MOODY'S
INVESTORS SERVICE

RATING METHODOLOGY

Asset Managers Methodology

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This rating methodology replaces the *Asset Managers* methodology published in March 2019. In this update, we have revised our scoring scales for the Systemic Risk factor to align them with the scoring scales introduced in the November 2019 update to our rating methodology for sovereigns.

Introduction

In this rating methodology, we explain our general approach to assessing credit risk for asset managers globally, including the qualitative and quantitative factors that are likely to affect rating outcomes in this sector.

We discuss the scorecard used for this sector. The scorecard[1] is a relatively simple reference tool that can be used in most cases to approximate credit profiles in this sector and to explain, in summary form, many of the factors that are generally most important in assigning ratings to issuers in this sector. The scorecard factors may be evaluated using historical or forward-looking data or both.

We also discuss other rating considerations, which are factors that are assessed outside 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. In addition, some of the methodological considerations described in one or more cross-sector rating methodologies may be relevant to ratings in this sector.[2] Furthermore, since ratings are forward-looking, we often incorporate directional views of risks and mitigants in a qualitative way.

As a result, the scorecard-indicated outcome is not expected to match the actual rating for each issuer.

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

2 A link to an index of our sector and cross-sector methodologies can be found in the "Moody's Related Publications" section.

Our presentation of this rating methodology proceeds with the following:

» The scope of this methodology

» Our general approach for rating asset managers

» The scorecard framework

» A discussion of the stand-alone credit profile component

» The support considerations component

» Other rating considerations

» Assigning issuer-level and instrument-level considerations component

» Assumptions

» Limitations

Appendix A describes how we use the scorecard to arrive at a scorecard-indicated outcome. Appendix B shows a full view of the scorecard factors, sub-factors and weights. Appendix C describes how we treat performance fees in our calculation or estimation of earnings before interest, taxes, depreciation and amortization.

Scope of This Methodology

This methodology applies to asset management companies globally. Asset managers are primarily engaged[3] in managing traditional investments, such as stocks and bonds, or alternative investments. Asset managers generate revenue from management or performance fees.

This methodology does not apply to public pension funds,[4] which are rated under our methodology that describes our approach for rating government-related issuers. In addition, securities firms, including broker-dealers with commission-or fee-based financial advisory businesses, are rated under our methodologies that describe our approach for rating securities industry service providers or securities industry market makers.

Our General Approach for Rating Asset Managers

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on www.moodys.com for the most updated credit rating action information and rating history.

Our general approach to assessing the credit risk of the various obligations of asset managers is based on our assessment of a company's stand-alone credit profile, which encompasses its business profile and financial profile, its operating environment and other scorecard qualitative considerations. We also assess the nature and terms of any support from affiliates or provided to affiliates in order to arrive at an issuer rating, a senior unsecured rating or a corporate family rating (CFR).

We apply our Loss Given Default (LGD) methodology[5] and model to guide notching decisions for assigning instrument-level ratings to speculative-grade-rated asset managers in countries where that methodology

3 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.

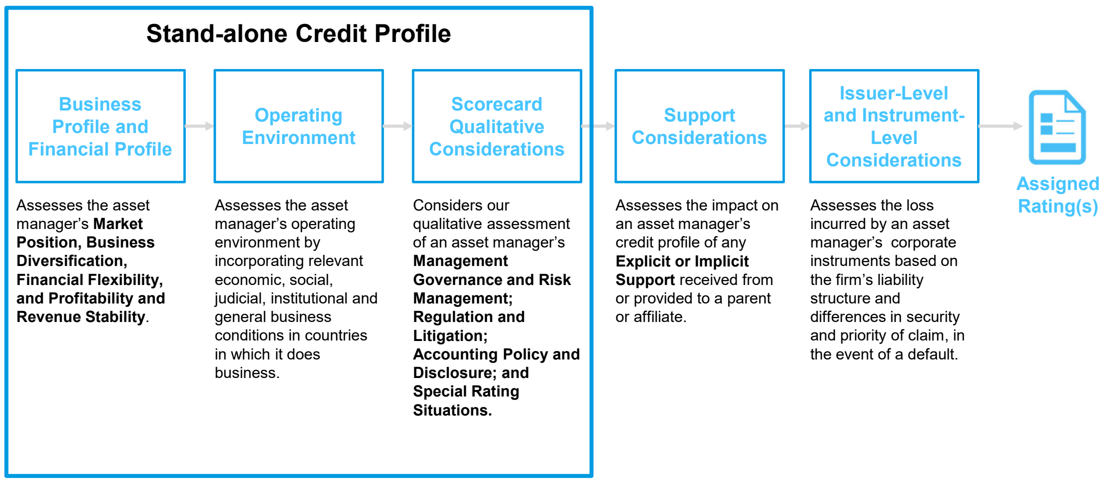
4 Public pension funds include public entities that manage investments and administer and pay underlying pension benefit obligations and public entities that only manage assets to support an underlying obligation held by a sovereign or sub-sovereign.

5 A link to an index of our sector and cross-sector methodologies can be found in the "Moody's Related Publications" section.

applies.[6] We use our methodology for aligning corporate instrument ratings based on differences in security and priority of claim for assigning instrument-level ratings to investment-grade asset managers, and where the LGD methodology does not apply.

Our general approach is illustrated in Exhibit 1.

EXHIBIT 1
General Approach to Rating Asset Managers



Source: Moody's Investors Service

Scorecard Framework

The stand-alone credit profile comprises three sub-components (Business and Financial Profile, Operating Environment and Scorecard Qualitative Considerations), all of which have factors and some of which have sub-factors.

The scorecard calculates an unadjusted score for each factor based either on a quantitative metric or a qualitative assessment. We typically populate the scorecard with an adjusted factor score, which can range from Aaa to Caa2. The unadjusted factor score is derived from the metrics and qualitative sub-factor scores, and the adjusted score incorporates additional analytical judgment.

Please see Appendix A for general information relating to how we use the scorecard and for a discussion of scorecard mechanics. The scorecard does not include every rating consideration.[7]

6 The LGD model is used for asset managers in countries where it is used for non-financial corporates.

7 Please see the "Other Rating Considerations" and "Limitations" sections.

EXHIBIT 2

Asset Managers Sector Scorecard Overview

			Weight	Aaa	Aa	A	Baa	Ba	B	Caa	Score	Adjusted Score
Business Profile			**50%**									
Factor 1	**Market Position**		**25%**									
		Scale and Franchise Strength*1	15%	≥ $10 billion	$4.5 - $10 billion	$1.5 – $4.5 billion	$0.4 – $1.5 billion	$0.2 – $0.4 billion	$0.07 – $0.2 billion	< $0.07 billion		
		AUM Resilience*2	10%									
		AUM Retention Rate	7.5%	≥ 90%	85 - 90%	80 - 85%	75 - 80%	70 - 75%	65 - 70%	< 65%		
		AUM Replacement Rate	2.5%	≥ 150%	130 - 150%	110 - 130%	90 - 110%	70 - 90%	50 - 70%	< 50%		
Factor 2	**Business Diversification**		**25%**									
		Geographic and Product Diversification*3	15%		10	8	6	4	2			
		Distribution	10%	≥ 7	6	5	4	3	2	1		
Financial Profile			**50%**									
Factor 3	**Financial Flexibility**		**30%**									
		Debt / Adjusted EBITDA*4	20%	< 0.2x	0.2 - 1x	1 - 2x	2 - 3x	3 - 4x	4 - 6x	≥ 6x		
		Total Shareholders' Equity / Self-Managed Investments	10%	≥ 90x	30 - 90x	15 - 30x	9 – 15x	6 – 9x	4 - 6x	< 4x		
Factor 4	**Profitability and Revenue Stability**		**20%**									
		Pre-tax Income Margin (five-year average)	10%	≥ 50%	33 - 50%	25 - 33%	15 - 25%	7.5 - 15%	0 – 7.5%	< 0%		
		Stability of Revenue Growth (20 quarter, year over year)	10%	≥ 300%	200 - 300%	100 - 200%	0 - 100%	(10) - 0%	(20) - (10)%	< (20)%		
Operating Environment*5												
Factor 5	Systemic Risk			2.00	1.00 - 2.00	0.50 - 1.00	0.00 - 0.50	(0.50) - 0.00	(1.00) - (0.50)	< (1.00)		
Stand-alone Credit Profile Before Qualitative Notching Factors												
Scorecard Qualitative Considerations (Notching Factors)												
Management, Governance and Risk Management												
Regulation and Litigation												
Accounting Policy and Disclosure												
Special Rating Situations												
Stand-alone Credit Profile												
Adjustments for Nature and Terms of Explicit / Implicit Support												
Scorecard-Indicated Outcome												
Notching for Priority of Claim (+ / - notches)												
Indicated Instrument-level Outcome												

*1 The Scale and Franchise Strength sub-factor is based on a quantitative Scale metric (whose scoring scale is shown above) and two qualitative considerations, Growth Potential and Competitive Position, each of which can impact notching for the sub-factor, as described in the scorecard appendix.

