

Moody's

INVESTORS SERVICE

RATING METHODOLOGY

Global Rating Methodology for REITs and Other Commercial Property Firms

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Summary

This rating methodology explains Moody's approach to assessing credit risk for real estate investment trusts (REITs), real estate operating companies (REOCs) and other commercial property firms ("commercial real estate firms"). This document replaces the Rating Methodology for REITs and Other Commercial Property Firms published in January 2006 and the Key Ratios for Rating REITs and Other Commercial Property Firms published in April 2007. While reflecting similar core principles, the updated framework better reflects the changing landscape of the commercial real estate industry. We have also made changes to the rating methodology scorecard and have updated the text of the document to provide a clearer explanation of how ratings for commercial real estate firms are derived.

The goal of the publication is to provide a reference tool that can be used when evaluating credit profiles within the commercial real estate industry, helping issuers, investors, and other interested market participants understand how key qualitative and quantitative risk characteristics are likely to affect rating outcomes. This methodology does not include an exhaustive treatment of all factors that are reflected in Moody's ratings but should enable the reader to understand the qualitative considerations and financial ratios that are most important for ratings in this sector. We are not anticipating changes to public ratings as a result of changes to the methodology.

The scorecard provides summarized guidance for the factors that are generally most important in assigning ratings to commercial real estate firms, but it does not include every rating consideration. The illustrative mapping uses historical results while our ratings also consider forward-looking expectations. As a result, the scorecard-indicated rating is not expected to match the actual rating of each company.

Because this methodology applies globally, it is necessarily general in some aspects and it is not intended to be an exhaustive, country-specific discussion of all factors that Moody's analysts consider in every rating. Moody's rating approach considers country specific differences and at the same time allows for qualitative evaluation of these factors as well as other factors that cannot be easily presented in scorecard format.

This report covers our previous methodology report, "Moody's Approach to Rating Real Estate Asset Trust Transactions in Taiwan" published in 2005

! THIS CREDIT RATING METHODOLOGY CONTAINS AN UPDATE IN THE RELATED RESEARCH AT THE END OF THE REPORT. THE CONTENT OF THE CREDIT RATING METHODOLOGY HAS NOT BEEN CHANGED OR UPDATED. ORIGINAL DATE OF PUBLICATION REMAINS THE EFFECTIVE DATE OF THE CREDIT RATING METHODOLOGY.

The scorecard contains four key factors that are important in our assessments for ratings in the commercial real estate sector:

- » Liquidity and Funding
- » Leverage and Capital Structure
- » Market Position and Asset Quality
- » Cash Flows and Earnings

Each of these factors also encompasses a number of sub-factors or metrics. We note that our analysis covers factors that are common across all industries (such as ownership, management, liquidity, legal structure in the corporate organization, corporate governance), as well as factors that can be meaningful on a company specific basis. Our ratings consider qualitative considerations and factors that do not lend themselves to a transparent presentation in a scorecard format. The scorecard represents a compromise between greater complexity, which would result in scorecard-indicated ratings that map more closely to actual ratings, and transparency, which enhances a clear presentation of the factors that are most important for ratings in this sector most of the time.

Highlights of this report include:

- » Key differences between this methodology and the January 2006 methodology
- » Overview of Moody's rated universe and its characteristics
- » Rating methodology description and the key factors that drive rating quality
- » Detailed explanation of the rating factors
- » Methodology assumptions, limitations and other rating considerations
- » Rating methodology indicated ratings and discussion of outliers

Key differences between the New Methodology and the January 2006 Methodology:

- » The possible rating outcomes reflected in the scorecard have been widened. The outcomes now range from Aa down to Ca, whereas in the previous methodology the lowest implied rating category of the range was single B. The lowering of the bottom implied rating category will enhance the ability of the scorecard to reflect the ratings of companies in the B-Ca range.
- » The mapping of the rating distribution ranges for some of the sub-factors has been modified, please see Appendix 1 for more details.
- » The sub-factors used in the scorecard are now *weighted* to show the degree of influence each sub-factor has on the overall rating. Previously, all of the scorecard sub-factors were weighted equally.
- » The Line of Credit Availability sub-factor has been replaced in the *Liquidity and Funding* factor with a new sub-factor: Liquidity Coverage. This new sub-factor allows for a more robust assessment of liquidity to be used in the scorecard.
- » The calculation of the Debt Maturities sub-factor in the *Liquidity and Funding* factor has been changed. It is now calculated by adding together 100% of debt maturing in the next 12 months, 50% of debt maturing in the second year and 33% of debt maturing in the third year and

dividing the sum by total debt outstanding. In the 2006 methodology, this sub-factor was calculated by dividing the largest annual maturity by total debt outstanding.

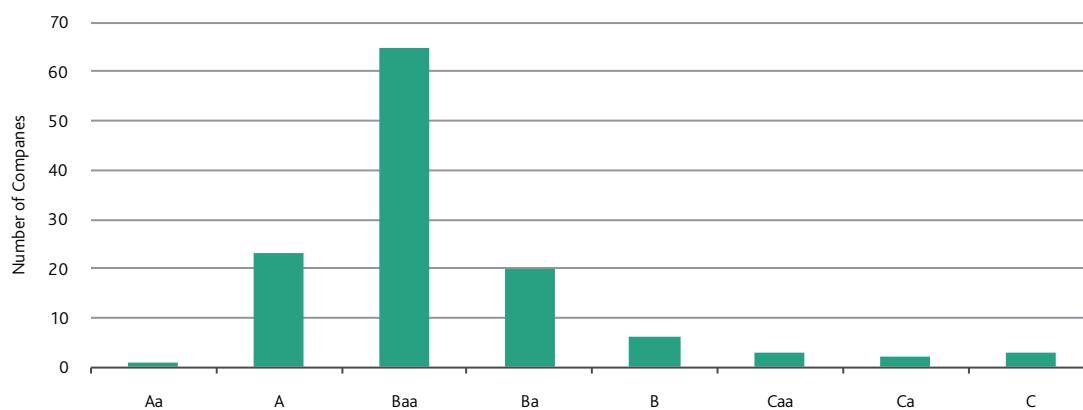
- » A new sub-factor, EBITDA Margin Volatility, has been added to the *Cash Flow and Earnings* factor to replace the Return on Average Assets and Standard Deviation of Return on Average Assets sub-factors. We believe this change will more appropriately measure earnings volatility free from changes in asset values due to revaluation or asset acquisitions and dispositions.
- » The *Internal and External Operating Environment* factor has been eliminated. The Joint Ventures and Funds Business as a % of Total Revenue sub-factor has been grouped under the *Cash Flow and Earnings* factor. The Management sub-factor has been removed from the scorecard since management is a common factor across industries and whose quality is reflected in the strength of the other scorecard ratios.

An Overview of Moody's Rated Universe and the Sector Characteristics

Moody's rates the securities of 123 commercial real estate firms globally, which have a median rating of Baa2, at the lower end of the investment grade level. Commercial real estate firms issue both unsecured debt (which is the subject of this study) and mortgage debt (usually non-recourse) which subordinates the claims of the unsecured creditors. Ratings assigned to the unsecured debt of a commercial real estate firm tend to be lower than those assigned to mortgage-related transactions, primarily due to the deal structure, absence of liens, subordination and management's ability to adversely affect such items as strategic models, asset composition, capital structures and leverage. The crux of Moody's fundamental analysis is to determine the quality, diversity and sustainability of a firm's earnings and cash flows relative to cash needs, and to translate those judgments into the likelihood of default, and recovery rates, assuming default.

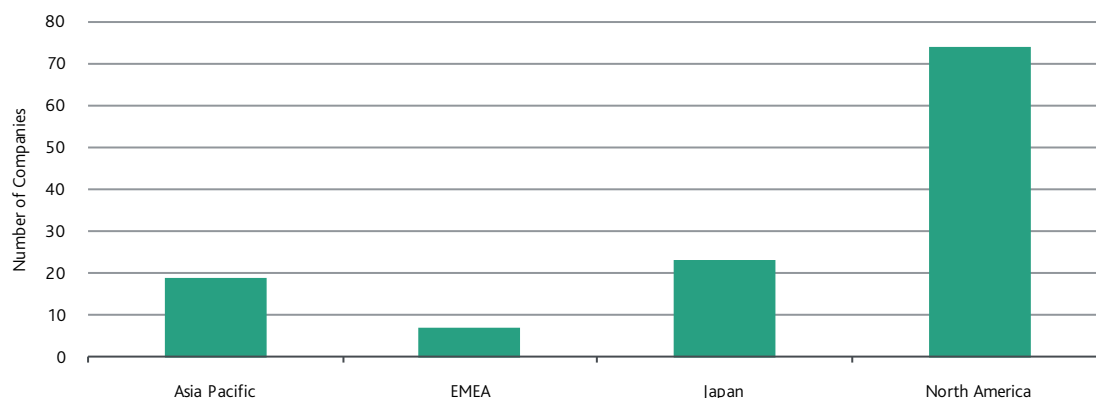
EXHIBIT 1

Rating Distribution by Rating Category



As of July 2010

EXHIBIT 2

Regional Distribution of Rated Commercial Real Estate Companies

As of July 2010

Cash flow and earnings characteristics vary by property type, and the quality of individual real estate assets varies too, even within sectors. Risk characteristics of different property sectors can and do vary by sector and subsector by nation. For example, housing is heavily influenced by the government in most nations, and this can markedly affect apartment values. Also, zoning, development approvals, property lease laws, and industry structures affecting the mix and quality of tenants, to name but a few factors, all influence the volatility of cash flows and asset values within various property sectors and all of these factors can vary by nation and by region within a nation. Due to the risk and quality overlaps between sectors, and the presence of distinct subsectors, the list below is not in any particular order.

