Global
Sector-Specific Rating
Criteria

Life Insurance Rating Methodology

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Related Research

- *Insurance Rating Methodology (December 2009)*
- *Insurance Industry: Global Notching Methodology and Recovery Analysis (December 2009)*
- *Rating Hybrid Securities (December 2009)*
- *Fitch's Approach to Rating Insurance Groups (March 2010)*
- *Equity Credit for Hybrids & Other Capital Securities (December 2009)*
- *Takaful Rating Methodology (October 2007)*
- *National Ratings - Methodology Update (December 2006)*

Summary

This report outlines the global rating methodology used by Fitch Ratings to analyse the credit quality and financial strength of life insurance (and reinsurance) companies. The methodology ultimately supports Fitch's assignment of Issuer Default Ratings (IDRs), Insurer Financial Strength (IFS) Ratings and debt/issue ratings for these entities. This criteria report is a sub-sector report under Fitch's global master criteria report, "*Insurance Rating Methodology*" (see Related Research in left-hand sidebar). For a fuller understanding of Fitch's methodology for rating life insurance companies, readers should refer to this report and other related criteria.

The criteria report identifies factors that are considered by Fitch in assigning ratings to a particular entity or debt instrument within the scope of the master criteria referenced. Not all rating factors in this report will necessarily apply to each individual rating or rating action. Each specific rating action commentary or rating report will discuss those factors most relevant to the individual rating action.

This report updates and replaces the agency's "*Life Insurance Rating Criteria (Global)*" report, dated 2 March 2007.

Scope of Criteria

The scope of this report is life insurance globally, including both primary and reinsurance business. The scope also includes health insurance business. However, US health insurance and managed care companies are outside the scope of this report.

Life insurers' main distinguishing feature historically has been the provision of protection relating to the life or death of an individual. The purest form of this protection is annual term insurance, which pays out a defined amount if the policyholder dies. However, many traditional life insurance products offered by life insurers are long-term policies and often have a substantial investment component for the policyholder. Moreover, in recent times, life insurers have increased focus on the sale of asset accumulation products that have little or no mortality risk.

Life insurers receive policyholder premiums, which are invested to earn a spread and used to fund future claims and benefit payments. Given the savings component of many of the products offered by life insurers, investment risk is often significant (and in some cases dominant), along with mortality risk, longevity risk, morbidity risk and expense risk. However, products vary between jurisdictions, often driven by tax or legislative differences, and some products are characterised by significant risk sharing or risk transfer between insurer and policyholder. The sharing of risk with the policyholder can be a key risk mitigant; however, risk is increased where guarantees or policyholder options are embedded within products. A good understanding of how risks from guarantees or options may be mitigated through product design, hedging and/or reinsurance is an important goal in evaluating the risk profile of a life insurer, although challenged by limited disclosure in some circumstances.

This report provides the following:

- a discussion highlighting the key characteristics of the operating environment and key risks faced by the life insurance industry; and
- key financial ratios and other performance metrics that Fitch focuses on when rating life insurance operating companies.

The process described here for analysing the key risks and financial performance of a life insurer can apply to either a stand-alone insurance entity or a consolidated group.

Ratings Limitations

Ratings of life insurers are primarily based on a review of public information, together with Fitch's judgments and forecasts. The extent and nature of financial information for insurance entities vary by country of domicile, based on unique regulatory, accounting and disclosure practices. Where management interaction is forthcoming, the information derived may or may not influence the rating based on Fitch's judgment with respect to the usefulness of such information. In certain cases, Fitch's forward-looking views related to risk exposures or forecasts may dominate a rating conclusion, and such forward-looking views may be based on factors that are highly subjective.

Although Fitch may receive non-public information from rated life insurance companies, the extent and usefulness of such non-public information can vary widely from issuer to issuer, as well as over time for a given issuer. Thus, while such information can be useful, Fitch generally does not rely on non-public information when rating life insurers.