*2 Assets Under Management (AUM)

*3 The numeric score for Geographic and Product Diversification is calculated based on a matrix.

*4 Earnings before interest, taxes, depreciation and amortization (EBITDA). Please see below for how we adjust EBITDA.

*5 The Operating Environment (OE) is scored using the scale in the table above for Systemic Risk. The weight accorded OE in the scorecard is variable and depends on the OE score. Systemic Risk comprises three sub-factors not shown in the table. Please see the Operating Environment Subcomponent section below and Appendix A.

Source: Moody's Investors Service

Discussion of the Stand-alone Credit Profile Component

The Stand-alone Credit Profile component is one of three main components of our typical overall approach for assessing credit risk for asset managers. This component has three sub-components: Business Profile and Financial Profile, Operating Environment and Scorecard Qualitative Considerations.

Business Profile and Financial Profile Sub-component

In this sub-component, we assess an asset manager's market position, business diversification, financial flexibility, and profitability and volatility.

EXHIBIT 3

Business and Financial Profile

	FACTOR	FACTOR WEIGHTING	SUB-FACTOR	SUB-FACTOR WEIGHTING
Business Profile	Market Position	25%	Scale and Franchise Strength	15%
			AUM Resilience	10%
			AUM Retention Rate	
			AUM Replacement Rate	
	Business Diversification	25%	Geographic and Product Diversification	15%
			Geographic Diversification	
			Product Diversification	
			Distribution	10%
Financial Profile	Financial Flexibility	30%	Debt/Adjusted EBITDA	20%
			Total Shareholders' Equity / Self-Managed Investments	10%
	Profitability and Revenue Stability	20%	Pre-tax Income Margin	10%
			Stability of Revenue Growth	10%
Business and Financial Profile Sub-component Total		**100%**		**100%**

Source: Moody's Investors Service

Factor 1: Market Position (25% of sub-component score)

Why It Matters

An asset manager's market position provides important indications of its ability to withstand changes in market demand and to develop and sustain a competitive advantage.

This factor has two sub-factors:

Scale and Franchise Strength

Scale is an important indicator of a company's revenue-generating ability and its resilience to shocks, such as sudden shifts in demand. Larger-scale companies generally have more flexibility to manage their businesses under different demand scenarios or to capitalize on market opportunities.

The strength of an asset manager's business franchise has direct bearing on its growth potential and ability to withstand prolonged market downturns. A company with a weaker franchise characterized by inconsistent investment performance and limited diversification of assets under management (AUM) is more susceptible to financial stress and shifts in investor preferences than companies with differentiated product classes or distribution channels. Companies with weaker franchises also face greater challenges in sustaining client relationships.

AUM Resilience

A company's ability to maintain a stable base of assets under management that is resilient to market swings is a meaningful indicator of its ability to generate revenue and earnings. Companies with higher AUM retention rates typically have more stable revenues and earnings.

In addition, companies that consistently replace more assets with new AUM sales[8] than they lose through redemptions, excluding market fluctuations, are likely to generate higher earnings, which is a positive contributor to market position.

How We Assess It for the Scorecard — Scale and Franchise Strength

SCALE:

Scale is measured (or estimated in the case of forward-looking expectations) using total reported annual revenue in billions of US dollars. In calculating this metric, we deduct distribution expense from revenue.

EXHIBIT 4

Scale

Sub-factor	Aaa	Aa	A	Baa	Ba	B	Caa
Scale (Total Annual Revenue, USD in Millions)	≥ $10,000	$4,500 - $10,000	$1,500 - $4,.500	$400 - $1,500	$200 - $400	$70 - $200	< $70

Source: Moody's Investors Service

FRANCHISE STRENGTH:

Scoring for franchise strength is based on our assessment of the asset manager's growth potential and competitive position. We may raise or lower the Scale and Franchise Strength sub-factor score based on our assessment of Competitive Position and Growth Potential, according to the table in the matrix below (see Exhibit 5).[9]

In assessing growth potential, we typically consider the quality and sustainability of investor demand and the strength of the investment product or service. Companies with strong growth potential typically have differentiated market positions in product classes, distribution channels or geographical regions with higher long-term growth trajectories, often reflecting structural market changes (e.g., passive-investment strategies) or increased market penetration. Asset managers with weak growth potential may have a high concentration of assets in industry segments that face significant competitive or regulatory pressure or whose performance has persistently lagged behind peers and is expected to continue to do so.

In assessing competitive position, asset managers with strong product and service offerings in broad and deep markets typically receive higher scores for this sub-factor than asset managers in new, unstable or narrowly defined markets. For example, an asset manager that maintains sizable and defensible market share in its key product areas is better able to differentiate itself and strengthen its overall brand.

8 In this methodology, the term "AUM sales" refers to inflows from subscriptions.

9 Details on the scoring of this and other sub-factors is discussed in Appendix A.

Conversely, an asset manager with limited market share in its key focus areas and an undifferentiated product offering has a higher risk of asset losses due to client redemptions.

EXHIBIT 5
Franchise Strength Matrix

		Competitive Position		
		Strong	Moderate	Weak
Growth Potential	Strong	2	1	0
	Moderate	1	0	-1
	Weak	0	-1	-2

Source: Moody's Investors Service

How We Assess It for the Scorecard — AUM Resilience

RETENTION RATE:

The numerator is long-term AUM[10] at the beginning of the period minus gross long-term redemptions and net distributions, and the denominator is long-term AUM at the beginning of the period. We deduct exchanges from gross redemptions and sales when reported.[11]

In measuring or estimating the AUM retention rate, we use the equal-weighted average of the most recently reported fiscal year and the average of the three most recently reported fiscal years. Asset redemptions could be driven by the contractual nature of the invested assets, product characteristics (e.g., closed-end funds versus open-end funds), investment performance, industry competition or broad market shifts in investor preferences.

REPLACEMENT RATE:

The numerator is gross long-term AUM sales[12] in the period, and the denominator is gross long-term redemptions in the period. Exchanges are deducted from gross sales and redemptions, when reported.

In measuring or estimating the AUM replacement rate, we use the equal-weighted average of (i) the most recent trailing 12-month period and (ii) and a trailing three-year average.

EXHIBIT 6
AUM Resilience (10%)

Metric	Metric Weight	Aaa	Aa	A	Baa	Ba	B	Caa
AUM Resilience: Retention Rate	7.5%	≥ 90%	85 - 90%	80 - 85%	75 - 80%	70 - 75%	65 - 70%	< 65%
AUM Resilience: Replacement Rate	2.5%	≥ 150%	130 - 150%	110 - 130%	90 - 110%	70 - 90%	50 - 70%	< 50%

Source: Moody's Investors Service

Market Position: Analytical Adjustments

Reasons we may adjust an asset manager's market position score downward could include i) the company is highly concentrated in an industry segment that is unattractive to investors and is expected to remain so; ii)

10 Long-term AUM is total AUM minus money market AUM. Money market AUM and flows are excluded when calculating AUM retention and replacement rates.

