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Moody's Global Rating Methodology for Life Insurers

Summary

Globally, Moody's rates over 200 life insurance companies, with approximately $286 billion of rated securities and over $5,700 billion of insurance liabilities as of December 31, 2005. These ratings reflect Moody's opinions of these institutions' creditworthiness, which considers both business and financial fundamentals for each rated company. The primary purpose of this rating methodology is to enhance the transparency of Moody's rating process by identifying and discussing the key factors that explain our ratings of life insurers globally and how those key factors are used.

Because the methodology applies globally, it is necessarily general in some respects and is not intended to be an exhaustive discussion of all factors that Moody's analysts consider in every life insurer's rating. Regulatory, accounting, and product characteristics can vary widely from country to country and Moody's rating approach takes account of such differences, including the financial metrics that correspond to particular rating categories. This methodology contains several sections that summarize the key differences in Moody's rating approach by region. It will be supplemented, over time, by additional clarifying methodologies focusing on local analytic factors (e.g., regulatory and accounting) as appropriate, including the top ratios used to rate companies within particular regions.

Moody's approach to rating the various obligations of life insurance organizations is rooted in an assessment of the financial strength of the main operating units within that organization. This methodology is, therefore, intended primarily to explain Moody's approach to assigning insurance financial strength ratings to operating insurers. Specifically, the methodology assists in developing a financial strength rating for a stand-alone entity before consideration of parental support. The methodology is also applicable to the life insurance business of composite insurers, which engage in other insurance operations in addition to life insurance. Other ratings that may be assigned within the group (e.g., on senior unsecured debt issued by the insurer or its parent company) are typically determined with reference to the insurance financial strength ratings of the group's main subsidiaries.

Moody's Investors Service
Global Credit Research

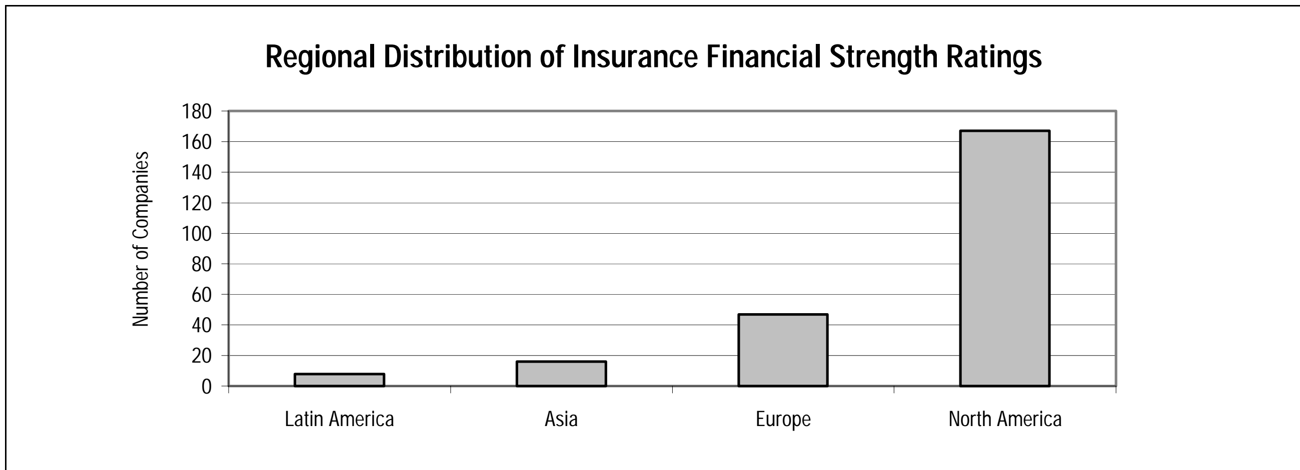
In rating life insurers on a stand-alone basis, Moody's focuses on both qualitative and quantitative characteristics in the following areas:

Business Profile	Financial Profile
Factor 1: Market Position and Brand	Factor 4: Asset Quality
Factor 2: Distribution	Factor 5: Capital Adequacy
Factor 3: Product Focus and Diversification	Factor 6: Profitability
	Factor 7: Liquidity and ALM
	Factor 8: Financial Flexibility

MOODY'S LIFE INSURANCE RATED UNIVERSE

Globally, Moody's has assigned Insurance Financial Strength (IFS) ratings to 238 life insurance companies. The IFS ratings are assigned to life insurance operating companies and are Moody's opinions of the ability of insurance companies to repay punctually senior policyholder claims and obligations. Of the rated life insurers, 167 (70%) are domiciled in North America, 44 (18%) in Europe, 17 (7%) in Asia, and 10 (4%) in Latin America.

Life insurance is a highly ratings-sensitive industry, and the distribution of ratings is strongly clustered in the higher investment-grade rating range. The average IFS rating globally is A1. Only 15% of the total IFS ratings are rated below A and fewer than 6% are rated below Baa.



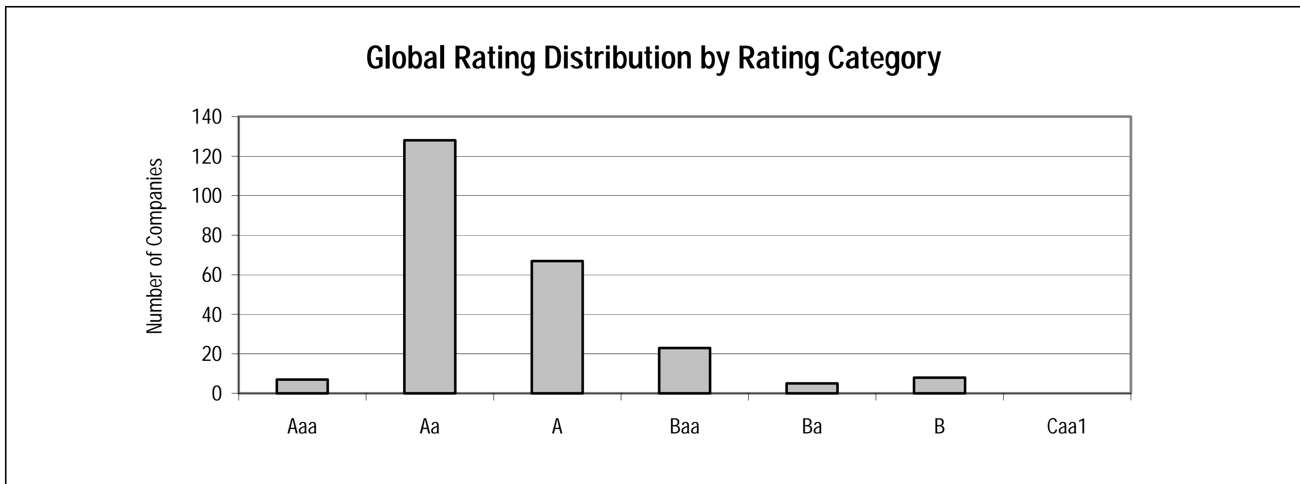


Table of Contents

Page

Framework for Rating Life Insurers 4

Rating Summary Profile 4

Key Rating Factors — Business Profile 6
- Factor 1: Market Position and Brand 6
- Factor 2: Distribution 6
- Factor 3: Product Focus and Diversification 8

Key Rating Factors — Financial Profile 10
- Factor 4: Asset Quality 10
- Factor 5: Capital Adequacy 11
- Factor 6: Profitability 12
- Factor 7: Liquidity and Asset/Liability Management 13
- Factor 8: Financial Flexibility 14

Other Factors in Considering the Stand Alone Rating 15
- Management, Governance, & Risk Management 15
- Accounting Policy and Disclosure 16
- Sovereign & Regulatory Environment 17

Moving from Stand-Alone Rating to Public Rating — Evaluating Support 17

Regional Analytic Considerations 18

Relationship Between Insurance Financial Strength and Other Ratings 20

Appendix 1:Using the Methodology as a Rating Scorecard 23

Appendix 2: Regional Capital Adequacy Measures 25

Framework for Rating Life Insurance Companies

Moody's life insurance ratings reflect our opinion of long-term relative risk and are, of necessity, forward-looking in nature because they apply to liabilities that may pay out over long periods of time. Because historical experience has shown that looking only at the current financial condition of the company is not always an accurate predictor of the company's future financial performance and financial strength, Moody's analytical approach includes significant qualitative analysis in addition to quantitative analysis, and incorporates the opinions and judgments of experienced analysts.

In the following sections, we will review the eight key rating factors underlying an insurer's business and financial profile, discuss why each factor is important to our stand-alone ratings, what the relevant financial metrics are in analyzing these factors and how we interpret those metrics. Some of the factors that we consider important are clearly quantifiable, while others involve qualitative assessment. In addition, we recognize some of the quantifiable metrics are rather basic in order to facilitate accumulating and comparing the data on a global basis. In this regard, the analyst's interpretation of such metrics, as well as the consideration of regional/supplemental metrics, may also provide further insight and analysis.

For each of these factors, this methodology will outline Moody's views and expectations about how an insurer's profile would typically correspond with a given insurance financial strength rating level — Aaa through Ba. For going-concern insurers rated Ba and lower for insurance financial strength, overall country risk typically plays a dominant role in Moody's rating analysis. Analysts consider these rating level guidelines, as well as other factors such as management and governance, accounting policy and disclosure, and sovereign and regulatory considerations, when assigning ratings to insurers.

