MOODY'S
INVESTORS SERVICE

RATING METHODOLOGY

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Rating Methodology

Homebuilding and Property Development

This rating methodology replaces the *Homebuilding And Property Development Industry* methodology published in January 2018. While this methodology reflects many of the same core principles as the 2018 methodology, we have made some changes to the scorecard. We have removed the distinction between high-growth markets and standard markets. We have removed the sub-factor for revenue to debt under the Leverage and Coverage factor and added a sub-factor for debt to EBITDA. We have reduced the weight of the Scale factor and increased the weight of the Business Profile factor, and added sub-factors under the Business Profile factor. We have also changed the calculation of cost of goods sold for our assessment of gross margin. We have also changed some sub-factor names, thresholds and weights. In addition, this updated methodology provides more detail regarding other considerations that may be important for companies in this sector. We have also made editorial changes to enhance readability.

Scope

This methodology applies to companies globally that are primarily* engaged in the construction and sale of single- and multi-family housing, including large-scale residential apartments. This methodology also applies to companies primarily engaged in the construction and sale of commercial properties.

Companies that are primarily engaged in the ownership and operation of commercial properties for long-term investment are rated using our methodology for REITs and other commercial real estate firms. Companies that generate their revenue or operating cash flow from the construction or refurbishing of buildings for commercial purposes, such as offices or warehouses, or for public purposes, such as schools, hospitals or government buildings, are rated using our construction methodology. Companies primarily engaged in the production, sale and distribution of building materials are rated using our building materials methodology.[1]

*The determination of a company's primary business is generally based on the preponderance of the company's business risks, which are usually proportionate to the company's revenues, earnings and cash flows.

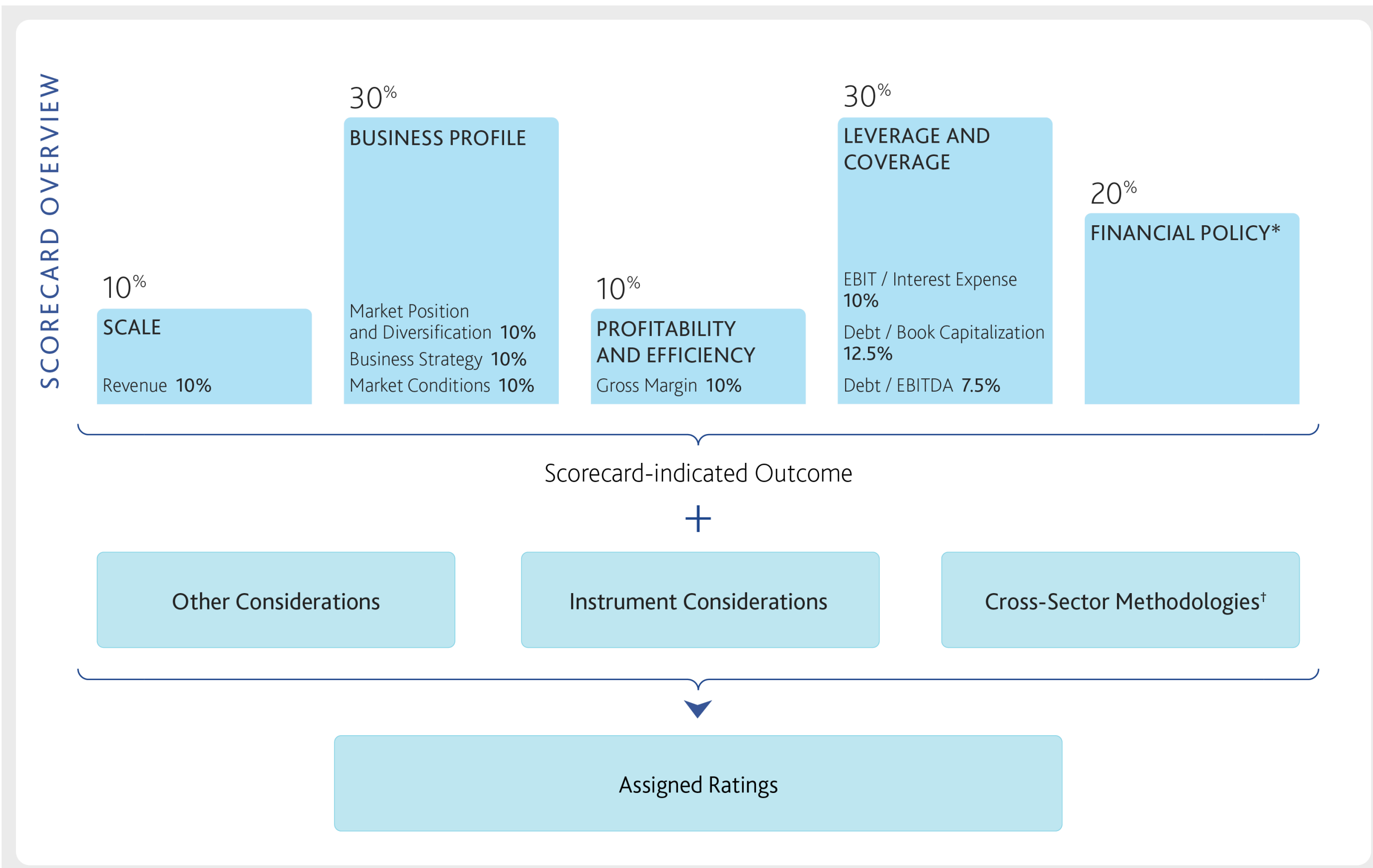
Rating approach

In this rating methodology, we explain our general approach to assessing credit risk of issuers in the homebuilding and property development industry globally, including the qualitative and quantitative factors that are likely to affect rating outcomes in this sector. We seek to incorporate all material credit considerations in ratings and to take the most forward-looking perspective that visibility into these risks and mitigants permits.

The following schematic illustrates our general framework for the analysis of homebuilding and property development companies, which includes the use of a scorecard.[2] The scorecard-indicated outcome is not expected to match the actual rating for each company. For more information, see the "Other considerations" and "Limitations" sections.

Exhibit 1

Illustration of the homebuilding and property development methodology framework



* This factor has no sub-factors.

† Some of the methodological considerations described in one or more cross-sector rating methodologies may be relevant to ratings in this sector. A link to a list of our sector and cross-sector methodologies can be found in the "Moody's related publications" section.

Source: Moody's Investors Service

Homebuilding and property development scorecard

For general information about how we use the scorecard and for a discussion of scorecard mechanics, please see the "Using the scorecard to arrive at a scorecard-indicated outcome" section. The scorecard does not include or address every factor that a rating committee may consider in assigning ratings in this sector. Please see the "Other considerations" and "Limitations" sections.