11 An exchange occurs when outflows from a firm's product are directed into another of the same firm's products.

12 Gross long-term sales are the additional funds received by the asset manager to invest.

it is experiencing poor investment performance that constrains its ability to generate new AUM sales; or iii) it is losing control over its ability to maintain pricing power in its key product categories.

If current year AUM retention and replacement rates deteriorate meaningfully from longer-term averages, we may give more weight to the company's recent net flow trends, particularly if these are likely to be more reflective of the future.

Factor 2: Business Diversification (25% of the sub-component score)

Why It Matters

Business diversification is important because asset managers with a variety of products, geographic locations and distribution platforms generally have more flexibility to adapt to changing market conditions.

This factor has two sub-factors:

Geographic and Product Diversification

Product and geographic diversification can promote revenue and earnings stability and can help firms better withstand weaknesses in a particular product or market. The ability to provide customers with the flexibility to switch products is an indicator of strong product diversification and a robust competitive position.

Distribution

A company's control and influence over the distribution of its products are essential to attracting and retaining assets. Asset managers may distribute their products to investors directly or through financial intermediaries. A diverse distribution platform reduces a company's dependence on specific channels, thereby mitigating its vulnerability to sales disruptions. In addition, the ability to achieve leadership positions and scale in key distribution channels offers competitive advantages and is generally critical for expense management, because distribution costs are typically among an asset manager's largest expenses.

How We Assess It for the Scorecard

GEOGRAPHIC AND PRODUCT DIVERSIFICATION:

We consider an asset manager's mix of AUM by geographic region and product type. Geographic and product diversification are scored separately, each on a scale of one (low), three (medium), or five points (high), and the results are added together to produce an aggregate numeric score that corresponds to an alphanumeric score ranging from Aa2 to B2.

EXHIBIT 7
Geographic and Product Diversification Matrix (15%)

Sub-factor	Low Diversification: 1 point	Medium Diversification: 3 Points	High Diversification 5 Points
Geographic Diversification: (North America, EMEA, Latin America, and Asia-Pacific)	Weak market presence in a single region.	Strong market presence in one of the four key regions; may have concentration in one region but geographic footprint extends to other regions.	Strong market presence in at least two of the four key regions. At least a third of the company's fee revenue is generated from investors located outside the company's domestic market.
Product Diversification: (Equity, Fixed Income, Multi-Asset, Private Equity, Hedge Fund, and Other)	Poorly diversified product offerings. AUM is highly concentrated in a single product category or a few individual investment products.	Product offerings may not cover all categories, but the company maintains a competitive position in most segments in which it does compete.	Strong offerings in most of its product categories.

Source: Moody's Investors Service

How We Assess It for the Scorecard

DISTRIBUTION:

In assessing this sub-factor, we consider the number of distribution channels an asset management company has to sell its products. We typically consider a distribution channel meaningful for scoring purposes when it represents at least 10% of the company's annual gross AUM sales.

EXHIBIT 8
Distribution (10%)

Sub-factor	Sub-factor Weight	Aaa	Aa	A	Baa	Ba	B	Caa
Number of Distribution Channels	10%	≥ 7 distribution channels	6 distribution channels	5 distribution channels	4 distribution channels	3 distribution channels	2 distribution channels	1 distribution channel

Source: Moody's Investors Service

We generally classify distribution channels into two categories: retail and institutional (see Exhibit 9). Asset management companies with a variety of distribution channels tend to receive higher scores for this sub-factor than asset managers that rely on three or fewer platforms. We typically consider a granular client base a credit strength. Retail channels are generally more granular in terms of client base than institutional channels. The maximum potential score for retail-oriented asset managers is typically higher than it is for institutionally oriented asset managers, because retail-oriented managers typically have a more diversified distribution platform.

EXHIBIT 9
Distribution Channels

Retail Channels	Institutional Channels
Retail Direct	Institutional Direct
Wire Houses / Broker-Dealers	Institutional Consultant
Independent Financial Advisors	High Net Worth / Family Office
Banks / Insurance	

Source: Moody's Investors Service

Business Diversification: Analytical Adjustments

Reasons for adjusting business diversification could include our assessment of an asset manager's reliance on certain third-party intermediaries; its ranking in its key distribution channels; the size, quality, geographic diversification and experience of its sales and client service staff.

Our assessment of distribution also typically considers the degree to which invested capital is subject to long-term investment commitments. Asset managers with a high proportion of client assets in long-term, locked-up draw-down funds generally maintain greater control over distribution, which may compensate for less diversity or a more institutionally focused distribution platform.

Factor 3: Financial Flexibility (30% of the sub-component score)

Why It Matters

An asset manager's financial flexibility provides important indications of its ability to pay and refinance its debt, invest in its business, make acquisitions, meet unexpected contingencies and maintain access to the capital markets. In a competitive and regulated market, financial flexibility is critical to an asset manager's ability to pursue growth opportunities.

Asset managers typically have significant internal capacity to generate cash and modest demands for capital expenditures. Consequently, they tend to rely less heavily on debt to finance their businesses. However, acquisitions have been a primary driver of debt issuance by asset managers. In addition, share repurchases, generational ownership transfers, dividend recapitalizations, leveraged buyouts, and investing in, or lending to, funds are reasons an asset manager may incur debt.

Asset managers fall along a continuum from traditional asset managers that typically make limited use of their balance sheets to alternative asset managers that actively manage their balance sheets, often by investing alongside their clients in less liquid private market assets. Financial flexibility can be constrained or subject to significant stress if an asset manager makes significant use of its own balance sheet. In periods of market stress, declines in the market value of on-balance-sheet investments negatively affect the company's capital position.

This factor has two sub-factors:

Debt / Adjusted EBITDA

The ratio of total debt to adjusted earnings before interest, taxes, depreciation and amortization (Debt/Adjusted EBITDA) is an indicator of debt serviceability and leverage. EBITDA is commonly used in this sector as a proxy for cash flow, and debt to cash flow metrics are important indicators for asset managers' comparative financial strength.

Total Shareholders' Equity / Self-Managed Investments

The ratio of total shareholders' equity to self-managed investments provides indications of an asset manager's relative ability to cover potential losses on its on-balance-sheet investments with its base of equity capital.

How We Assess It for the Scorecard

DEBT / ADJUSTED EBITDA:

The numerator is total debt. The denominator is adjusted EBITDA.[13]

In our measurement or estimation of EBITDA, we assign only partial credit to performance fees because these fees are typically more cyclical and uncertain than base management fees (see Appendix D). The vast majority of normal operating accruals (cash and non-cash) are typically included.

EXHIBIT 10

Debt / Adjusted EBITDA (20%)

Sub-factor	Sub-factor Weight	Aaa	Aa	A	Baa	Ba	B	Caa
Debt / Adjusted EBITDA	20%	< 0.2x	0.2 - 1x	1 - 2x	2 - 3x	3 - 4x	4 - 6x	≥ 6x

Source: Moody's Investors Service

TOTAL SHAREHOLDERS' EQUITY / SELF-MANAGED INVESTMENTS:

The numerator is total shareholders' equity. Asset managers that have negative shareholders' equity typically receive a score of Caa for this sub-factor.

The denominator is weighted self-managed investments. Self-managed investments consist of on-balance-sheet investments, excluding certain consolidated variable interest entities (VIEs).[14] Cash equivalents and investments held to hedge against future compensation payment obligations are typically also excluded from the calculation of self-managed investments.

In weighting self-managed investments, we typically use fair value classifications[15] and usually haircut the value based on asset type. Level 1 assets are weighted at 33% of book value, Level 2 assets are weighted at 50% of book value and Level 3 assets are weighted at 100%.[16] We typically treat assets that are not reported based on fair value as Level 3 assets.