Rating Analysis

The main rating factors used by Fitch for the analysis of life insurance companies are as follows.

Industry Profile and Operating Environment

The starting point for Fitch's rating analysis is to review the industry segment(s) in which the life insurer operates. Fitch aims to judge how industry dynamics affect the types and degrees of risk to which an insurance company is exposed. Fitch also uses its industry analysis to allow it to make better judgments on the unique attributes of individual insurers by being able to understand them on a relative as well as absolute basis.

Life insurers primarily sell a mixture of protection and asset accumulation products and services, for which the risk dynamics can vary greatly. Major insurance product lines include life protection (universal, term, etc.), disability, health, savings products, pension products and immediate annuities. Life insurers are typically exposed to both insurance risk (mortality, longevity and morbidity) and investment risk (interest rate, credit, liquidity and equity), though the degree of exposure to any of these risks can vary greatly from insurer to insurer. These products generally have a lower level of underwriting risk than certain types of non-life insurance, and tend to have a long duration (five to 10-plus years).

A key long-term product trend affecting the risk profile of life insurers globally is the ongoing shift towards asset accumulation products, typically with some form of investment guarantees, which is increasing industry exposure to investment risks and places life insurers more directly in competition with non-insurance financial institutions. Another longer-term trend that has been affecting the risk profile of life insurers is increased product complexity, which requires more sophisticated financial management and has increased regulatory and operational risk. Such complexity has also resulted in lower levels of transparency within reported financial statements.

In many developed markets, there are strong competitive pressures on pricing and profitability due to overcapacity and slow growth in traditional products. This is exacerbated by the competition that the life insurance industry faces from non-insurance financial institutions (such as banks and asset managers). On the other hand, positively from a credit rating perspective, changing demographics and growing concern over state-funded pension schemes are expected to drive significant growth in demand for retirement income products and services globally over the next few decades.

Given the nature of life insurance business, it plays an important role in modern economies. It is therefore highly regulated in most jurisdictions. Often, regulatory and legislative standards have a significant impact on the risks and opportunities that insurers have in different markets. Hence, Fitch's evaluation of the regulatory and legislative environment in a particular market is an important component of the agency's analysis of a life insurer's operating environment.

Life insurance business generally benefits significantly from the tax-favoured status of its products, although this varies by country and product. Adverse changes in the taxation of life insurance products would be likely to have a significant negative impact on life insurers, although it would depend on the precise scale, nature and scope of the changes.

Companies operating in the reinsurance market face some particular challenges not faced by companies operating only in the primary market. These relate to being further removed from the underlying risk exposure and hence dependent to a degree on the underwriting and claims data, expertise and processes of the ceding company. In addition, life reinsurers may have significant exposure to pandemics or other mortality catastrophes (because any such risks are normally reinsured by direct writers, rather than being retained on their own accounts).

Reinsurers also often have to collateralise at least a portion of their ceding company obligations via trust accounts or bank letters of credit, which can increase liquidity risk. In addition, given less use of reinsurance generally among life insurance than non-life companies, life reinsurance tends to be more specialised, requiring unique underwriting expertise, and may include greater exposure to adverse selection.

On the other hand, some reinsurers have a significant advantage in that they have access to a pool of data and expertise from across their client base, which can inform their underwriting and pricing. Also, reinsurers generally benefit from lighter regulation, for example as regards premium rates and policy form, given the institutional nature of their customer base.

Company Profile and Risk Management

A life insurer's competitive position and business mix within its chosen markets are important factors in considering the underlying company risk profile. Fitch believes the level of competitive advantage enjoyed by an individual life insurer is an important ratings consideration. However, competitive advantages can be difficult to sustain over extended periods, as product innovations can often be readily mimicked by competitors and third-party outsourcing arrangements can provide access to technological capabilities and expense efficiencies. Nevertheless, there are benefits to scale, brand strength and awareness, high service levels, market share in individual businesses and assured access to strong distribution channel networks.

