n.a.	na.
a		3.0x	6.0x
bbb		4.0x	4.0x
bb		5.0x	3.0x
b		6.0x	2.0x
ccc		>8.0x	<1.0x
			Adjusted EBITDA Interest Coverage
aa			na
a			6.0x
bbb			4.5x
bb			3.5x
b			3.5x
CCC			1.25x
			Distribution Coverage
aa			na
a			>1.5x
bbb			1.1x
bb			0.8x
b			0.6x
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.

#### Value-Added

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.

#### 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.

#### Peter Archbold

peter.archbold@fitchratings.com (+44) 20 3530 1172

#### Monica Bonar

monica.bonar@fitchratings.com (+1) 212 908 0579



## **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. EBIT is used in addition to cash-flow measures to reflect the capital-intensive nature of the industry, and metrics include absolute size of EBIT and margins. Investment-grade entities will typically show the ability to generate positive FCF through the business cycle.

## 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	Value-Added	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	na.	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.
			Proportion of Contracted Sales	Operational Diversification
aa			n.a.	n.a.
a			n.a.	n.a.
bbb			High proportion to long term customers (>70%)	High (numerous plants and rolling mills)
bb			Medium proportion to long term customers (30-70%)	Medium (several plants and mills)
b			Low proportion to long term customers (<30%)	Low (single plant)
ccc			Rapidly declining customer base.	Record of, or prospects for, failed operations at a single site.
				Environmental Exposure
aa				n.a.
a				n.a.
bbb				Limited or manageable exposure to environmental regulation: Remediation costs are comfortably within current cashflows.
bb				Significant exposure to environmental regulations. Remediation costs are within current cashflows, but may weigh more over time.
b				Material exposure to highly polluting technology. Remediation costs are an incremental strain on projected cashflows.
ccc				Substantial cash impairment crystallized, or about to, due to multiple, punitive environmental cost burdens.





## Financial Profile Key Factors — Steel

	Profitability	Financial Structure	Financial Flexibility
Rating	FFO Margin	Lease Adjusted FFO Gross Leverage	Financial Discipline
18	na.	n.a.	Publicly announced conservative financial policy. Track record of strict compliance.
1	na.	n.a.	Clear commitment to maintain a conservative policy with only modest deviations allowed.
obb	12%	2.5x	Financial policies less conservative than peers but generally applied consistently.
b	10%	3.0x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
	5%	4.0x	No financial policy or track record of ignoring it. Opportunistic behavior.
СС	Persistently and/or structurally break-even or loss-making at the FFO level.	>6.0x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	EBITDAR Margin	Lease Adjusted FFO Net Leverage	Liquidity
a	na.	n.a.	Very comfortable liquidity, no need to use external funding in the next 24 months. Well-spread debt maturity. Diversified sources of funding.
	na.	n.a.	Very comfortable liquidity. Well-spread debt maturity schedule, Diversified sources of funding
bb	16%	2.0x	One year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
o	12%	2.5x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding
	8%	3.0x	Liquidity ratio below 1.x. Overly reliant on one funding source.
CC	Persistently and/or structurally break-even or loss-making at the EBITDAR level.	>5.0x	No near-term prospect of recovery in liquidity, All/most funding sources subject to material execution risk.
	FCF Margin	Total Adjusted Debt/Operating EBITDAR	FFO Fixed Charge Cover
a	na.	n.a.	na
	na.	n.a.	na
ob	Mostly positive through the cycle.	2.0x	9x
)	Neutral to negative through the cycle.	2.5x	6x
	Negative across the cycle.	3.5x	4x
CC	Persistently negative FCF margin, with limited scope for raising funds from equity/debt/disposals.	>5.0x	1.25x
			FX Exposure
ıa			No material FX mismatch.
			Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flows well match
bb			Some FX exposure on profitability and/or debt/cash flow match. Effective hedging in place.
b			FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only party effective.
			Large FX exposure. No significant/ineffective hedging in place.
c			FX exposure dominant in impairing the issuer's ability to service debt in cash terms.

## 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.

#### **Competitive 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 Risk**

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.