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13 EBITDA is pre-tax income before interest expense, taxes, depreciation and amortization. To arrive at adjusted EBITDA, we adjust performance fees earned as discussed in Appendix C.

14 VIEs are generally excluded from our assessment if the VIE is financed primarily through capital from equity and debt investors and the company has no or limited economic exposure to the VIE.

15 The designation of financial assets as Level 1, 2 or 3 is based on required footnote disclosures for financial instruments held by companies reporting under US Generally Accepted Accounting Principles (GAAP) and International Financial Reporting Standards (IFRS). These classifications provide a relative measure of liquidity. The fair value of Level 1 assets is based on unadjusted quoted prices in active markets for identical assets. The fair value of Level 2 assets is based on observable inputs other than Level 1 prices, such as quoted prices for similar assets, quoted prices in markets that are not active, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets. The fair value of Level 3 assets is based on unobservable inputs that are supported by little or no market activity (e.g., fair values are based on internal models).

16 Under US GAAP, companies can elect to use net asset value (NAV) per share as a practical expedient for measuring the fair value of certain investments. For investments measured using the NAV practical expedient, US GAAP does not require companies to disclose in their financial statements the fair value classifications for those investments. For our measure of an asset manager's self-managed investments, those investments are weighted based on the investment's redemption frequency. For investments that can be redeemed on a daily basis, we assign a weight equivalent to Level 1 (33%). For investments that can be redeemed on a monthly or quarterly basis, we assign a weight equivalent to Level 2 (50%). For investments that have longer redemption periods, we assign a weight equivalent to Level 3 (100%). We may also qualitatively adjust the score for our Total Shareholders' Equity/Self-Managed Investments metric based on the type or strategy of the investment measured using the NAV practical expedient. We treat investments for which the redemption frequency or type/strategy information is not disclosed as Level 3.

EXHIBIT 11

Total Shareholders' Equity / Self-Managed Investments (10%)

Sub-factor	Sub-factor Weight	Aaa	Aa	A	Baa	Ba	B	Caa
Total Shareholders' Equity / Self-Managed Investments	10%	≥ 90x	30 - 90x	15 - 30x	9 - 15x	6 - 9x	4 - 6x	< 4x

Source: Moody's Investors Service

Financial Flexibility: Analytical Adjustments

For asset managers that pass through corporate income, losses, deduction and credits to their shareholders for federal tax purposes, net deferred tax assets are typically considered in our qualitative adjustments because they can reduce cash tax bills in the future. In cases where the expected benefits of such assets are significant, we may assign higher scores for Financial Flexibility than the raw metrics would indicate.

We also typically consider cash and cash equivalents on hand (excluding amounts that are restricted or held for the benefit of clients) and access to alternative forms of liquidity (e.g., a committed credit facility) as sources of financial flexibility. Asset managers that consistently maintain high levels of holding company liquidity relative to expected and contingent cash needs may receive higher scores for financial flexibility than the raw metrics would otherwise suggest.

We typically consider the specific types of on-balance-sheet investments and may make an adjustment to the factor score. An asset manager that makes extensive use of its balance sheet and invests in illiquid assets would typically receive a lower score for Financial Flexibility than an asset manager that makes minimal use of its balance sheet. We typically assign higher scores for financial flexibility to asset managers that have relatively low balance-sheet risk.

Another important credit consideration is the quality of capital, particularly for asset managers that use their balance sheets aggressively. We typically consider the size of a company's equity capital and the quality of its assets. For asset managers with material co-investment exposure or high levels of illiquid assets, we also typically consider the degree to which they maintain tangible net worth to absorb unexpected losses.

For asset managers that consistently maintain large tangible equity positions, the adjusted score for financial flexibility may be higher than the raw metric would otherwise suggest. Our overall assessment for asset managers with low levels of tangible equity or negative tangible equity may be lower than the raw metric would otherwise suggest. For firms with low or negative tangible equity, offsetting considerations may include strong cash generation, which helps to build retained earnings; the ability to consistently access capital markets to raise new capital; and the use of derivatives to hedge the market risk of on-balance-sheet investments.

Other considerations that may result in adjustments to this factor score could include: i) the aggregate number and size of funds eligible to receive performance fees; ii) historical volatility of realized and unrealized performance fees; iii) management of potential claw-back liability; iv) reliance on performance fee earnings to fund ongoing operations; and v) the company's earnings distribution policy. Initial Financial Flexibility scores for asset managers with performance fee revenue streams that exhibit higher levels of volatility or that maintain aggressive distribution policies would typically be adjusted downward.

Factor 4: Profitability and Revenue Stability (20% of the sub-component score)

Why It Matters

An asset manager's profitability and revenue are critical because they greatly influence an asset manager's ability to service debt, build capital, compete, and maintain investor confidence.

This factor has two sub-factors.

Pre-tax Income Margin

The absolute level of an asset manager's profitability is an important indicator of a firm's ability to preserve or improve risk protection for creditors.

Stability of Revenue Growth

The revenue of asset managers closely tracks the performance of the financial markets and the manager's investment returns. A company that can demonstrate a track record of stable revenue growth can access the capital markets more easily and on favorable terms, allowing the company to service debt and potentially de-leverage its balance sheet under different market conditions.

The ratio of average quarterly year-over-year growth to total revenue is an indicator of the predictability and sustainability of the asset manager's overall business. This ratio is useful for comparing the stability of a firm's revenue growth with other firms and for evaluating trends.

How We Assess It for the Scorecard

PRE-TAX INCOME MARGIN:

The numerator is pre-tax income, and the denominator is total revenue. In calculating the numerator, we use a five-year historical average to smooth out earnings swings.

EXHIBIT 12

Pre-tax income Margin (10%)

Sub-factor	Sub-factor Weight	Aaa	Aa	A	Baa	Ba	B	Caa
Pre-tax Income Margin (five-year average)	10%	≥ 50%	33 - 50%	25 - 33%	15 - 25%	7.5 - 15%	0 - 7.5%	< 0%

Source: Moody's Investors Service

How We Assess It for the Scorecard

STABILITY OF REVENUE GROWTH:

We assess the stability of revenue growth by dividing the average quarterly year-over-year growth rate of total revenue over the past 20 quarters by the corresponding standard deviation.[17]

EXHIBIT 13

Stability of Revenue Growth (10%)

Sub-factor	Sub-factor Weight	Aaa	Aa	A	Baa	Ba	B	Caa
Stability of Revenue Growth	10%	≥ 300%	200 - 300%	100 - 200%	0 - 100%	-10 - 0%	-20 - -10%	< -20%

Source: Moody's Investors Service

[17] For asset managers that report semi-annually, we use 10 prior data points of half-year, year-over-year, revenue growth rates.

All else being equal, alternative asset managers usually receive higher scores for this factor than traditional asset managers because their products typically have higher revenue yields.

Higher values for this metric typically reflect more stable growth and are achieved when an asset manager has a higher growth trend relative to the standard deviation of growth rates over the measurement period. Asset managers typically receive lower scores for this sub-factor if they have (i) large exposures to asset classes with higher levels of market volatility; (ii) less stable sales and redemption patterns or more variability in their fee structures; or (iii) stable but minimal revenue growth.

Where the average revenue growth rate for a company is negative over a five-year period, scoring is based on the average growth rate, without dividing by the standard deviation. In these cases , scoring is capped at Ba.

Profitability and Revenue Stability: Analytical Adjustments

We may give more weight to the company's recent performance trends, for example, if we believe the recent performance is likely to be more reflective of the future.

Important considerations include the quality of an asset manager's earnings stability and its ability to successfully navigate the highs and lows of market cycles. A company expected to exhibit highly cyclical or less dependable earnings generation may receive a lower score for the Profitability and Revenue Stability factor than a company that generates more consistent, sustainable profits across a cycle. We also assess the volatility of an asset manager's periodic pre-tax margins using the pre-tax margin coefficient of variation (i.e., the standard deviation of pre-tax income divided by the mean of pre-tax income). Factor scores that reflect high average pre-tax margins may be adjusted downward if volatility is high.