Although this methodology outlines the global framework used to rate insurance companies[1], every company's rating may not be consistent with the rating level guidelines for every rating factor. However, to the extent that an insurer is a frequent outlier for its rating category on the factors described below, then a) there is likely pressure on its rating (up or down), b) some element (or elements) of its business or financial profile is sufficiently compelling that it dominates the analysis, or c) the unique characteristics of the insurer's accounting, regulatory or market environment limit the comparability of certain key factors and metrics. The interpretation of how well a particular insurer fits within its rating category can be found in Moody's published research about that insurer.

The quantitative metrics used in the methodology are expected to use a consistent basis of accounting depending upon the region (Generally Accepted Accounting Principles, International Financial Reporting Standards, etc.). We recognize that different accounting conventions do not necessarily always produce the same financial results, but believe that the differences, for the most part, are minimal relative to the rating ranges established. To the extent that other accounting conventions are used by a company, we may also use that accounting convention as a proxy for GAAP, with appropriate interpretation of the results.

Rating Summary Profile

As part of the rating committee process, analysts complete a ***Rating Summary Profile*** 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. In general, business profile factors represent about one-third of the overall rating determination while financial profile factors represent the remaining two-thirds[2].

Analysts then complete an assessment of management, governance, and risk management; accounting policy and disclosure; sovereign and economic environment; and explicit/implicit support in order to explain the overall stand-alone and final public rating recommendation for the analytic unit. An example of a ***Rating Summary Profile*** can be found below.

1. *The methodology is best applied at the analytic unit level. An analytic unit is generally all the operating companies with common analytic and credit characteristics operating in a single country or geographic region. An analytic unit could include a group of companies operating outside of a single geographic region if significant intercompany arrangements exist or there is a high degree of integration in the management, systems, distribution, etc.*
2. *For a more detailed outline of the relative importance of the various factors, please refer to a review of "Moody's Rating Scorecard" in Appendix 1.*

Life Insurance Rating Methodology
Rating Summary Profile

Entity Name: ____________________

Key Factor	Aaa	Aa	A	Baa	< Baa
Market Position and Brand	o	o	o	o	o
Distribution	o	o	o	o	o
Product Focus and Diversification	o	o	o	o	o
Asset Quality	o	o	o	o	o
Capital Adequacy	o	o	o	o	o
Profitability	o	o	o	o	o
Liquidity and Asset Liability Management	o	o	o	o	o
Financial Flexibility	o	o	o	o	o

Methodology-Implied Rating: _____

Other Considerations:

Management, Governance, and Risk Management: ____________________

Accounting Policy & Disclosure: ____________________

Sovereign & Regulatory Environment: ____________________

Stand-Alone Rating Recommendation: _____

Nature and Terms of Explicit Support: ____________________

Nature and Terms of Implicit Support: ____________________

Final Rating Recommendation: _____

Key Rating Factors — Business Profile

FACTOR 1: MARKET POSITION AND BRAND

Why It Matters:

Market position, brand, and franchise strength are key rating factors that represent a company's ability to develop and sustain competitive advantages in its chosen markets. Market position incorporates the firm's sustainable advantages in its key lines of business and considers market share; barriers to entry; scale advantages and their translation to expenses; control over pricing; and control of distribution. Additionally, a firm's brand encompasses a company's image and reputation in the market, brand recognition and perception by distributors and end-consumers, and customer loyalty as demonstrated by retention rates, distribution costs, and customer purchases of multiple products.

A company's sustainable competitive advantages — the strength of its competitive position and its prospects for internal growth — can have a direct bearing on its future profitability and ability to generate capital internally. In addition, an insurer with a strong market position, brand, and competitive advantage should be well positioned to withstand prolonged difficult market conditions and be better able to capitalize on new, potentially profitable opportunities that may develop in the future. We believe such companies are more likely to meet their obligations through varied economic periods, thus suggesting higher ratings. Conversely, a weak business franchise can indicate financial stress for a company if it generates low or erratic core profitability, and may tempt management to enter unfamiliar businesses, take on new and unfamiliar risks, or leverage the company to a greater extent.

Relevant Financial Metrics

Market share ratio (premiums & deposits as % of industry's premiums & deposits) [3]

Relative market share ratio (premiums & deposits relative to the average industry premiums & deposits by country)[4]

Interpreting the Financial Metrics

We believe that an insurer's absolute and relative size within a given insurance market is highly correlated with its market position and brand. The largest companies in terms of assets, premiums, and capital within a given local region tend to be the highest rated companies. Conversely, smaller companies tend to be lower rated. Moody's notes premiums and deposits are highly correlated with ratings as companies with greater premium and deposits volume tend to have greater pricing power.

That said, the value of absolute size may differ based upon the lines of business a company writes. Absolute size/market share is important for companies focused on products where economies of scale are most advantageous such as variable annuities in the U.S. Important in the evaluation of a company's market share is the company's ability to exercise underwriting and pricing discipline and effectively utilize appropriate risk management in managing its business growth. Aggressive growth in an intensely competitive line of business or specific product can be a negative. Further, significant market share within a smaller niche segment may be a positive depending upon a company's approach to the business. Relative measures such as retention rates and product cross selling are also considerations.

Summary of Relevant Financial Metrics — Market Position and Brand

	Aaa	Aa	A	Baa	Ba
Market Share Ratio	>10%	5%-10%	2%-5%	1%-2%	<1%
Relative Market Share Ratio	>3x average	1.5x-3.0x average	0.5x-1.5x average	0.25x-0.5x average	<0.25 average

3. *If a single analytic unit operates in multiple countries, the ratio is a weighted average of the result by country including only those countries in which the analytic unit does a material amount of its overall business.*
4. *The average premium/deposits is determined by dividing 99% of the industry's premiums/deposits by the number of companies that represent 99% of industry's premiums/deposits.*

FACTOR 2: DISTRIBUTION

Why It Matters:

The methods and mechanisms by which an insurance company delivers its products are another fundamental aspect of the company's business and credit profile. A company's access to distribution channels, its ability to control those channels and its relationship with its producers relates directly to a company's ability to grow revenues, to retain business, to align its distribution with specific product/customer segments, and to control its costs.

Relevant Financial Metric:

***Distribution Diversity* —** *Number of distribution channels with more than 10% of premiums/deposits*

Interpreting the Financial Metrics

A company's control and influence over a distribution channel — whether a captive/controlled or independent third-party channel — in achieving its objectives of business production, persistency, and profitability (e.g. expenses associated with distribution) is an important factor in the assessment of the insurer's long-term competitive advantage, franchise strength, and creditworthiness. The diversity in a company's distribution channels can mitigate its dependence on specific channels and its vulnerability to sales disruption. The evaluation of a company's distribution effectiveness examines the various distribution types and assesses the suitability of each distribution channel to the kinds of products being sold in specific customer segments. The costs involved in developing and maintaining a specific distribution channel, as well as the retention and productivity of distributors, and — by extension — its ultimate customers, are key considerations in the evaluation of the channel's success.

The exclusive or non-exclusive nature of various distribution relationships may pose specific opportunities or challenges for an individual company. In some regions and for certain product lines, distribution may actually be controlled by third parties, which could limit an insurer's ability to conduct business on its own terms. For other insurers, particularly those using exclusive agents, the distribution system may be the group's defining competitive advantage. For still others, their distribution strategy may provide flexibility in terms of cost and business volume management.

The evaluation of a company's distribution diversity considers its depth and breadth of distribution channels; the attractiveness of the company itself to distribution channels, the company's ability to easily expand its distribution channels on a profitable basis, and its vulnerability to disruption within a single channel.

Summary of Relevant Financial Metrics —Distribution

	Aaa	Aa	A	Baa	Ba
Distribution Control	Owned captive or controlled distribution system whose high cost structure is aligned with high value products; excellent distribution productivity and retention that leads to persistent, stable, and profitable business	Blend of controlled distribution and preferred position in multiple unaffiliated independent third-party distribution sources; captive agent distribution systems' higher cost structure is aligned with high value products; above average distribution productivity and retention leads to persistent, stable, and profitable business; relative strength in negotiating distribution contracts and costs with third parties. Not overly dependent on one distributor for sourcing of business — distribution at company is aligned by product type and costs; able to easily expand distribution on a profitable basis; attractive provider to new distribution channels	Blend of controlled distribution and unaffiliated independent third party distribution sources; controlled distribution systems' high cost structure not effectively aligned with commodity-like products being sold; less preferred position with third-party distributors who are less loyal, resulting in higher surrender rates, increased liquidity concerns and more volatile/less profitable business; able to align third-party distribution with type of products sold, but less negotiating power in arranging distribution contracts and costs	Unaffiliated independent third party distribution, not likely to have preferred position with third-party distributors, increased liquidity concerns, increased movement of business if concerns arise about company's financial position, able to align distribution with type of products sold, but scale and other issues leaves company in weak position negotiating distribution contracts and costs	Unaffiliated independent third party distribution, marginalized position with third-party distributors, increased liquidity concerns, increased movement of business with concerns about company's financial position, may not be able to align distribution with type of products sold, and scale and other issues leaves company in poor position negotiating distribution contracts and costs
Diversity of Distribution	Greater than 5 distinct distribution channels each with > 10% of premiums; no concentration in any one channel for sourcing of business; strong alignment by product type and costs; an anchor product provider sought out by new distribution channels	4 distinct distribution channels with >10% of premiums; no significant dependence on any one distributor for sourcing of business; distribution at company is aligned by product type and costs; able to easily expand distribution on a profitable basis; attractive provider to new distribution channels	3 distinct distribution channels with >10% of premiums; more dependence on a few sources of distribution; position within third-parties is modest; more vulnerable to disruption and changes in distribution channels, as distributors can easily switch to other carriers; capable of adding some new distribution outlets on a profitable basis	Dependence on 2 distinct distribution channels; vulnerable to disruption and changes in distribution channels, as distributors can easily switch to other carriers; difficulty in attracting new distributors on profitable basis	Dependence on a single distribution channel for all premiums; very vulnerable to disruption and changes in distribution channels, as distributors can easily switch to other carriers; unable to attract new distributors