Exhibit 2

Homebuilding and property development scorecard

	SCALE (10%)	BUSINESS PROFILE (30%)			PROFITABILITY and EFFICIENCY (10%)	LEVERAGE and COVERAGE (30%)			FINANCIAL POLICY (20%)
	Revenue (USD Billion) (10%)[1]	**Market Position and Diversification (10%)**	**Business Strategy (10%)**	**Market Conditions (10%)**	**Gross Margin (10%)[2]**	**EBIT / Interest Expense (10%)[3]**	**Debt / Book Capitalization (12.5%)[4]**	**Debt / EBITDA (7.5%)[5]**	
Aaa	≥ $60	Very strong market position in multiple countries; and products are offered in a very wide variety of property types and customer segments.	Extremely conservative inventory management and funding strategy, with a very strong land bank and housing inventory that has no exposure to price declines because of mitigation measures.	Extremely strong and sustainable end-user demand that is expected to exceed supply; extremely long track record of solid and stable property price growth, which is expected to continue; operates in a regulatory environment with a long and consistent track record of being extremely predictable, stable and favorable.	≥ 65%	≥ 30x	< 20%	< 0.25x	Expected to have extremely conservative financial policies (including risk and liquidity management); very stable metrics; essentially no event risk that would cause a rating transition; and public commitment to a very strong credit profile over the long term.
Aa	$35 - $60	Very strong market position in many large markets in a country; and products are offered in a wide variety of property types and customer segments.	Very conservative inventory management and funding strategy, with a strong land bank and housing inventory that has minimal exposure to price declines because of mitigation measures.	Very strong and sustainable end-user demand that is expected to exceed supply; very long track record of solid and stable property price growth, which is expected to continue; operates in a regulatory environment with a consistent track record of being extremely predictable, stable and favorable.	55% - 65%	20x - 30x	20% - 25%	0.25x - 0.5x	Expected to have very conservative financial policies (including risk and liquidity management); stable metrics; minimal event risk that would cause a rating transition; and public commitment to a strong credit profile over the long term.
A	$20 - $35	Strong market position in many large markets in a country; products are offered in a wide variety of property types and customer segments.	Conservative inventory management and funding strategy, with a strong land bank and housing inventory that has low exposure to price declines because of mitigation measures.	Strong and sustainable end-user demand that is expected to exceed supply; long track record of solid and stable property price growth, which is expected to continue; operates in a regulatory environment with a track record of being very predictable, stable and favorable.	45% - 55%	12x - 20x	25% - 30%	0.5x - 1x	Expected to have predictable financial policies (including risk and liquidity management) that preserve creditor interests; although modest event risk exists, the effect on leverage is likely to be small and temporary; strong commitment to a solid credit profile.
Baa	$10 - $20	Strong market position in many markets in a country; products are offered in many property types and customer segments.	Somewhat conservative inventory management and funding strategy, with a solid land bank and housing inventory that has modest exposure to price declines because of mitigation measures.	Strong end-user demand that is expected to exceed supply; modest track record of solid and stable property price growth, which is expected to continue; operates in a regulatory environment with a track record of being somewhat stable and favorable.	35% - 45%	7.5x - 12x	30% - 40%	1x - 2x	Expected to have financial policies (including risk and liquidity management) that balance the interests of creditors and shareholders; some risk that debt-funded acquisitions or shareholder distributions could lead to a weaker credit profile.

	SCALE (10%)	BUSINESS PROFILE (30%)			PROFITABILITY and EFFICIENCY (10%)	LEVERAGE and COVERAGE (30%)			FINANCIAL POLICY (20%)
	Revenue (USD Billion) (10%)[1]	**Market Position and Diversification (10%)**	**Business Strategy (10%)**	**Market Conditions (10%)**	**Gross Margin (10%)[2]**	**EBIT / Interest Expense (10%)[3]**	**Debt / Book Capitalization (12.5%)[4]**	**Debt / EBITDA (7.5%)[5]**	
Ba	$5 - $10	Solid market position in several markets in a country; products are offered in several property types and customer segments.	Inventory management and funding strategy is balanced, with issuer having somewhat elevated exposure to price declines from a land bank and housing inventory that are sized to meet operational requirements.	Stable market dynamics, with end-user demand and supply expected to be largely in balance; property prices are expected to remain largely stable, with limited effect from speculative activity in the market; operates in a regulatory environment with a track record of being somewhat stable but neutral.	25% - 35%	3x - 7.5x	40% - 50%	2x - 4x	Expected to have financial policies (including risk and liquidity management) that tend to favor shareholders over creditors; above-average financial risk resulting from shareholder distributions, acquisitions or other significant capital structure changes.
B	$1.5 - $5	Modest market position in a few markets in a country; products are offered in a few property types or customer segments.	Inventory management and funding strategy is somewhat speculative, with issuer having sizable exposure to price declines from a land bank and housing inventory that are moderately larger than operational requirements.	Stable market dynamics, but supply is expected to exceed end-user demand; property prices are expected to remain somewhat volatile, with some effect from speculative activity in the market; operates in a regulatory environment with a track record of being neutral, but with some potential for adverse change.	15% - 25%	0.75x - 3x	50% - 65%	4x - 6x	Expected to have financial policies (including risk and liquidity management) that favor shareholders over creditors; high financial risk resulting from shareholder distributions, acquisitions or other significant capital structure changes.
Caa	$0.5 - $1.5	Weak market position in a single market; company relies on a very small number of product types or customer segments.	Inventory management and funding strategy is speculative, with issuer having material exposure to price declines from a land bank and housing inventory that are considerably larger than operational requirements.	Weakening market dynamics, with supply expected to exceed end-user demand; property prices are expected to be volatile, with a material effect from speculative activity in the market; operates in a somewhat unpredictable regulatory environment with adverse change likely.	10% - 15%	0x - 0.75x	65% - 80%	6x - 8x	Expected to have financial policies (including risk and liquidity management) that create elevated risk of debt restructuring in varied economic environments.
Ca	< $0.5	Very weak market position in a small market; or company relies on a single product type or a single customer segment.	Inventory management and funding strategy is very speculative and largely financed with debt, with issuer being highly vulnerable to price declines from a land bank and housing inventory that are excessive relative to operational requirements.	Weak market dynamics, with supply exceeding end-user demand on a sustained basis; property prices are expected to decline steeply, with high levels of speculative activity in the market, operates in a highly unpredictable regulatory environment with significant adverse change occurring or highly likely.	< 10%	< 0x	≥ 80%	≥ 8x	Expected to have financial policies (including risk and liquidity management) that create elevated risk of debt restructuring even in healthy economic environments.