Regional Malls/Outlet Centers

- » Tend to have considerable barriers to competitor entry
- » Vulnerable to competition from Big Box discounters, a growing worry especially for “B” and “C” quality malls in moderate-income areas; B and C malls are becoming an increasingly less stable asset sub-class
- » Regional malls tend to exist in the form of high street malls in some Asian countries and are to varying degrees subject to relatively volatile tourist demand
- » Capital- and management-intensive; premium on management and size of portfolio
- » Challenges with anchor consolidation, drawing power and non-traditional anchors
- » Substantial ownership consolidation, with several emerging leaders
- » Outlet is a distinct highly consolidated sub-type with a premium on tourist/urban locations and property size
- » Lifestyle centers rising, but resilience of new properties not yet proven; location, size and tenant mix/lease structure especially important
- » Focuses: tenant mix; location; regional and national leadership of owner; tenant sales per square foot; occupancy costs

Community Retail

- » Offer day-to-day necessities rather than luxury items, tend to be more resistant to recessions
- » Often are dependent on rents from lower quality – often local – tenants, or from weakening anchors in the volatile grocery or discount sectors
- » Anchors in Asia tend to be large, well-established supermarket or department store chains
- » Rising threat of discounters and supercenters, especially for less well-positioned properties in moderate income areas; this is a growing challenge, likely resulting in a rise in the sector's volatility
- » Larger, multi-anchored properties more resilient
- » Focuses: traffic, visibility and in-fill nature of locations; anchor health and leadership; size of center and of anchors, and number of anchors; population characteristics of the surrounding region; in Europe it is important to assess whether the community center is dominant in its catchment area

Multifamily

- » Short-term leases
- » Limited ability to control a market area
- » Vulnerable to changes in local labor markets
- » Low barriers to entry
- » Vulnerability to single-family housing prices – rising homeownership reduces MF demand
- » In USA, GSE funding has been ample and stable though future is unclear
- » US REITs often in markets with high home prices, boosts MF demand and revenue stability
- » Not a common asset type in Asia
- » Focuses: location; regional diversity; property age; cost management

Industrial

- » Warehouses, light assembly, flex space and distribution facilities
- » Modest capital expenditure required for tenant rollover
- » Short construction cycle mitigates overbuilding risks
- » Many triple-net lease structures
- » Location often crucial
- » Obsolescence and shorter term leases, commodity nature of assets
- » Majority of tenants tend to be smaller and of modest credit quality
- » In Asia, sale-leaseback arrangements often used so leases are relatively longer than other asset types
- » Focuses: product and geographic franchises; property modernity; diversified tenant bases and tenant leadership; Third Party Logistics (3PL) skills for large warehouse subsector; use of funds and JVs; location, especially proximity to key road networks, airports and rail

Office

- » Assets subject to fairly rapid obsolescence and new supply
- » Capital-intensive, with low barriers to entry in most markets
- » High cost of re-leasing space (tenant improvements and leasing commissions) constrain cash flow
- » For central business district (CBD) class A properties, tend to see higher credit tenants and longer term leases
- » Focuses: leadership in high barrier-to-entry-markets; geographic, economic and asset diversity; tenant quality and diversity; asset modernity; use of joint ventures

Health Care

- » Funding vehicles for the health care industry – sale-lease back and mortgages
- » Vulnerability to volatility of operators' business fundamentals; endemic operator concentrations
- » Exposure to government-driven medical expense reimbursement (especially Medicare and Medicaid in USA), which are linked among operators; in Asia, such exposure tends to be much lower
- » Certificates of Need and similar rules limit building for some property subtypes, such as skilled nursing and acute care hospitals
- » Low barriers to entry in assisted living facilities
- » Complex management issues with medical office buildings, importance of being on a hospital campus
- » Positive demographic trends
- » Focuses: asset type, payment and tenant diversity (usually linked); location; tenant underwriting and monitoring skills

Lodging

- » Operating business characteristics are important
- » Volatile net operating income due to daily movements in occupancy and room rate; particularly sensitive to economic conditions
- » High operating leverage and capex
- » Management- and capital-intensive
- » Modest barriers to new construction
- » Focuses: diversity by location/guest driver, flag/brand, operator and lodging subsector; modernity of asset

About the Rating Methodology

Rating Scorecard

As part of the rating committee process, analysts complete a Rating Scorecard, which incorporates the analyst's opinion and judgment on each of the broad factors within the rating methodology, which may include the use of proprietary, non-public data. The rating committee uses the Rating Scorecard to facilitate an in-depth discussion of the credit characteristics of the commercial real estate firm. The Rating Scorecard documents the "Score" (i.e., the rating derived from the "raw" metrics - see Appendix 1) and may also include for some geographies the analyst's "Adjusted Score" (i.e., the adjusted rating) for each factor, as well as the trend of each factor vs. prior periods (strengthening, neutral and weakening). An example of the North American rating scorecard can be found below. In other regions, we publish only the historical rating scorecard and we do not generally publish an adjusted score or trend columns; however, we comment on forecasts and other factors in the credit opinion, analysis or press releases.

Global Rating Methodology for REITs and Other Commercial Property Firms

RATING DRIVERS	Aa	A	Baa	Ba	B	Caa	Ca	Implied Score	Adjusted Score	Trend
Liquidity & Funding										
Liquidity Coverage										
Debt Maturities										
FFO Payout										
Amount of Unencumbered Assets										
Leverage & Capital Structure										
Debt + Preferred/Gross Assets										
Net Debt/EBITDA										
Secured Debt/Gross Assets										
Access to Capital										
Market Positioning & Asset Quality										
Franchise/Brand Name										
Gross Assets										
Diversity-location/tenant/industry/economic										
Development % Gross Assets										
Asset Quality										
Cash Flow & Earnings										
EBITDA/Revenues										
EBITDA Margin Volatility										
Fixed Charge Coverage										
JV/Fund Business % Revenues										
Overall Assessment										
Implied Score										
Adjusted Score										

Moody's global rating methodology for REITs and other commercial property firms consists of the four factors listed below.

1. Identification of the Key Rating Factors

The scorecard in this methodology focuses on four broad rating factors and weightings, further broken down into 17 rating sub-factors and their weightings.

BROAD RATING FACTOR	BROAD RATING FACTOR WEIGHT	RATING SUB-FACTOR	SUB-FACTOR WEIGHT
Liquidity and Funding	24.5%	Liquidity Coverage	8.00%
		Debt Maturities	6.25%
		FFO Payout	4.00%
Leverage and Capital Structure	30.5%	Amount of Unencumbered Assets	6.25%
		Debt + Preferred/Gross Assets	9.00%
		Net Debt/EBITDA	9.00%
		Secured Debt/Gross Assets	6.25%
Market Positioning and Asset Quality	22.0%	Access to Capital	6.25%
		Franchise/Brand Name	4.00%
		Gross Assets	4.00%
		Diversity-location/tenant/industry/economic	4.00%
		Development % Gross Assets	5.00%
Cash Flow and Earnings	23.0%	Asset Quality	5.00%
		EBITDA/Revenues	6.00%
		EBITDA Margin Volatility	3.00%
		Fixed Charge Coverage	9.00%
Total	100.0%	JV/Fund Business % Revenues	5.00%
			100.0%

2. Measurement of Key Rating Factors

We present a series of metrics which can be used to quantify the four key rating factors and 17 sub-factors. Many of our metrics consist of ratios and financial data derived from companies' publicly available financial statements; others are approximated based on additional research.

Moody's ratings are forward looking and incorporate our expectations of future financial and operating performance. We use both historical and projected financial results in the rating process. Historical operating results help us understand the pattern of a company's performance and how this performance compares to that of its peers. Historical data also assist us in evaluating whether projected future results are realistic.

This rating methodology utilizes historic data while our ratings are forward looking. As such, we may make adjustments (typically for US REITs), when applicable, to the scorecard-indicated sub-factor rating to reflect where we believe the sub-factor rating will be in the future. In other regions, while we generally do not make adjustments to the scorecard, the ratings reflect future expectations or other qualitative factors and we comment on these in the credit opinions.

3. Mapping Factors to Rating Categories

After identifying the measurement criteria for each rating sub-factor, we provide a chart that maps the rating sub-factors to specific alpha rating categories (Aa, A, Baa, Ba, B, Caa or Ca).

4. Determining the Overall Scorecard-Indicated Rating

To determine the overall scorecard-indicated rating, the indicated rating for each sub-factor (i.e., Aa, A, Baa, Ba, B, Caa or Ca) is converted into a numeric value based upon the scale below.

Aa2	A2	Baa2	Ba2	B2	Caa2	Ca
3	6	9	12	15	18	20

The numerical score for each sub-factor is multiplied by the weight for that sub-factor with the results then summed to produce a composite weighted factor score. The composite weighted factor score is then mapped back to an alpha-numeric rating based on the ranges in the scorecard below.