## **David Peterson**

david.peterson@fitchratings.com (+1) 312 368 3177

### Damien Chew

damien.chew@fitchratings.com (+44) 20 3530 1424

## 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 track 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

The control of the co		Volatility of Operating Profile	Diversification of Operating Profile	Competitive Position	Regulatory Risk	
Advertising Revenue Quality  This is a property of the propert	Rating	Revenue Mix Characteristics	Geographic Diversification	Content Creation	Regulatory Environment	
Control of the cont	aa	na.	na.	n.a.	n.a.	
See the control and entire processed of the control	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.	capabilities with broad appeal. Leading producer	Benign or low regulatory oversight.	
Separation and service services and services	bbb	Revenue derived from advertising-related	Average geographical diversification of cash flow.	more limited distribution competencies. Market-	Moderate regulatory oversight.	
control my promoting modified.  The control control my promoting modified is absoluted.  Advertising Revenue Quality  Product-Line Diversification  In a State - EBITDA Copyright Protections  Advertising Revenue Quality  Product-Line Diversification  In a State of the State of t	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.	
Advertising Revenue Quality  Product-Line Diversification  In 16.  In 16.  Product-Line Diversification  Fig. 45-bits  In 17.  Product-Line Diversification  Fig. 45-bits  In 18.  Product-Line Diversification  Fig. 45-bits	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.	
In the programment was desting menus. It is all programment was desting appropriate the programment of the p	ccc	n.a.	Concentrated in an especially disadvantaged region.	n.a.	Regulatory direction or intervention a key driver in material decline of prospects.	
supplier progression to advisiting broads and other progression of the		Advertising Revenue Quality	Product-Line Diversification	Scale - EBITDA	Copyright Protections	
Section and part address country and control for sections and sections and provided by the country of the count	aa	na.	na.	>\$8 billion	n.a.	
Section of the common common place and another common place in the common place and process of the common place and another place and another common place and another place another ano	a	across multiple platforms. Advertising is national	businesses each generating 10% of revenue, with	\$5 billion-\$8 billion	to digital media. Minimal piracy risk; strong usage	
Note that delicities control control medical forms of processing rights. The specific process in the control c	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		
become refer untable finding statement for a starting search under the foliage of the control of	bb	pricing and audience accretion characteristics.	Narrow product focus.	<\$500 million		
Service commits from manufact and manufacture and an anternative placements and anternative placement	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.	
Descriting profile conventant succeptable to economic cycles. Maritarian discrepancy on exceptable to economic economic structure.  Descriting profile conventant succeptable to economic econom	CCC	Rapidly declining fundamentals for advertising revenue. Advanced erosion from alternative channels.		Rapidly declining revenue base.	copyright and intellectual property rights. Piracy	
Operating profile commendant superplieble to connomic cycle. Mortant discretion were cost structure.  Operating growth earth death of the connection were cost structure.  Observed growth earth death of the connection were cost structure.  Observed growth earth death of the connection were cost structure.  Observed growth earth death of the connection were cost structure.  Observed growth earth death of the connection were cost structure.  Observed growth earth death of the connection were cost structure.  Observed growth earth death of the connection were connected earth of the connection of the con		Economic Sensitivity		Market Position		
Opening puritie printing and pr	aa	n.a.		n.a.		
de Operating profile robatility ommerger com de incurrent and governorment of the comment of the	a	Operating profile somewhat susceptible to economic cycles. Maintains discretion over cost structure.		share of media content consumption. Nominal		
Highly cycleal operating profile difficult to predict.  Consumption authence. Waterland with reading profile difficult to predict.  Dentaling profile infested, and entirely explained the consumption authence. Material with reading that explaining no substitutions.  Exposure to Hit-Driven Volatility  Relative Power in Value Chain  In a.  Dentaling profile infested, and entirely explained the water day with storage bragaling power with problem of the value dated in the chain.  Business profile has invited vulnerability (<25% of membra) by the chain would be the chain characterated by the chain volatility with marginal impact to cetal profile.  Business profile has invited vulnerability (<25% of membra) by the chain volatility with marginal impact to cetal profile.  Business profile has invited vulnerability to cetal profile.  Business profile has average exposure to the chrimen volatility with marginal impact to cetal profile.  Business profile has average exposure to the chrimen volatility with marginal impact to cetal profile.  Business profile has average exposure to the chrimen volatility with marginal impact to cetal profile.  Business profile has average exposure to the chrimen volatility in the residence of the chrimen volatility in the residence of the chrimen volatility with marginal profile and to key intige consideration.  Considerability in the considerability to accordance of the chrimen volatility with marginal profile and the volatility in a chanced stages of the chrimen volatility in the confile.  Exposure to Secular Shifts  Considerability and accordance stages of the chrimen volatility in a chanced stages of the chrimen volatility and the confile.  Business profile has averaged profile has a	bbb	Operating profile and volatility in line with economic cycle. Limited ability to manage cost structure during down cycles.		share of media consumption and solid operating		
Operating profile influence and entirely consumption audience. Meterial vulnerability to substitution.  Consumption audience. Meterial vulnerability to substitution.  Exposure to Hit-Driven Volatility  Relative Power in Value Chain  n.a.  Business profile has imited vulnerability (<25% of revenue) business profile has amended to continue and the profile has imited vulnerability (<25% of revenue) business profile has amended to continue and the profile has imited vulnerability (<25% of revenue) business profile has amended to continue and the profile has business and suppliers and customers.  Business profile has amended to continue and the profile has business and suppliers.  Business profile has amenge exposure to his deliver voltage business and suppliers.  Business profile has amenge exposure to his deliver voltage business and suppliers.  Business profile has amenge exposure to his deliver voltage business and suppliers.  Business profile has amenge exposure to his deliver voltage business and suppliers.  Business profile has amenge exposure to his deliver voltage business and suppliers.  Business profile has amenge exposure to his deliver voltage business and suppliers.  Business profile has amenge exposure to his deliver voltage business and suppliers.  Business profile has amenge exposure to his deliver voltage business and suppliers.  Business profile has amenge exposure to his deliver voltage business and suppliers.  Business profile has amenge exposure to his deliver voltage business and suppliers and customers.  Business profile has amenged business and suppliers and customers.  Business profile has amenged business and suppliers and customers.  Business profile has amenged business and suppliers and customers.  Business profile has amenged business and suppliers and customers.  Business profile has amenged business and sup	bb	Operating profile volatility exceeds economic cycle.		Weaker brands and appeal. Declining share of media consumption audience. Vulnerability to substitution.		
Exposure to Hit-Driven Volatility  Relative Power in Value Chain  a n.a.	b	Highly cyclical operating profile; difficult to predict.		Weaker brands and appeal. Declining share of media consumption audience. Material vulnerability to substitution.		
Business profile has limited vulnerability (<25% of revenue) to thic driven volatility with marginal impact to credit profile business profile has average exposure to hit-driven volatility that can potentially have a negative impact on credit profile business profile has average exposure to hit-driven volatility that can potentially have a negative impact on credit profile business profile has average exposure to hit-driven volatility that can potentially have a negative impact on credit profile business profile has average exposure to hit-driven volatility that can potentially have a negative impact on credit profile business profile has average exposure to hit-driven volatility that can potentially have a negative impact on credit profile business profile has average exposure to hit-driven volatility in the driven volatility in the profit in the profit in a potential prover with hind and reconstructed with significant business provide and is a key rating consideration.  Weak position within the value chain. Nominal influence in bagaining power.  Weak position within the value chain. Nominal influence in bagaining with proved.  High degree of hit-driven volatility in advanced stages of content drovely! to expected to continue.  Exposure to Secular Shifts  Exposure to Secular Shifts  Strong competitive position. Secular threats from new technologies and media platforms not expected to have metalet and adverse effect.  Operating profile has minimal vulnerability to excular risks, requiring minor investment to mitigate risk.  Significant strategic redirection and in extense of competitive position and eroson of manufact share.  Significant strategic redirection and in extense of competitive position in value chain. The control of the profile of the	ccc			Weak brands, rapidly eroding share of media consumption, evidence of substitution with multiple competitor failures.		
Business profile has limited vulnerability (<25% of revenue)  Business profile has limited vulnerability (<25% of revenue)  Business profile has limited vulnerability (<25% of revenue)  to hit driven volatility with marginal impact to credit profile  Business profile has limited vulnerability (<25% of revenue)  but to hit driven volatility is a verage exposure to hit driven volatility  that can potentially have a registric marginal impact to credit profile  Business profile has average exposure to hit driven volatility  that can potentially have a registric marginal marginal impact to credit profile  but this converted profile in a first a key rating consideration.  Cereates media platforms with high degree of hit-driven  volatility which negatively effects credit profile  Cereates media platforms with high degree of hit-driven  volatility which negatively effects credit profile  File degree of hit-driven volatility, in advanced stages  The weakers position in a value chain, leading to  strong downwerd pressure on prospects.  Exposure to Secular Shifts  a. n.a.  Strong competitive pocking Soular threats  to might profile has minimal vulnerability to socular threats  to repected to have marterial adverse effect.  Business profile has minimal vulnerability or socular  means are reported to repetite of the marterial profile risk.  Registricant strategic redirection and investment  registricant profile in above or of chron welening market  shave and completive profile in above or of chron welening market  shave and completive profile in above or of chron welening market  shave and completive profile in above or of chron well-exing market  shave and completive profile profile in above or of chron well-exing market  shave and complete profile in above or of chron well-exing market  shave and complete profile profile profile in above or of chron well-exing market  shave and complete profile profile in above or of chron well-exing market  shave and complete profile profile.		Exposure to Hit-Driven Volatility		Relative Power in Value Chain		
bb Business profile has average exposure to hit-driven volatility in the capacity of the control profile.  bb Business profile has average exposure to hit-driven volatility in the capacity in pact on credit profile.  bb Het-driven volatility is inherent within the operating profile and is a key rating consideration.  Cperates media platforms with high degree of hit-driven volatility in advanced stages or the volatility which negatively affects credit profile.  Cperates media platforms with high degree of hit-driven volatility in advanced stages or the volatility which negatively affects credit profile.  Ce High degree of hit-driven volatility in advanced stages or the volatility of the control or the volatility of the control or the volatility of the volatility in advanced stages or the volatility of the volati	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.		
that can potentially have a negative impact on credit profile.  bargaining power with suppliers and customers.  b Hit driven volatility is inherent within the operating profile and is a key rating consideration.  Operates media platforms with high degree of hit-driven volatility, which negatively affects credit profile.  Week position within the value chain. Nominal influence in bargaining yower.  The weekest position in a value chain. Very suppliers and customers.  The weekest position in a value chain, leading to strong downward pressure on prospects.  Exposure to Secular Shifts  a n.a.  Strong competitive position. Secular threats from new technologies and media platforms not expected to have material adverse effect.  bb Operating profile has minimal whereability to secular risks, requiring minor investment to mitigate risk.  b Meaningful portion of business sposed to secular risks.  Meaningful portion of business sposed to secular share.  Significant strategic reflection and investment required in absence of action weekening of competitive position and services of action weekening in mesters than e.  Septicant strategic reflection and investment required in absence of action weekening market share.  Rapidly declining market share. Imitied efficiecy of current	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.		
profile and is a key rating consideration.  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.  CC High degree of hit-driven volatility, in advanced stages of content drought, expected to continue.  Exposure to Secular Shifts  a n.a.  Strong competitive position. Secular threats from new technologies and media platforms not expected to have material adverse effect.  Operating profile has minimal vulnerability to secular risks, requiring minor investment to mitigate risk.  Meaningful portion of business exposed to secular risks which can lead to weakening of competitive position and crossion of market share.  Rapidly declining market share, limited efficiacy of current	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.		
violatility, which negatively affects credit profile.  In bargaining with powerful suppliers and customers.  High degree of hit-driven volatility, in advanced stages of content drought, expected to continue.  Exposure to Secular Shifts  In a.  Strong competitive position. Secular threats from new technologies and media platforms not expected to have material adverse effect.  Operating profile has minimal vulnerability to secular risks, requiring minor investment to mitigate risk.  Wearingful portion of business exposed to secular risks which can lead to weakening of competitive position and erosion of market share.  Significant strategic redirection and investment required. In absence of action, weakening market share.  Rapidly declining market share, limited efficiacy of current	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.		
Exposure to Secular Shifts  a na.  Strong competitive position. Secular threats from new technologies and media platforms not expected to have material adverse effect.  Operating profile has minimal vulnerability to secular risks requiring minor investment to mitigate risk.  Meaningful portion of business exposed to secular risks which can lead to weakening of competitive position and erosion of market share.  Significant strategic redirection and investment required. In absence of action, weakening market share.  Rapidly declining market share, limited efficiacy of current	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.		
a na.  Strong competitive position. Secular threats from new technologies and media platforms not expected to have material adverse effect.  Operating profile has minimal vulnerability to secular risks, requiring minor investment to mitigate risk.  Meaningful portion of business exposed to secular risks which can lead to weakening of competitive position and erisos in or market share.  Significant strategic redirection and investment required. In absence of action, weakening market share and competitive position likely.	ccc	High degree of hit-driven volatility, in advanced stages of content drought, expected to continue.				
Strong competitive position. Secular threats from new technologies and media platforms not expected to have material adverse effect.  Departing profile has minimal vulnerability to secular risks requiring minor investment to mitigate risk.  Meaningful portion of business exposed to secular risks which can lead to weakening of competitive position and erosion of market share.  Significant strategic redirection and investment required. In absence of action, weakening market share.  Rapidly declining market share, limited efficiacy of current		Exposure to Secular Shifts				
from new technologies and media platforms not expected to have material adverse effect.  Operating profile has minimal vulnerability to secular risks, requiring minor investment to mitigate risk.  Meaningful portion of business exposed to secular risks which can lead to weakening of competitive position and erisks in ord market share.  Significant strategic redirection and investment required. In absence of action, weakening market share and competitive position likely.  Rapidly declining market share, limited efficiacy of current	aa	na.				
risks, requiring minor investment to mitigate risk.  Meaningful portion of business exposed to secular risks which can lead to weakening of competitive position and ensoin of market share.  Significant strategic redirection and investment required. In absence of action, weakening market share and competitive position likely.  Rapidly declining market share, limited efficiacy of current	a	from new technologies and media platforms not				
b risks which can lead to weakening of competitive position and ensoin or market share.  Significant strategic redirection and investment required. In absence of action, weakening market share and competitive position likely.  Rapidly declining market share, limited efficiacy of current	bbb					
required. In absence of action, weakening market share and competitive position likely.  Rapidly declining market share, limited efficiacy of current	bb	risks which can lead to weakening of competitive				
Rapidly declining market share, limited efficiacy of current strategic redirection efforts and low visbility of improvements.	b	Significant strategic redirection and investment required. In absence of action, weakening market				
	ccc	Rapidly declining market share, limited efficiacy of current				