[1] For the linear scoring scale, the Aaa endpoint value is $100 billion. A value of $100 billion or better equates to a numeric score of 0.5. The Ca endpoint value is $0. A value of $0 equates to a numeric score of 20.5.
[2] For the linear scoring scale, the Aaa endpoint value is 85%. A value of 85% or better equates to a numeric score of 0.5. The Ca endpoint value is 0%. A value of 0% or worse equates to a numeric score of 20.5.
[3] For the linear scoring scale, the Aaa endpoint value is 45x. A value of 45x or better equates to a numeric score of 0.5. The Ca endpoint value is (1)x. A value of (1)x or worse equates to a numeric score of 20.5.
[4] For the linear scoring scale, the Aaa endpoint value is 0%. A value of 0% or better equates to a numeric score of 0.5. The Ca endpoint value is 100%. A value of 100% or worse equates to a numeric score of 20.5.
[5] For the linear scoring scale, the Aaa endpoint value is 0x. A value of 0x equates to a numeric score of 0.5. The Ca endpoint value is 10x. A value of 10x or worse equates to a numeric score of 20.5, as does a negative EBITDA value.
Source: Moody's Investors Service

Discussion of the scorecard factors

In this section, we explain our general approach for scoring each scorecard factor or sub-factor, and we describe why they are meaningful as credit indicators.

Non-standard adjustments

In addition to our standard financial statement adjustments,[3] we make non-standard adjustments to certain financial metrics for companies in this sector, as follows:

We adjust gross profit, EBIT and EBITDA to exclude interest charged to cost of goods sold (CGS). Because we consider capitalized interest as a cost of financing (i.e., an interest expense) that should be expensed when it is incurred, we adjust interest expense by reclassifying capitalized interest (including interest capitalized into inventory and interest capitalized into property plant and equipment) as interest expense. We also remove interest charged to CGS from CGS to avoid double-counting. If an issuer's financial statements do not consistently disclose interest charged to CGS, we use total capitalized interest as a proxy for interest charged to CGS. For clarity, the adjustment to include interest capitalized into property, plant and equipment in interest expense is a standard adjustment.

We further adjust gross profit, EBIT and EBITDA to exclude land appreciation tax, which we consider as a taxation expense, in addition to excluding land impairment charges, which is a standard adjustment.

We adjust EBIT and EBITDA to exclude unremitted equity income or losses from off-balance sheet joint ventures and include in our adjustment dividends received from off-balance sheet joint ventures.

Our homebuilding and property development financial ratios typically exclude the revenue, costs and debt of captive financial subsidiaries. Without these adjustments, peer comparisons of data and ratios are difficult because not all companies have finance operations.[4]

Factor: Scale (10% weight)

Why it matters

Scale is an important indicator of the overall depth of a company's business and its success in attracting a variety of customers, as well as its resilience to shocks, such as sudden shifts in demand or rapid costs increases.

Larger homebuilders and property developers typically attract a greater breadth of customers and generally have more flexibility to manage their businesses under different demand and cost scenarios, an important consideration in an industry that is highly cyclical. A large revenue base can also lead to economies of scale, greater access to skilled subcontractors, a greater choice of land deals, and stronger purchasing and pricing power. Larger companies also tend to have greater access to the capital markets, which can reduce the cost of capital.

How we assess it for the scorecard

REVENUE:

Scale is measured (or estimated in the case of forward-looking expectations) using total reported revenue in billions of US dollars.

Factor: Business Profile (30% weight)

Why it matters

The business profile of a homebuilding and property development company is important because it greatly influences its ability to generate sustainable earnings and operating cash flows. Core aspects of a homebuilding and property development company's business profile are its market position and diversification, business strategy and the condition of its markets.

This factor has three sub-factors:

Market Position and Diversification

The sustainability and strength of a homebuilding and property development company's market position provide important indications of its competitive strength, brand recognition, ability to attract talent and capital, and ability to withstand market volatility.

Developers with a strong market position are generally less susceptible to downturns in economic growth and consumer spending. They may find it easier to attract and retain skilled employees without paying excessive compensation and may not need to devote as many resources to promotional sales practices as developers that have a weaker market position. Developers with a strong market position may also have greater access to capital at a competitive cost. Conversely, developers with a weak market position could have their access to funding interrupted when credit conditions tighten, potentially increasing refinancing and liquidity risks.

A diverse mix of geographic markets, property types and customer segments is also important because it reduces a developer's vulnerability to economic shocks, regulatory issues, cyclicality or other adverse market developments that could cause earnings to erode. Operating in large and diverse geographic markets and offering a wide variety of property types to many customer segments can lessen the impact of local market cyclicality and supply and demand shifts, regulatory changes, competitors' actions and other developments that could significantly curtail operations or profitability for companies in this sector. Issuers with these characteristics also have increased flexibility to adjust their geographic focus or product offerings in response to changes in market demand, demographics, and economic and regulatory environments. Conversely, concentration in a limited number of geographic areas, products types and customer segments can expose a company to losses related to changes in those markets.

Business Strategy

Our assessment of an issuer's business strategy provides important indications of management's operational risk appetite and the issuer's exposure to volatile land and home prices. The homebuilding and property development sector is exposed to a high level of cyclicality, which can have a material impact on issuers' profitability and financial strength due to the large amounts of capital needed to purchase, develop and hold large amounts of land and properties under development. In addition, market conditions may deteriorate significantly during the holding period, i.e., after these investments are made and before homes or commercial properties are sold to customers. Most issuers in this sector have high working capital needs that can lead to large swings in cash flow. Companies with prudent risk management and funding strategies are less susceptible to earnings and cash flow volatility arising from changes in business, funding and regulatory environments.

Market Conditions

The conditions of the markets and the regulatory environment in which a homebuilder or property developer operates are important because they indicate the strength, stability and sustainability of demand and property prices. They also provide important indications of the potential impact of regulatory changes on market supply and demand, on operational constraints, and on the cost and availability of funding.

Strong and sustained underlying demand, coupled with stable and predictable supply, provide a clearer view of a company's home prices, profitability and cash generation. Volatile supply-and-demand dynamics increase uncertainty in revenue and cash flow forecasts, increase risks related to the execution of management's business plans and may result in significant land or inventory impairments and reduced profitability.

Regulation of the homebuilding and property development sector can affect issuers in many ways, including through changes to demand or supply of land or property, increases to the cost of operating, and restrictions in the availability or cost of financing. Predictable and favorable regulatory change can mitigate the impact of other demand and supply drivers, such as macroeconomic conditions or speculative activity. Conversely, unpredictable or adverse regulatory change increases business execution risks in this sector and can magnify the adverse impacts of changes in market conditions.

How we assess it for the scorecard

Scoring is based on a qualitative assessment of the business profile of a homebuilding and property development company, including its market position and diversity, business strategy, and market conditions. Strength in these areas can temper the impact of cyclicality and is typically associated with higher scores for this factor.