While Fitch believes life insurance across different lines and different geographies is likely to be quite highly correlated, the fortunes of individual markets and business lines over time may still deviate, positively or negatively, from the broader global life insurance market as a whole. For example, there could be regulatory or tax changes affecting a specific country or a specific market segment within a country. Thus, individual insurers' profit potential and volatility will differ significantly based on the diversity and composition of the underlying portfolio by segment and geography. Successful diversification across product and market is generally considered to be a positive rating factor. Fitch nonetheless recognises that even apparently diversified portfolios can become correlated under extreme conditions.

Product mix has a direct impact on a life insurer's risk profile. The inherent riskiness of various life insurance products is a function of underwriting volatility, the level and type of product guarantees, competitive dynamics and the threat of government/regulatory intervention. These factors are evaluated in the context of the various strategies employed by the life insurer to mitigate risk, including reinsurance, hedging and product design.

Fitch considers products with policyholder risk participation, discretionary benefits and limited interest guarantees and cash surrender value guarantees (e.g. with-profit products, participating whole life) to be at the low end of the product risk spectrum. On the other hand, products at the higher end of the product risk spectrum (e.g. long-term care, variable annuities) typically have one or more of the following characteristics:

- provide various guarantees regarding investment performance, claim payments, premium rates;
- are subject to a high degree of claim volatility;
- lack credible loss experience to base pricing assumptions; and
- are exposed to regulatory intervention.

In some cases, the risk of concentrations in inherently risky product lines will be weighed very heavily by Fitch in its analysis and constrain a rating, despite the insurer having an otherwise conservative financial profile.

Distribution capabilities are evaluated in terms of volume, productivity, cost and diversification. In several product lines, access to distribution serves as a barrier to entry. Fitch views distribution as having a direct impact on a life insurer's growth prospects, and can indirectly affect product profitability by influencing cost, in-force persistency and underwriting performance. A life insurer's distribution channels can also have an impact on its regulatory and reputational risk in some markets.

Underwriting, expense management and pricing expertise, along with administrative and technological capabilities, are considered in terms of their impact on earnings and revenue. The ability to monitor and control risk can be an important differentiator in the financial strength of an organisation compared with peers — for more information on how Fitch assesses risk management for all insurers, see "*Insurance Rating Methodology*" under *Related Research* on the front page. It should be noted that the depth and breadth of Fitch's analysis of various aspects of a company's profile and risk management can vary, at times materially, from company to company, based on the type of information made available to Fitch to review.

Financial Profile

Fitch uses various quantitative measures, which are evaluated on the basis of market-specific norms, rating benchmarks, prior-period results and expectations developed by the agency. The weightings of the various financial profile factors will differ depending on the circumstances of the individual life company. Typically, the most important financial profile areas for life insurance companies are capitalisation, investment and asset risk, asset/liability and liquidity management, and financial performance and earnings evaluation. There are inherent links between these different elements of the financial profile. For example, Fitch's evaluations of capital adequacy and profitability are closely linked with its assessment of investment and asset risk.

As noted in the global insurance master criteria report, information may be derived from a range of sources, including audited financial statements (based on local GAAP or on IFRS), regulatory returns, management reports, actuarial evaluations and, in some cases, company projections. The relative emphasis on different sources varies by market.

Some of the main elements that are typically reviewed are as follows.

Capitalisation

Analysis of a life insurer's capitalisation focuses on consideration of the adequacy of capital to absorb losses tied to key risk elements, particularly investment and asset risk. In all jurisdictions globally, capital adequacy for life insurers is first evaluated using non-risk-adjusted leverage ratios that measure capital levels in relation to a company's notional risk exposures, such as the technical reserves/capital ratio (also referred to as operating leverage). Fitch's analysis of capital also incorporates an assessment of reserve methodologies, which can vary by market and company.