## Financial Profile Key Factors - Media

	Profitability	Financial Structure	Financial Flexibility
Rating	FFO Margin	Lease Adjusted FFO Gross Leverage	Financial Discipline
aa	na.	n.a.	Publicly announced conservative financial policy. Track record of strict compliance.
a	20%	2.0x	${\it Clear commitment to maintain a conservative policy with only modest deviations allowed.}$
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%	5.5x	No financial policy or track record of ignoring it. Opportunistic behavior.
ccc	Persistently and structurally break-even or loss-making at FFO level.	>7.0x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	FCF Margin	Lease Adjusted FFO Net Leverage	Liquidity
aa	na.	n.a.	Very comfortable liquidity, no need to use external funding in the next 24 months. Well-spread debt maturity. Diversified sources of funding.
a	35%	2.0x	thm:confortable liquidity. Well-spread maturity schedule of debt. Diversified sources of funding.
bbb	25%	3.0x	One year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
bb	1%	3.5x	$Liquidity\ ratio\ around\ 1.0x.\ Less\ smooth\ debt\ maturity\ or\ concentrated\ funding.$
b	Neutral to negative.	5.0x	Liquidity ratio below 1.0x. Overly reliant on one funding source.
ccc	Accelerating negative FCF margin, with limited/no flexibility on spending reduction and funding gaps.	>7.0x	No near-term prospect of recovery in liquidity score above 1.0x. All/most funding sources subject to material execution risk.
	Volatility of Profitability	Net Debt/(CFO - Capex)	FFO Fixed Charge Cover
aa	Volatility of profits viewed as a positive outlier for the industry.	na.	na.
a	Lower volatility of profits than industry average.	2.5x	6.0x
bbb	Volatility of profits in line with industry average.	4.0x	4.0x
bb	Higher volatility of profits than industry average.	6.0x	3.0χ
b	Volatility of profits viewed as a negative outlier for the industry.	10.0x	2.0x
ccc	$\label{thm:prop} \mbox{Volatility of profits outside normal bounds of volatility for corporate sector as a whole.}$	>15.0x	Net FCF debt service cover below 1.0x. All/most funding sources subject to material execution risk.
	EBITDAR Margin	Total Adjusted Debt/Operating EBITDAR	FX Exposure
aa	na.	n.a.	No material FX mismatch.
a	30%	1.5x	Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flows well-matched.
bbb	20%	2.5x	$Some FX \ exposure \ on \ profitability \ and/or \ debt/cash \ flow \ match. \ Effective \ hedging \ in \ place.$
bb	15%	3.5x	FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b	10%	5.0x	Large FX exposure. No significant/ineffective hedging in place.
ccc	Persistently and structurally break-even or loss-making at EBITDAR level.	>7.0x	FX exposure dominant in impairing the issuer's ability to service debt in cash terms.
		FCF/Gross Adjusted Debt	FCF/EBITDA
aa		n.a.	na.
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 Competition Risks**

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.

#### **Sector Growth Risks**

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.

## **Company's 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.

## Company's 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 Risk Profile**

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

#### David Peterson

david.peterson@fitchratings.com (+1) 312 368 3177

## Damien Chew

damien.chew@fitchratings.com (+44) 20 3530 1424

# 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	Sector Trend	Company's 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
1	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 player 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
bb	Larger number of competitors with some track record of price discipline in downturns.	Mature industry. Traditional markets may be under some pressure but opportunities arise in new markets.	Top-five player in most markets or defensible leader of a niche.	Exposure to at least three business lines or markets but with some performance correlation
b	Highly competitive industry with several companies of comparable size.	Industry in slow decline.	Predominantly second-tier player.	Focus on a couple of business lines / end markets
,	Track record of aggressive and opportunistic competitive behaviour.	Industry in rapid decline. Players will have to consolidate to survive.	Small player.	One product/market concentration
СС	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
а	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.
	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.
bb	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.
b	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.
,	No barrier to entry/exit. Number of industry players 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 players.	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		
a	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.		
	Stronger bargaining power than suppliers and customers.	Minimal risk of technological substitution, significant switching costs present		
bb	Relative bargaining power balanced with suppliers and customers.	Technology risk present, viable alternative technology available in market, moderate switching cost.		
b	Supplier and / or customer more concentrated with significant bargaining power	Meaningful technology risk, alternative technology taking market share, low switching costs.		
)	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.		
occ	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	FFO margin	Lease Adjusted FFO Gross Leverage	Financial Discipline
aa	30%	1.0x	Publicly announced conservative financial policy. Track record of strict compliance.
a	15%	2.0x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	9%	3.0x	Less conservative policy 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	2%	5.0x	No financial policy or track record of ignoring it. Opportunistic behaviour.
ccc	Persistently and structurally break-even or loss-making at FFO 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	Lease Adjusted FFO Net Leverage	Liquidity
aa	30%	0.0x	Very comfortable liquidity, no need to use external funding in the next 24 months. Welf-spread debt maturity. Diversfied sources of funding.
a	14%	1.0x	Very comfortable liquidity. Staggered debt maturity schedule. Diversified sources of funding.
bbb	7.5%	2.0x	One year liquidity ratio above 1.25x. Staggered debt maturity schedule but funding may be less diversified.
bb	4%	3.0x	Liquidity ratio around 1.0x. Less staggered debt maturity schedule or concentrated funding.
b	2%	4.5x	Liquidity ratio below 1.x. 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.
	FCF margin	Net Debt/(CFO - Capex)	FFO Fixed Charge Cover
aa	14%	Net Cash	10.0x
a	8%	2.0x	8.0x
bbb	3%	3.0x	4.0x
bb	1%	4.0x	3.0x
b	0%	5.0x	2.0x
ccc	Accelerating negative FCF margin, with limited/no flexibility on spending reduction and funding gaps.	>6.0x	Net FCF debt service cover below 1.0x. All/most funding sources subject to material execution risk.
	Volatility of Profitability	Total Gross Debt/FCF	FX Exposure
aa	Volatility of profits viewed as a positive outlier for the industry.	1.0x	No material FX mismatch.
a	Lower volatility of profits than industry average.	3.0x	Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flowwell-matched.
bbb	Volatility of profits in line with industry average.	5.0x	$Some \ PX \ exposure \ on \ profitability \ and/or \ debt/cash \ flow \ match. \ Effective \ hedging \ in \ place.$
bb	Higher volatility of profits than industry average.	8.0x	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.	12.0x	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.	>18.0x	PX exposure dominant in impairing the issuer's ability to service debt in cash terms.
		Total Adjusted Debt/Operating EBITDAR	
aa		1.0x	
a		2.0x	
bbb		3.0x	
bb		4.0x	
b		5.0x	
ccc		>6.0x	
		0.07	