MARKET POSITION AND DIVERSIFICATION:

We assess market position primarily based on the issuer's market share and position in each of its markets. We assess market share based on publicly available issuer and market data. We assess market position based on a qualitative assessment of characteristics such as regional footprint and diversity, product type and customer segment, reputation, and track record of execution. We assess diversity holistically, based on the extent that each of geographic, product or customer diversity could reduce an issuer's exposure to adverse events. The benefits of diversity are limited by the extent to which certain adverse events have a widespread impact. We assess geographic diversity primarily based on the extent to which a company's revenue is spread across cities, metropolitan areas, regions, provinces or countries. We assess product type and customer segment diversity based on the spread of revenue across different product types (e.g., detached single-family homes, townhomes, apartments, planned communities, commercial property) and the variety of customer segments (e.g., first-time buyers, move-up buyers/upgraders, luxury buyers, investors). We assess product type and customer segment diversity of developers of primarily commercial properties based on the spread of revenue across different product types within the commercial property market. A homebuilding and property development company with significant market share and one that is recognized as a market leader in multiple markets and offers a variety of property types to several customer segments typically receives higher scores for this sub-factor than a company whose revenue is concentrated in a single market and which has just one product type.

BUSINESS STRATEGY:

We assess management's strategy for managing risks related to the significant inventory investment required to buy land and build properties. We also consider the risk that demand and sales prices for the finished product will be lower than anticipated.

Issuers that use debt to acquire land that is not earmarked for upcoming operational purposes would likely score lower for this sub-factor, as would issuers that build large numbers of properties without home purchase orders or in markets where demand for those properties is unproven. Conversely, issuers that have mitigated inventory risks through the use of land purchase options (rather than outright buying of land) and through the building of properties based on customer orders would likely score higher for this sub-factor. Issuers with large legacy land banks acquired at a low cost may also score higher for this sub-factor as they have operational flexibility in land bank replenishment.

MARKET CONDITIONS:

Our assessment of market conditions is based on the level of end-user demand relative to supply, the stability of property prices and the impact of speculative activity, and the regulatory environment.

In assessing demand and supply, we consider macroeconomic indicators, such as economic growth and employment data; industry data, such as housing starts, housing completions, mortgage activity and affordability; and demographic trends, such as population change and urbanization to form a two-to-three-year outlook.

Our outlook for property prices is informed by historical trends and our assessment of demand and supply dynamics, as well as potential external drivers, such as interest rates and regulatory changes. Our forward-looking view of the regulatory environment is largely based on the historical track record and on regulatory pronouncements. The regulatory environment can encompass a wide spectrum of areas, including land zoning and building permitting, construction controls and standards, taxes and stamp duties, mortgage lending standards, restrictions on non-local and second-home buyers, caps on selling prices, and bank prudential requirements that affect the availability of credit.

A company operating in markets with strong and consistent end-user demand that is expected to exceed supply, where prices are expected to grow solidly and where the regulatory environment is stable and favorable would likely receive a higher score for this sub-factor. Issuers that are exposed to markets with weak demand and declining prices and that operate in an unpredictable regulatory environment would likely receive a lower score.

Generally, we do not expect a given homebuilding or property development company's market position and diversification, business strategy, and market conditions to exactly match each of the attributes listed for a given scoring category. We typically assign each sub-factor score based on the alpha category for which the homebuilding or property development company has the greatest number of characteristics. However, there may be cases in which one characteristic is sufficiently important to a particular company's credit profile that is has a large influence on the sub-factor score.

Factor: Profitability and Efficiency (10% weight)

Why it matters

Profits matter because they are needed to generate sustainable cash flow and maintain a competitive position. High profitability sustained over time is generally an indicator of operating efficiency and competitive advantage.

How we assess it for the scorecard

GROSS MARGIN:

We use the ratio of gross profit (revenue minus the cost of goods sold) to revenue.

Factor: Leverage and Coverage (30% weight)

Why it matters

Leverage and coverage measures provide important indications of a company's financial flexibility and long-term viability. Strength in these measures is an indicator of a greater ability to make new investments, weather the vagaries of the business cycle and respond to unexpected challenges, including market and regulatory developments.

The factor comprises three sub-factors:

EBIT / Interest Expense

The ratio of earnings before interest, taxes to interest expense (EBIT/Interest Expense) is an indicator of a company's ability to meet its interest obligations.

Debt / Book Capitalization

The ratio of total debt to book capitalization (Debt/Book Capitalization) is a measure of balance sheet leverage that indicates how much of a company's capital structure is composed of debt and debt-like obligations. Companies frequently use this ratio to set the range of leverage in which they choose to operate, so this ratio also provides an indication of management's risk tolerance and a reference point for comparing the capital structures of companies within the industry.

Debt / EBITDA

The ratio of debt to earnings before interest, taxes, depreciation and amortization (Debt/EBITDA) is an indicator of debt serviceability and financial leverage. The ratio is commonly used as a proxy for comparative financial strength.

How we assess it for the scorecard

EBIT / INTEREST EXPENSE:

The numerator is EBIT, and the denominator is interest expense.

DEBT / BOOK CAPITALIZATION:

The numerator is total debt, and the denominator is book capitalization.

DEBT / EBITDA:

The numerator is total debt, and the denominator is EBITDA.

Captive finance operations

Some homebuilding and property development issuers have captive finance subsidiaries that provide mortgage financing for customers. The debt of these subsidiaries is typically non-recourse to the homebuilding and property development parent and secured by customer mortgages. The debt generally amortizes quickly, as the mortgages are typically sold within a 60-day period, with proceeds used to pay down the captive finance subsidiary's debt.

Captive finance subsidiaries can constrain a homebuilding and property development company's financial flexibility. This stress can result from the finance operation's need for supplementary equity capital and liquidity, which is more likely to occur in periods of market stress, when a company's core operations are also affected. We typically consider the likelihood and cost of the support that the company may extend to its captive finance subsidiary. For more details on how we assess the credit impact of a captive finance subsidiary on a homebuilding and property development company, please see our methodology for rating captive finance subsidiaries of non-financial corporations.[5]

Factor: Financial Policy (20% weight)

Why it matters

Financial policy encompasses management and board tolerance for financial risk and commitment to a strong credit profile. It is an important rating determinant, because it directly affects debt levels, credit quality, the future direction for the company and the risk of adverse changes in financing and capital structure.

Financial risk tolerance serves as a guidepost to investments and capital allocation. An expectation that management will be committed to sustaining an improved credit profile is often necessary to support an upgrade. For example, we may not upgrade the ratings of a company that has built flexibility within its rating category if we believe the company will use that flexibility to fund a strategic acquisition, cash distribution to shareholders, spin-off or other leveraging transaction. Conversely, a company's credit rating may be better able to withstand a moderate leveraging event if management places a high priority on returning credit metrics to pre-transaction levels and has consistently demonstrated the commitment to do so through prior actions. Liquidity management[6] is an important aspect of overall risk management and can provide insight into risk tolerance.

Many homebuilding and property development companies have historically used acquisitions to spur revenue growth, expand business lines, achieve economies of scale, consolidate market positions or seek access to new technology.