We typically also consider whether acquisitions/divestitures may lead to a significant step-up/step-down in quarter-over-quarter revenue growth and volatility.

Operating Environment Sub-component

A key element of our analysis is the extent to which external conditions can have a meaningful influence on asset managers' credit profiles, particularly in countries where the sovereign does not have a strong credit profile. This sub-component has one factor: Systemic Risk, which comprises three sub-factors: Economic Strength, Institutions and Governance Strength, and Susceptibility to Event Risk. The score for the Operating Environment is combined with the Business Profile and Financial Profile score to arrive at the Stand-alone Credit Profile Before Qualitative Notching Factors.

Why It Matters

The operating environment sub-component captures relevant economic, social, judicial/regulatory, institutional and general operating conditions that may affect asset managers' creditworthiness. The operating environment, including trends and developments in the country or countries where the asset manager operates, such as the trajectory of economic development relative to other countries and major social or political developments can, over time, have as much of a bearing on an asset manager's long-term viability as the intrinsic strength of its own operations.

» Economic Strength: The intrinsic strength of an economy provides critical indications of a sovereign's resilience to external shocks. A sovereign's ability to generate sufficient revenue to service debt over the medium term relies on sustained economic growth and prosperity, i.e., wealth. These considerations have a direct bearing on the credit quality of asset managers' assets and their ability to remain profitable over time.

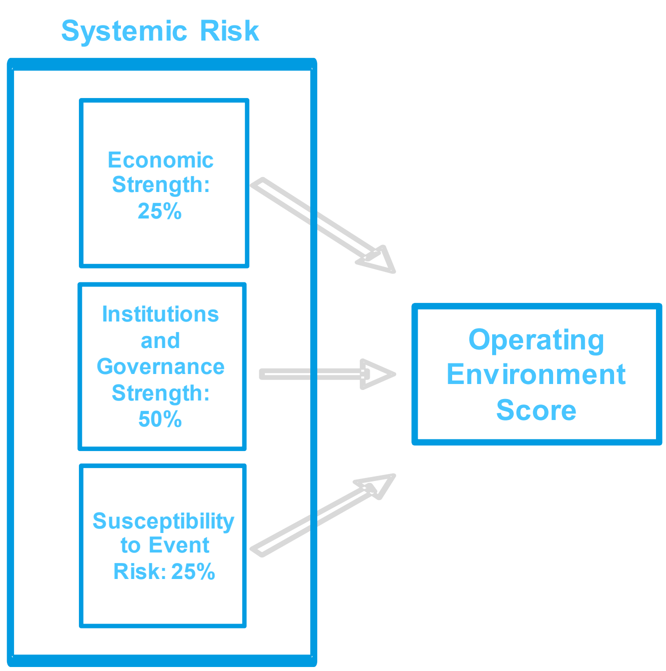
» Institutions and Governance Strength: The strength of institutions and governance are important determinants of a sovereign's creditworthiness because they influence the predictability and stability of the legal and regulatory environment, which is of importance to investors. Institutions and governance provide a strong indication of a government's willingness to repay its debt. They influence the sovereign's capacity and willingness to formulate and implement economic, fiscal and monetary policies that support growth, socioeconomic stability and fiscal sustainability, which in turn protect the interests of creditors over the long term. These are important considerations for the longer-term prospects of asset managers, and for creditors' rights.

» Susceptibility to Event Risk: Susceptibility to sudden, extreme events that could severely impact a country's economy or its institutions, or strain public finances is an important indicator of a sovereign's creditworthiness. Event risks are varied and typically include domestic political and geopolitical risks, government liquidity risk, banking sector risk and external vulnerability risk, each of which could have potentially significant negative implications for asset managers.

How We Assess It for the Scorecard

Exhibit 14 illustrates how we assess an asset manager's operating environment.

EXHIBIT 14
Operating Environment Scoring



Source: Moody's Investors Service

Factor 5: Systemic Risk

For Systemic Risk, we start with the published scores for Economic Strength, Institutions and Governance Strength (both expressed on an alphanumeric scale), and Susceptibility to Event Risk (expressed on a broad alpha scale). from our sovereign rating methodology.[18] The assigned scores are based on the country or countries in which an asset manager operates. To arrive at the Systemic Risk score, these three sub-factor scores are mapped to numeric scores and combined according to weights as described in Appendix A.

The better the operating environment, the less impact it has on an asset manager's credit profile. When the operating environment is favorable, it doesn't impinge on an asset manager's credit profile, but an asset manager must compete with other companies operating in the same environment, based on the strength of its intrinsic business and financial profile. An operating environment scored at A or better has a neutral impact on the scorecard outcome, while a weaker assessment could potentially have a negative impact. The weaker the operating environment, the greater influence it can have on an asset manager's overall credit profile, because weakness in macroeconomic and political profile of the country affects confidence in the financial system as well as the structural strength of the asset management industry and underlying contractual agreements.

Material Operations in More Than One Business Line or Country

In cases where an asset manager has material operations in more than one country, we assign a Systemic Risk score that is representative of the composite operating environment for that asset manager.

Scorecard Qualitative Considerations Sub-component

The scorecard also includes qualitative considerations that could lead to upward or downward adjustments to the Stand-alone Credit Profile Before Qualitative Notching Factors before arriving at the Stand-alone Credit Profile. There are four factors: Management, Governance and Risk Management, Regulation and Litigation, Accounting Policy and Disclosure and Special Rating Situations.

We may incorporate these factors in the scorecard as one or more direct notching adjustments to the Stand-alone Credit Profile Before Qualitative Notching Factors, or no notching may be applied. Notching adjustments may be upward or downward, as described below. All adjustments are in whole notches. Typically, adjustments are limited to one notch, but downward notching could be greater if there are multiple or serious issues. For clarity, these notching adjustments relate to credit considerations whose effects are not fully reflected in the Stand-alone Credit Profile Before Qualitative Notching Factors scoring (i.e., they are not double-counted).

Management, Governance and Risk Management

We consider an asset manager's management, governance and risk management as part of our credit assessment. Our assessment may include the following considerations:

» Key-person risk. A high dependence on a single executive or group of executives can pose increased risks, because the loss of a single person could adversely affect the asset manager's future fundamentals. For example, an asset manager whose customers closely associate an investment professional with the institution itself could suffer loss of business and earnings if the investment professional were to leave, absent adequate succession planning.

» Strategy and management. A radical departure in strategy, a shake-up in management, or an untested team can all herald sudden change that increases the uncertainty about risk profile. An aggressive growth plan can also signal an elevated risk appetite, while clear weaknesses in risk management can

[18] A link to an index of our sector and cross-sector rating methodologies can be found in the "Moody's Related Publications" section.

increase exposure to adverse developments. Any concerns regarding the rigor of Board or management oversight may also be considered here.

» Dividend policy. An aggressive dividend policy may imply reduced financial flexibility. Management teams are often slow to reduce established dividend levels out of concern over negative signaling and adverse share price impact. Management may also be slow to pare back share repurchase programs; however, the timing and certainty of execution of even announced buyback programs leaves greater management discretion.

» Compensation policy. An aggressive compensation policy may encourage short-term risk-taking behavior to the detriment of bondholders. An example could be widespread use of high bonuses relative to salaries, especially bonuses skewed towards cash.

We may also adjust the Stand-alone Credit Profile Before Qualitative Notching Factors upward, for example where we perceive sustained exemplary stewardship over time, or exceptional risk management and controls, with a tangible impact on the asset manager's risk profile.

Regulation and Litigation

Asset managers are subject to financial, consumer and other regulations as well as litigation. Each country or region has its own market nuances that reflect the local political, social and economic climates. These include the regulatory environment, taxation, accounting rules and public reporting requirements, laws and the litigation environment. Our view of regulations plays an important role in our expectations of future financial metrics as well as our confidence level in the ability of an issuer to generate sufficient cash flows relative to its debt burden over the medium and longer term. In cases where regional and national regulatory and legal considerations are not already captured in our scoring, we may incorporate them as notching adjustments.