In addition, in most jurisdictions, Fitch evaluates regulatory solvency capital standards, examples of which would be the Solvency I or Insurance Groups Directive regime in Europe, the National Association of Insurance Commissioners' risk-based capital ratio in the United States and the various solvency margins in other jurisdictions. It is worth noting that in the case of many emerging markets, the solvency margin requirements are loosely based on the European Solvency I regime.

In some cases, Fitch will additionally evaluate capital using its own proprietary risk-based models or tools. In particular, for life insurers in the EMEA and Asia-Pacific regions, Fitch also uses its factor-based internal calculation to assess companies' capital adequacy and resilience to material shocks regarding market risk.

Finally, in select cases when such information is made available, Fitch will assess capital adequacy in conjunction with results provided by insurers' in-house capital models.

Fitch reviews both risk- and non-risk-based capital analytical tools and ratios, and employs judgement in each situation to interpret all the various measures.

The agency's quantitative assessment of capitalisation is complemented by qualitative analysis, such as consideration of an insurer's financial flexibility and benefits of any reinsurance programmes (or retrocession programmes, in the case of reinsurers). In the case of reinsurance or retrocession, Fitch seeks to evaluate, where possible, the credit quality of counterparties. The agency also considers concentrations of exposures to individual counterparties; this is a particular consideration for primary life insurers (compared with non-life insurers), given the relatively small number of reinsurers operating in the life market.

Investment and Asset Risk

Taking investment and asset risk in a controlled fashion is typically an inherent part of the business model of life insurers. In contrast to non-life insurers, for which the ability to manage underwriting risk is a key driver of success, for most life insurers it is the ability to manage investment risk that is a key driver.

The investment portfolio is evaluated in conjunction with the liabilities as part of a broader review of asset/liability and liquidity management, as discussed below. As part of Fitch's analysis, the company's investment philosophy is also considered to understand how the investment portfolio may change over time.

In Fitch's assessment of asset risk for a life insurer, four key areas are considered:

- credit risk;
- market risk;
- interest rate risk; and
- liquidity risk.

Life insurers bear a varying degree of credit exposure as organisations make different choices regarding the trade-off between yield and default risk in investment decisions, and have differing investment opportunities in their market of origin, depending, for example, on regulatory limitations. Fitch considers the mix, composition (government/corporate/structured) and credit quality of a life insurers' fixed-income portfolio. Asset stress testing that estimates economic losses by asset class in more severe economic conditions is conducted to assess insurers' credit exposures.

A portfolio allocation to equity securities or real estate is not uncommon for a life insurer. Such investments may provide higher expected returns over time, but are also generally significantly more volatile. Fitch stress tests equity and real estate investment values, taking into account the mitigating benefits of risk sharing (if any) with policyholders, to consider the potential impact on capital from severe market downturns. Equity investment positions may also include positions in derivatives, hedge funds or private equity vehicles. Concentrations in these types of investments are viewed more cautiously, as they have greater uncertainty in terms of valuation and liquidity.

As regards interest rate risk and liquidity risk, life insurers generally aim to minimise duration and other mismatches between assets and liabilities. Fitch's evaluation of both these risks is considered in the following section.

In some emerging markets, life insurers may invest in foreign assets, aiming to increase the diversification of their investment portfolio and/or to enhance yield. However, Fitch believes that a significant currency mismatch between assets and liabilities would substantially increase the volatility of an insurer's earnings and capital position. In such a case, subject to data and information availability, Fitch would evaluate the company's hedging strategy, including the types of instruments used (e.g. currency swaps, proxy hedging) and costs associated, and/or how hedges have performed historically.

Asset/Liability and Liquidity Management

Asset/liability management (ALM) and liquidity risk management are fundamental to the sound financial management of a life insurance company. Assessment of these risks, however, can be particularly challenging at times, given limited disclosures in published financial statements and accompanying notes.

Fitch's evaluation of ALM and liquidity risk focuses on an evaluation of the liquidity characteristics of the life insurer's assets and liabilities based on an understanding of the life insurer's ALM approach and, where available, an assessment of the company's modelling results under a range of deterministic and dynamic scenarios. Alternative sources of liquidity to fund unexpected cash needs are evaluated based on their amount and availability.