COMPOSITE RATING	
INDICATED RATING	AGGREGATE WEIGHTED TOTAL FACTOR SCORE
Aa1	$x < 2.5$
Aa2	$2.5 \leq x < 3.5$
Aa3	$3.5 \leq x < 4.5$
A1	$4.5 \leq x < 5.5$
A2	$5.5 \leq x < 6.5$
A3	$6.5 \leq x < 7.5$
Baa1	$7.5 \leq x < 8.5$
Baa2	$8.5 \leq x < 9.5$
Baa3	$9.5 \leq x < 10.5$
Ba1	$10.5 \leq x < 11.5$
Ba2	$11.5 \leq x < 12.5$
Ba3	$12.5 \leq x < 13.5$
B1	$13.5 \leq x < 14.5$
B2	$14.5 \leq x < 15.5$
B3	$15.5 \leq x < 16.5$
Caa1	$16.5 \leq x < 17.5$
Caa2	$17.5 \leq x < 18.5$
Caa3	$18.5 \leq x < 19.5$
Ca	$x \geq 19.5$

For example, an issuer with a composite factor score of 11.7 would have a Ba2 scorecard-indicated rating. We use a similar procedure to derive the scorecard-indicated ratings in the tables embedded in the discussion of each of the four broad rating factors.

The Key Rating Factors

Moody's analysis of REITs and other commercial property companies focuses on four broad rating factors:

- » Liquidity and Funding
- » Leverage and Capital Structure
- » Market Positioning and Asset Quality
- » Cash Flow and Earnings

Rating Factor 1: Liquidity and Funding

Why it matters

Throughout all business and credit market cycles, liquidity is an important issue for companies, especially capital intensive businesses like REITs and REOCs.¹ Moody's assessment of commercial real estate firm's liquidity continues to focus on the relationship between sources and uses of liquidity in meeting near and intermediate-term fixed obligations.

Sources of liquidity may include borrowing capacity on committed lines of credit, cash balances, operating cash flow, capital market offerings and unencumbered assets. Since almost all bank lines for US and European REITs have covenants, multi-year committed lines with ample covenant compliance room from highly-rated core relationship banks enhance financial flexibility and serve as a stable source of funding. Material adverse change (MAC) clauses and ratings triggers are distinct negatives.

Uses of liquidity can encompass interest and principal payments of bond, mortgage and credit facility debt, capital expenditures, development projects and dividend payments. The timing of debt repayments can be particularly important because the bunching of maturities can present liquidity challenges. All else equal, the more the debt maturities are spread evenly over time, the more financial flexibility a firm will have. We also prefer to see debt maturities further out in time, giving the issuer more time and options to refinance. Since REITs are required to distribute most of their taxable income to shareholders via dividends, we examine the ability of the REIT to pay dividends relative to their Funds from Operations (FFO). In most cases, we view a lower dividend payout ratio favorably because it shows the REIT can use a greater share of earnings to address additional cash outlays. We also view favorably the ability of REITs in some countries, such as the US, Australia and the UK, to pay dividends in shares as well as cash. REOCs, in most cases, have greater financial flexibility compared to REITs as they do not have a dividend distribution requirement, a credit positive.

How we measure it for the scorecard

Liquidity coverage is measured by examining the size and type (predominantly cash on hand, internally generated cash flows and committed bank lines) of a company's liquidity sources against its cash uses over the next 12 months. Upcoming debt maturities are calculated by adding together the 100% of debt maturing in the next 12 months, 50% of debt maturing in the second year and 33% of debt maturing in the third year and dividing the sum by total debt outstanding. The dividend payout ratio is computed by dividing the amount of dividends the company pays by the amount of FFO it has

¹ Generally speaking, Real Estate Investment Trusts (REITs) and Real Estate Operating Companies (REOCs) own and operate commercial properties. In the US, UK and most of Asia, REITs are required to pay at least 90% of taxable income as dividends to investors and are not subject to corporate income tax. In France, REITs are required to pay at least 85% of the tax-exempt profits from qualifying activities and 50% of capital gains. In general, REOCs are not required to pay dividends and are subject to corporate income tax.

earned in the same period. The amount of unencumbered assets is calculated by dividing the gross book value of the company's unencumbered assets by the gross book value of its total assets. Under IFRS, total asset value is used instead of gross assets because real estate assets are recorded at fair value.²

The detail on the rating sub-factors in the Liquidity and Funding factor is shown below (the corresponding weight is given in parentheses).

FACTOR 1

Liquidity and Funding (24.5%)

RATING	Aa	A	Baa	Ba	B	Caa	Ca
RATING SUB-FACTOR							
Liquidity Coverage (8%)	Substantial internal liquidity; highly reliable committed available bank facilities; no need for external funding to cover at least 1 year's cash needs	Considerable internal liquidity; reliable committed available bank facilities; minimal need for external funding to cover 1 year's cash needs	Sufficient internal liquidity; committed bank facilities with ample covenant compliance room; some reliance on external funding to cover 1 year's cash needs	Adequate internal liquidity; committed bank facilities with some covenant compliance cushion or contain inhibiting language, such as a MAC or rating triggers; some reliance on external financing to cover 1 year's cash needs	Insufficient internal liquidity and committed bank facilities; must rely on external funding to cover 1 year's cash needs	Insufficient internal liquidity and committed bank facilities; must rely on external funding to cover 1 year's cash needs, access to which is uncertain	Insufficient internal liquidity and committed bank facilities; must rely on external funding to cover 1 year's cash needs, access to which is unlikely or doubtful
Debt Maturities (6.25%)	Weighted debt maturities < 10% of total debt	Weighted debt maturities < 15% of total debt	Weighted debt maturities < 20% of total debt	Weighted debt maturities < 25% of total debt	Weighted debt maturities < 40% of total debt	Weighted debt maturities < 60% of total debt	Weighted debt maturities > 60% of total debt
FFO Payout (4%)	Average dividend payout < 50% of FFO	Average dividend payout < 60% of FFO	Average dividend payout < 90% of FFO; sustained track record of reducing cash dividend payment by way of scrip dividend or dividend reinvestment plan	Average dividend payout > 90% of FFO; flexibility to reduce cash dividend payment by way of scrip dividend or dividend reinvestment plan	Average dividend payout > 100% of FFO	Average dividend payout > 110% of FFO	Average dividend payout > 120% of FFO
Amount of Unencumbered Assets (6.25%)	> 97% of assets are unencumbered	> 80% of assets are unencumbered	> 60% of assets are unencumbered	> 40% of assets are unencumbered	> 20% of assets are unencumbered	> 0% of assets are unencumbered	No unencumbered assets

² All references in this methodology to gross assets should be interpreted to mean total asset value when IFRS accounting standards are used.

Rating Factor 2: Leverage and Capital Structure

Why it matters

The liquidity, earnings volatility, cash-retention capacity and capital-intensive characteristics of commercial real estate firms are important considerations that drive our leverage analysis. High leverage drains cash resources and particularly heightens vulnerability to operating and market challenges. Appropriate leverage levels for a given company vary from case to case. Our rating assessment, therefore, will also take into consideration the asset type and their leverage tolerance. For instance, having more stable income streams (such as from long-term triple-net leases on high-quality buildings to investment-grade tenants) can support more leverage at a given rating level.

Many commercial real estate firms have stated objectives of maintaining leverage within certain ranges, the ranges partly driven by bond and bank loan covenants. Moody's analysis tends to measure leverage against the potential value of assets or gross book value and the market's determination of a firm's value. To strengthen and diversify their capital structure, some commercial real estate firms issue preferred stock. Moody's usually views preferred stock as "debt-like" and folds it into our quantitative analysis as such³.

Moody's considers three metrics in assessing a given commercial real estate firm's overall leverage. These metrics, based on US GAAP, use a book value-based approach, a cash flow based approach, and a market value-based approach. During a period of rising property valuations, book value leverage (debt + preferred stock as a % of gross assets) is a conservative means to considering the appropriate amount of indebtedness. However, in environments where prices are falling, book value might understate leverage. To what extent depends on the distribution of when (i.e. what point in the real estate cycle) properties within a given commercial real estate firm's portfolio were added to its balance sheet as these assets are recorded at cost.

As such, Moody's analysis also focuses on how a commercial real estate firm's debt levels compare to its current and expected cash flows (Net Debt/EBITDA)⁴. While the leverage sub-factor in the scorecard reflects reported leverage, our rating decision takes into consideration the current versus expected property valuations (debt + preferred stock as a % of estimated portfolio market value, with value assessed using a range of cap rates and stressed NOI amounts⁵) to determine intrinsic balance sheet strength. Moody's believes that together these metrics provide a more complete analysis of leverage and better comparison amongst companies. When assessing a particular commercial real estate firm's capital structure, these leverage metrics are considered in conjunction with other key factors such as fixed charge coverage, earnings volatility, debt maturity laddering, and the size and quality of its unencumbered asset pool.

The balance between secured and unsecured debt is another important analytical consideration. For the unsecured bondholder, the existence of a pool of unencumbered assets (the larger, more diverse and higher quality, the better) adds to a commercial real estate firm's financial flexibility. The presence of mortgage debt (including non-recourse debt) effectively subordinates unsecured bondholders and decreases a commercial real estate firm's financial flexibility; Moody's notes, however, that such debt can provide some flexibility, most limited to cases of extreme stress. The larger the ratio of unencumbered assets to total debt, and in particular, total unsecured debt, the more flexibility a

³ "An Application of Moody's Tool Kit: The Analysis of Preferred Securities Issued by US Real Estate Investment Trusts (REITs)", May 2005.