FACTOR 3: PRODUCT FOCUS AND DIVERSIFICATION

Why It Matters:

A company's chosen lines of business and product offerings are a major influence on its risk profile and creditworthiness because specific product segments exhibit different volatility and competitive attributes.[5] The extent of a product's risk is often not fully known and understood at the time the product is first introduced and marketed. Product risk appears in many forms and can have significant adverse effects on a company's earnings and capital adequacy. The risks in specific products can be mitigated or exacerbated by a particular company's risk management practices, as well as its market position, distribution, underwriting and pricing practices, etc. However, a concentration in more volatile lines of business/products would be viewed as a risk to policyholders/creditors, irrespective of the overall quality of the firm's risk management and underwriting function. A company's response to macroeconomic changes, industry/market conditions, regulatory issues, and competitive pressures with respect to its chosen products and markets is also likely to influence its credit profile.

5. *Moody's recognizes that the definition of a line of business is generally subjective and varies by company and country. For purposes of this rating methodology, we have grouped various lines together and determined that, in general, only a limited number of lines of business exist. Those lines are distinct by region.*

Diversification, both by product and by region, is generally a characteristic of highly rated companies. Diversification in earnings, product and geography can reduce the volatility of a firm's earnings, capital, and cash flow, promoting more efficient use of capital resources. Diversification outside of life insurance into ancillary businesses, such as asset management, if appropriately managed, can also help the stability of earnings and offer increased protection from products with volatile earnings patterns. That said, if a company enters a new line of business without the appropriate underwriting and risk management expertise, diversification would be viewed as a credit negative.

What We Evaluate:

Inherent Product Risk in the Company's Particular Business Mix

A key objective here is to analyze the risk inherent in the company's particular business mix. Moody's considers the products marketed and notes that certain products exhibit lower volatility and risk than others. The evaluation of product features incorporates the insurer's ability to transfer risk to policyholders, as well as the specific risks embedded in the product — e.g. interest rate risk, mortality or longevity risk, liquidity risk, asset default risk, suitability risk, embedded options and guarantees.

Moody's evaluates a company's product risk, in part by looking at the "low risk product" reserves as a percentage of the company's total reserves. The classification of "low risk products" will vary from region to region depending on the specific risk profile and guarantees/options embedded in each product. "Low risk products" have minimal or no guarantees or options and maintain significant risk buffers/risk-sharing or experience-rating mechanisms (e.g. dividends or bonuses) to shift the risk from the insurer to the policyholder. Higher-rated companies tend to have a greater portion of their reserves in "low risk products" than lower-rated insurers.

For instance, participating life insurance products in the U.S. tend to carry less risk relative to investment/savings products and have characteristics consistent with higher rating levels. Compared to investment/savings products, participating life insurance products tend to have higher barriers of entry, a lower commodity nature, higher persistency, greater fees/charges/margins, and significant risk-sharing with policyholders.

Life Insurance Product Diversification

The evaluation of product and market diversity considers the breadth and depth of markets and products the company targets. The evaluation of product/market diversity (within a geographic region or across different geographic regions or industries) includes an assessment of the concentration and competition in the product/market; attractiveness of product offerings under varying market environments; correlation of revenues and earnings of different markets and products; and whether the product is viewed as a commodity or a value added offering. Analysts' judgment is particularly important in assessing diversification within product lines given that the types of product offerings can vary significantly across the globe.

Beyond the financial metrics, we also consider a company's underwriting controls, pricing sophistication, staff, and technology in the context of the company's chosen lines of business. We also consider whether the analytic unit has operations outside of life insurance which may enhance diversification. As such, we also consider the quality of diversification; the company's ability to manage diverse businesses unrelated to the core; the synergies or lack thereof among diversified businesses; and the degree to which diversified businesses detract from a focus on the core or add value to the enterprise as a whole.

Summary of Relevant Financial Metrics —Product Focus and Diversification

	Aaa	Aa	A	Baa	Ba
Product Risk	Low Risk Reserves are > 50% of Total Reserves; majority of liabilities have high ability to share risk with policyholders; low interest rate risk and liquidity risk; liabilities have very modest guarantees and limited policyholder optionality that will be exercised; minimal market conduct risk.	Low Risk Reserves are 25%-50% of Total Reserves; significant portion of liabilities have above-average ability to share risks with policyholders; low or manageable interest rate risk and liquidity risk; liabilities have moderate amounts of embedded guarantees and policyholder options; modest market conduct risk.	Low Risk Reserves are 10%-25% of Total Reserves; moderate amount of liabilities have ability to share risks with policyholders; higher interest rate and liquidity risk in both asset accumulation and protection products; meaningful embedded pricing guarantees and policyholder optionality that could be exercised; moderate market conduct risk.	Low Risk Reserves are 0%-10% of Total Reserves; limited amount of liabilities have ability to share risks with policyholders; higher interest rate and liquidity risk in both asset accumulation and protection products; significant embedded pricing guarantees and policyholder optionality resulting in greater variability around expected long term profitability; complex products that may have increased market conduct risks	Low Risk Reserves = zero % of Total Reserves; no risk sharing with policyholders; high interest rate and liquidity risk in just asset accumulation products; substantial embedded long-term pricing guarantees; and policyholder optionality resulting in great variability around expected long term profitability; complex products that may have increased market conduct risks.
Life Insurance Product Diversification	5 or more distinct lines of business each produce at least 10% of total life premiums/ deposits, with limited correlation in revenues and earnings.	4 distinct lines of business each produce at least 10% of total life premiums/ deposits, with limited correlation in revenues and earnings.	3 distinct lines of business each produce at least 10% of total life premiums/ deposits, with limited correlation in revenues and earnings.	2 distinct lines of business each produce at least 10% of total life premiums/ deposits, with limited correlation in revenues and earnings.	1 distinct line of business produces more than 90% of total life premiums/ deposits

Key Rating Factors — Financial Profile

FACTOR 4: ASSET QUALITY

Why It Matters—High Risk Assets:

Life insurance companies' core assets are typically concentrated in high-quality liquid assets, recognizing that life insurance contracts frequently have embedded policyholder options that create potential uncertainty regarding the timing of the liability payout stream. To improve investment yields and/or to match guarantees embedded in their liabilities, many companies will allocate a portion of their investment portfolios to higher risk assets. It is important to monitor risky asset exposures on an ongoing basis, because changes in the market environment, especially during periods of stress, can depress asset values, earnings, and ultimately, the company's capital base.

Relevant Financial Metrics — High Risk Assets:

High risk assets as % of total invested assets

Interpreting the Financial Metrics — High Risk Assets

High risk assets include below-investment-grade bonds/loans, common stock equities (broadly defined to include "alternative investments"), and real estate assets. High risk assets carry a combination of increased risks including default, liquidity, and price volatility.

Higher rated companies generally have lower exposure to high risk assets. However, companies that have a stable, long duration, low-risk liability structure (see Factor 3 above) with little embedded optionality, which provides an offset to the increased liquidity risk and volatility of high risk assets, although ranking poorly on this metric on a standalone basis, are likely to be able to tolerate a higher proportion of these assets in their investment portfolios. For such companies to maintain high ratings, it would be expected that they have solid capital positions and a stable earnings profile, as well as strong track records and proven expertise in managing more risky asset classes.

Companies that have a significant proportion of liabilities that share risks with policyholders (e.g. participating liabilities) have a higher tolerance for high risk assets because they can pass much of the asset risk on to the policyholders. In addition, a company's exposure to high-risk assets needs to be evaluated in conjunction with its level of risk-bearing

policyholder surplus (e.g. FFA in the UK, RfB in Germany). In such cases, Moody's also looks at the ratio of high risk assets to total risk-bearing capital (e.g. available shareholder equity plus policyholder surplus capital).

Beyond this single metric, we also consider matters such as investment concentration risk. Excessive concentrations in a single name or sector raise questions about market and credit risk, liquidity, and the sustainability of historical investment returns. We also consider the liquidity and volatility of the investment portfolio and the strategy employed by the company.

Why It Matters—Goodwill:

Another potentially significant asset of uncertain value on the balance sheet of insurers is the goodwill associated with acquisitions. Within the insurance markets, many acquisitions have generally met with limited success. In the late 1990s, a number of companies acquired businesses at high price valuations only to find out later that balance sheet capital was overstated as the goodwill asset became impaired. Goodwill is an asset whose economic value is often highly uncertain and not readily realizable.

Relevant Financial Metrics — Goodwill:

Goodwill as % of shareholders' equity

Interpreting the Financial Metrics — Goodwill

This measure provides an indication of the strength and quality of a company's equity capital base. Higher rated companies tend to have lower amounts of goodwill relative to their equity base compared to lower rated companies. Extensive growth through acquisitions usually elevates the credit risk of a group because of the integration challenges and the uncertainty about the ultimate costs and benefits, as well as incremental earnings, to be realized from the acquisition in the context of the purchase price and financing. We assess acquisitions for strategic fit and consider implications to the company's market position and overall diversification.