Some homebuilding and property development companies are controlled by a family or dominant shareholder group. The controlling shareholders typically exert significant influence over financial policies, and their comfort level with debt leverage – particularly as signaled by prior actions – is a key consideration in our assessment for this factor. Family-owned companies in this sector may have longer investment horizons, but may be controlled by a small number of entrepreneurial individuals, which may result in greater risk tolerance. Distribution policy may also change based on the family's other investment projects or personal needs, and these companies are also subject to shifts in financial policies as ownership moves through successive generations or passes out of family hands. Private equity owners in this sector are usually financially oriented, tend to use debt leverage aggressively, and have shorter holding periods than strategic owners, which can create event risk.

How we assess it for the scorecard

We assess the issuer's desired capital structure or targeted credit profile, its history of prior actions, including its track record of risk and liquidity management, and its adherence to its commitments. Attention is paid to management's operating performance and use of cash flow through different phases of economic and industry cycles. Also of interest is the way in which management responds to key events, such as changes in the credit markets and liquidity environment, legal actions, competitive challenges or regulatory pressures. Considerations include a company's public commitments in this area, its track record for adhering to commitments and our views on the ability of the company to achieve its targets.

When considering event risks in the context of scoring financial policy, we assess the likelihood and potential negative impact of M&A activity or other types of balance-sheet-transforming events. Management's appetite for M&A activity is assessed, with a focus on the type of transactions (i.e., core competency or new business) and funding decisions. Frequency and materiality of acquisitions and previous financing choices are evaluated. A history of debt-financed or credit-transforming acquisitions will generally result in a lower score for this factor. We may also consider negative repercussions caused by shareholders' willingness to sell the company.

We also consider a company's and its owners' past record of balancing shareholder returns and debtholders' interests. A track record of favoring shareholder returns at the expense of debtholders is likely to be viewed negatively in scoring this factor.

Other considerations

Ratings may reflect consideration of additional factors that are not in the scorecard, usually because the factor's credit importance varies widely among the issuers in the sector or because the factor may be important only under certain circumstances or for a subset of issuers. Such factors include financial controls and the quality of financial reporting; corporate legal structure; the quality and experience of management; assessments of corporate governance as well as environmental and social considerations; exposure to uncertain licensing regimes; and possible government interference in some countries. Regulatory, litigation, liquidity, technology and reputational risk as well as changes to consumer and business spending patterns, competitor strategies and macroeconomic trends also affect ratings.

Following are some examples of additional considerations that may be reflected in our ratings and that may cause ratings to be different from scorecard-indicated outcomes.

Liquidity

Liquidity is an important rating consideration for all homebuilding and property development companies, although it may not have a substantial impact in discriminating between two issuers with a similar credit profile. Liquidity can be particularly important for companies in highly seasonal operating environments where working capital needs must be considered, and ratings can be heavily affected by extremely weak liquidity. Liquidity can also be very important for non-investment grade issuers, who typically have less financial flexibility. We form an opinion on likely near-term liquidity requirements from the perspective of both sources and uses of cash. For more details on our approach, please see our liquidity cross-sector methodology.[7]

Companies with prudent liquidity management tend to reserve sufficient unrestricted cash to meet their anticipated and contingent funding needs. These reserves provide financial flexibility in managing unexpected changes in market conditions or the regulatory environment. In our assessment, we also consider the adequacy of the issuer's offshore resources to service offshore obligations, particularly in jurisdictions where the issuer may be subject to controls over capital flows or foreign exchange.

In assessing liquidity, we evaluate the adequacy of the company's internal reserves (including unrestricted cash and operating cash flow) to cover its obligations (including committed land premium payment, debt repayments and dividend payments) over a period of at least one year. We also typically consider the coverage of unrestricted cash over short-term debt maturities. In estimating unrestricted cash to cover these obligations, we consider whether part of it may be earmarked for development projects or other specific purposes, and not available to fund the issuers' general debt obligations. Diversified funding sources, including access to offshore funding, can be credit positive as they can reduce reliance on domestic market financing.

Excess Cash Balances

Some companies in this sector may maintain cash balances (meaning liquid short-term investments as well as cash) that are far in excess of their operating needs. This excess cash can be an important credit consideration; however, the underlying policy and motivations of the issuer in holding high cash balances are often as or more important in our analysis than the level of cash held. We have observed significant variation in company behavior based on differences in financial philosophy, investment opportunities, availability of committed revolving credit facilities and shareholder pressures.

Most issuers need to retain some level of cash in their business for operational purposes. The level of cash required to run a business can vary based on the region(s) of operation and the specific sub-sectors in which the issuer operates. Some issuers have very predictable cash needs and others have much broader intra-period swings, for instance related to mark-to-market collateral requirements under hedging instruments. Some companies may hold large levels of cash at times because they operate without committed, long-term bank borrowing facilities. Some companies may hold cash on the balance sheet to meet long-term contractual liabilities, whereas other companies with the same types of liabilities have deposited cash into trust accounts that are off balance sheet. The level of cash that issuers are willing to hold can also vary over time based on the cost of borrowing and macroeconomic conditions. The same issuer may place a high value on cash holdings in a major recession or financial crisis but seek to pare cash when inflation is high. As a result, cash on the balance sheet is most often considered qualitatively, by assessing the issuer's track record and financial and liquidity policies rather than by measuring how a point-in-time cash balance would affect a specific metric.

Across all corporate sectors, an important shareholder-focused motivation for cash holdings, sometimes over very long periods, is cash for acquisitions. In these cases, we do not typically consider that netting cash against the issuer's current level of debt is analytically meaningful; however, the cash may be a material mitigant in our scenario analyses of potential acquisitions, share buybacks or special dividends. Tax minimization strategies have at times been another primary motivation for holding large cash balances. Given shareholder pressures to return excess cash holdings, when these motivations for holding excess cash are eliminated, we generally expect that a large portion of excess cash will be used for dividends and share repurchases.

By contrast, some companies may maintain large cash holdings for long periods of time in excess of their operating and liquidity needs solely due to conservative financial policies, which provides a stronger indication of an enduring approach that will benefit creditors. For instance, some companies have a policy to routinely pre-fund upcoming required debt payments well in advance of the stated maturity. Such companies may also have clearly stated financial targets based on net debt metrics and a track record of maintaining their financial profile within those targets.

While the scorecard in this methodology uses leverage and coverage ratios with total (or gross) debt rather than net debt, we do consider excess cash holdings in our rating analysis, including in our assessment of the financial and liquidity policy. For issuers where we have clarity into the extent to which cash will remain on the balance sheet and/or be used for creditor-friendly purposes, excess cash may be considered in a more quantitative manner. While we consider excess cash in our credit assessment for ratings, we do not typically adjust the balance sheet debt for any specific amount because this implies greater precision than we think is appropriate for the uncertain future uses of cash. However, when cash holdings are unusually large relative to debt, we may refer to debt net of cash, or net of a portion of cash, in our credit analysis and press releases in order to provide additional insight into our qualitative assessment of the credit benefit. Alternatively, creditor-friendly use of cash may be factored into our forward view of metrics, for instance when the cash is expected to be used for debt-repayment. We may also cite rating threshold levels for certain issuers based on net debt ratios, particularly when these issuers have publicly stated financial targets based on net debt metrics.