## **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**

### **Competitive 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.

## **Damien Chew**

damien.chew@fitchratings.com (+44) 20 3530 1424



## **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. 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.

## **David Peterson**

david.peterson@fitchratings.com (+1) 312 368 3177

## **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.

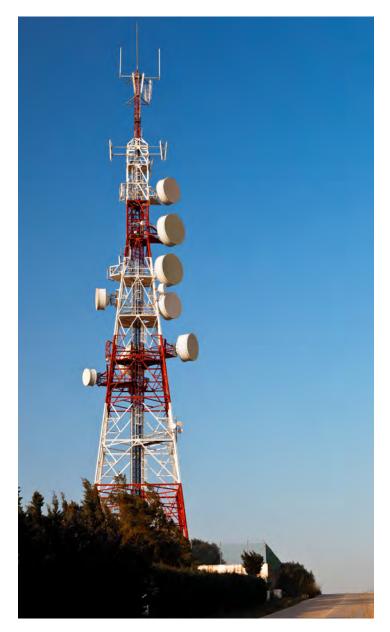
The following summary of inherent risks of entities operating in the telecoms sector indicates risk parameters commensurate with the following ratings.

## 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

	Competitive Position	Diversification	Technology and Infrastructure	Regulatory Environment
Rating	Market Position	Service Platform Diversification	Ownership of Network	Regulatory Risk
aa	n.a.	na.	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.	na.	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 players.	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 - EBITDAR			
aa	na.			
a	>\$5 billion			
bbb	>\$1 billion			
bb	>\$500 million			
b	<\$500 million			
ccc	Persistently and structurally break-even or loss-making at EBITDAR level.			

aa			
a			
bbb			
bb			
b			
ccc			





## Financial Profile Key Factors – Telecommunications

	Profitability	Financial Structure	Financial Flexibility
Rating	Volatility of Cash Flow	Lease Adjusted FFO Gross Leverage	Financial Discipline
aa	na.	n.a.	Publicly announced conservative financial policy. Track record of strict compliance.
a	Lower volatility and better visibility of cash flow than industry average.	2.2x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	Volatility and visibility of cash flow in line with industry average.	3.3x	Financial policies less conservative than peers but generally applied consistently.
bb	Higher volatility and weaker visibility of cash flow than industry average.	4.3x	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.	5.8x	No financial policy or track record of ignoring it. Opportunistic behavior.
CCC	Volatility of cash flow greater than normal bounds of volatility for corporate sector as a whole.	>7.0x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	EBITDAR Margin	Lease Adjusted FFO Net Leverage	Liquidity
aa	n.a.	n.a.	Very comfortable liquidity, no need to use external funding in the next 24 months. Well-spread debt maturity, Diversified sources of funding.
a	35%	2.0x	Very comfortable liquidity. Well-spread debt maturity schedule. Diversified sources of funding.
bbb	30%	3.0x	One year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
bb	25%	4.0x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding
b	20%	5.5x	Liquidity ratio below 1:x Overly reliant on one funding source.
ccc	Persistently and structurally break-even or loss-making at EBITDAR 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	Net Debt/(CFO - Capex)	FFO Fixed Charge Cover
aa	n.a.	n.a.	na.
a	30%	4.0x	6.0x
bbb	24%	8.0x	4.0x
bb	18%	20.0x	3.0x
b	12%	Not meaningful.	2.0x
ccc	Persistently and structurally break-even or loss-making at FFO level.	Not meaningful.	Net FCF debt service cover below 1.0x. All/most funding sources subject to material execution risk.
		Total Adjusted Debt/Operating EBITDAR	FX Exposure
aa		na.	No material FX mismatch.
a		2.0x	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. Efficient hedging in place.
bb		4.0x	FX exposure on profitability and/or debt/cash flow match. Some hedging in place.
b		5.5x	Large FX exposure. No significant hedging in place.
ccc		>7.0x	FX exposure dominant in impairing the issuer's ability to service debt in cash terms.

## **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**

#### **Route Structure**

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 Structure**

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.



## Joseph Rohlena

joseph.rohlena@fitchratings.com (+1) 312 368 3112

## Angelina Valavina

angelina.valavina@fitchratings.com (+44) 20 3530 1314

## **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

	Route Structure	Market Position	Management Strategy/ Effectiveness	Cost Structure
Rating	Network Diversity	Position in Key Markets	Fleet Strategy	Cost Structure
33	n.a.	na.	n.a.	n.a.
1	na.	na.	n.a.	n.a.
obb	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.
)	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
ia	na.	na.	na.	n.a.
ı	na.	n.a.	na.	n.a.
obb	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.
b	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.
)	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
аа			na.	n.a.
1			na.	n.a.
obb			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.
)			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
аа				n.a.
1				n.a.
obb				Non-unionized labor and/or flexible work rules.
ob				Unionized and/or inflexible work rules, constructive relationship with labor groups.
)				Unionized or inflexible work rules/difficult labor relations.
сс				Labour relations severely compromising operations.



## Financial Profile Key Factors – Airlines

	Profitability	Financial Structure	Financial Flexibility
Rating	FFO Margin	Lease Adjusted FFO Gross Leverage	Financial Discipline
aa	n.a.	n.a.	Publicly announced conservative financial policy. Track record of strict compliance.
a	na.	na.	Clear commitment to maintain a conservative policy with only modest deviations allowed.
bbb	12%	2.5x	Less conservative policy 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	7%	4.5x	No financial policy or track record of ignoring it. Opportunistic behavior.
ccc	Persistently and structurally break-even or loss-making at FFO level.	>7.0x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	EBIT Margin	Total Adjusted Debt/Operating EBITDAR	Liquidity as % of LTM Revenue
aa	n.a.	n.a.	na
a	na.	na.	n.a.
bbb	12%	2.5x	20%
bb	10%	3.5x	15%
b	7%	4.5x	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.
	FCF Margin		FFO Fixed Charge Cover
aa	na.		na.
a	na.		na.
bbb	Positive across the cycle.		4.5x
bb	Neutral to negative across the cycle.		3.0x
b	Negative across the cycle.		2.0x
ccc	Accelerating negative FCF margin, with limited/no flexibility on spending reduction and funding gaps.		below1.0x
	Volatility of Profitability		FX Exposure
aa	na.		No material FX mismatch.
a	n.a.		Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flow well-matched.
bbb	Volatility of profits in line with industry average.		Some FX exposure on profitability and/or debt/cash flow match. Effective hedging in place.
bb	Higher volatility of profits than industry average.		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.		Large FX exposure. No significant/ineffective hedging in place.
ccc	Volatility of profits above normal bounds for corporate sector as a whole.		FX exposure dominant in impairing the issuer's ability to service debt in cash terms.
	EBITDAR Margin		Capital Market Access; Unencumbered Asset Base
aa	na.		n.a.
a	na.		na.
bbb	25%		Demonstrated access to capital markets and/or sizable unencumbered asset base.
bb	20%		Demonstrated access to capital markets; some unencumbered assets.
b	10%		$Limited\ access to\ capital\ or\ limited\ history\ of\ accessing\ capital\ markets,\ minimal\ unencumbered\ assets.$
CCC			

# 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**

#### **Network and Diversity**

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, Revenue Visibility

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.