Although we do not include DAC (Deferred Acquisition Costs), PVFP (Present Value of Future Profits), and VOBA (Value of Business Acquired) in this analysis because we believe they have less measurement uncertainty and more economic value than goodwill, we do not believe any intangible asset is as leverageable as true equity.

Summary of Relevant Financial Metrics —Asset Quality

	Aaa	Aa	A	Baa	Ba
High Risk Assets % of Invested Assets	< 10%	10% – 20%	20% – 30%	30% – 40%	> 40%
Goodwill % Equity	< 15%	15% – 25%	25% – 35%	35% – 50%	> 50%

FACTOR 5: CAPITAL ADEQUACY

Why It Matters:

At the heart of Moody's assessment of an insurer's creditworthiness is an opinion about the company's economic capital and its capital adequacy (e.g. solvency) or operational leverage. Economic capital is the cushion available to the insurer to absorb unfavorable deviations in its results. Capital adequacy measures a company's leverage in terms of business volume generated and its risks relative to the company's capital. Capital adequacy is critically important for an insurer because insurance regulators require minimum capital levels or ratios in order for the company to continue to operate. Capital constraints can also negatively impact a company's ability to grow its business and impact its strategy.

Relevant Financial Metric

Global: Capital as % of Total Assets

Regional: Moody's internally-developed capital model or reported (or adjusted) capital measure developed by regional regulator

Interpreting the Financial Metrics

Capital as a percentage of total assets is a useful measure in defining how much capital cushion a company has available to support its policyholder obligations and other liabilities. Higher rated insurers tend to have higher capital as percentage of total assets than lower rated companies. In this measure, we include separate account assets because, most,

although not all, separate account assets have embedded, secondary guarantees that require capital to support these risks. However, this measure's usefulness is somewhat limited by the fact that it does not recognize differences in asset or liability risk exposures. As a result, it is best used to compare capital adequacy among companies that have a similar business mix and comparable investment portfolio risk.

In several regions, additional capital metrics are also included to supplement capital as a percentage of assets. These metrics may be developed internally by Moody's or are calculated under existing regulatory models. See Appendix 2 for a discussion of regional capital measures.

Summary of Relevant Financial Metrics —Capital Adequacy

	Aaa	Aa	A	Baa	Ba
Global — Capital as % of Total Assets	>12%	8% – 12%	6% – 8%	4% – 6%	<4%

FACTOR 6: PROFITABILITY

Why It Matters:

An insurer's earnings capacity — quality and sustainability — is a critical component of its creditworthiness because earnings are a primary determinant of the insurer's ability to meet its policy and financial obligations, the primary source of internal capital generation to assure capital adequacy, and a key determinant of access to the capital markets on favorable terms. Diversification across multiple product lines and markets can result in more stable levels of earnings, increasing the predictability of internal capital growth and strengthening claims/debt paying ability.

Relevant Financial Metrics:

Return on Equity (ROE) — Net income as a % of average shareholders' equity (5 year average)

Sharpe Ratio of Growth in Net Income — Absolute value of the mean of the company's growth in net income divided by the standard deviation of growth in net income (5 year period)[6]

Interpreting the Financial Metrics:

In general, higher rated companies tend to have higher profitability as measured by ROE , and have less earnings volatility than lower rated companies.

The ROE ratio is a good measure of how well the insurer is utilizing its capital funds. Although creditors rank ahead of shareholders in insolvency, one cannot ignore the impact of shareholder pressure on management to generate sufficient returns on invested capital. This is especially the case as the forces of return and capital adequacy sometimes compete against each other such as when capital cushions that support high ratings may suppress the return on equity. Therefore, ROE must be viewed in concert with both a company's financial leverage and organizational/legal structure. The relationship to financial leverage is important because companies utilizing higher amounts of leverage may exhibit more favorable ROE, as a smaller equity base tends to improve this measure, all else being equal. Also, the type of organization may influence expected ROE as mutual insurers tend to have different return objectives than stock companies.

Management's response to shareholder pressures to improve ROE could be to lower the "E" rather than increase the "R". For these reasons, return on assets (ROA) can be another useful comparative measure of profitability, as it is less influenced by a company's financial leverage policy or its capital adequacy. Although the ROA ratio can vary considerably depending on the company's mix of business and its risks, it is a blunt measure of profitability that can be compared with other financial institutions focused on asset accumulation businesses including banks, finance companies, and asset managers.

We also consider that net income can be meaningfully influenced by non-recurring favorable items, most notably realized gains. For analytic units with meaningful investment-related gains, we also consider these ratios excluding such gains.

The Sharpe Ratio of net income gauges the inherent volatility in a company's earnings and helps us to formulate an opinion about the predictability and sustainability of a company's earnings. The ratio considers net income since a company's internal capital generation is driven by its net income but we recognize that some capital gains/losses and taxes can at times be somewhat volatile and unpredictable or at other times used to reduce underlying operational vol-

6. *If an analytic unit has reported a net loss in any of the past six calendar years, the ratio is not calculated and the analytic unit is automatically placed in the Ba rating category.*

atility. This ratio's analytic value has little meaning on its own but is most useful in comparing companies' earnings volatility to each other and in identifying trends relative to business mix.

We use five years worth of data in all these ratios to attempt to "see through" the cycles of the business.

Summary of Relevant Financial Metrics —Profitability

	Aaa	Aa	A	Baa	Ba
Return on Equity	> 15%	10% – 15%	5% – 10%	0% – 5%	< 0%
Sharpe Ratio of Growth in Net Income	> 100%	100% – 67%	67% – 33%	33% – 0%	< 0%

FACTOR 7: LIQUIDITY AND ASSET LIABILITY MANAGEMENT

Why It Matters:

Life insurance liabilities are highly confidence sensitive in nature. Lack of liquidity can quickly result in a company's inability to meet the demands on its liabilities. As a result, financial problems, real or perceived, can lead policyholders to surrender their policies, and in doing so create a "run on the bank" scenario and prompt regulatory intervention or a company's insolvency. Consequently, a life insurer's ability to carefully manage its asset liability risk and its associated liquidity is critical.

Relevant Financial Metrics:

Liquid Assets as % of Policyholder Reserves — cash, short-term assets, bank deposits, investment-grade bonds, preferred stock, and common stock as a % of policyholder reserves.

Interpreting the Financial Metrics:

Asset Liability Management (ALM) is the process undertaken by a life insurer to ensure that its assets are adequate to meet the potential short and long-term needs of its liabilities. ALM seeks to achieve and maintain an overall match between the expected asset cash flows and expected liability cash flows. Moody's evaluation of a company's ALM process involves an assessment of management's tools and techniques used to quantify and accomplish this task. The starting point for examining a company's ALM process is a thorough understanding of the options and guarantees embedded in the liabilities.

In addition to commonly used ALM methodologies, which include duration matching and cash flow matching, we evaluate more dynamic ALM procedures used throughout the industry. These include dynamic cash flow testing, which attempts to assess the sensitivity and resulting impact (positive or negative) of a wide variety of economic scenarios on a company's asset and liability cash flows, and hence, the impact on its earnings and capital. Incorporated into a company's ALM process should be a thorough examination of the surrender options and potential liquidity needs embedded in its liabilities.

Liquidity risk at a life insurer is evaluated by its ability to cover its liquid liabilities (e.g. surrenderable liabilities that have significant potential risk of being surrendered) with liquid assets. This includes an evaluation of the company's assets and liabilities, their sensitivity to different economic and market scenarios, as well as the company's contingency plans and alternative liquidity sources in the event of a period of strained market liquidity.

It is important to note that strong, well-managed ALM and risk management processes can mitigate the liquidity risks facing a life insurer, but the existence of significant liquidity risk through the company's liability profile is likely to impact the creditworthiness of the insurer unless its ALM discipline and sources of liquidity clearly demonstrate that the risk is fully addressed. If a company's liabilities have limited or no policyholder behavioral surrender risk, then liquidity risk is not a concern, but the company's asset liability matching discipline in order to assure the guarantees in the liabilities are covered by the assets is critically important to the company's profitability.

Moody's finds the ratio of liquid assets to policyholder reserves to be helpful in measuring a company's liquidity risk. In general, higher rated insurers have stronger liquidity profiles than lower rated insurers. We are usually focused on the company's asset liquidity relative to its potential liquidity demands. However, it is recognized that, in many jurisdictions, the potential liquidity risk associated with liabilities is quite modest, and, instead, the ALM risk and analysis is more focused on the "build-up" of guarantees and longevity risk. It is also important to note that not all liabilities that are surrenderable have the same likelihood of being surrendered. For instance, in the U.S. where liquidity risk is critically important, the type of policy (life insurance vs. investment product), the distribution channel (captive agent vs. third-party intermediary), the existence of surrender charges/penalties, the age and profile of the policyholder, and the type of policyholder (institutional vs. retail) will all influence the likelihood and timing of surrender. In the U.S.,

surrenderable liabilities at risk are usually thought to be institutional liabilities and retail liabilities that are investments, savings products, deposits, annuities, etc. that can easily be transferred to another insurer without significant financial loss or loss in insurance coverage to the policyholder.