Even when the eventual use for excess cash is likely to be for purposes that do not benefit debtholders, large holdings provide some beneficial cushion against credit deterioration, and cash balances are often considered in our analysis of near-term liquidity sources and uses. Such downside protection is usually more important for low rated issuers than for highly rated issuers due to differences in credit stability and the typically shorter distance from potential default for issuers at the lower end of the ratings spectrum.

Environmental, Social and Governance Considerations

Environmental, social and governance (ESG) considerations may affect the ratings of issuers in the homebuilding and property development industry. For information about our approach to assessing ESG issues, please see our methodology that describes our general principles for assessing these risks.[8]

Homebuilding and property development companies are exposed to environmental risk in the form of physical climate risks, in which events related to climate change can have a negative and lasting impact on a company's assets. Companies that develop assets with construction cycles exceeding 12 months or own long-dated land banks in locations subject to physical climate risks such as flooding and typhoons can be exposed to higher construction costs or asset impairment risk. The ongoing requirement to exploit land resources for business expansion also exposes issuers to natural capital risks, where the natural resources of a company can be damaged, and associated environmental regulation compliance costs related to land preservation.

Changing demographic and societal trends can introduce social risks that may have an impact on demand for property and on the earnings of homebuilding and property development companies. In certain markets such as mainland China, change in regulatory requirements can also disrupt the business operations of companies. Other social considerations include customer relationships, information protection and responsible production. Homebuilding and property development companies' commitments to deliver quality products to customers on time and the need to safeguard sensitive customer data may expose them to customer relations risks. The construction process and supply chain may lead to risks associated with achieving responsible production. For example, reduced transparency into the land procurement process in some emerging markets may increase the risk of bribery and corruption.

Governance considerations include the ownership and control of homebuilding and property development companies. Concentrated ownership and voting control may exert a potentially negative influence on corporate performance and credit outcomes because owners may seek to extract private benefits at the expense of other stakeholders. Companies in this sector may also be exposed to key-person risk, in which dependence on a single individual or a limited group of executives can adversely impact operations, especially in the absence of a succession plan. Related-party transactions may indicate a governance weakness and create conflicts of interest, reputational damage and, in severe cases, can impair the ability of the developer to obtain external financing. Complex organizational structures may expose a developer to governance risks because significant cross-shareholdings or frequent changes in organizational structure may increase the risk of a misallocation of funds, as well as reduce corporate transparency.

Joint Ventures and Non-wholly Owned Subsidiaries

Joint ventures (JVs) can be a credit strength by providing earnings diversification and other means of capital access for homebuilders and property developers. But they can also be complex structures and may create varying levels of opacity and governance risks. In addition, a homebuilding and property development company's earnings quality can be diminished if a large proportion of earnings are generated by these structures. As a result, JVs provide a mix of credit-positive and credit-negative characteristics, based on the transaction specifics and the overall contribution of these transactions to a developer's revenue stream. The use of off-balance sheet structures such as JVs can reduce financial transparency and can indicate an issuer's appetite for growth despite capital constraints. The use of joint ventures also generally restricts management's control over projects, as the agreement of partners is typically required for major decisions.

Some companies in the homebuilding and property development sector choose to dilute their equity stake in certain material subsidiaries, for example through an initial public offering, which may in some cases negatively impact future financial flexibility. While improving cash holdings on a one-off basis, selling minority interests in subsidiaries may have a negative impact on cash flows available to the parent company that may not be fully reflected in consolidated financial statements.[9]

The parent's share of dividend flows from a non-wholly owned subsidiary is reduced, and minority stakes can increase structural subordination, since dividend flows to minority interest holders are made before the cash flows are available to service debt at the parent company. While less frequent, sale of a minority stake may be accompanied by policies protective of the subsidiary that further limit the parent's financial flexibility, for instance restrictions on cash pooling with other members of the corporate family, limitations on dividends and distributions, or arms-length business requirements. Minority stakeholders may have seats on the board of the subsidiary. In many cases, we consider the impact of non-wholly owned subsidiaries qualitatively. However, in some cases we may find that an additional view of financial results, such as analyzing cash flows on a proportional consolidation basis, may be very useful to augment our analysis based on consolidated financial statements. When equity dilution or structural subordination arising from non-wholly owned subsidiaries is material and negative, the credit impact is captured in ratings but may not be fully reflected in scorecard-indicated outcomes.

For companies that hold material minority interest stakes, consolidated funds from operations typically includes the dividends received from the minority subsidiary, while none of its debt is consolidated. When such dividends are material to the company's cash flows, these cash flows may be subject to interruption if they are required for the minority subsidiary's debt service, capital expenditures or other cash needs. When minority interest dividends are material, we may also find that proportional consolidation or another additional view of financial results is useful to augment our analysis of consolidated financials. We would generally also consider structural subordination in these cases[10]. When these credit considerations are material, their impact is captured in ratings but may not be fully reflected in scorecard-indicated outcomes.

Investment and Acquisition Strategy

Our credit assessments in this industry take into consideration management's investment strategy. Investment strategy is compared with that of the other companies in the rated universe. Acquisitions can strengthen a company's business. Our assessment of a company's tolerance for acquisitions at a given rating level takes into consideration (i) management's risk appetite, including the likelihood of further acquisitions over the medium term; (ii) share buy-back activity; (iii) the company's commitment to specific leverage targets; and (iv) the volatility of the underlying businesses, as well as that of the business acquired. Ratings can often hold after large acquisitions even if leverage temporarily climbs above normally acceptable ranges. However, this depends on our perception of the strategic fit; our expectations for leverage following an acquisition; and our confidence that credit metrics will be restored in a relatively short time frame.

Management Strategy

The quality of management is an important factor supporting a company's credit strength. Assessing the execution of business plans over time can be helpful in assessing management's business strategies, policies, and philosophies and in evaluating management performance relative to performance of competitors and our projections. Management's track record of adhering to stated plans, commitments and guidelines provides insight into management's likely future performance, including in stressed situations.

Financial Controls

We rely on the accuracy of audited financial statements to assign and monitor ratings in this sector. The quality of financial statements may be influenced by internal controls, including the proper tone at the top, centralized operations and consistency in accounting policies and procedures. Auditors' reports on the effectiveness of internal controls, auditors' comments in financial reports and unusual restatements of financial statement or delays in regulatory filings may indicate weaknesses in internal controls.

Event Risk

We also recognize the possibility that an unexpected event could cause a sudden and sharp decline in an issuer's fundamental creditworthiness, which may cause actual ratings to be lower than the scorecard-indicated outcome. Event risks — which are varied and can range from leveraged recapitalizations to sudden regulatory changes or liabilities from an accident — can overwhelm even a stable, well-capitalized firm. Some other types of event risk include M&A, large land acquisitions, asset sales, spin-offs, shareholder distributions, capital restructuring programs, litigation, pandemics, significant cyber-crime events, regulatory and political changes, and geopolitical events.