⁴ For all calculations, debt and EBITDA are adjusted according to "Moody's Approach to Global Standard Adjustments in the Analysis of Financial Statements for Non-Financial Corporations - Part I" and "Moody's Approach to Global Standard Adjustments in the Analysis of Financial Statements for Non-Financial Corporations - Part II", February 2006.

⁵ "US REITs: Moody's Market Value Leverage Analysis", August 2009.

given commercial real estate firm generally has in repaying its unsecured debt at maturity, and the more likely a higher recovery in the event of default. We measure this by the percentage of net operating income (NOI) that is encumbered, and the percentage of assets by value and number that are encumbered. It is also useful to examine the maturity structure of mortgages, which speaks to liquidity needs, and the likelihood a firm can take steps to unencumber itself. Finally, we seek to understand the relative quality of properties in the encumbered pool versus the unencumbered pool. Should an issuer be persistent in mortgaging its best assets, that can place pressure on the unsecured rating.

When looking at secured debt, a distinction between recourse and non-recourse is made. In Moody's opinion, non-recourse debt is less likely to jeopardize a stock of unencumbered assets in a given property portfolio, reflecting the ability to walk away from the obligation without many direct consequences. However, debt is still debt, and Moody's anticipates that most commercial real estate firms, particularly those with investment grade ratings, would fulfill obligations – including non-recourse obligations – in most circumstances. Therefore, we include the non-recourse debt in total debt, fully or pro rata in the case of joint ventures.

Significant financial and strategic flexibility is lost through mortgage finance. First, mortgaged assets are more difficult to sell, partly because of restrictions or penalties related to transference. Even when there are no such obstacles, purchasers of mortgaged properties consider the impact of assumed debt on their overall borrowing mix, and measures such as interest costs and maturity laddering. Because the property and the mortgage are conjoined, both need to be appealing to make a sale work, and a bad mortgage on a good property decreases the property's value and salability. Second, mortgage agreements typically restrict the ability of an owner to reposition properties; this makes "fixing" problem properties even more challenging. Also, recasting the first mortgage to raise the LTV can be difficult, if not impossible, and the same applies to obtaining a second mortgage – much of the value of the asset gets sequestered, and the asset cannot be used as a source of alternative liquidity. In some mortgage structures, even determining the proper administrative party (e.g. special servicer, master servicer, etc.) with whom to discuss an issue is difficult. These factors make the mortgaged asset less flexible, thus impairing asset liquidity and constraining a firm's ability to reposition or finance its portfolio.

We also evaluate a commercial real estate firm's access to (and track record in) the debt and equity markets. Because REITs distribute most of their cash flow, a firm's ability to repay its debt is a direct function of its ability to raise cash. REITs with a proven record of raising funds from the four quadrants of the capital market (public and private, debt and equity) are viewed more favorably than those that have not accessed each of the quadrants. For commercial real estate firms in general, properties that are free and clear of mortgages are also sources of alternative liquidity, via property-specific debt, or even sale. Thus, we view a larger pool of unencumbered assets positively when assessing capital access.

How we measure it for the scorecard

Effective book value leverage is measured by adding together total debt and preferred stock and dividing the sum by the gross book value of assets (total assets + accumulated depreciation). Net debt to EBITDA is calculated by taking debt (excluding perpetual preferred stock) net of cash and dividing it by the commercial real estate firm's year-to-date annualized EBITDA. Secured leverage is calculated by dividing secured debt by the gross book value of assets. Our assessment of access to capital includes, but is not limited to, the frequency of capital markets activity, as well as the size, terms and types of financial instruments used by the firm in the past.

The detail on the rating sub-factors for the Leverage and Capital Structure factor is shown below.

FACTOR 2

Leverage and Capital Structure (30.5%)

RATING	Aa	A	Baa	Ba	B	Caa	Ca
RATING SUB-FACTOR							
Effective Leverage (9%)	Debt + Preferred / Gross Assets < 15%	Debt + Preferred / Gross Assets < 30%	Debt + Preferred / Gross Assets < 50%	Debt + Preferred / Gross Assets < 60%	Debt + Preferred / Gross Assets < 80%	Debt + Preferred / Gross Assets < 90%	Debt + Preferred / Gross Assets > 90%
Net Debt / EBITDA (9%)	Net Debt / EBITDA < 3.5X	Net Debt / EBITDA < 4.0X	Net Debt / EBITDA < 6.0X	Net Debt / EBITDA < 8.0X	Net Debt / EBITDA < 10.0X	Net Debt / EBITDA < 13.0X	Net Debt / EBITDA > 13.0X
Secured Leverage (6.25%)	Secured Debt / Gross Assets < 3%	Secured Debt / Gross Assets < 10%	Secured Debt / Gross Assets < 20%	Secured Debt / Gross Assets < 30%	Secured Debt / Gross Assets < 60%	Secured Debt / Gross Assets < 80%	Secured Debt / Gross Assets > 80%
Access to Capital (6.25%)	Superior access to all sources of private and public capital	Excellent access to all sources of private and public capital	Good access to all sources of private and public capital	Good access to many sources of capital	Sporadic access to many sources of capital	Limited access to capital	No access to capital

Rating Factor 3: Market Positioning and Asset Quality**Why it matters**

The inherent riskiness of different property classes has a significant effect on our ratings of commercial real estate firms. One of the key attributes Moody's assesses is the stability of cash flows and values. Stable cash flows increase our confidence that the debt can be serviced on a timely basis, and stable values enhance the ability to sell or to refinance properties in order to have the capital available to meet debt service and grow the business.

In specific, we look at a firm's geographic, tenant, industry and economic diversification, and lease structures, to help assess the overall stability of a commercial real estate firm's portfolio. Geographic diversification allows a firm to weather economic challenges in certain regions or cities versus others. However, diversification by geographic footprint is not a panacea, as different locales can be correlated as they relate to economic and industry-specific factors. For example, high vacancies for an office REIT due to a challenging technology or telecommunications environment could negatively affect the cash flows of properties located in Northern California, Boston and Northern Virginia.

Diversity is considered without losing sight of the quality of the asset portfolio. A diversified portfolio (by size, geography and tenant base) located in densely populated areas, in central or closed-in suburban areas of major cities, is usually more stable. For example, the office leasing properties of leading REOCs in Japan are concentrated in central Tokyo. However, vacancy rates for these REOCs are much lower than for REOCs with a more diversified asset portfolio in Japan due to the large size and wide variety of industries and tenants in the Tokyo office market.

In general, Moody's believes that high-quality properties, commonly referred to as "Class A", offer the best protection. These assets enhance the flexibility of a commercial real estate firm because there is a wider universe of potential tenants, and debt and equity investors. Liquidity in all its dimensions is better: Class A assets tend to have higher marketability than Class B and Class C assets at the time of releasing, sale or refinance. That is not to say, however, that Class B properties do not provide good protection, especially if the REIT or REOC maintains a niche in the class and property sector.

Moody's analysis includes an examination of a commercial real estate firm's property investment portfolio and the relevant markets in which its assets, or operators, are located. Matters such as occupancies, lease expirations, market rents, regulatory trends, and the physical condition and competitiveness of the properties are also evaluated, as are each property's location dynamics, tenant or operator mix and quality, supply prospects and barriers to competition that can protect the property from economic value erosion. We also assess the likely performance of a commercial real estate firm's portfolio under adverse scenarios, such as high vacancy rates and low rents, as well as differing capital expenditure needs. We further investigate known and potential environmental and regulatory liabilities. Moody's seeks to understand the effects of both national and regional economic trends on the property portfolio, and the extent to which the commercial real estate firm can manage its position. We also examine the commercial real estate firm's economic role in the context of national and regional economic development.

An important focus is whether the commercial real estate firm is the "landlord of choice" in its core markets, and whether this leadership position translates into a more profitable competitive position for the firm. This leadership may be by type of asset, by location, or both. For example, Simon Property enjoys a strong franchise in regional malls and outlet centers in the USA, and Westfield has great strength in regional malls in Australia and New Zealand, and a good position in the USA. Mitsubishi Estate has a strong presence in the central business district in Tokyo. Some property types also lend themselves more to stable, profitable leadership than do others. Regional malls and self-storage, for example, have more capacity for franchise-building, while it has proved difficult in many markets to generate real price-making leadership in office and apartments. The competitive leadership that is most supportive of high ratings is leadership in multiple asset types in multiple geographic markets, with that leadership translating into higher performance measures, such as occupancy and rate, and getting the first and last look on deals. Higher ratings result from diversity with depth. Moody's focuses on a firm's economic, industry, sub-market and tenant diversification, too, in order to assess leadership resiliency and depth.

Further, we analyze the company's growth strategy to determine its impact on cash flows and business risk. A moderately sized development and/or redevelopment pipeline can help grow the company and improve portfolio quality, which are credit positives. However, companies that pursue large amounts of ground up development have volatile cash flows and run the risk of mistiming the market. New developments completed during downturns are difficult to lease up and can be a drag on cash flows. A more conservative development strategy is viewed positively in our analysis.

How we measure it for the scorecard

Moody's assesses a commercial real estate firm's franchise and brand name by examining the market perception and leadership of the company as well as the breadth and nature of the transactions the company sees in its markets. Where applicable, market share in the given sector is also considered. Size is measured by the gross book value of assets. Diversity is evaluated by the maximum exposure the commercial real estate firm has to a single tenant, geographic region, industry or economic sector. The development pipeline is calculated by dividing the value of the company's in-process development (including both costs incurred and anticipated costs to complete the committed development pipeline) by the gross book value of assets. Asset quality takes into account several factors, such as property quality (Class A assets vs. Class B assets), market leadership position and the age and location of assets.