Summary of Relevant Financial Metrics —Liquidity and Asset/Liability Management

	Aaa	Aa	A	Baa	Ba
Liquid Assets as % of Policyholder Reserve	> 80%	60% – 80%	40% – 60%	20% – 40%	< 20%

FACTOR 8: FINANCIAL FLEXIBILITY

Why It Matters:

It is important that a company is able not only to fund its business growth via internal capital generation, but also to maintain capital market confidence, and to demonstrate the ability to service its obligations without stress. Insurers benefit from having the capacity to raise capital externally for additional growth or acquisitions, and to meet unexpected financial demands whether those come from an unusually negative credit/market environment, earnings volatility, or other planned or unplanned capital needs. Financial flexibility — as dictated by financial leverage/double leverage, earnings coverage, dividend coverage, and access to capital markets—is a key determinant of the insurer's credit profile.

Relevant Financial Metrics[7]:

Financial Leverage: Adjusted debt divided by (Adjusted debt + Adjusted equity)

Earnings Coverage: Adjusted earnings before interest and taxes divided by interest expense and preferred dividends (5 year average)

Cash Flow Coverage: Dividend capacity from subsidiaries divided by interest expense and preferred dividends (5 year average)

Interpreting the Financial Metrics:

Financial leverage measures the amount of a company's capital base that is financed through borrowed money, typically short and long-term debt and hybrid capital securities, which can be issued at an operating company or holding company. The calculation considers all forms of debt (including surplus notes and hybrid securities — adjusted for Moody's Debt/Equity Continuum — plus unfunded pension obligations and operating leases) used to fund the company's operations as leverage. In general, higher rated insurers tend to have lower levels of financial leverage than their lower rated peers.

In addition to Moody's standard adjustments to financial leverage and earnings coverage, additional adjustments to these metrics are sometimes necessary for individual companies. For example, an adjustment may include adding back as debt an off-balance sheet obligation because we believe the company will support the debt obligation, if necessary, because of reputation or economic incentives. In contrast, match-funded or self-liquidating debt appearing on a company's balance sheet is likely to be excluded from financial leverage and earnings/cash flow coverage metrics because the debt is analytically viewed as operating debt instead of financial debt.

Other considerations incorporated into our opinions around financial leverage include — where applicable — a company's double leverage (i.e. investments in subsidiaries funded by parent company debt or a stacked ownership structure), historic trends, management's target level for leverage relative to current position, and maturity profile, as well as the complexity of the capital structure itself.

The debt capacity of an insurer can also be defined by its earnings capacity and dividend capacity relative to its interest expense and preferred dividends, though there can be substantial variability in these figures from year to year. Higher rated insurers tend to have better earnings and cash flow coverage metrics than lower rated companies.

The earnings coverage ratio is calculated on a consolidated basis (US GAAP, IFRS, or equivalent) and considers consolidated earnings (pre-tax, pre-interest expense and preferred dividends coverage of consolidated interest expense and preferred dividends). The focus is on coverage of interest expense and preferred dividends although the numerator and denominator is also adjusted for pensions and leases. Because there can be regulatory restrictions on dividend capacity from an operating company to its holding company, the earnings coverage ratio must be evaluated in the context of the insurer's actual flexibility in terms of cash available to be sent up to the holding company.

7. *Unlike most of the other financial metrics discussed in the methodology which are calculated at the analytic unit level, the leverage and coverage ratios have been calculated at the ultimate parent level, which may differ from the analytic unit being evaluated. Moody's believes that many companies consider their capital to be fungible and therefore assumes that the financial leverage profile of the parent would be consistent with that of the analytic unit.*

The cash flow coverage ratio — which cannot be calculated in all jurisdictions due to varying disclosures — looks specifically at the flexibility of the parent holding company, which frequently is the issuer of debt and/or hybrid securities.[8] The ratio relates the recurring sources of cash to the holding company to its uses of cash. For cash sources, we include the maximum available dividends (unrestricted) from regulated subsidiaries (subject to the condition that capital adequacy is maintained at the operating company). For cash uses, we include interest expense and preferred dividends at the holding company.

When analyzing the coverage ratios, we generally consider any differences that may exist between interest expense and the cash payments associated with interest. We also assess the interrelationship between cash flow coverage and earnings coverage by considering whether material earnings are generated in regions where dividend extraction is more difficult, if the parent has meaningful and consistent sources of cash flow from unregulated entities, and the relative levels of dividend capacity compared to earning capacity. In instances where dividend capacity significantly exceeds earnings capacity, this may indicate dividend capacity is unlikely to be replenished should a significant dividend be made.

We also recognize that it is important for a company to maintain capital market confidence. It has been frequently observed that ready-access to the capital markets is necessary for many insurers in the case of needing to raise capital after a severe unexpected event, to fund an acquisition, or simply to expand internal growth plans. The inability to access the capital markets at all, or on attractive terms, can significantly impair a company's financial flexibility in the event of a liquidity crisis or the need to rebuild its capital base. As a result, Moody's views life insurers' access to the capital markets — which can be limited by outsized financial leverage or poor coverage — as extremely important.

We additionally consider a company's back up facilities and letter of credit arrangements and the conservatism of covenants embedded in all borrowing arrangements. Strong back-up facilities with limited restrictive covenants are considered to enhance financial flexibility for a company, particularly in times of stress.

Summary of Relevant Financial Metrics —Financial Flexibility

	Aaa	Aa	A	Baa	Ba
Financial Leverage	<20%	20 – 30%	30 – 40%	40 – 50%	>50%
Cash Flow Coverage — Dividend capacity/interest + pref div	>7X	5 – 7X	3 – 5X	1.5 – 3X	<1.5X
Earnings Coverage — EBIT/ int exp + pref div	>12X	8 – 12X	4 – 8X	2 – 4X	<2X

Other Considerations in Determining Stand-Alone Rating

MANAGEMENT, GOVERNANCE, AND RISK MANAGEMENT

Management Characteristics

Management quality underpin corporate success or failure, and is a major factor in determining ratings. We assess management's credibility, experience, and reliability. Management's ability to develop a strategic vision and its ability to execute that vision are critical factors for a company's success in a competitive industry where the status quo is changing rapidly. A review of the insurer's strategy includes the firm's long-term vision, risk-return appetite, attitude towards financial and operating leverage, strategies for raising capital, and view of shareholder value creation. Growth strategies — acquisitions/divestitures, joint ventures/strategic alliances, etc. — can also impact its risk profile.

The overall risk culture that management has built will strongly affect the company's appetite for and management of risk and leverage. As a result, management's strength, its discipline in financial planning and risk management, and its ability to execute are vital elements in our evaluation of credit risk

Assessing management quality involves examining the experience, track record, and success of management, demonstrated by its ability to sustain a company's franchise, earnings, and capital position, by the absence of one time financial events, by the avoidance of frequent changes in strategy, and by the organization's financial and business flexibility. We consider its management depth as well as its financial track record in such areas as reserves, investments, profitability, and risk management. Management's strategy, as measured by overall growth or new business development, also plays an important role in our opinion of an insurer's credit profile. Throughout the rating process, Moody's forms an opinion of a management team's likely response to challenges in the firm's economic, competitive and regulatory environment given their goals and motivations.

8. See "Relationship between Insurance Financial Strength and Other Ratings" beginning on page 20 for more information.

Corporate Governance

Corporate governance as promoted by the board of directors, as the natural counterpart to management, is equally responsible for the financial health and credit profile of the company. Depth of corporate governance is evaluated by the corporate board's independence, expertise, and involvement, as well as its ability to align governance practices with proper oversight of the management team and corporate strategy. Independent review of the key financial reporting and risk management processes is important, as is oversight of compliance and regulatory issues. The board plays a central role in ensuring management sets the appropriate ethical tone within the company. Compensation schemes and the board's oversight of compensation practices are also considered for their potential impact on management's motivations. Plans that reward management and employees for building long-term value in the company tend to be viewed positively from a credit perspective.

Moody's also contemplates the interests, motivations, track-record, and resources of large shareholders in order to anticipate how they may be expected to behave and respond with regards to their investment, both in the normal course of events and in times of stress. The often conflicting interests of shareholders and policyholders are also taken into account when considering an insurer's governance, in terms of how the board and management team balances these demands.

In this regard, Moody's believes that there is a natural and effective alignment between the interests of managers and directors with policyholders and creditors at a mutual insurer, compared to the case with a public-stock company, where shareholders can pressure the managers for payouts and shorter-term results. However, drawbacks associated with the mutual structure often include less management accountability and transparency. The latter concern becomes significant when the mutual has adopted an aggressive strategy that is more characteristic of a stock company.

Risk Management

Management's and the board's ability to identify, monitor, manage, and mitigate its risks goes to the heart of a company's success in minimizing unexpected events and volatility and in protecting the interests of its policyholders and other stakeholders. Taking risks, whether in underwriting, investments, sales practices, acquisitions, or other areas, is a necessary activity for an insurance company. However, it is vitally important that management (and the board of directors) understand the risks assumed and engage in active measures to manage those risks in order for the company to maintain its financial performance and flexibility, reputation, market position, and confidence in the capital markets. The risk management discipline at an insurer is an essential part of its overall governance and management.

What We Evaluate Related to Management, Governance, and Risk Management

Given all the various inputs, the influence from management and governance on ratings is very subjective. That said, Moody's has a general presumption that management is competent and governance and risk management protocol and procedures are appropriate designed and working. We meet annually with members of management, and at times board members, in order to test this working assumption. As noted in recently published research[9], corporate governance does not typically affect ratings, except in rare situations.