Accounting Policy and Disclosure

Relevant and timely financial information is a critical part of any financial analysis. The metrics used in the rating methodology are typically calculated from data derived from company financial statements based on Generally Accepted Accounting Principles (GAAP) or International Financial Reporting Standards (IFRS), or other publicly available data. In certain cases, we may consider non-GAAP/non-IFRS financial information, including pro forma figures, particularly for issuers entering into leveraged buyouts, recapitalizations or other transforming events, where we expect the future financial profile to differ materially from historical results.

The consistent application of accounting principles is of fundamental importance to financial analysis. When evaluating such principles, we consider how well financial reporting mirrors economic reality. Where we believe the economics of a transaction or a business are not consistent with financial reporting, we may adjust financial statements accordingly. In some cases, we may incorporate these considerations as notching adjustments.

Special Rating Situations

In a few, very special – and typically adverse – situations, a single rating factor or sub-factor may be so important to a company's financial health and solvency that it overrides all of the others, despite its nominal weighting in the scorecard. This would typically occur in highly adverse situations, where a company's solvency or liquidity is at stake. Examples of this would include concerns of a looming liquidity crisis – e.g., a material debt maturity with highly uncertain source of repayment.

Special rating situations often deal with information that is not necessarily captured by point-in-time ratios, or annual / quarterly regulatory or reporting requirements. For this reason, we incorporate these considerations as notching adjustments.

One special rating situation is the impact of the sovereign on the credit profile of the asset manager. Please see our cross-sector methodology that describes our approach for assessing the impact of sovereign credit quality on other ratings.[19]

Support Considerations Component

In this component of our overall approach to assessing credit risk for asset managers, we assess the nature and terms of any support from affiliates, or provided to affiliates, in order to arrive at an issuer rating, a senior unsecured rating or a corporate family rating (CFR).

In addition to the intrinsic credit profile of a given issuer, we assess explicit or implicit support received from or provided to a parent company or affiliate. Such inward or outward support can lead to an upward or downward adjustment to the issuer's rating. The extent of any adjustment pertaining to a parent or affiliate depends on our view of the relative credit strengths of the entities involved; the importance of the asset manager to the overall group; the degree of business integration between the asset manager and the group; the willingness of the support provider to pay when called upon; and, in the case of explicit support, the terms and enforceability of the contract(s), including the potential for termination.

Please see our cross-sector methodologies that discuss credit substitution, credit considerations in the absence of legally binding support and government-related issuers.[20]

Other Rating Considerations

Ratings may include 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. 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.

Asset Managers With Limited Financial History

Most rated asset managers have many years of financial history and lengthy operating track records that generally act as the basis for our forward-looking credit analysis. Asset managers with limited financial history may undergo rapid evolution initially, before developing readily distinguishable and stable operating characteristics. Asset managers are highly confidence-sensitive. A demonstrable track record can be

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19 A link to an index of our sector and cross-sector rating methodologies can be found in the "Moody's Related Publications" section.

20 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 an index 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.

instrumental in building customer and market trust, which creates franchise value and supports the asset manager's performance during a down cycle.

The franchise value of start-up asset managers is usually weak, and most tend to lack product depth, market share, operating experience as an institution (rather than as a collection of individuals) and a record of resilience through a full credit cycle. Their systems, policies and procedures tend to be less robust than those of established asset managers.

For start-ups that lack a financial history of at least several years and in cases of a material transformation in an asset manager's business, such that its financial history does not provide a good indication of future results (collectively, asset managers with limited financial history), existing financial history provides less insight into the future credit profile. In these cases, our baseline projections may reflect more conservative expectations than management's projections. In addition, we are likely to make downward adjustments to several factors in the scorecard to reflect the considerable uncertainty around our baseline expectations of future operations and financial profile. To the extent these risks and uncertainties are not fully captured in the scorecard, they may be reflected in an assigned standalone assessment that is lower than the scorecard-indicated outcome.

Asset managers with limited financial history may benefit from external support. When material, we incorporate that support into our ratings. In assessing the level of expected support, we generally consider whether the asset manager's status as a start-up could affect the willingness of the support provider to step in should support be needed. For a highly publicized start-up subsidiary of a parent with a solid credit profile, we may expect a high level of support. Conversely, certain parent companies and affiliates could be less willing to provide support if the reputational and financial risks attached to failure of an early-stage business venture were lower than for subsidiaries with long track records and entrenched businesses in their home markets. We generally expect that governmental support for start-ups, typically small players in the early years of operations that are not systemically important, to be low. Exceptions could include government-owned start-ups and start-up asset managers of long-term strategic importance to government policy initiatives.

Environmental, Social and Governance Issues

Environmental, social and governance (ESG) considerations may affect the ratings of asset managers. For information about our approach to assessing ESG issues, please see our methodology that describes our general principles for assessing these risks.

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 statements or delays in regulatory filings may indicate weaknesses in internal controls.

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. A record of consistency provides insight into management's likely future performance in stressed situations and can be an indicator of management's tendency to depart significantly from its stated plans and guidelines.

Excess Cash Balances

Asset managers 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.

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 asset managers 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 asset manager's 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 asset managers than for highly rated asset managers due to differences in credit stability and the typically shorter distance from potential default for issuers at the lower end of the ratings spectrum.

Liquidity

Liquidity is an important rating consideration for all asset managers, 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. 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.[21]

Additional Metrics and Stress Scenarios

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.

Developing a forward-looking view of an asset manager's financial performance is important to our assessment of financial strength. Our expectations of an asset manager's results over the medium term reflect our opinion of current and projected market conditions, the nature of an asset manager's operating and business profile as well as its product offerings. In developing any projections that we may use, we may stress market return, organic growth and fee rate projections, should market conditions show signs of shifting, in order to gauge the impact on the asset manager's financial flexibility and performance. We may also use ad hoc scenarios. In addition, we may have differing levels of confidence in any particular scenario, expected or stress, that we may run.

[21] A link to an index of our cross-sector methodologies can be found in the "Moody's Related Publications" section.

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 risks include M&A, asset sales, spin-offs, litigation, significant cyber-crime events and shareholder distributions.

Assigning Issuer-Level and Instrument-Level Ratings Component

After considering the scorecard-indicated outcome, support provisions, 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 government-related issuers, we may assign a Baseline Credit Assessment. In addition to global scale ratings, we may also assign national scale ratings.[22]

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.[23] In addition, asset managers' non-cumulative preferred securities with a strong mandatory coupon skip trigger are typically rated one notch below preferred stock that does not have these features.

We may also assign a Counterparty Risk Rating (CRR) to an asset management company.[24] CRRs may be assigned to entities that have CRR liabilities, whether at the holding company level or at the operating company level. For asset management companies that we expect would be subject to a standard corporate insolvency or bankruptcy process, the CRR would typically be assigned at the same level as the entity's issuer rating or senior unsecured debt rating. Any positive differential between the CRR and the issuer rating or senior unsecured debt rating would depend on our view of the likelihood that CRR liabilities would receive preferential treatment relative to other senior unsecured debt and debt-like obligations.

Assumptions

Key rating assumptions that apply in this sector include our view that sovereign credit risk is strongly correlated with that of other domestic issuers, that legal priority of claim affects average recovery on different classes of debt sufficiently to generally warrant differences in ratings for different debt classes of the same issuer, and the assumption that access to liquidity is a strong driver of credit risk.

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

[22] For an explanation of the Baseline Credit Assessment and national scale ratings, please refer to *Rating Symbols and Definitions* and to our cross-sector methodologies for government-related issuers and national scale ratings. A link to an index 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.

[23] A link to an index of our sector and cross-sector methodologies can be found in the "Moody's Related Publications" section.