The detail on the rating sub-factors for the Market Position and Asset Quality factor is shown below.

FACTOR 3

Market Position and Asset Quality (22.0%)

RATING	Aa	A	Baa	Ba	B	Caa	Ca
RATING SUB-FACTOR							
Franchise/Brand Name (4%)	Superior franchise / brand; sees virtually all transactions in its markets	Excellent franchise / brand; sees most transactions in its markets	Good franchise / brand; sees most transactions in its markets	Moderate franchise / brand; sees many transactions in its markets	Limited franchise / brand; sees some transactions in its markets	Weak franchise / brand	No franchise / brand
Company Size (4%)	Gross Assets > \$20 billion	Gross Assets > \$10 billion	Gross Assets > \$2 billion	Gross Assets > \$1 billion	Gross Assets > \$250 million	Gross Assets > \$100 million	Gross Assets < \$100 million
Diversity: Location / Tenant / Industry / Economic (4%)	Superior portfolio diversity; no single location, tenant, industry or economic sector > 5% of gross leasable area (GLA) or revenues	Excellent portfolio diversity; no single location, tenant, industry or economic sector > 10% of GLA or revenues	Good portfolio diversity; no single location, tenant, industry or economic sector > 15% of GLA or revenues	Moderate portfolio diversity; no single location, tenant, industry or economic sector > 20% of GLA or revenues	Limited portfolio diversity; no single location, tenant, industry or economic sector > 25% of GLA or revenues	Weak portfolio diversity; no single location, tenant, industry or economic sector > 30% of GLA or revenues	No portfolio diversity; single location, tenant, industry or economic sector > 50% of GLA or revenues
Development Pipeline (5%)	Development / Gross Assets < 5%	Development / Gross Assets < 7.5%	Development / Gross Assets < 10%	Development / Gross Assets < 15%	Development / Gross Assets < 30%	Development / Gross Assets < 40%	Development / Gross Assets > 40%
Asset Quality (5%)	Many marquis assets with superior leadership in multiple markets	Many marquis assets with excellent leadership in at least 2 markets	Good asset quality with leadership in at least 1 market	Moderate asset quality and market leadership	Limited asset quality and market leadership	Weak asset quality and market leadership	Poor asset quality and no market leadership

Rating Factor 4: Cash Flow and Earnings

Why it matters

The commercial real estate industry is cyclical and capital-intensive by nature, and real estate cash flows can therefore be volatile. Operational cash flows are ultimately reflective of the quality of a commercial real estate firm's portfolio and of its management's ability to create and enhance the value of its assets. In general, cash inflows are affected by such factors as the quality and type of the real estate portfolio, lease structures, tenant quality, the prospects for rental growth, borrowing, asset sales, equity issuance and occupancy rates. Cash outflows include operating costs, debt service, asset acquisitions, taxes, asset maintenance, dividend requirements and capital improvements. Thus, the analytical underpinnings in this factor relate to high, consistent returns with revenue growth. These are indicative of an attractive business segment, good property management and a sound business plan, which are reflected in the operating margins, efficiency, volatility of returns and earnings growth rates.

Joint ventures and fund businesses provide diversification of earnings and other means of capital access for commercial real estate firms, but can be complex structures and may create varying degrees of transparency and risk issues. In addition, a commercial real estate firm's earnings quality can be diminished if a large proportion of earnings are being generated by these structures. As a result, joint ventures and fund businesses provide a mix of ratings-positive and ratings-negative characteristics, with the exact balance being a function of the deal specifics, and the overall contribution of such deals to a commercial real estate firm's revenue stream. In modest amounts, and for the right reasons, JVs and funds can be a plus. Funds, however, which tend to be institutional investment vehicles in which the

commercial real estate firm takes a small stake, and from which the commercial real estate firm generates development, promote, management and similar fees, can best be seen as a distinct line of business, as opposed to JVs, which are more means of executing acquisitions, attracting capital, leveraging the business strategy or reducing the concentration of individually large assets. In general, commercial real estate firms tend to participate in co-investment JVs, which have relatively good transparency, and are, for the most part, evaluated on a pro rata, consolidated basis. These co-investment JVs are usually intermediate-term arrangements in which risks are shared based on the ownership percentage, often with large institutional partners. The commercial real estate firms retain the management and leasing fee income generated from the properties, and generally have a defined exit strategy for the venture. Moody's views commercial real estate firms' JV development agreements with private developers as less transparent. Under a development agreement, which are more common in the US than in other regions, the JV develops the property and, after the property has been stabilized, sells the property back to the commercial real estate firm. These JV developments are usually shorter term arrangements in which risks are not shared equally and the commercial real estate firm is usually committed to buy the property. Commercial real estate firms that are involved with development joint venture agreements are commonly evaluated on a fully consolidated basis, as these JVs are really financing vehicles.

Moody's monitors the trajectory of JV and funds revenues as a percentage of total revenues, and analyze their stability. As part of the analysis of performance, we take a material haircut (30%-100%) on income that is derived from development fees and any gains or fees from merchant building, as this type of income is more volatile than cash flow generated by the core asset-owning business of the commercial real estate firm.

How we measure it for the scorecard

The EBITDA margin is calculated by dividing year-to-date EBITDA by year-to-date revenues. The volatility of the EBITDA margin is measured by dividing the standard deviation of the EBITDA margin by the average EBITDA margin. The figures we use in the calculation include the current period's EBITDA margin and the year end EBITDA margin for at least the last five years. Fixed charge coverage is calculated by dividing year-to-date EBITDA by the year-to-date sum of interest expense, capitalized interest, preferred dividends, trust preferred distributions and preferred unit distributions. In some cases, ground rent is included in the fixed charge coverage calculation if the amount is significant. Joint venture exposure is measured by dividing year-to-date pro-rata joint venture revenues by year-to-date total revenues including pro-rata joint venture revenue.

The detail on the rating sub-factors for the Cash Flow and Earnings factor is shown below.

FACTOR 4

Cash Flow and Earnings (23.0%)

RATING	Aa	A	Baa	Ba	B	Caa	Ca
RATING SUB-FACTOR							
EBITDA Margin (6%)	EBITDA / Revenues > 75%	EBITDA / Revenues > 65%	EBITDA / Revenues > 55%	EBITDA / Revenues > 50%	EBITDA / Revenues > 35%	EBITDA / Revenues > 20%	EBITDA / Revenues < 20%
EBITDA Margin Volatility (3%)	EBITDA Margin Coefficient of Variation < 1.0%	EBITDA Margin Coefficient of Variation < 2.0%	EBITDA Margin Coefficient of Variation < 6.0%	EBITDA Margin Coefficient of Variation < 10.0%	EBITDA Margin Coefficient of Variation < 15.0%	EBITDA Margin Coefficient of Variation < 25.0%	EBITDA Margin Coefficient of Variation > 25.0%
Fixed Charge Coverage (9%)	EBITDA / (Int. Exp. + Cap. Int. + Pref. Div.) > 4.0X	EBITDA / (Int. Exp. + Cap. Int. + Pref. Div.) > 3.0X	EBITDA / (Int. Exp. + Cap. Int. + Pref. Div.) > 2.2X	EBITDA / (Int. Exp. + Cap. Int. + Pref. Div.) > 1.7X	EBITDA / (Int. Exp. + Cap. Int. + Pref. Div.) > 1.4X	EBITDA / (Int. Exp. + Cap. Int. + Pref. Div.) > 1.0X	EBITDA / (Int. Exp. + Cap. Int. + Pref. Div.) < 1.0X
Joint Venture Exposure (5%)	JV Revenue / Total Revenue < 5%	JV Revenue / Total Revenue < 10%	JV Revenue / Total Revenue < 15%	JV Revenue / Total Revenue < 20%	JV Revenue / Total Revenue < 35%	JV Revenue / Total Revenue < 50%	JV Revenue / Total Revenue > 50%

Methodology Assumptions, Limitations and Other Rating Considerations

- » Ratios presented in the scorecards are based on past results, but our ratings are forward looking incorporating financial and operating performance expectations
- » Discussion of important metrics not in the scorecard (common to all companies/industries)→ management, corporate governance, financial reporting quality, information disclosure, macro environment, litigation, regulatory trends
- » Example of factors not in the scorecard that could drive rating: Occupancy Rates or Related Party Transactions
- » Sub-factors weightings may vary from one suggested in scorecard under certain circumstances, such as external market shocks that cause liquidity to freeze

Internal Operating Environment

The dynamics of the commercial property industry require Moody's to consider, for instance, the nuances of particular property types, as noted previously. Just as critical is Moody's consideration of each issuer on its unique merits. We look at the internal operating environment for a particular issuer and focus on track record, corporate structure, management vision and risk appetite, corporate governance, joint ventures and fund businesses, and covenant considerations, which are discussed below in greater detail.

Company Track Record

How long the business has been operated as a commercial real estate firm is factored into Moody's analysis. Commercial real estate firms that have been around for a decade or more have demonstrated management's relative ability to weather adverse real estate and capital market conditions, as well as provided insight into their risk temperaments. When commercial real estate firms do not have a long

history operating as public companies, we look at how successfully the firm was managed before converting to a public company.