ACCOUNTING POLICY & DISCLOSURE

Relevant and timely financial information is a critical part of any financial analysis. Many insurers prepare financial information under generally accepted accounting principles either developed by their home country or based on international standards. Financial information is also generally prepared on a regulatory basis of accounting which may differ from generally accepted accounting principles. The presence of a strong government/independent body for financial standards is considered a positive factor when evaluating an accounting regime.

Disclosure of financial information varies widely on a global basis and within regions. In certain locations, regulatory bodies provide access to financial information, although the depth of that information also varies. Some companies have chosen to provide easy access to there own financial data which Moody's view favorably.

The consistent application of financial information is a fundamental presumption of financial analysis. When evaluating accounting principles, we consider how well financial reporting mirrors economic reality. Where we believe the economics of a transaction are not consistent with financial reporting, we may adjust financial statements to facilitate our analysis.

9. *See Moody's Special Comment:* Assessing Corporate Governance As A Ratings Driver For North American Financial Institutions, April 2006 (#97279) *for further information.*

SOVEREIGN AND REGULATORY ENVIRONMENT

The local jurisdiction's economic and political stability and the degree of government support/interference can have a strong impact — either positive or negative — on the credit profile of an insurance company. The presence of a well developed local capital market may determine a company's ability to raise sufficient capital efficiently to grow or cushion itself against adverse financial conditions.

The insurer's credit profile is influenced by the regulatory rules and practices within its market, as well as potential changes in regulations or taxation of its products that could affect an insurer's competitive position, or could lead to a restructuring of segments of the industry. The failure-resolution mechanism and practices of the regulatory authorities can also impact an insurer's default rate and loss given default.

Measurement of a company's sovereign and regulatory environment incorporates the use of Moody's Foreign Currency Country Ceiling as well as Moody's Local Currency Guideline. The local currency guideline reflects our view of the country's political, economic and regulatory stability. We focus on Moody's Local Currency Guideline for the insurer's primary market as this guideline generally sets the ceiling for the most financial secure company in a given region.

Moving From Stand-Alone Rating to Public Rating — Evaluating Support

While the above factors are critical in order to determine the stand alone rating of life insurers, the analytic consideration of support — explicit or implicit — from a parent company or affiliate is necessary to get to the public rating, which is usually higher than the company's stand-alone rating.

Support from a Parent Company or Affiliate

The credit rating of an insurer can ultimately be affected by its relationship to its parent, to a subsidiary, or to affiliate companies through either explicit or implicit support[10]. Support, once determined, is then generally "added to" the rating by narrowing the spread between the standalone credit rating of the entity/security and the rating of the entity providing the support.

Ultimately, the extent to which the affiliation benefits the rating is a matter of judgment, not convention, owing to the large number of variables that must be considered. Our assessment of this support may vary depending on our view of how important that entity is to the overall enterprise business model, its integration with the rest of the organization from a branding, management, distribution, and operating perspective, as well as our view of the company's ability and willingness to support that entity. Support is evaluated in terms of past actions of the supporter as well as current public statements of support.

In all cases, Moody's judgment about how the prospective supporting entity is likely to behave in the future is strongly influenced by our assessment of its prospective economic motivations. Accordingly, strong public statements of support would not be persuasive in raising the rating of a weaker subsidiary if a sound economic rationale for doing so was missing. Although support may raise a company's rating, it may not necessarily raise it to the same level as that of the supporting entity.

While, in most instances, support is incrementally positive, there are instances where group affiliation may constrain the public rating of an entity/security relative to its standalone rating level. For example, if the insurer is affiliated with weak or highly leveraged entities, such weaknesses usually, in turn, weaken the insurer. History has shown that capital often flows from stronger to weaker companies within a controlled group, and frequently before regulatory action can occur.

Explicit support is usually intended to transfer the credit of the supporting entity to the supported affiliate or obligation. Explicit support is generally in the form of a capital maintenance agreement, minimum net worth agreement, or some type of direct guarantee. It can also take the form of management contracts, marketing arrangements, reinsurance agreements, or tax-sharing agreements.

In analyzing this type of explicit support, we examine the specific legal nature and enforceability of the support, as well as its possible termination. Explicit support, properly structured, can achieve credit transference and bring the affiliate's rating up to that of the supporting entity. However, it is also necessary to make an assessment as to whether the extension of this support (as well as with implicit support) will weaken the credit profile of the parent or affiliate and result in a downgrade of the supporting entity.

10. *For additional discussion of Moody's rating policy related to support, please see* Rating Non-Guaranteed Subsidiaries: Credit Considerations In Assigning Subsidiary Ratings In the Absence of Legally Binding Parent Support, December 2003 (#80304). *In addition, affiliate companies generally refers to companies outside of the analytic unit being rated.*

Factoring in Support from Other Than Related Entities

Moody's does not tend, therefore, to ascribe a meaningful level of implicit support to insurance companies from their governments. Indeed, past history has shown that insurers — even large ones — have been allowed by local and national governments to fail without intervention. If the insurer were directly owned by the government, however, support would be considered according to Moody's methodology on "The Application of Joint Default Analysis to Government Related Issuers (April 2005)".

Finally, if the insurer is part of a bancassurance group, and there is clear evidence that failure of the insurer will have negative implications on the creditworthiness of banking operations, the likelihood of support by the government may increase. However, we expect such support to be highly selective and focused on limiting any damage to the bank franchise.

Regional Analytic Considerations

Moody's employs the same analytic approach to evaluating life insurance companies worldwide, incorporating the business and financial profile dimensions discussed in this methodology. However, each of the various regions has its own market nuances which reflect the local political, social and economic climates. These include the regulatory environment, governance and capital structures, taxation, accounting rules and public reporting requirements, and laws and the litigation environment. Moody's incorporates these regional factors into its rating process.

U.S.A.

In the United States, life insurance companies are required to provide a substantial amount of detailed financial information to state regulators. This financial information is prepared under Statutory Accounting Principles (SAP), which are the accounting practices and procedures developed by the National Association of Insurance Commissioners (NAIC) and adopted by each state through its legislative or rule-making process.

Financial information is also prepared under general accepted accounting principles (GAAP) for publicly-traded companies and by some mutuals. Based upon both statutory and GAAP financial information, Moody's annually publishes its "Top Ten Ratios" by rating category for U.S. life insurance companies. For additional information, please refer to "Moody's Top 10 Ratios for Rating U.S. Life Insurance Companies" published in February 2006.

Lastly, for the past several years in North America, Moody's analytical teams have produced reports that discuss both U.S. financial reporting and corporate governance. These research pieces provide additional insight into our rating process. Please refer to "No Assurance of Good Governance: Observations on Corporate Governance in the U.S. Insurance Sector" published in October 2005.

Canada

All Canadian life insurance companies report their results according to Canadian GAAP (CGAAP) which is meaningfully different from U.S. GAAP. Two key differences are: 1) CGAAP reserves are re-calculated each reporting period and Canadian actuaries use a best estimate approach for each item and then add provisions for adverse deviations (PfADs) for possible unfavorable experience due to mis-estimation. As a result, reserves are not locked in and will vary with changing expectations of future experience. 2) CGAAP amortizes realized gains on investments (fixed income, equities, real estate, etc.) into income over a period of years. The impact is that CGAAP net income tends to be smoother and book equity tends to be lower under CGAAP.

The Canadian regulatory model for life insurers is more streamlined than the U.S. model. As opposed to fifty state insurance regulators, the Office of the Superintendent of Financial Institutions (OSFI) regulates the entire financial services sector in Canada. Moody's regards this as a positive given the benefits of centralizing expertise and resources in one organization.

The framework for determining capital adequacy is the Minimum Continuing Capital and Surplus Requirement (MCCSR), a risk-based capital formula. Although similar in framework to the U.S. Risk-Based Capital framework in terms of estimating the minimum capital required for an insurer based on its risk factors and their magnitude, the MCCSR regime has been quicker to stoichastically model the tail-risk inherent in the newer products with embedded guarantees and options.

Europe

Unlike in the U.S., many European insurance groups are composites, i.e. writing both life and P&C business. While in virtually all European countries, life business can only be written out of a distinct legal entity solely dedicated to that purpose, there is no such restriction on the P&C business (the P&C carriers only have to be licensed). As a result, it is not uncommon for the ultimate holding company to be the main P&C operating company but at the same time have

smaller, usually international, life and P&C subsidiaries. These complicated ownership structures usually necessitate a higher degree of reliance on consolidated financial statements for credit analysis. A distinctive feature of the European regulatory and reporting environment is its significant variability by jurisdiction.

As far as insurance supervision is concerned, there are two major factors to consider: (1) quality of supervision and (2) adequacy of regulatory capital requirements. Absence of a credible regulator is viewed by Moody's as a negative rating factor.

Currently, regulatory capital requirements across Europe are calculated on a deterministic, or formulaic basis (know as EU Solvency). Although the resulting capital requirement is consistent, it is not always meaningful, since the underlying formula does not capture well the full range of insurance risks. Some territories (such as the UK, the Netherlands and, to some extent, Switzerland) are in the process of implementing stochastic capital requirements. The implementation of new requirements (frequently referred to as Solvency II) is likely to be implemented simultaneously by all EU members no earlier than 2010.