#### Fleet Strategy

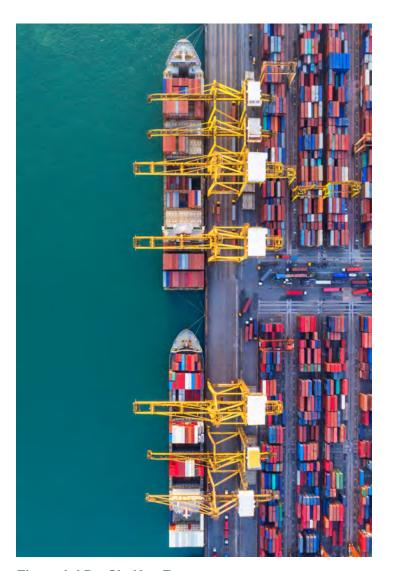
The quality of a shipping company's fleet affects profitability, the attractiveness of the company to shippers, cost competitiveness, future capex needs and financial flexibility. Fitch considers the fleet age profile, compliance with maritime regulations and fuel hedging polices to assess operating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

## Angelina Valavina

angelina.valavina@fitchratings.com (+44) 20 3530 1314



## **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.

## Vicky Melbourne

vicky.melbourne@fitchratings.com (+61) 2 8256 0325

# 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.

This cap 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

	Network & Diversity	Market Position & Revenue Visibility	Fleet Strategy	Cost Position
Rating	Trading Lanes Density and Diversity	Position on Key Routes	Fleet Quality	Cost Structure
aa	na.	na.	na.	n.a.
а	na.	n.a.	n.a.	na.
obb	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.
)	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
3a	n.a.	na.	n.a.	n.a.
ı	na.	na.	n.a.	n.a.
obb	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.
b	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 track record of successful cost- containment measures compared to peers.
	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 track 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	
13	n.a.	na.	n.a.	
1	na.	n.a.	na.	
bb	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.	
b	Average track record of cost and network optimization through vessel-sharing agreements and/or alliances.	\$150 million-\$2 billion.	Conservative fuel hedging policy.	
)	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		
аа		na.		
3		na.		
obb		More than 300 vessels.		
bb		50-300 vessels.		
)		Fewer than 50 vessels.		
сс		Rapidly declining number of operating vessels.		





## Financial Profile Key Factors - Shipping

	mandar Former Rey Factors Simpping				
	Profitability	Financial Structure	Financial Flexibility		
Rating	EBITDAR Margin (Container Shipping)	Lease-Adjusted FFO Gross Leverage	Financial Discipline		
aa aa	n.a.	n.a.	Publicly announced conservative financial policy. Track record of strict compliance		
ı	na.	n.a.	${\it Clear commitment to maintain a conservative policy with only modest deviations allowed.}$		
obb	22%	2.5x	Less conservative policy but generally applied consistently.		
ob	15%	3.5x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.		
)	7%	4.5x	No financial policy or track record of ignoring it. Opportunistic behavior.		
occ	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)	Lease-Adjusted FFO Net Leverage	Cash as % of Total Assets		
ia	na.	na.	na.		
	na.	na.	na		
bb	45%	2.0x	10%		
b	30%	3.0x	7%		
	15%	4.0x	5%		
CC	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	Unencumbered Assets to Unsecured Debt	FFO Fixed Charge Cover		
a	na.	n.a.	na.		
	na.	n.a.	na.		
ob	Positive across the cycle.	2x	4.0x		
b	Neutral to negative across the cycle.	1.8x	3.0x		
	Negative across the cycle.	1.5x	2.0x		
CC	Accelerating negative FCF margin, with limited/no flexibility on spending reduction and funding gaps.	Rapidily shrinking unencumbered pool with adverse selection.	Below 1.0x		
	Volatility of Profitability		FX Exposure		
a	na.		No material FX mismatch.		
	na.		Profitability potentially exposed to FX but efficient hedging in place. Debt and cash flow well match		
bb	Volatility of profits in line with industry average.		Some FX exposure on profitability and/or debt/cash flow matching. Effective hedging in place.		
b	Higher volatility of profits than industry average.		FX exposure on profitability and/or debt/cash flow matching. Some hedging in place but only partly effective.		
	Volatility of profits a negative outlier for the industry.		Large FX exposure. No significant/ineffective hedging in place.		
c	Volatility of profits greater than normal bounds of volatility for corporate sector as a whole.		FX exposure dominant in impairing the issuer's ability to service debt in cash terms.		

# 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 track 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.

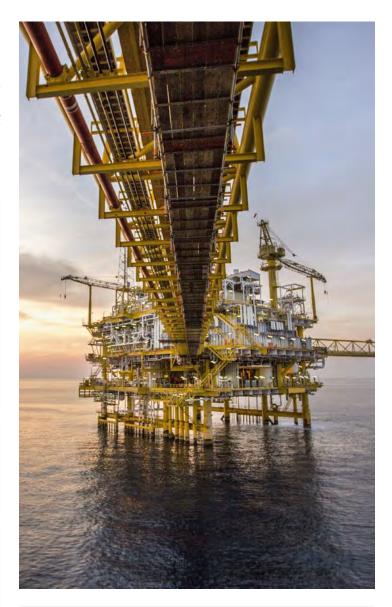
#### Operations

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+'.



## Ying Wang

ying.wang@fitchratings.com (+86) 21 5097 3010

## Sajal Kishore

sajal.kishore@fitchratings.com (+61) + 61 2 8256 0321

# 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 Risk Profile	Regulatory Environment	Asset Base	Operations
Rating	Sector Positioning	Independence, Transparency, Predictability	Diversification	Performance Measures
aa	na.	n.a.	n.a.	n.a.
a	National or regional monopolies, transmission or distribution asset owners	Transparent frameworks with strong track 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 track 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 track 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 track 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	na.	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	na.	na.	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%	Undermanding 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%	Undermanding 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, we counter-party quality; high doubtful debt levels/ late collection
CCC	na.	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		na.		
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	Lease Adjusted FFO Gross Leverage	Financial Discipline
aa	na.	n.a.	Publicly announced conservative financial policy. Track 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 track 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	Lease Adjusted FFO Net Leverage	Liquidity
aa	na.	n.a.	Very comfortable liquidity; no need to use external funding in the next 24 months. Well-spread debt maturity. Diversified sources of funding.
a	Higher stability and predictability of profits relative to utility peers	4.0x	Very comfortable liquidity. Well-spread maturity schedule of debt. 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 subject to material execution risk.
		Adjusted Net Debt/Asset Base (%)	FFO Fixed Charge Cover
aa		n.a.	na
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.
			FX Exposure
aa			No material FX mismatch.
a			Profitability potentialy exposed to FX but efficient hedging in place. Debt and Cashflows well-matched
bbb			Some FX exposure on profitability and/or debt/cash flow match. Effective hedging in place.
bb			FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b			Large FX exposure. No significant/ineffective hedging in place.
ccc			FX exposure dominant in impairing the issuer's ability to service debt in cash terms.

# 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 track record and the network's insulation from price and volume risks. We also review the degree to which network licences effectively ringfence 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.