Ownership/Corporate Structure⁶

Major inside ownership is often viewed as a stabilizing factor to the extent that senior management is motivated to develop the company conservatively and with a long-term vision. Also of importance is the management structure of a given commercial real estate firm. Is the commercial real estate firm self-managed or externally advised? Is it fully integrated? Self-managed and fully integrated commercial real estate firms (meaning the firm is responsible itself for most key functions, such as development, acquisitions, underwriting, asset management, asset sales, finance) tend to have the most operational flexibility and less potential for conflicts of interest. For example, potential conflicts may arise when a company is externally managed pursuant to a management agreement that was not negotiated at arm's length, or when the management company manages or leases properties on behalf of third parties or itself. Management agreements are also examined to determine the motivations of managers, and whether, for example, managers are compensated for size, short-term performance or long-term performance.

For US REITs, the distinction between the traditional REIT *versus* the UPREIT structure is also considered. In assessing an UPREIT, we seek to understand the legal and accounting aspects of the structure and potential for structural subordination, the strategic rationale, and particularly any potential conflicts of interest.

Depth of Organization

Moody's analysis incorporates our evaluation of the commercial real estate firm's operating skills and technological development. This relates to how well the firm approaches operating challenges (such as tenant bankruptcies or new supply) and opportunities (such as replacement of tenants, large acquisitions and strategic mergers) in order to maximize the value of its property portfolio and business platform. We also focus on management's ability to shift resources, including the firm's informational and technological infrastructure, in response to changing market conditions. The quality, depth, and relevance of the information made routinely available to management are of particular interest.

Moody's examines how long the senior management has been a team, as well as its management style and temperament, depth and succession plans. This is especially significant when the most senior managers are approaching retirement age and have had dominant roles, such as founding the company and maintaining key relationships with tenants and financing sources. The composition, quality and independence of a commercial real estate firm's board, and the relationships among board members and management, are important to explore, and can sometimes be crucial rating drivers.

Management Vision and Risk Appetite

We review the nature, realism and success of management's long-term strategies, including plans for growth. As a means to supplement internal revenue growth, many companies actively engage in acquisition and development. Moody's assesses the related risks in the context of the commercial real estate firm's resources, capital structure and operating strategies. Our analysis considers risk factors such as market risk, project risk, and management's track record with regards to adding value. A company that grows too quickly may experience integration challenges and weaker underwriting if it has not properly enhanced its internal controls. With regards to development, Moody's considers the

⁶ "Observations Of Governance In U.S. REITs: Some Weaknesses, Getting Better", September 2005. "U.S. and Canadian Corporate Governance Assessment", August 2003.

size and mix of the pipeline relative to the company's asset base, as well as history of completing projects on time and on budget. In addition, Moody's distinguishes between those projects that are at least partially pre-leased and those that are more speculative. Insofar as a strategy appears to be aggressive, we seek to understand in greater detail how management intends to implement such a strategy. Management's track record is also scrutinized when assessing their ability to create and enhance the value of property assets and accessing the capital markets.

Investments Outside the Home Market

More commercial real estate firms around the world are expanding outside their home markets, often through JVs or funds, which can create governance, management, legal, currency, political, liquidity, tax, exit and cash flow complexities. There are also the benefits to consider: diversification, growth, leveraging a skill base into new markets, and better serving key tenants with worldwide operations. Moody's subjects these investments to a high level of scrutiny as it relates to earnings potential and risk/reward balance, and their effects on a commercial real estate firm along the lines outlined above, as well as transparency, control and tax matters. At this stage of development, we see international activities as a moderate risk. However, the strategic benefits and returns will need to be robust to compensate for the risks.

Covenant Considerations

Covenants play an important role in Moody's rating process, and they support ratings, which encompass both the likelihood of default and the severity of the loss should default occur. However, the analysis focuses first and foremost on the fundamentals of the business.

What covenants can do⁷

We believe that covenants place meaningful parameters on the amount of risk that bondholders bear. Covenants also provide management with risk guidelines. Managements' strategies and goals may change over time, but covenants, generally, will not⁸. Covenants can trigger a recapitalization or acceleration while the firm likely retains material value in its property portfolio, which should enhance recovery values for debt holders, including preferred stockholders. Also, if there is a major restructuring of a firm, its covenants may cause it to take out affected creditors.

What covenants do not do

Covenants seldom protect bondholders against event risk. Commercial real estate firms' bond covenants are not liens, and the bondholder has no control over the mix, quality or character of the unencumbered pool. Also, commercial real estate firms are vulnerable to poor governance, risky and suddenly altered business or financial strategies, adverse regulatory and tax shifts, malfeasance and similar ills to which all operating businesses are exposed. Strong covenants do not make a weak firm or business model strong, and Moody's cannot dictate or require covenants.

We monitor covenant calculations, and regularly evaluate the level of cushion a property firm has before tripping a covenant. Our evaluation of covenants has an impact on the rating and the notching between different classes of rated securities⁹. We also make a clear distinction between bank line

⁷ REIT rules in various countries (such as Japan and Singapore) also act like covenants e.g., restricting leverage and development.

⁸ Moody's notes that a handful of US REITs have altered their public bond covenants recently and we expect that more will. Changes that provide the REITs with more flexibility as it relates to total leverage and amount of secured debt is a concern. At this point, changes have tended to be on how items are defined, and these have not yet particularly concerned us. We have, however, not seen a change in REITs' overall appetite towards leverage and secured leverage. Should REITs start using the flexibility of less restrictive covenants and/or issue senior debt without key covenants (such as secured debt limits) to lever up and increase secured debt levels, reducing their unencumbered portfolio, we would expect negative rating pressure.

⁹ "REIT Rating Methodology: Notching for Differences in Priority of Claims and Integration of the Preferred Stock Rating Scale", August 2001.

covenants and bond covenants. Bank line covenants apply for a shorter term and are also easier to amend and/or renegotiate. In the USA, most bond covenants relate to leverage limits, minimum unencumbered asset levels and minimum debt service coverages. In Asia, leverage and interest coverage covenants are more common. In Europe, bond covenants largely relate to leverage, minimum unencumbered asset levels and interest coverage. Firms' attempts to loosen covenants may indicate a rise in risk appetite, and this "signaling" characteristic is an important consideration.

Moody's also notes the presence of any rating triggers or material adverse change (MAC) language in credit agreements. Such clauses are uncommon in the USA, but more prevalent in Europe and Asia. Moody's evaluates the risk that MAC clauses or rating triggers will be invoked, as such circumstances would limit access to the credit facility. The presence of rating triggers is generally viewed negatively, but we do distinguish between triggers that result in debt acceleration or limit credit facility access and those that only affect pricing.

External Operating Environment

External operating risks can include national and regional economies, the overall availability of commercial real estate credit, development, tax policy, regulation, and FX and political risks. We focus on two key areas in this section: economic environment and property market fundamentals.

Economic Environment

Real estate is a cyclical industry, generally lagging its national/local economy. Moody's looks to trends in GDP, job growth, inflation and interest rates as indicators of future space demand, or lack thereof. For instance, job growth is linked to the health of the multifamily and office sectors. The movement of interest rates, up or down, influences a property firm's ability to compete for acquisitions and its rate of growth, *inter alia*.

The health of the capital markets directly affects commercial real estate firms in particular, given their inherent need for external sources of capital. Capitalization rates and interest rates have diverse effects on commercial real estate firms' businesses. Moody's has seen that in environments where interest rates are low and in turn cap rates are low, commercial real estate firms tend to be net sellers of properties. In an environment of low cap rates a commercial real estate firm's traditional model of capital recycling (selling older or non-strategic properties and using the proceeds to buy/build newer properties or properties in strategic locations, supplemented with debt and equity issuance) can be disrupted because accretive acquisitions are difficult, if not impossible. In this environment, commercial real estate firms tend to be net sellers of assets to leveraged buyers. At the same time, commercial real estate firms face an expensive real estate market, forcing them to perhaps execute non-accretive acquisitions, de-leverage in preparation for a more appealing acquisition market later on, shifting the business model's risk up via JVs, funds and similar structures to boost nominal returns, or buying back shares and thus leverage up. While asset sales can demonstrate liquidity and strong values of investments, they may come at the expense of lower intermediate-term yields on capital, and portfolio quality (better assets are sold).

Moody's monitors such economic factors and the effects of these factors on a commercial real estate firm's capital recycling plans and overall business risk. We view using sales proceeds to de-lever as a temporary credit positive, but monitor ultimate composition and quality of a commercial real estate firm's portfolio as a result of being a net seller.

Property Market Fundamentals

Moody's ratings incorporate a level of tolerance for shifts in market fundamentals within each rating category. Trends in property market fundamentals will impact ratings if we anticipate pressures or benefits will be material and long-lasting, and such shifts are unanticipated. We examine trends in the following key areas: market vacancies; trends in rental rates, concessions and occupancy costs; supply/demand conditions, in specific, development pipelines and rate of new supply deliveries; and absorption trends. We also note demand drivers within local and regional markets, noting if there are particular concentrations in tenants or industries.

Real Estate Accounting Treatments in the Credit Analysis

As part of our analysis, Moody's adjusts an entity's financial statements to arrive at their true economic substance. In certain instances, Moody's believes that the accounting does not reflect the economic substance of a transaction and as a result, we adjust reported financial amounts to more closely reflect our view of the economics.

The main adjustments include our treatment of preferred stock¹⁰, convertible debt, *pro rata* or full consolidation of joint ventures, adjusting the historical costs basis of assets, and the desegregation of certain operations classified as "discontinued" under Statement of Financial Accounting Standards ("SFAS") No. 144, "Accounting for the Impairment or Disposal of Long-Lived Assets" from operating results.