Availability and comparability of financial information in Europe presents another analytical challenge. While most (but not all) publicly-traded insurers in Europe now present their financial statements under IFRS, operating companies still report under local GAAP rendering their financial metrics less useful in cross-regional comparisons.

Latin America

Statutory financial information for Latin American insurers is usually presented on a national GAAP accounting basis, rather than according to a separate regime for insurance accounting and can vary from country to country. Key financial metrics, however, tend to exclude holding company consolidated financial information because of the scarcity of publicly-held concerns and limited debt-issuance.

One very significant risk consideration in Latin America, is the low average sovereign credit profile in that region (among the major Latin American economies, only Mexico and Chile currently maintain investment-grade sovereign ratings). That results in the concentration of non-investment-grade holdings (particularly national debt obligations) in insurers' investment portfolios. In some cases — such as Argentina in recent years — these bonds may be in or near default, or may have restructured terms, thereby greatly influencing the insurer's credit profile, regardless of its perceived franchise strength in other respects.

Finally, because of the preponderance of bank-owned insurers in countries such as Brazil and Mexico, Moody's considers the credit profile of the insurer in the context of its implied support and strategic fit within its overall organization, as well as the bank's own credit profile, as an indicator of commitment to financial responsibility and potential capital needs at the insurer.

Asia

The Asian insurance markets are at varying stages of development, as measured in terms of composition and structure, type and complexity of products, the extent of liberalization and competition. Most Asian markets prepare timely financial statements based on local GAAP requirements as well as statutory insurance accounting regimes. However, these are not readily accessible in the public domain. These markets generally strive to align their local GAAP to international accounting standards as closely as possible and practicable.

Several more developed markets, such as Australia, Japan, Singapore and Taiwan, have already introduced or are in the process of adopting risk-based capital regulatory regimes, which relate the minimum capital requirement of an insurer to its type of business and risk profile. On the other hand, simple solvency regimes are typically in place for less developed insurance markets, but we expect these markets to make continued progress towards more robust risk-based capital regimes.

Moody's also notes several distinct characteristics within the Asian markets that play an important part in shaping the way insurers manage their investments and capital. First, there is generally a lack of depth in the local bond markets in most Asian countries, which has implications for the asset liability matching of individual companies. Secondly, there is a limited level of debt issuance by Asian insurers. This may give insurers relatively more financial flexibility given the lack of committed debt-related interest payments/obligations.

Finally, there is an increasing trend in several more developed markets such as Taiwan and Australia for insurers to operate as part of a diversified financial services group, comprising banking, insurance, and fund management operations. Moody's considers the credit profile of the insurer in the context of its strategic fit within the overall organization, as well as potential capital demands on the insurer or support to the insurer from the group.

Relationship between Insurance Financial Strength and Other Ratings

Insurance Financial Strength and Debt Ratings

Moody's insurance financial strength or claims paying ability ratings are opinions of the ability of insurance and reinsurance companies to punctually repay senior policyholder obligations and claims. These ratings apply to companies engaged in the business of providing insurance and taking direct insurance risk, typically known as insurance operating companies. While many insurance groups manage their operations by business unit, Moody's insurance financial strength ratings are always assigned to legal entities.

In contrast, Moody's long-term debt ratings are assigned to specific securities issued by either a holding or operating company. The relationship between the insurance financial strength and debt ratings is dependent upon the legal and regulatory framework in a particular jurisdiction and the relative standing of policyholders and debt holders in the event of insolvency, bankruptcy, reorganization, or liquidation of the entity.

The relationship between the ratings for these different classes of creditors is discussed in the sections below, with guidance about the typical degree of difference (expressed in number of rating "notches") that can be expected in these ratings. These are not to be taken as absolute rules, but rather as guidelines in interpreting the relationship between financial strength ratings and debt ratings. It is important to note that a well capitalized, profitable insurance operating company with a highly leveraged parent or a weak affiliate will often have a lower financial strength rating than it would have were it a free-standing company because of the pressure those factors can place on its earnings and capital. Conversely, an IFS rating of a particular entity can be raised by implicit support associated with ownership by a financially strong group.

Priority of Claim Notching Between Operating Company IFS and Other Ratings

IFS ratings are typically the highest credit ratings within an enterprise. From an analytic perspective, the IFS rating is also the starting point for the development of all the other ratings of securities issued by insurance operating companies, their related holding companies, financing affiliates, etc. We generally consider the IFS rating as the anchor rating and the rating differential between the IFS and other ratings, referred to as priority of claim notching, as a derivative of the IFS assessment, based upon the specifics of the instrument and convention.

At the insurance operating company level, regulators generally accord policyholder obligations a preferred status in liquidation, above that of financial creditors including debt and preferred stock obligations. As a result, Moody's will usually notch down (i.e. assign a lower rating to) other rated obligations of the operating company. In certain jurisdictions, policyholder claims (or reinsurance claims) are pari pasu with senior financial obligations and our IFS rating and senior debt rating for the operating company will be the same. However, in this case, it is likely that there will be wider notching (e.g., two notches instead of one) to the subordinated debt rating at the operating company entity because of the greater expected loss for that creditor class compared to the policyholder and senior creditor classes. Exceptions to this practice include cases where the operating insurer maintains unusually high double leverage and where the insurer's financial strength approaches the secure/vulnerable cutoff (i.e., Baa/Ba).

Priority of Claim Notching Between IFS and Holding Company Ratings

The IFS rating at the operating company will also usually be higher than the insurance holding company's senior debt rating, reflecting the favorable influence of regulation on the operating insurer, as well as the typically subordinated position of a holding company. Although the default probability of an insurance operating company and its holding company are highly correlated, the loss severity (given default) for holding company creditors will be significantly greater given their structural subordination to both policyholder claims and operating company financial obligations — e.g. holding company creditor claims usually do not benefit from the regulatory oversight and typically represent simply an equity investment in the regulated company which will be paid after all obligations of the operating company are met.

Typical notching between the IFS rating at an operating company and the senior debt rating at the holding company (in the case of a simple organizational structure with one primary operating company in a jurisdiction of strong regulatory oversight) is three notches. Similar to the examples discussed above, in cases of unusually high double leverage and of an operating insurer's rating approaching the Baa/Ba cutoff, the notching would typically widen.

Taking Account of Differences in Regulatory Jurisdiction

In jurisdictions where the regulatory regime and oversight is regarded as being more lenient (e.g. modest minimum capital requirements) and the dividend capacity available to the holding company from its operating company relatively substantial, then there is a rationale for narrower notching than typical for an operating company/holding company relationship. A Bermuda domicile, at least for simple holding company structures, would typically provide such an advantage, and here we would expect to maintain two notches between the IFS rating at an operating company and the senior debt at a holding company for a Bermudian insurer.

Taking Account of the Impact of Holding Company Diversification and Liquidity

Whereas the typical notching between the IFS rating at the operating company and the senior debt rating at its holding company is three notches, there can be narrower notching if the holding company benefits from multiple sources of sizable, uncorrelated earnings and dividend cash flows (e.g. significant banking, life and P&C operations and earnings). Similarly, if a holding company benefits from significant sources of dividends from unregulated subsidiaries (which are not highly correlated with the regulated subsidiaries), notching would be compressed. The reduction in notching will vary depending on the breadth and depth of the holding company's diverse sources of subsidiary cash flows.

In certain cases, a holding company may consistently maintain significant amounts of high quality liquid assets, which it could use in a time of financial stress to repay a substantial portion of its outstanding debt obligations. The difference between the operating company IFS rating and the holding company senior debt rating could ordinarily be reduced by one notch in these cases as well, to reflect lower default risk.

Global and National Scale Ratings

With the extension of credit ratings from highly developed capital markets to newer emerging markets, Moody's rating scales have evolved to provide comparability on both a globally consistent and nationally comparable basis. This development has become necessary for a number of reasons, which include the development of local-currency-based capital markets in a number of countries and an increased demand on the part of investors and intermediaries in lower-rated countries for a higher degree of credit differentiation among firms within a given national market, regardless of the sovereign's credit profile.

In order to address these issues, Moody's has developed two rating scale conventions, namely Global Foreign & Local Currency Ratings (GFC & GLC Ratings) and National Scale Ratings (NSRs).

Global Ratings

Moody's Global ratings, encompassing both Foreign and Local currency designations, are intended to be globally comparable relative ranking of credit risk.

GLC ratings reflect Moody's opinion about risk of loss and default, for obligations denominated in local currency. GFC ratings, in contrast, address the risk of obligations denominated in a foreign currency. Thus, GLC and GFC ratings are identical except that GFC ratings must incorporate the additional sovereign risk — that a payment default could result from the imposition of convertibility restrictions or some other sovereign-imposed payment moratorium. In such a case, the individual issuer might have the capacity to pay obligations in full and on time in its own local currency, but be denied access to the currency of payment, resulting in a default. The foreign currency country ceiling represents the risk that a country might impose a moratorium on foreign currency payments in the event the government defaults on its own foreign currency debt. However, if an issuer's GLC debt rating is above the ceiling, then its GFC debt rating might still "pierce" the ceiling if the debt obligation is sold under foreign law and Moody's believes that the issuer might escape such a moratorium. On the other hand, foreign currency IFSRs cannot pierce the ceiling.[11]

National Scale Ratings

In contrast to Moody's global ratings, National Scale Ratings (NSRs) are relative measures of creditworthiness within a single domestic market, and across industry sectors. Unlike GLC ratings, NSRs do have modifiers that indicate to which country they refer (e.g. A2.xx, with 'xx' designating the respective country; mx = Mexico, br = Brazil, etc.). In many countries, NSRs are required either by insurance or securities regulation, or by convention. Because NSR scales are different for each country and are relative measures of credit quality in that country, they are not comparable from one country to another (e.g. A2.mx is not comparable with a A2.br). That said, they are useful tools for assessing relative credit strength within a national market.