Additional Metrics

The metrics included in the scorecard are those that are generally most important in assigning ratings to companies in this industry; however, we may use additional metrics to inform our analysis of specific companies. These additional metrics may be important to our forward view of metrics that are in the scorecard or other rating factors.

For example, free cash flow is not always an important differentiator of credit profiles. Strong companies with excellent investment opportunities may demonstrate multiyear periods of negative free cash flow while retaining solid access to capital and credit, because these investments will yield stable cash flows in future years. Weaker companies with limited access to credit may have positive free cash flow for a period of time because they have curtailed the investments necessary to maintain their assets and future cash-generating prospects. However, in some cases, free cash flow can be an important driver of the future liquidity profile of an issuer, which, as noted above, can have a meaningful impact on ratings.

As another example, tangible net worth is not included in the scorecard but can often provide additional analytical insight in our assessment of the scale of homebuilders and property developers. Unlike other industries, in which highly leveraged companies with large amounts of negative tangible net worth can operate with a modicum of success, the homebuilding and property development industry typically needs large amounts of capital to purchase, develop, and hold large amounts of land and work-in-process inventories. As a result, a company with negative or very low tangible net worth may have an untenable capital structure.

Parental Support

Ownership can provide ratings lift for a particular company in the homebuilding and property development sector if it is owned by a highly rated owner(s) and is viewed to be of strategic importance to those owners. In our analysis of parental support, we consider whether the parent has the financial capacity and strategic incentives to provide support to the issuer in times of stress or financial need (e.g., a major capital investment or advantaged operating agreement), or has already done so in the past. The presence of a strong parent may also support the company's funding access. However, a weak parent or one with weak subsidiaries can have a negative impact on the issuer's rating, particularly if the issuer were making high distributions.

Government-related issuers may receive ratings uplift due to expected government support. However, for certain issuers, government ownership can have a negative impact on the underlying Baseline Credit Assessment.[11] For example, price controls, onerous taxation and high distributions can have a negative effect on an issuer's underlying credit profile.

Cyclical Sectors

Scorecard-indicated outcomes in cyclical sectors such as homebuilding and property development may be higher than the rating at the top of the economic cycle and lower than the rating at the bottom of the cycle. While using annual financials in the scorecard typically provides very useful insights into recent or near-term results, ratings may also reflect our expectations for the progression of yearly results over a longer period that may include a full economic cycle. However, cyclicality itself poses many different types of risks to companies, and cycles do not reverse themselves with predictable regularity. A cyclical sector may also be affected by a secular decline or expansion. These considerations may be incorporated qualitatively in ratings.

Using the scorecard to arrive at a scorecard-indicated outcome

1. Measurement or estimation of factors in the scorecard

In the "Discussion of the scorecard factors" section, we explain our analytical approach for scoring each scorecard sub-factor or factor,[12] and we describe why they are meaningful as credit indicators.

The information used in assessing the sub-factors is generally found in or calculated from information in the company's financial statements or regulatory filings, derived from other observations or estimated by Moody's analysts. We may also incorporate non-public information.

Our ratings are forward-looking and reflect our expectations for future financial and operating performance. However, historical results are helpful in understanding patterns and trends of a company's performance as well as for peer comparisons. Financial metrics,[13] unless otherwise indicated, are typically calculated based on an annual or 12-month period. However, the factors in the scorecard can be assessed using various time periods. For example, rating committees may find it analytically useful to examine both historical and expected future performance for periods of several years or more.

All of the quantitative credit metrics incorporate our standard adjustments[14] to income statement, cash flow statement and balance sheet amounts for items such as underfunded pension obligations and operating leases. We may also make other analytical adjustments that are specific to a particular company.

2. Mapping scorecard factors to a numeric score

After estimating or calculating each sub-factor, the outcomes for each of the sub-factors are mapped to a broad Moody's rating category (Aaa, Aa, A, Baa, Ba, B, Caa or Ca, also called alpha categories) and to a numeric score.

Qualitative factors are scored based on the description by broad rating category in the scorecard. The numeric value of each alpha score is based on the scale below.

Exhibit 3

Aaa	Aa	A	Baa	Ba	B	Caa	Ca
1	3	6	9	12	15	18	20

Source: Moody's Investors Service

Quantitative factors are scored on a linear continuum. For each metric, the scorecard shows the range by alpha category. We use the scale below and linear interpolation to convert the metric, based on its placement within the scorecard range, to a numeric score, which may be a fraction. As a purely theoretical example, if there were a ratio of revenue to interest for which the Baa range was 50x to 100x, then the numeric score for an issuer with revenue/interest of 99x, relatively strong within this range, would score closer to 7.5, and an issuer with revenue/interest of 51x, relatively weak within this range, would score closer to 10.5. In the text or table footnotes, we define the endpoints of the line (i.e., the value of the metric that constitutes the lowest possible numeric score, and the value that constitutes the highest possible numeric score).

Exhibit 4

Aaa	Aa	A	Baa	Ba	B	Caa	Ca
0.5-1.5	1.5-4.5	4.5-7.5	7.5-10.5	10.5-13.5	13.5-16.5	16.5-19.5	19.5-20.5

Source: Moody's Investors Service

3. Determining the overall scorecard-indicated outcome

The numeric score for each sub-factor (or each factor, when the factor has no sub-factors) is multiplied by the weight for that sub-factor (or factor), with the results then summed to produce an aggregate numeric score. The aggregate numeric score is then mapped back to a scorecard-indicated outcome based on the ranges in the table below.

Exhibit 5

Scorecard-indicated outcome

Scorecard-indicated outcome	Aggregate numeric score
Aaa	x ≤ 1.5
Aa1	1.5 < x ≤ 2.5
Aa2	2.5 < x ≤ 3.5
Aa3	3.5 < x ≤ 4.5
A1	4.5 < x ≤ 5.5
A2	5.5 < x ≤ 6.5
A3	6.5 < x ≤ 7.5
Baa1	7.5 < x ≤ 8.5
Baa2	8.5 < x ≤ 9.5
Baa3	9.5 < x ≤ 10.5
Ba1	10.5 < x ≤ 11.5
Ba2	11.5 < x ≤ 12.5
Ba3	12.5 < x ≤ 13.5
B1	13.5 < x ≤ 14.5
B2	14.5 < x ≤ 15.5
B3	15.5 < x ≤ 16.5
Caa1	16.5 < x ≤ 17.5
Caa2	17.5 < x ≤ 18.5
Caa3	18.5 < x ≤ 19.5
Ca	19.5 < x ≤ 20.5
C	x > 20.5

Source: Moody's Investors Service

For example, an issuer with an aggregate numeric score of 11.7 would have a Ba2 scorecard-indicated outcome.