Preferred stock has many characteristics of debt since investors are "promised" a fixed dividend. In addition, we believe, over the long term as interest rates change, preferred stock will be redeemed to adjust a commercial real estate firm's cost of capital. As a result, the debt-like characteristics tend to override the equity characteristics. When analyzing leverage, preferred stock basket allocation for debt is included in the numerator of the leverage (*i.e.*, debt plus preferred stock divided by gross assets). For the calculation of fixed charge coverage, preferred stock dividends are folded into fixed charges, especially given REITs' dividend requirements.

Joint ventures are generally treated as equity method investments¹¹ under US GAAP and IFRS. Equity method investments are reported on the balance sheet at the net investment, less any dividends paid, and adjusted for the company's proportional share of the JVs' net income or loss from the time of the investment. The JVs' income statements are also aggregated into one line item on the investor's income statement and represent the company's proportional interest in the ventures' current period net income or loss. Moody's believes this presentation tends to understate leverage and overstate operating performance. Our approach reverses the effect of equity method accounting and adjusts a company's outstanding debt and EBITDA for either its *pro rata* interest in the venture or consolidating the venture in total. Moody's evaluates the terms of the joint venture, as well as its strategic importance and long-term commitment, to determine whether to consolidate it fully or on a *pro rata* basis. International Financial Reporting Standards permit *pro rata* consolidation¹² in many instances, and as a result an adjustment is unnecessary.

¹⁰ For more details, reference Moody's Investors Service: "An Application of Moody's Tool Kit: The Analysis of Preferred Securities Issued by US Real Estate Investment Trusts (REITs)", May 2005; and "Hybrid Securities Analysis -- New Criteria for Adjustment of Financial Ratios to Reflect the Issuance of Hybrid Securities Product of the New Instruments Committee", November 2003 and "An Application of Moody's Tool Kit: Characteristics of a Basket C Perpetual Preferred for Financial Institutions and Corporates", May 2004.

¹¹ APB Opinion No. 18, "The Equity Method of Accounting for investments in Common Stock"

¹² IFRS 31, "Financial Reporting of Interests in Joint Ventures"

Moody's believes that US GAAP financial reporting can distort the true value of real estate companies' assets by representing them on a historical cost basis. In some nations, including those using International Financial Reporting Standards (IFRS), assets are regularly revalued. This, too, can create distortions, the level of which depends on how often a company revalues its assets, and the dependability of the revaluations. Also, some firms using historical values turn their assets over often, resulting more or less in market values, whereas some others have owned assets for years, whose historical costs are well below market values. In an attempt to reduce this distortion, and create a truer comparison between companies, Moody's values assets accounted for under US GAAP on a gross basis (adjusting upward for accumulated depreciation) in leverage calculations, as well as on a market value basis, using conservative adjustments. These adjustments facilitate comparisons among property companies. In addition, for those companies revaluing real estate assets with a resulting income statement impact, we eliminate the unrealized income statement impact in our analysis. This treatment is similar to that of realized gains and losses in the calculation of FFO.

SFAS No. 144 requires that the historical and current revenues and expenses, including gain or loss on sale, of a "component" of an entity (a component is considered to comprise operations and cash flows that can be clearly distinguished, operationally and for financial reporting purposes, from the larger entity) held for sale or that has been disposed of, be classified as discontinued operations. For commercial real estate firms this requirement normally results in properties held for sale or sold being classified as discontinued operations. As selling properties is a regular part of many commercial real estate firms' normal business operations, this can result in a significant amount of each period's earnings being classified as discontinued operations, with annual restatements to prior years for comparability. Moody's believes the "discontinued" classification of these activities makes it difficult to determine a commercial real estate firm's real estate property business performance and therefore we combine discontinued operations related to these core activities with the operating income from real estate properties that continue to be owned but are not classified as held for sale. Gains and losses related to the disposition of assets classified as discontinued operations are excluded from our EBITDA calculation.

In May 2008, FASB issued new guidance ("FSP APB 14-1" now "ASC 470-20") that modifies accounting for convertible debt instruments with cash settlement features¹³. This treatment became effective beginning January 1, 2009. Broadly, the new accounting treatment requires a bifurcation of a convertible instrument into two components, a discount bond and a stock warrant, in which the discount bond proceeds are classified as debt and the stock warrant proceeds are added to additional paid in capital (equity). As a result, commercial real estate firms with these instruments will report lower debt amounts and higher interest expense in their financial statements than under previous accounting rules.

Prior to this accounting change, Moody's credit metric calculations for commercial real estate firms included 100% of the convertible debt in leverage ratios and the cash interest (actual coupon) payment in fixed charge coverage ratios. As before, we will include 100% of the convertible instrument as debt in our leverage calculation. Recognizing all of the issuer's convertible debt in our analysis reflects the true debt obligation of the company. Effectively, there will be no change to Moody's leverage ratios as a result of the new accounting rule. Because the accounting change quantifies the non-convertible borrowing rate of these instruments, Moody's will now calculate two fixed charge coverage ratios. One calculation will be based on cash interest paid on convertible debt, without regard to the new accounting rule. The other fixed charge coverage ratio will be calculated based on the REIT's GAAP financial statements (currently conforming to ASC 470-20).

¹³ Refer to Moody's Special Comment, "New Accounting Rules for Convertible Debt with Cash Settlement Features: No Impact on REIT Ratings", May 2009.

Appendix 1: Using the Scorecard to Estimate Likely Rating Range

As a complement to detailed fundamental analysis necessary to develop commercial real estate firm's ratings, Moody's has utilized the backbone of the rating methodology presented herein to help users estimate the likely range into which an issuer's rating may fall, based on reference to the various rating level guidelines outlined within this methodology.

To determine the overall scorecard-indicated rating, the indicated rating for each sub-factor (i.e., Aa, A, Baa, Ba, B, Caa or Ca) is converted into a numeric value based upon the scale below.

Aa2	A2	Baa2	Ba2	B2	Caa2	Ca
3	6	9	12	15	18	20

The numerical score for each sub-factor is multiplied by the weight for that sub-factor with the results then summed to produce a composite weighted factor score. The composite weighted factor score is then mapped back to an alpha-numeric rating based on the ranges in the scorecard below.

COMPOSITE RATING	
INDICATED RATING	AGGREGATE WEIGHTED TOTAL FACTOR SCORE
Aa1	$x < 2.5$
Aa2	$2.5 \leq x < 3.5$
Aa3	$3.5 \leq x < 4.5$
A1	$4.5 \leq x < 5.5$
A2	$5.5 \leq x < 6.5$
A3	$6.5 \leq x < 7.5$
Baa1	$7.5 \leq x < 8.5$
Baa2	$8.5 \leq x < 9.5$
Baa3	$9.5 \leq x < 10.5$
Ba1	$10.5 \leq x < 11.5$
Ba2	$11.5 \leq x < 12.5$
Ba3	$12.5 \leq x < 13.5$
B1	$13.5 \leq x < 14.5$
B2	$14.5 \leq x < 15.5$
B3	$15.5 \leq x < 16.5$
Caa1	$16.5 \leq x < 17.5$
Caa2	$17.5 \leq x < 18.5$
Caa3	$18.5 \leq x < 19.5$
Ca	$x \geq 19.5$

For example, an issuer with a composite factor score of 11.7 would have a Ba2 scorecard-indicated rating. We used a similar procedure to derive the scorecard-indicated ratings in the tables embedded in the discussion of each of the four broad rating factors.

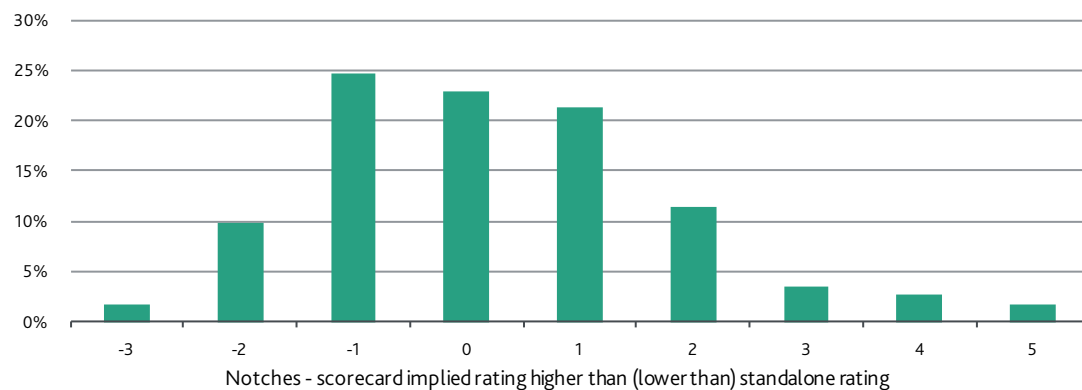
BROAD RATING FACTOR	BROAD RATING FACTOR WEIGHT	RATING SUB-FACTOR	SUB-FACTOR WEIGHT
Liquidity and Funding	24.5%	Liquidity Coverage	8.00%
		Debt Maturities	6.25%
		FFO Payout	4.00%
		Amount of Unencumbered Assets	6.25%
Leverage and Capital Structure	30.5%	Debt + Preferred/Gross Assets	9.00%
		Net Debt/EBITDA	9.00%
		Secured Debt/Gross Assets	6.25%
		Access to Capital	6.25%
Market Positioning and Asset Quality	22.0%	Franchise/Brand Name	4.00%
		Gross Assets	4.00%
		Diversity-location/tenant/industry/economic	4.00%
		Development % Gross Assets	5.00%
		Asset Quality	5.00%
Cash Flow and Earnings	23.0%	EBITDA/Revenues	6.00%
		EBITDA Margin Volatility	3.00%
		Fixed Charge Coverage	9.00%
		JV/Fund Business % Revenues	5.00%
Total	100.0%		100.0%

We note that, when comparing results of this scorecard to Moody's actual ratings, the implied rating result is within two notches of the actual rating 86% of the time. Differences between the model's rating and the actual rating may exist due to analytic judgment regarding the weighting of the factors, the importance of the other analytic considerations, or other unique fundamentals of the firm not appropriately captured or weighted by this scorecard. The scorecard implied rating, like market-implied ratings, is another input into the rating process and rating committee that offers an alternative perspective to the analyst's rating recommendation.