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11. For additional information, please refer to Moody's Rating Methodology: Piercing the Country Ceiling: An Update, January 2005 (91215).

Local Currency Guidelines and Their Effect on Moody's Ratings

Moody's Local Currency Guideline summarizes the general country level risks (excluding foreign currency transfer risk) that should be taken into account in assigning local currency ratings to locally-domiciled obligors. In many countries the local currency guideline is higher than the sovereign's own local currency debt ratings. The guideline indicates the rating level that will generally be assigned to the financially strongest obligation in the country. Accordingly, the Local Currency Guideline will usually be a constraint on the GLC rating for any company or obligation. The GLC rating generally and the Local Currency IFS rating in particular, is always the starting point for Moody's insurance rating analysis and is related to other Moody's ratings in the following ways.

The Global Foreign Currency IFS is the same as the Local Currency IFS rating, except where the LC IFS rating is above the Country Ceiling, in which case it will be the same as the Country Ceiling. By convention, references to an insurer's financial strength rating are understood to refer to the Foreign Currency IFS, unless otherwise specified.

Global Local Currency Debt Ratings are determined from the Local Currency IFS rating based on holding company analysis and the notching conventions previously described.

Global Foreign Currency Debt Ratings are determined from the Local Currency Debt Rating, as constrained by the Country Ceiling, as discussed above.

The National Scale IFS is determined based on the Local Currency IFS rating and a national scale rating matrix that is distinct for each country and applied to all global local ratings within that country.

*National Scale Debt Rating*s are determined based on the Local or Foreign Currency Debt Rating, using the same national scale rating matrix as above.

Appendix 1: Using the Methodology as a Rating Scorecard

As a complement to detailed fundamental analysis necessary to develop insurance financial strength ratings, Moody's has utilized the backbone of the rating methodology presented herein to develop a ***Rating Scorecard*** which can be useful as a guide to estimating the likely range into which an insurer's rating may fall, based on reference to the various rating level guidelines outlined with this methodology.

For example, under Financial Flexibility, a company with financial leverage of 22% would fall within the Aa range for that metric, and a company with financial leverage of 34% would fall within the A range. The metrics are primarily calculated based upon public information. Non-public financial data or public financial data modified due to accounting and reporting formats in other than US GAAP or IFRS may be also be used, but will not be reported publicly.

Ratings levels from Aaa to Ba are mapped to numerical values of 1 through 12 as follows: Aaa – 1; Aa – 3; A – 6; Baa – 9; and Ba – 12. A numerical value is established for each sub-factor, and weightings are applied to determine an overall numerical value and rating for each major factor. We then apply weightings to each factor per the accompanying table to obtain an aggregate numerical value and rating for all factors for which a rating matrix exists. The weightings shown below are a subjective assessment of the relative importance of the factors and sub-factors in our assignment of ratings to life insurers.

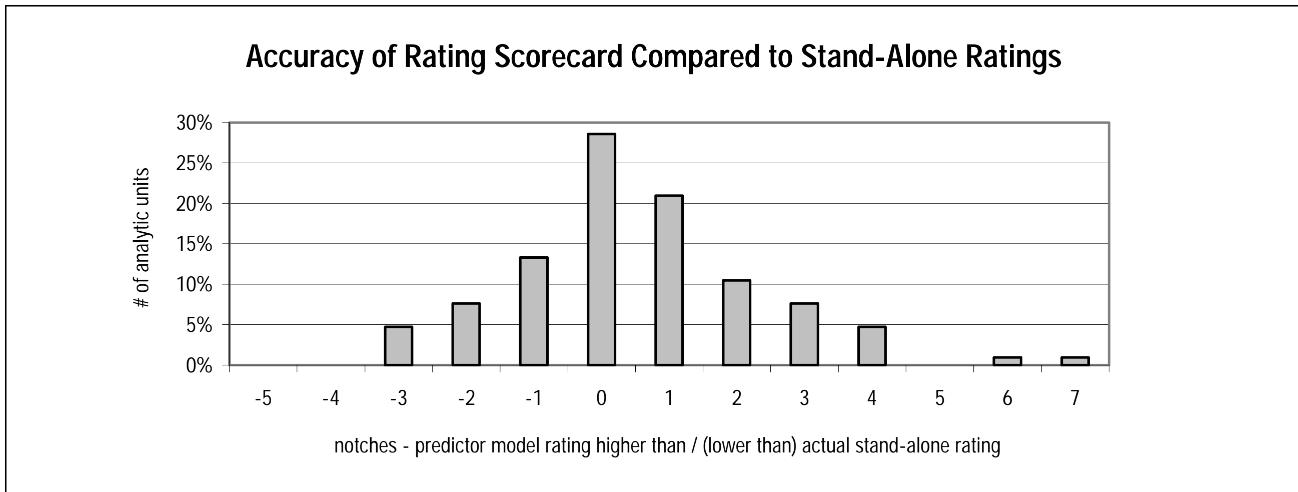
Part 1 — Business Profile	Factor score	Metric Score
Factor 1: Market Position and Brand	15%	
Market Share Ratio		30%
Relative Market Share Ratio		70%
Factor 2: Distribution	10%	
Distribution Control		50%
Diversity of Distribution		50%
Factor 3: Product Focus and Diversification	15%	
Product Risk		60%
Life Insurance Product Diversification		40%
Factor 4: Asset Quality	5%	
High Risk Assets % of Invested Assets		75%
Goodwill % Equity		25%
Factor 5: Capital Adequacy	10%	
Capital as % Total Assets		100%
Factor 6: Profitability	15%	
Return on Equity		50%
Sharpe Ratio of Growth in Net Income		50%
Factor 7: Liquidity and Asset/Liability Management	10%	
Liquid Assets Divided by Policyholder Reserves		100%
Factor 8: Financial Flexibility	20%	
Financial Leverage		40%
Cash Flow Coverage		30%
Earnings Coverage		30%

By way of example, if we look at the two metrics included in the Asset Quality factor, a company with high risk assets at 18% of invested assets would rate Aa (or 3) under this metric because the range for Aa is 10-20%. In addition, the same company with goodwill as a percent of equity at 30% equity would rate A (or 6) on this metric. Based on the accompanying table, the weighted average value for the Asset Quality factor would be 3.75, which maps to a rating of Aa3 for this factor.

Each major factor is evaluated and then weighted according to its importance within Moody's rating approach for the industry. Using those weightings, a weighted average is calculated, which is then mapped back to the Aaa through Ba rating scale. The mapping as shown in the accompany table includes rating modifiers The resulting rating is an objective, quantitatively-derived stand-alone insurance financial strength rating in the global local currency before management and governance, accounting policy and disclosure, and regulatory/sovereign considerations are taken into account.

Rating	Scale
Aaa	1
Aa1	2
Aa2	3
Aa3	4
A1	5
A2	6
A3	7
Baa1	8
Baa2	9
Baa3	10
Ba1	11
Ba2	12

We note that, when comparing results of this model to Moody's actual stand-alone ratings, the rating scorecard's accuracy to within one notch of the stand-alone rating is reasonably high at 63%. The rating scorecard's accuracy rate was calculated for those analytic units which were both rated above B1 and domiciled in developed markets of those countries for which the long-term country ceiling for foreign currency was Baa3 or higher. Differences between the model's rating and the actual stand-alone 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 company not appropriately captured or weighted by this model. We also will reiterate here that the model implied stand-alone rating may differ from the published rating due to parental support or sovereign guidelines. The rating scorecard, 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.



Appendix 2: Regional Capital Adequacy Measures

As previously highlighted, Moody's utilizes the capital to total assets ratio in the global methodology and rating scorecard because of its ability to be calculated consistently for all life insurers globally. In order to supplement this rather basic and blunt ratio, in several regions, internally developed or existing regulatory model capital metrics are also used. The insurance regulators in most regions have developed more refined measures of capital adequacy/solvency by evaluating the available capital relative to the risk exposures of the company. The level of sophistication of the risk-based capital (RBC) regime, the scale on which it is measured, and its usefulness in the rating process varies considerably among regulatory jurisdictions.

In countries where such risk-based capital schemes yield reasonable results, Moody's uses the local RBC metrics to supplement other measures of capital strength. For example, U.S. regulators employ Risk Based Capital (RBC), Canadian regulators employ MCCSR and Japanese regulators employ a local solvency ratio. In addition, Moody's will use internally developed capital models or adjusted capital measures developed by the regional regulator such as the Moody's Adjusted Solvency Capital (MASC) in the United Kingdom. Additional regional ratios will be introduced in the future.

Where applicable, Moody's also reviews a company's proprietary model for economic capital to assess capital adequacy. However, because assumptions made in one company's model may be quite different from assumptions used in another company's model, it is challenging to compare capital positions using companies' proprietary economic capital models within a peer group. [12]

12. *See Moody's Special Comment:* Company Built Internal Capital Models Expected To Play Greater Part In Moody's Insurance Rating Process, June 2006 (97497).

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