#### **Operations**

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

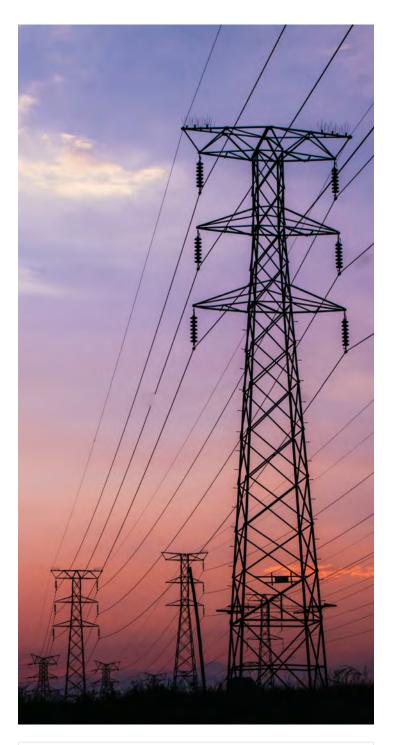
## **Financial Profile Key Factors**

## **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+'.

### Sajal Kishore

sajal.kishore@fitchratings.com (+61) 2 8256 0321



### Ying Wang

ying.wang@fitchratings.com (+86) +21 5097 3010

# 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 Risk Profile	Regulatory Environment	Asset Base	Operations
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 track 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 track 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 track 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 track 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%	Undermanding 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%	Undermanding 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, wear counter-party quality; high doubtful debt levels/late collection
ccc	na.	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		na.		
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	Lease Adjusted FFO Gross Leverage	Financial Discipline
aa	na.	n.a.	Publicly announced conservative financial policy, Track 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.
			Financial policies in place but flexibility in applying them could lead
bb	Return on capital below the regulatory benchmark	7.0x	to temporarily exceeding downgrade guidelines.
b	Weak return on capital relative to the regulatory benchmark	8.0x	No financial policy or track 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	Lease Adjusted FFO Net Leverage	Liquidity
aa	na.	n.a.	Very comfortable liquidity, no need to use external funding in the next 24 months. Well-spread debt maturity. Diversified sources of funding.
a	Higher stability and predictability of profits relative to utility peers	4.0x	Very comfortable liquidity, Well-spread maturity schedule of debt. 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.
		Adjusted Net Debt/Regulated Asset Base (%)	FFO Interest Cover
aa		n.a.	na.
a		60%	1.75x
bbb		70%	1.5x
bb		80%	1.1x
b		90%	1.0x
ccc		A step-change to 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.
			FX Exposure
aa			No material FX mismatch.
a			Profitability potentialy exposed to FX but efficient hedging in place. Debt and Cashflows well-matched.
bbb			Some FX exposure on profitability and/or debt/cash flow match. Effective hedging in place.
bb			FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b			Large FX exposure. No significant/ineffective hedging in place.
ccc			PX exposure dominant in impairing the issuer's ability to service debt in cash terms.

# **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 track 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.

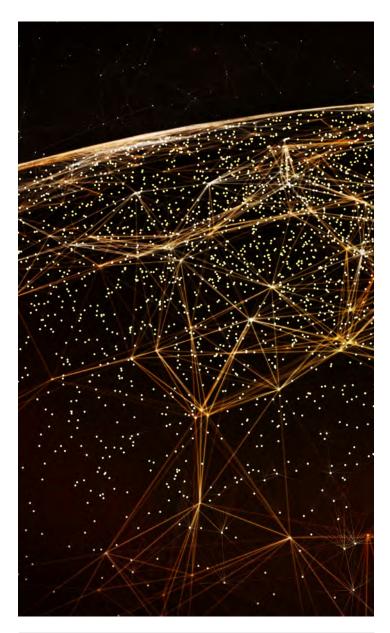
#### **Operations**

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



## Josef Pospisil

josef.pospisil@fitchratings.com (+44) 20 3530 1287

#### Antonio Totaro

antonio.totaro@fitchratings.com (+39) 02 8790 87 297

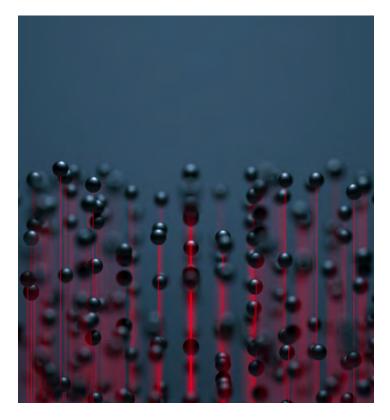
# **EMEA Regulated Networks**

## **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	Operations
Rating	Operation Type	Independence, Transparency, Predictability	Diversification	Performance Measures
aa	na.	na.	n.a.	n.a.
a	National or regional monopolies, transmission or distribution asset owners.	Transparent frameworks with strong track 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 track 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 track 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 track 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	na.	na.	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%	Undermanding 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%	Undernanding 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 industrie
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		na.		
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.		
DCC		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	Lease-Adjusted FFO Gross Leverage	Financial Discipline
aa	na.	n.a.	Publicly announced conservative financial policy. Track 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 track record of ignoring it. Opportunistic behaviour.
ссс	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	Lease-Adjusted FFO Net Leverage	Liquidity
aa	n.a.	n.a.	Very comfortable liquidity, no need to use external funding in the next 24 months. Well-spread debt maturity. Diversified sources of funding.
a	Higher stability and predictability of profit than utility peers.	4.0x	Very comfortable liquidity. 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	Net Debt/Asset Base	FFO Fixed-Charge Cover
aa	na.	na.	na.
a	Investment cycle position and dividend policy leading to broadly neutral free cash flow. High flexibility in smoothing capex plans.	60%	4.5x
bbb	Investment cycle position and dividend policy contributing to negative free cash flow. Moderate flexibility in smoothing capex plans.	70%	3.5x
bb	Investment cycle position and dividend policy leading to significantly negative free cash flow. Limited flexibility in smoothing capex plans.	80%	20x
b	Investment cycle position and dividend policy leading to significantly negative FCF where funding is not secured. Very limited possibility to postpone capex.	90%	1.5x
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.	Below 1.25x All/most funding sources are subject to material execution risk.
			FX Exposure
aa			No material FX mismatch.
a			Profitability potentially exposed to FX but efficient hedging. Debt and cash flow 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.
			PMICR: (CFO - Maintenance Capex)/Interest
aa			na.
a			1.75x
bbb			1.5x
bb			1.1x
b			1.0x
ccc			Persistently below 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**

#### **Position and Cash-Flow Profile**

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.

## Regulation

Predictable regulatory environments for networks and quasiregulated assets with low policy risk supports utilities' credit profiles.

### **Market Trends and Risk**

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.

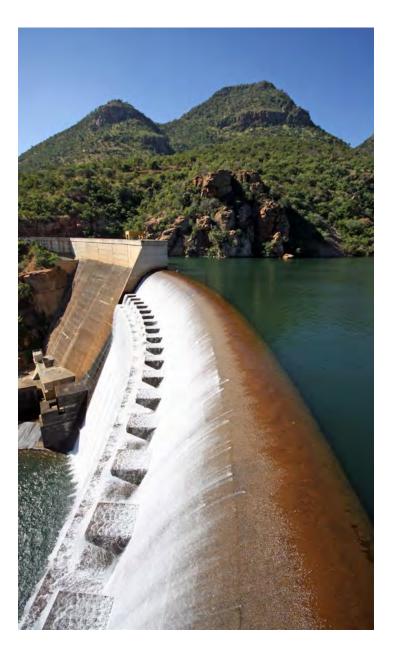
### **Asset Base and Operations**

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 lease-adjusted leverage, interest coverage, volatility of profitability and level of free cash flow (FCF) within relevant rating categories, potentially reaching the 'A' category.