EXHIBIT 3

Rating Results

Rating Scorecard Implied Rating vs. Actual Rating as of July 2010



Appendix 2: Global REITs and Other Commercial Property Firms Methodology Factor Scorecard

FACTOR 1

Liquidity and Funding (24.5%)

RATING	Aa	A	Baa	Ba	B	Caa	Ca
RATING SUB-FACTOR							
Liquidity Coverage (8%)	Substantial internal liquidity; highly reliable committed available bank facilities; no need for external funding to cover at least 1 year's cash needs	Considerable internal liquidity; reliable committed available bank facilities; minimal need for external funding to cover 1 year's cash needs	Sufficient internal liquidity; committed bank facilities with ample covenant compliance room; some reliance on external funding to cover 1 year's cash needs	Adequate internal liquidity; committed bank facilities with some covenant compliance cushion or contain inhibiting language, such as a MAC or rating triggers; some reliance on external financing to cover 1 year's cash needs	Insufficient internal liquidity and committed bank facilities; must rely on external funding to cover 1 year's cash needs	Insufficient internal liquidity and committed bank facilities; must rely on external funding to cover 1 year's cash needs, access to which is uncertain	Insufficient internal liquidity and committed bank facilities; must rely on external funding to cover 1 year's cash needs, access to which is unlikely or doubtful
Debt Maturities (6.25%)	Weighted debt maturities < 10% of total debt	Weighted debt maturities < 15% of total debt	Weighted debt maturities < 20% of total debt	Weighted debt maturities < 25% of total debt	Weighted debt maturities < 40% of total debt	Weighted debt maturities < 60% of total debt	Weighted debt maturities > 60% of total debt
FFO Payout (4%)	Average dividend payout < 50% of FFO	Average dividend payout < 60% of FFO	Average dividend payout < 90% of FFO; sustained track record of reducing cash dividend payment by way of scrip dividend or dividend reinvestment plan	Average dividend payout > 90% of FFO; flexibility to reduce cash dividend payment by way of scrip dividend or dividend reinvestment plan	Average dividend payout > 100% of FFO	Average dividend payout > 110% of FFO	Average dividend payout > 120% of FFO
Amount of Unencumbered Assets (6.25%)	> 97% of assets are unencumbered	> 80% of assets are unencumbered	> 60% of assets are unencumbered	> 40% of assets are unencumbered	> 20% of assets are unencumbered	> 0% of assets are unencumbered	No unencumbered assets

FACTOR 2

Leverage and Capital Structure (30.5%)

RATING	Aa	A	Baa	Ba	B	Caa	Ca
RATING SUB-FACTOR							
Effective Leverage (9%)	Debt + Preferred / Gross Assets < 15%	Debt + Preferred / Gross Assets < 30%	Debt + Preferred / Gross Assets < 50%	Debt + Preferred / Gross Assets < 60%	Debt + Preferred / Gross Assets < 80%	Debt + Preferred / Gross Assets < 90%	Debt + Preferred / Gross Assets > 90%
Net Debt / EBITDA (9%)	Net Debt / EBITDA < 3.5X	Net Debt / EBITDA < 4.0X	Net Debt / EBITDA < 6.0X	Net Debt / EBITDA < 8.0X	Net Debt / EBITDA < 10.0X	Net Debt / EBITDA < 13.0X	Net Debt / EBITDA > 13.0X
Secured Leverage (6.25%)	Secured Debt / Gross Assets < 3%	Secured Debt / Gross Assets < 10%	Secured Debt / Gross Assets < 20%	Secured Debt / Gross Assets < 30%	Secured Debt / Gross Assets < 60%	Secured Debt / Gross Assets < 80%	Secured Debt / Gross Assets > 80%
Access to Capital (6.25%)	Superior access to all sources of private and public capital	Excellent access to all sources of private and public capital	Good access to all sources of private and public capital	Good access to many sources of capital	Sporadic access to many sources of capital	Limited access to capital	No access to capital

FACTOR 3

Market Position and Asset Quality (22.0%)

RATING	Aa	A	Baa	Ba	B	Caa	Ca
RATING SUB-FACTOR							
Franchise/Brand Name (4%)	Superior franchise / brand; sees virtually all transactions in its markets	Excellent franchise / brand; sees most transactions in its markets	Good franchise / brand; sees most transactions in its markets	Moderate franchise / brand; sees many transactions in its markets	Limited franchise / brand; sees some transactions in its markets	Weak franchise / brand	No franchise / brand
Company Size (4%)	Gross Assets > \$20 billion	Gross Assets > \$10 billion	Gross Assets > \$2 billion	Gross Assets > \$1 billion	Gross Assets > \$250 million	Gross Assets > \$100 million	Gross Assets < \$100 million
Diversity: Location / Tenant / Industry / Economic (4%)	Superior portfolio diversity; no single location, tenant, industry or economic sector > 5% of gross leasable area (GLA) or revenues	Excellent portfolio diversity; no single location, tenant, industry or economic sector > 10% of GLA or revenues	Good portfolio diversity; no single location, tenant, industry or economic sector > 15% of GLA or revenues	Moderate portfolio diversity; no single location, tenant, industry or economic sector > 20% of GLA or revenues	Limited portfolio diversity; no single location, tenant, industry or economic sector > 25% of GLA or revenues	Weak portfolio diversity; no single location, tenant, industry or economic sector > 30% of GLA or revenues	No portfolio diversity; single location, tenant, industry or economic sector > 50% of GLA or revenues
Development Pipeline (5%)	Development / Gross Assets < 5%	Development / Gross Assets < 7.5%	Development / Gross Assets < 10%	Development / Gross Assets < 15%	Development / Gross Assets < 30%	Development / Gross Assets < 40%	Development / Gross Assets > 40%
Asset Quality (5%)	Many marquis assets with superior leadership in multiple markets	Many marquis assets with excellent leadership in at least 2 markets	Good asset quality with leadership in at least 1 market	Moderate asset quality and market leadership	Limited asset quality and market leadership	Weak asset quality and market leadership	Poor asset quality and no market leadership

FACTOR 4

Cash Flow and Earnings (23.0%)

RATING	Aa	A	Baa	Ba	B	Caa	Ca
RATING SUB-FACTOR							
EBITDA Margin (6%)	EBITDA / Revenues > 75%	EBITDA / Revenues > 65%	EBITDA / Revenues > 55%	EBITDA / Revenues > 50%	EBITDA / Revenues > 35%	EBITDA / Revenues > 20%	EBITDA / Revenues < 20%
EBITDA Margin Volatility (3%)	EBITDA Margin Coefficient of Variation < 1.0%	EBITDA Margin Coefficient of Variation < 2.0%	EBITDA Margin Coefficient of Variation < 6.0%	EBITDA Margin Coefficient of Variation < 10.0%	EBITDA Margin Coefficient of Variation < 15.0%	EBITDA Margin Coefficient of Variation < 25.0%	EBITDA Margin Coefficient of Variation > 25.0%
Fixed Charge Coverage (9%)	EBITDA / (Int. Exp. + Cap. Int. + Pref. Div.) > 4.0X	EBITDA / (Int. Exp. + Cap. Int. + Pref. Div.) > 3.0X	EBITDA / (Int. Exp. + Cap. Int. + Pref. Div.) > 2.2X	EBITDA / (Int. Exp. + Cap. Int. + Pref. Div.) > 1.7X	EBITDA / (Int. Exp. + Cap. Int. + Pref. Div.) > 1.4X	EBITDA / (Int. Exp. + Cap. Int. + Pref. Div.) > 1.0X	EBITDA / (Int. Exp. + Cap. Int. + Pref. Div.) < 1.0X
Joint Venture Exposure (5%)	JV Revenue / Total Revenue < 5%	JV Revenue / Total Revenue < 10%	JV Revenue / Total Revenue < 15%	JV Revenue / Total Revenue < 20%	JV Revenue / Total Revenue < 35%	JV Revenue / Total Revenue < 50%	JV Revenue / Total Revenue > 50%

Moody's Related Research

The credit ratings assigned in this sector are primarily determined by this credit rating methodology. Certain broad methodological considerations (described in one or more secondary or cross-sector credit rating methodologies) may also be relevant to the determination of credit ratings of issuers and instruments in this sector. Potentially related secondary and cross-sector credit rating methodologies can be found [here](#).

For data summarizing the historical robustness and predictive power of credit ratings assigned using this credit rating methodology, see [link](#).

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