[24] Please see *Rating Symbols and Definitions* for a description of CRRs and CRR liabilities (for a link, please see the "Moody's Related Publications" section).

environment, general financial market conditions, industry competition, disruptive technology, or regulatory and legal actions.

Limitations

In the preceding sections, we have discussed the scorecard factors, many of the other rating considerations that may be important in assigning ratings, and certain key assumptions. 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 tool focused on indicators for relative credit strength. 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 Rating 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.[25] 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. In any case, predicting the future is subject to substantial uncertainty.

[25] A link to an index of our sector and cross-sector methodologies can be found in the "Moody's Related Publications" section.

Appendix A: 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,[26] 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 ratios,[27] unless otherwise indicated, are typically calculated based on a 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[28] 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 Business and Financial Profile Factors to a Numeric Score

After estimating or calculating each sub-factor, the outcomes for each of the weighted sub-factors are mapped to a broad Moody's rating category (Aaa, Aa, A, Baa, Ba, B or Caa, also called alpha categories) or to an alphanumeric category (e.g., Baa1) and to a numeric score.

Quantitative sub-factors are generally scored on a linear continuum; however, if the metric reaches the respective thresholds for Aaa and Caa scores, the numeric score for the metric is at the Aaa or Caa midpoint. 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.

EXHIBIT 15

Numeric Score

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

The midpoint numeric value of each alpha score is shown below.

26 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.

27 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.

28 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.

EXHIBIT 16

Midpoint Numeric Value

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

Source: Moody's Investors Service

In the Market Position factor, the Scale and Franchise Strength sub-factor is composed of the quantitative Scale metric, which is modified by each of the qualitative Growth Potential and Competitive Position considerations. These are scored in three categories: Strong raises the sub-factor score by one alphanumeric notch; Moderate has no effect on the sub-factor score; and Weak lowers the sub-factor score by one alphanumeric notch.[29]

The Business Diversification factor comprises the Geographic Diversification and Product Diversification and Distribution channels sub-factors. Qualitative sub-factor considerations for Geographic Diversification and Product Diversification are scored separately, each in three categories with a corresponding numeric value: high (5), medium (3), low (1). The scores are summed and mapped to an alphanumeric and a scorecard numeric value for Geographic and Product Diversification, according to the table below.

EXHIBIT 17

Geographic and Product Diversification Mapping

Combined Geographic and Product Diversification	10	8	6	4	2
Alphanumeric	Aa2	A2	Baa2	Ba2	B2
Scorecard Numeric Value	3	6	9	12	15

Source: Moody's Investors Service

For the Distribution Channels sub-factor, the potential number of channels ranges from 1 to 7, which is mapped to an alphanumeric and a scorecard numeric value according to the table below. The alphanumeric score for Business Diversification corresponds to its scorecard numeric value which is the weighted average of the scorecard numeric values for Product and Geographic Diversification (60% weight) and Distribution (40% weight).

EXHIBIT 18

Distribution Channels Mapping

Number of Distribution Channels	7	6	5	4	3	2	1
Alphanumeric	Aaa	Aa2	A2	Baa2	Ba2	B2	Caa2
Scorecard Numeric Value	1	3	6	9	12	15	18

Source: Moody's Investors Service

The initial factor scores are calculated as a weighted average of the sub-factor scores, based on the weights shown in Exhibit 2. As described in the discussion of the scorecard factors, factor scores may be adjusted.

29 Raising the score by one alphanumeric notch means that the sub-factor numeric score is reduced by one (e.g., from 10.23 to 9.23); lowering the score by one alphanumeric notch means that the sub-factor numeric score is raised by one (e.g., from 10.23 to 11.23).

When the adjusted alphanumeric score is assigned at a different level than the alphanumeric equivalent of the initial score, the numerical equivalent of the assigned score is calculated as follows:

Initial numeric score + (Midpoint numeric value of the assigned alphanumeric score – Midpoint numeric value of the initial alphanumeric score)

The midpoint numeric value of each alphanumeric score is shown in the table below.

EXHIBIT 19

Alphanumeric Score Midpoints

Aaa	Aa1	Aa2	Aa3	A1	A2	A3	Baa1	Baa2	Baa3
1	2	3	4	5	6	7	8	9	10

Ba1	Ba2	Ba3	B1	B2	B3	Caa1	Caa2	Caa3
11	12	13	14	15	16	17	18	19

Source: Moody's Investors Service

For example, if the initial Market Position factor numeric score is 10.94, it maps to Ba1 according to Exhibit 22. The midpoint numeric value of Ba1 is 11 per the table above. If the assigned score is Ba3, which has a midpoint numeric value of 13, the factor numeric score is equal to the initial numeric score (10.94) plus the difference between 13 and 11 (i.e., +2), yielding 12.94 as the assigned score numeric value. Alternately, if the assigned score is Baa2, which has a midpoint numeric value of 9, the factor numeric score is equal to the initial numeric score (10.94) plus the difference between 9 and 11 (i.e., -2), yielding 8.94 as the assigned score numeric value.

Initial and adjusted overall Business and Financial Profile scores are calculated, respectively, as a weighted average of the initial factors and a weighted average of the adjusted factor scores.

3. Assigning the Operating Environment Factor Scores

The Operating Environment sub-component incorporates one factor, Systemic Risk, the scoring of which is derived by combining the sub-factor scores for Economic Strength (25%), Institutions and Governance Strength (50%), and Susceptibility to Event Risk (25%).

In scoring Systemic Risk, we start with the published scores for a sovereign's Economic Strength and Institutions and Governance Strength, which are expressed on an alphanumeric scale, and Susceptibility to Event Risk, which is expressed on a broad alpha scale. We then convert these three scores to numeric scores using the two Mapping Sovereign Rating Methodology tables below (Exhibits 20 and 21). The numeric score for Systemic Risk is the weighted average of the numeric scores according to the weights described in the prior paragraph.

EXHIBIT 20

Mapping Sovereign Rating Methodology Scoring for Economic Strength and Institutions and Governance Strength*

ECONOMIC STRENGTH AND INSTITUTIONS AND GOVERNANCE STRENGTH	NUMERIC EQUIVALENT
aaa – a1	2
a2 – baa1	1
baa2 – ba2	0
ba3 – b2	-1
b3 – ca	-2

*The effect of this mapping is to compress the alphanumeric sovereign factor scores and convert them to a numeric score for use in the scorecard for asset managers.

Source: Moody's Investors Service

EXHIBIT 21

Mapping Sovereign Rating Methodology Scoring for Susceptibility to Event Risk

SUSCEPTIBILITY TO EVENT RISK	NUMERIC EQUIVALENT
aaa, aa	2
a, baa	1
ba	0
b	-1
caa, ca	-2

Source: Moody's Investors Service

The numeric score for Systemic Risk, which ranges between 2 and -2, is mapped to the alphanumeric score for the Operating Environment as shown in the table below. For example, scoring Economic Strength, Institutions and Governance Strength and Susceptibility to Event Risk as a2, a3 and aa , respectively, results in a numeric score of 1.25 for Systemic Risk, corresponding to a Aa3 initial Operating Environment score.

EXHIBIT 22

Operating Environment – Systemic Risk

Alphanumeric	Numeric Score
Aaa	2.00
Aa1	1.67 – 2.00
Aa2	1.33 – 1.67
Aa3	1.00 – 1.33
A1	0.83 – 1.00
A2	0.67 – 0.83
A3	0.50 – 0.67
Baa1	0.33 – 0.50
Baa2	0.17 – 0.33
Baa3	0.00 – 0.17
Ba1	(0.17) – 0.00
Ba2	(0.33) – (0.17)
Ba3	(0.50) – (0.33)
B1	(0.67) – (0.50)
B2	(0.83) – (0.67)
B3	(1.00) – (0.83)
Caa2	< (1.00)

Source: Moody's Investors Service

The calculated Systemic Risk score is the initial Operating Environment score, and an adjusted alphanumeric Operating Environment score is also assigned, with a numeric value mapped according to Exhibit 23.