## Josef Pospisil

josef.pospisil@fitchratings.com (+44) 20 3530 1287

#### Antonio Totaro

antonio.totaro@fitchratings.com (+39) 02 8790 87 297

## **EMEA Utilities**

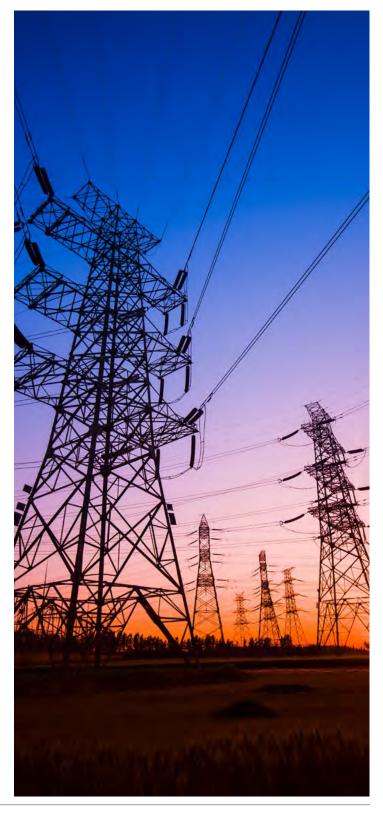
## **Industry Characteristics**

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

	Position and Cash Flow Profile	Regulation	Market Trends and Risks	Asset Base and Operations
Rating	Market Presence and Integration	Regulatory Framework and Policy Risk	Fundamental Market Trends	Asset Quality
aa		na.	na.	n.a.
a	Top-tier position in more than one market. Vertically integrated (typically including generation, transmission, distribution and supply).	Transparent frameworks with strong track 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 track 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 player in one market. Minimal integration (typically limited to generation and supply).	Opaque or overly demanding frameworks with limited track 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 player in one market. Minimal integration (typically limited to generation and supply).	Opaque, arbitrary frameworks without track 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	na.	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	na.		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	na.	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	na.		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 (<600gC02/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	na.		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	Lease Adjusted FFO Gross Leverage	Financial Discipline
a	na.	na.	Publicly announced conservative financial policy. Track record of strict compliance.
	Structurally neutral to positive FCF across the investment cycle.	3.5x	${\it Clear commitment to maintain a conservative policy with only modest deviations allowed.}$
bb	Structurally neutral to negative FCF across the investment cycle.	5.0x	Financial policies less conservative than peers but generally applied consistently.
b	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.
)	Structurally heavily negative FCF (more than 20% of EBITDA) across the investment cycle.	7.5x	No financial policy or track record of ignoring it. Opportunistic behavior.
CC	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	Lease Adjusted FFO Net Leverage	Liquidity
a	na.	n.a.	Very comfortable liquidity, no need to use external funding in the next 24 months. Well-spread debt maturity. Diversified sources of funding.
	Higher stability and predictability of profits than utility peers.	3.0x	Very comfortable liquidity. Well-spread debt maturity schedule. Diversified sources of funding.
obb	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.
b	Lower stability and predictability of profits than utility peers.	6.0x	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
	Stability and predictability of profits negative outliers relative to utility peers.	7.0x	Liquidity ratio below 1.0x. Overly reliant on one funding source.
cc	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.
			FFO Fixed Charge Cover
38			na.
			5.0x
bb			4.5x
b			3.5x
			2.0x
cc			Below 1.25x. All/most funding sources subject to material execution risk.
			FX Exposure
3a			No material FX mismatch.
			Profitability potentially exposed to FX but efficient hedging, Debt and cash flows well matched.
bb			Some FX exposure on profitability and/or debt/cash flow match. Effective hedging
b			FX exposure on profitability and/or debt/cash flow match. Some hedging but only partly effective
			Large FX exposure. No significant/ineffective hedging
cc			FX exposure dominant in impairing the issuer's ability to service debt in cash terms.

## 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 players, 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**

#### Integration

We view vertical integration as a credit strength within the sector, as this typically reduces business risks and earnings volatility.

#### **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 Risk and 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.

## **Cash Flow Profile and Regulation**

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 lease-adjusted leverage, interest coverage, financial flexibility and free cash flow (FCF) within relevant rating categories, potentially reaching 'A' category.



#### Ying Wang

ying.wang@fitchratings.com (+86) 21 5097 3010

#### Sajal Kishore

sajal.kishore@fitchratings.com (+61) + 61 2 8256 0321

## Asia-Pacific Utilities

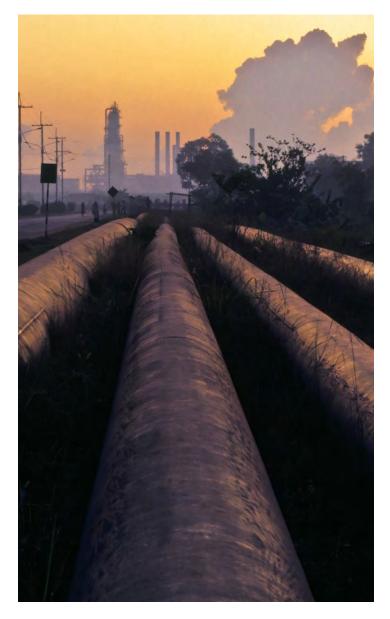
## **Industry Characteristics**

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

			M 1 . D' 1 . D . '''	Cash Flow Profile and
	Integration	Asset Base and Operations	Market Risk and Position	Regulation
Rating	Degree of Integration	Asset Quality	Fundamental Market Trends	Earnings From Regulated Network Assets
aa	п.а.	na.	n.a.	n.a.
a	Vertically integrated (typically including generation, transmission, distribution, supply).	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	Partially integrated (typically including generation, distribution, supply).	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	Minimal integration (typically limited to generation, supply).	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	Minimal integration (small generators and/or extremely weak on merit order dispatch, supply).	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	па.	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	Regulatory Framework and Policy Risk
aa		na.	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.	Transparent frameworks with strong track record and multi-year predictable tariffs set by independent regulators; little political risk
bbb		Partial diversification by geography, generation source or supplied product.	Economy of area served provide structurally stable background, some exposure to cyclical industries/customers.	Less transparent frameworks, with emerging track record and multi-year tariffs; exposed to political risk. Medium-term predictability.
bb		Limited diversification by geography, generation source or supplied product.	Structurally challenged economy of area served; some exposure to cyclical industries.	Opaque or overly demanding frameworks with limited track record, short-term tariffs; significant political risk.
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.	Opaque, arbitrary frameworks without track record, short-term tariffs; significant political risk. Limited medium-term predictability.
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.	Regulatory framework formally or informally abandoned, with substantial uncertainty about future mechanisms.
		Critical Mass	Counterparty Risk	Natural Hedge and Cash-Flow Smoothing
aa		na.	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	Lease Adjusted FFO Gross Leverage	Financial Discipline
aa	na.	n.a.	Publicly announced conservative financial policy. Track record of strict compliance.
3	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	4.5x	Financial policies less conservative than peers but generally applied consistently.
ob	Structurally negative FCF across the investment cycle	6.0x	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	7.0x	No financial policy or track record of ignoring it. Opportunistic behavior.
CCC	Negative FCF burden exceeding 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 mode environment.
	Volatility of Profitability	Lease Adjusted FFO Net Leverage	Liquidity
аа	na.	na.	Very comfortable liquidity, no need to use external funding in the next 24 months. Well-spread debt maturity. Diversified sources of funding.
3	Higher stability and predictability of profits relative to utility peers	3.0x	Very comfortable liquidity, Well-spread debt maturity schedule. Diversified sources of funding
obb	Stability and predictability of profits in line with utility peers	4.0x	One year liquidity ratio above 1.25x. Well-spread maturity schedule of debt but funding may be less diversified.
b	Lower stability and predictability of profits relative to utility peers	5.5x	Liquidity ratio around 1.0x Less smooth debt maturity or concentrated funding.
	Stability and predictability of profits viewed as negative outliers relative to utility peers	6.5x	Liquidity ratio below 1.x Overly reliant on one funding source.
000	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 are subject to material execution risk.
			FFO Fixed Charge Cover
аа			na
			5.0x
bb			4.5x
bb			3.5x
			20x
DCC			Net FCF debt service cover below 1.0x All/most funding sources subject to material execution risk.
			FX Exposure
13			No material FX mismatch.
ı			Profitability potentialy exposed to FX but efficient hedging in place. Debt and cash flowwell-matches
bb			Some FX exposure on profitability and/or debt/cash flow match. Effective hedging in place.
ob			FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
)			Large FX exposure. No significant/ineffective hedging in place.
cc			FX exposure dominant in impairing the issuer's ability to service debt in cash terms.