In general, the scorecard-indicated outcome is oriented to the corporate family rating (CFR) for speculative-grade issuers and to the senior unsecured rating for investment-grade issuers. For issuers that benefit from rating uplift from parental support, government ownership or other institutional support, we consider the underlying credit strength or Baseline Credit Assessment for comparison to the scorecard-indicated outcome. For an explanation of the Baseline Credit Assessment, please refer to *Rating Symbols and Definitions* and to our cross-sector methodology for government-related issuers.[15]

Assigning issuer-level and instrument-level ratings

After considering the scorecard-indicated outcome, other rating considerations and relevant cross-sector methodologies, we typically assign a corporate family rating (CFR) to speculative-grade issuers or a senior unsecured rating for investment-grade issuers. For issuers that benefit from rating uplift from government ownership, we may assign a Baseline Credit Assessment.[16]

Individual debt instrument ratings may be notched up or down from the CFR or the senior unsecured rating to reflect our assessment of differences in expected loss related to an instrument's seniority level and collateral. The documents that provide broad guidance for such notching decisions are the rating methodology on loss given default for speculative-grade non-financial companies, the methodology for notching corporate instrument ratings based on differences in security and priority of claim, and the methodology for assigning short-term ratings.[17]

Key rating assumptions

For information about key rating assumptions that apply to methodologies generally, please see *Rating Symbols and Definitions*.[18]

Limitations

In the preceding sections, we have discussed the scorecard factors and many of the other considerations that may be important in assigning ratings. In this section, we discuss limitations that pertain to the scorecard and to the overall rating methodology.

Limitations of the scorecard

There are various reasons why scorecard-indicated outcomes may not map closely to actual ratings.

The scorecard in this rating methodology is a relatively simple reference tool that can be used in most cases to approximate credit profiles of companies in this sector and to explain, in summary form, many of the factors that are generally most important in assigning ratings to these companies. Credit loss and recovery considerations, which are typically more important as an issuer gets closer to default, may not be fully captured in the scorecard. The scorecard is also limited by its upper and lower bounds, causing scorecard-indicated outcomes to be less likely to align with ratings for issuers at the upper and lower ends of the rating scale.

The weights for each sub-factor and factor in the scorecard represent an approximation of their importance for rating decisions across the sector, but the actual importance of a particular factor may vary substantially based on an individual company's circumstances.

Factors that are outside the scorecard, including those discussed above in the "Other considerations" section, may be important for ratings, and their relative importance may also vary from company to company. In addition, certain broad methodological considerations described in one or more cross-sector rating methodologies may be relevant to ratings in this sector.[19] Examples of such considerations include the following: how sovereign credit quality affects non-sovereign issuers, the assessment of credit support from other entities, the relative ranking of different classes of debt and hybrid securities, and the assignment of short-term ratings.

We may use the scorecard over various historical or forward-looking time periods. Furthermore, in our ratings we often incorporate directional views of risks and mitigants in a qualitative way.

General limitations of the methodology

This methodology document does not include an exhaustive description of all factors that we may consider in assigning ratings in this sector. Companies in the sector may face new risks or new combinations of risks, and they may develop new strategies to mitigate risk. We seek to incorporate all material credit considerations in ratings and to take the most forward-looking perspective that visibility into these risks and mitigants permits.

Ratings reflect our expectations for an issuer's future performance; however, as the forward horizon lengthens, uncertainty increases and the utility of precise estimates, as scorecard inputs or in other rating considerations, typically diminishes. Our forward-looking opinions are based on assumptions that may prove, in hindsight, to have been incorrect. Reasons for this could include unanticipated changes in any of the following: the macroeconomic environment, general financial market conditions, industry competition, disruptive technology, or regulatory and legal actions. In any case, predicting the future is subject to substantial uncertainty.

Moody's related publications

Credit ratings are primarily determined through the application of sector credit rating methodologies. Certain broad methodological considerations (described in one or more cross-sector rating methodologies) may also be relevant to the determination of credit ratings of issuers and instruments. A list of sector and cross-sector credit rating methodologies can be found here.

For data summarizing the historical robustness and predictive power of credit ratings, please click here.

For further information, please refer to *Rating Symbols and Definitions*, which is available here.

Moody's Basic Definitions for Credit Statistics (User's Guide) can be found here.

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Endnotes

1 A link to a list of our sector and cross-sector methodologies can be found in the "Moody's related publications" section.

2 In our methodologies and research, the terms "scorecard" and "grid" are used interchangeably.

3 For an explanation of our standard adjustments, please see the cross-sector methodology that describes financial statement adjustments in the analysis of non-financial corporations.

4 For more information on our approach for assessing the credit impact of captive finance operations on issuers in this sector, see the "Captive Finance Operations" section.

5 A link to a list of our sector and cross-sector methodologies can be found in the "Moody's related publications" section.

6 Liquidity management is distinct from the level of liquidity, which is discussed in the "Other considerations" section.

7 A link to a list of our cross-sector methodologies can be found in the "Moody's related publications" section.

8 A link to a list of our sector and cross-sector methodologies can be found in the "Moody's related publications" section.

9 For example, in the case of an equity stake reduction in a subsidiary down to 75%, in the parent's financial statements, all revenue and EBITDA of the subsidiary would typically still be consolidated at the group level.

10 Proportional consolidation brings a portion of the minority subsidiary's debt onto the balance sheet, but this debt is structurally senior to debt at the parent company, because it is closer to the assets and cash flows of the minority subsidiary.

11 For an explanation of the Baseline Credit Assessment, please refer to *Rating Symbols and Definitions* and to our cross-sector methodology for government-related issuers. A link to a list of our sector and cross-sector methodologies and a link to *Rating Symbols and Definitions* can be found in the "Moody's related publications" section.

12 When a factor comprises sub-factors, we score at the sub-factor level. Some factors do not have sub-factors, in which case we score at the factor level.

13 For definitions of our most common ratio terms, please see *Moody's Basic Definitions for Credit Statistics (User's Guide)*. A link can be found in the "Moody's related publications" section.

14 For an explanation of our standard adjustments, please see the cross-sector methodology that describes our financial statement adjustments in the analysis of non-financial corporations.

15 A link to a list of our sector and cross-sector methodologies and a link to *Rating Symbols and Definitions* can be found in the "Moody's related publications" section.

16 For an explanation of the Baseline Credit Assessment, please refer to *Rating Symbols and Definitions* and to our cross-sector methodology for government-related issuers. A link to a list of our sector and cross-sector methodologies and a link to *Rating Symbols and Definitions* can be found in the "Moody's related publications" section.

17 A link to a list of our sector and cross-sector methodologies can be found in the "Moody's related publications" section.

18 A link to *Rating Symbols and Definitions* can be found in the "Moody's related publications" section.

19 A link to a list of our sector and cross-sector methodologies can be found in the "Moody's related publications" section.

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