EXHIBIT 23

Operating Environment Assigned Score Equivalents

Alphanumeric Score	Numeric Score
Aaa	1
Aa1	2
Aa2	3
Aa3	4
A1	5
A2	6
A3	7
Baa1	8
Baa2	9
Baa3	10
Ba1	11
Ba2	12
Ba3	13
B1	14
B2	15
B3	16
Caa2	18

Source: Moody's Investors Service

Combining the Operating Environment Score to Form the Stand-alone Credit Profile Before Qualitative Notching Factors

The score for the Operating Environment is combined with the Business Profile and Financial Profile score to arrive at the Stand-alone Credit Profile Before Qualitative Notching Factors. The Operating Environment is assigned a 0% weight if the Operating Environment Score is A or higher. The weight attributed to the operating environment score in determining the scorecard-indicated outcome is variable and increases progressively from Baa to Caa, as shown in the table below.

EXHIBIT 24

Operating Environment Mapping

	Aaa	Aa	A	Baa	Ba	B	Caa
Operating Environment Weights	n/a	n/a	n/a	20%	40%	60%	80%

Source: Moody's Investors Service

The initial Business and Financial Profile score is multiplied by one minus the Operating Environment weight and is added to the initial Operating Environment numerical score multiplied by Operating Environment weight, to arrive at an initial numerical score which is mapped using the rating scale to the alphanumeric score for the initial Stand-alone Credit Profile Before Qualitative Notching Factors. A similar calculation is used for the adjusted Business and Financial Profile score and the adjusted Operating Environment score to arrive at the adjusted Stand-alone Credit Profile Before Qualitative Notching Factors.

4. Qualitative Notching Factors and Support

The adjusted Stand-alone Credit Profile Before Qualitative Notching Factors numeric score is combined with the notching adjustment for each scorecard qualitative consideration to arrive at the Stand-alone Credit Profile. Notching adjustments may be upward or downward and are in whole notches. A single upward notch raises the alphanumeric Stand-alone Credit Profile Before Qualitative Notching Factors by one category, e.g. from Baa3 to Baa2, and subtracts one from the numeric Stand-alone Credit Profile Before Qualitative Notching Factors score, e.g. from 10.23 to 9.23.

Similarly, we may incorporate support in the scorecard as one or more direct notching adjustments to the Stand-alone Credit Profile Before Qualitative Notching Factors to arrive at the scorecard-indicated outcome.

5. Determining the Overall Scorecard-Indicated Outcome

The numeric scorecard-indicated outcome is mapped back to an alphanumeric scorecard-indicated outcome based on the ranges in the table below.

EXHIBIT 25

Scorecard-Indicated Outcome

Alphanumeric Scorecard-Indicated Outcome	Scorecard Indicated Outcome Ranges
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 overall 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.[30]

[30] A link to an index 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.

Appendix B: Asset Managers Sector Scorecard

Scorecard Factors and Weights

Asset Managers

		Weight	Aaa	Aa	A	Baa	Ba	B	Caa	Score	Adjusted Score
Business Profile		**50%**									
Factor 1	**Market Position**	**25%**									
	Scale and Franchise Strength[*1]	15%	≥ $10 billion	$4.5 - $10 billion	$1.5 – $4.5 billion	$0.4 – $1.5 billion	$0.2 – $0.4 billion	$0.07 – $0.2 billion	< $0.07 billion		
	AUM Resilience[*2]	10%									
	AUM Retention Rate	7.5%	≥ 90%	85 - 90%	80 - 85%	75 - 80%	70 - 75%	65 - 70%	< 65%		
	AUM Replacement Rate	2.5%	≥ 150%	130 - 150%	110 - 130%	90 - 110%	70 - 90%	50 - 70%	< 50%		
Factor 2	**Business Diversification**	**25%**									
	Geographic and Product Diversification[*3]	15%		10	8	6	4	2			
	Distribution	10%	≥ 7	6	5	4	3	2	1		
Financial Profile		**50%**									
Factor 3	**Financial Flexibility**	**30%**									
	Debt / Adjusted EBITDA[*4]	20%	< 0.2x	0.2 - 1x	1 - 2x	2 - 3x	3 - 4x	4 - 6x	≥ 6x		
	Total Shareholders' Equity / Self-Managed Investments	10%	≥ 90x	30 - 90x	15 - 30x	9 – 15x	6 – 9x	4 - 6x	< 4x		
Factor 4	**Profitability and Revenue Stability**	**20%**									
	Pre-tax Income Margin (five-year average)	10%	≥ 50%	33 - 50%	25 - 33%	15 - 25%	7.5 - 15%	0 – 7.5%	< 0%		
	Stability of Revenue Growth (20 quarter, year over year)	10%	≥ 300%	200 - 300%	100 - 200%	0 - 100%	(10) - 0%	(20) - (10)%	< (20)%		
Operating Environment[*5]											
Factor 5	Systemic Risk		2.00	1.00 - 2.00	0.50 - 1.00	0.00 - 0.50	(0.50) - 0.00	(1.00) - (0.50)	< (1.00)		
Stand-alone Credit Profile Before Qualitative Notching Factors											
Scorecard Qualitative Considerations (Notching Factors)											
Management, Governance and Risk Management											
Regulation and Litigation											
Accounting Policy and Disclosure											
Special Rating Situations											
Stand-alone Credit Profile											
Adjustments for Nature and Terms of Explicit / Implicit Support											
Scorecard-indicated Outcome											
Notching for Priority of Claim (+ / - notches)											
Indicated Instrument-level Outcome											

*1 The Scale and Franchise Strength sub-factor is based on a quantitative Scale metric (whose scoring scale is shown above) and two qualitative considerations, Growth Potential and Competitive Position, each of which can impact notching for the sub-factor, as described in the scorecard appendix.

*2 Assets Under Management (AU M)

*3 The numeric score for Geographic and Product Diversification is calculated based on a matrix.

*4 Earnings before interest, taxes, depreciation and amortization (EBITDA). Please see below for how we adjust EBITDA.

*5 The Operating Environment (OE) is scored using the scale in the table above for Systemic Risk. The weight accorded OE in the scorecard is variable and depends on the OE score. Systemic Risk comprises three sub-factors not shown in the table. Please see the Operating Environment Subcomponent section below and Appendix A.

Source: Moody's Investors Service

Appendix C: Treatment of Performance Fees in Our Calculation or Estimation of EBITDA

Asset managers receive fees for managing the assets of retail and institutional investors. These fees typically take two forms: management fees and performance fees. For many traditional asset managers, total revenue consists almost exclusively of management fees, which are generally charged as a percentage of the assets under management and are not directly based on performance.

However, for alternative asset managers, the primary business objective is to earn performance or incentive fees (in certain situations reflected as carried interest), which may be earned if an asset manager's investment performance exceeds certain predetermined thresholds. Performance fees are often a multiple of an alternative asset manager's management fee.

Performance fees comprise two components: realized performance fees and accrued performance fees, otherwise referred to as unrealized performance fees. Realized performance fees are generated when a carry fund that is "in carry" mode has a distribution event and a portion of that gain is paid to the manager.[31] Unrealized performance fees represent the accrued balance of performance fees that a fund would generate if it sold all its assets at fair market value. We recognize that unrealized performance fees may be reduced by market movements, and we consider how effective a manager has been in converting accrued performance fees into realized performance fees.

For asset managers that generate performance fees on assets that they manage, we calculate an alternate measure of EBITDA to reflect the greater cyclicality and uncertainty of performance fees compared to management fees. To calculate adjusted EBITDA, we deduct the current year's net performance fees from EBITDA, and add back an average of the net performance fees for the previous five years, haircut by 25% due to their inherent volatility. We believe that looking at performance fees over a longer time horizon provides a better indication of a firm's long-term performance fee earnings potential and the expected stability of performance fee earnings.

[31] A carry fund is a fund that is eligible to earn performance fees.

Moody's Related Publications

Credit ratings are primarily determined by 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. An index 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.

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