## Latin America Power and Utilities

## **Sector Risk Profile**

#### **Rating Range**

Latin American power and utility companies have an average to lowerthan-average risk profile. The sector's risk profile ranges from 'B' and up to the 'A' rating category, with the electricity transmission subsector viewed as having the lowest business risk followed by fairly diversified, vertically integrated utilities. Uncontracted power generators with commodity risk exposure are viewed as having higher business risk.

A significant portion of ratings in the sector are clustered in the 'BB'/'BBB' rating category. The 'A' rating level could be assigned to issuers operating under a solid regulatory framework and with strong credit characteristics such as a proven operational track record, limited commodity risk and 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 and Market Price 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, Franchise or Concession

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 that is commensurate with its cash flow stability and predictability for a given rating level.



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### Lucas Aristizabal

lucas.aristizabal@fitchratings.com (+1) 312 368 3260

## Daniel R. Kastholm, CFA

daniel.kastholm@fitchratings.com (+1) 312 368 2070

## Latin America Power and Utilities

## **Industry Characteristics**

The Latin American utility, power, gas and water sectors encompass a broad range of risk profiles and business interests. This includes regulated, integrated or state-owned utilities; competitive generation; water services; and gas distribution and transportation companies. The assessment of operating and business risk is an important element in determining ratings. These risks often vary greatly from one company to another, even within the same sector.

The rating evaluation of an electric, gas or water utility/generator 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 emphasizes 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.

#### **Regulated Utilities**

Qualitative factors with the most significant credit effect include the regulatory and political environment in which the utility operates, in particular such factors as price-setting and cost-recovery mechanisms, 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 most constructive for utility companies. This stands in sharp contrast with the Argentine and Venezuelan regulatory/political regimes.

Fitch's operational and business evaluation considers the degree to which the utility bears 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 in order 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.

## **Competitive Power Generation**

Fitch's qualitative analysis for generation companies focuses on several aspects that directly affect companies' cash flow volatility and adequacy. These factors include the fuel type and efficiency of generating assets and asset diversification; competitive position versus its peers; risk-management capabilities; regulatory risk; contractual position; off-taker risk and supply risk, and operating performance.

#### **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 – Latin America Power and Utilities

	Regulatory Risk	Commodity Price and Market Risk	Market	Asset Base and Operations
Rating	Independence	Price and Volume Risk	Consumption Growth Trend	Asset Diversity
aa	na.	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.ā.	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.	Track 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.ā.		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 players.		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 players.		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 players.		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	na.			
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 Power and Utilities

	Profitability	Financial Structure	Financial Flexibility
Rating	Volatility of Profitability	Lease Adjusted FFO Gross Leverage	Financial Discipline
aa	na.	n.a.	Publicly announced conservative financial policy. Track 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.	3.5x	Less conservative policy but generally applied consistently.
bb	Less stability and predictability of profits relative to utility peers.	4.5x	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.	5.5x	No financial policy or track record of ignoring it. Opportunistic behavior.
ccc	Volatility of profits greater than normal bounds of volatility for corporate sector as a whole.	>7.0x	Financial management has lost much of its discipline, and subject to frequent, sudden changes consistent with a crisis environment.
	Free Cash Flow	Lease Adjusted FFO Net Leverage	Liquidity (Cash+CFO)/S-T Debt
aa	na.	n.a.	Very comfortable liquidity, no need to use external funding in the next 24 months. Well-spread debt maturity. Diversified sources of funding.
a	Structurally neutral to positive FCF across the investment cycle.	2.0x	Very comfortable liquidity. Well-spread maturity schedule of debt. Diversified sources of funding.
bbb	Structurally neutral to negative FCF across the investment cycle.	3.0x	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.	4.0x	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.
		Total Adjusted Debt/Operating EBITDAR	FFO Fixed Charge Cover
aa		na.	na.
a		2.5x	5.0x
bbb		3.5x	4.5x
bb		4.5x	3.5x
b		5.5x	2.0x
ccc		>7.5x	Net FCF debt service cover less than 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 in place. Debt and cash flows well-matched
bbb			Some FX exposure on profitability and/or debt/cash flow match. Effective hedging in place.
bb			FX exposure on profitability and/or debt/cash flow match. Some hedging in place but only partly effective.
b			Large FX exposure. No significant/ineffective hedging in place.
ccc			FX exposure dominant in impairing the issuer's ability to service debt in cash terms.

## US Utilities, Power and Gas

#### **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.

## **Sector-Specific Key Factors**

#### Regulation

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 and Franchise**

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**

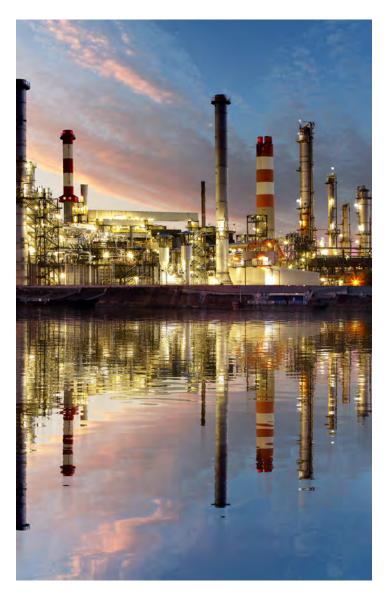
This factor assesses a company's physical infrastructure with respect to age, technology, cost competitiveness and reliability of operations that may influence its relative price competitiveness and drive capital reinvestment needs.

## **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.

## Shalini Mahajan

shalini.mahajan@fitchratings.com (+1) 212 908 0351



## **Financial Profile Key Factors**

The financial profile factors show midpoints of lease-adjusted leverage (based on FFO and EBITDAR), FFO fixed charge coverage, volatility of profitability and level of FCF within relevant rating categories, potentially reaching the 'A' category.

### Philip Smyth

philip.smyth@fitchratings.com (+1) 212 908 0531

## US Utilities, Power and Gas

## **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. 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 Fitch's U.S. investor-owned utilities, power and gas (UPG) 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 U.S. UPG risk characteristics 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.

#### Competitive Generation: 'BBB+' to Speculative Grade

These businesses 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.

#### 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.

#### **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.



## ${\bf Sector\text{-}Specific\ Key\ Factors-US\ Utilities, Power\ and\ Gas}$

	Regulation	Market and Franchise	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.	na.	na.	n.a.
a	Track 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 track 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.
ь	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.	Track 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.	na.	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	na.	na.	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.	na.		
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 – US Utilities, Power and Gas

	Profitability	Financial Structure	Financial Flexibility
Rating	Free Cash Flow	Lease Adjusted FFO Gross Leverage	Financial Discipline
аа	na.	na.	Publicly announced conservative financial policy. Track record of strict compliance.
3	Structurally neutral to positive FCF across the investment cycle.	3.5x	Clear commitment to maintain a conservative policy with only modest deviations allowed.
obb	Structurally neutral to negative FCF across the investment cycle.	5.0x	Less conservative policy, but generally applied consistently.
bb	Structurally negative FCF across the investment cycle.	6.5x	Financial policies in place but flexibility in applying them could lead to temporarily exceeding downgrade guidelines.
)	Structurally heavily negative FCF across the investment cycle.	7.0x	No financial policy or track record of ignoring it. Opportunistic behavior.
DDC	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	Total Adjusted Debt/Operating EBITDAR	Liquidity
aa	na.	na.	Very comfortable liquidity, no need to use external funding in the next 24 months. Well-spread debt maturity. Diversified sources of funding.
ı	Higher stability and predictability of profits relative to utility peers.	3.25x	Very comfortable liquidity. Well-spread maturity schedule of debt. Diversified sources of funding
obb	Stability and predictability of profits in line with utility peers.	3.75x	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.	4.75x	$Liquidity\ ratio\ around\ 1.0x. Less\ smooth\ debt\ maturity\ or\ concentrated\ funding.$
)	Stability and predictability of profits viewed as negative outliers relative to utility peers.	6.0x	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.	>8.0x	No near-term prospect of recovery in liquidity score above 1.0x. All/most funding sources subject to material execution risk.
			FFO Fixed Charge Cover
аа			na.
1			5.0x
obb			45x
ob			35x
)			2.0x

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