Liquidity risk is a key consideration in Fitch's analysis of life insurers. However, liquidity risks can vary significantly from market to market, depending on the local operating environment. Fitch therefore takes this into account, as local market-specific factors can significantly increase or mitigate liquidity risks that a life insurer is exposed to.

Strong ALM is critical for life insurers that have a high exposure to liquid (surrenderable) liabilities, particularly policies that can be surrendered for cash on guaranteed terms. For companies with limited liquidity risk, appropriate ALM processes are still important in order to achieve profitability objectives. These two ALM goals — management of liquidity and management of earnings — are related but do not fully overlap.

Traditional ALM approaches used by life insurers include duration/convexity and cash flow "matching" of assets and liabilities, typically within some defined maximum and minimum mismatch target. Increasingly, life insurers have been using more sophisticated approaches involving complicated hedges using derivative instruments, which increase a company's exposure to operational, counterparty and basis risk.

In cases where liquidity risk is considered to be a very material element (such as some US life insurers), the liquidity characteristics of the life insurer's assets and liabilities are evaluated to determine expected liquidity needs (to fund claim payments and surrenders) relative to liquidity sources (ability to convert assets to cash) under various stress scenarios. Important aspects of this evaluation include analysing expected liability payment patterns and potential volatility due to embedded options, and asset volatility due to interest rate and market risk. In practice, this may involve some degree of estimation by Fitch of the key risk drivers.

In addition to evaluating scenario-testing results when available, Fitch also calculates traditional liquidity measures looking at operating cash flow and comparing liquid assets with total liabilities. Fitch may also use other quantitative measures and models to assess ALM and liquidity risk that vary by market.

Fitch evaluates liquidity at the operating company level based on the marketability of investments, as well as the amount of liquid assets relative to liabilities. The manner in which the company values its assets and insurance liabilities on the balance sheet is also examined. Fitch also considers the amount of receivable and other balances, as well as the impact of very non-liquid assets such as affiliated holdings or office buildings.

For companies writing reinsurance business, Fitch will also consider how any collateralisation requirements for business written may affect liquidity and financial flexibility, especially as regards the extent to which such requirements are dependent on financial covenants or rating triggers.

Financial Performance and Earnings Evaluation

Since earnings are an important source of capital, the evaluation of profitability plays an important part in Fitch's assessment of a life insurer's financial profile. The focus of the agency's analysis is to understand the sources of profit, the level of profit on both an absolute and relative basis, and the potential variability in profit.

Fitch looks at earnings and various measures of margin at the product line level and calculates standard profitability ratios on a consolidated basis, including return on assets (ROA), return on revenue (ROR), return on equity (ROE) or return on surplus (ROS) and return on embedded value (ROEV). ROEV is used only for life insurers that provide supplementary financial reporting on an "embedded value" basis. This mainly includes large life insurers in the EMEA and Asia-Pacific regions. While strong profitability is generally viewed positively for ratings, Fitch recognises that strong near-term profit may be the result of incremental risk taking, which would be negative for ratings.

Fitch also interprets profitability ratios within the context of operating and financial leverage, recognising that high returns resulting from high leverage are a negative for ratings, and that low returns due to low leverage are actually a sign of reduced risk. Fitch also uses other quantitative measures that vary by market.

For a life insurer, operating profit is generated when revenue — including premiums, insurance fees and investment income (excluding realised gains and losses) — exceeds policy benefits, administrative expenses and the costs of selling the business. Wherever possible, Fitch evaluates the diversification of earnings, including the balance by market and product, the balance between risk- and fee-based earnings and the mix of profit from new sales versus older in-force profit to further understand the quality of earnings. In general, all else equal, earnings that are well diversified tend to be less volatile.

In addition to profit, Fitch's review also uses growth in sales, revenue, expenses and assets as a measure of performance. These growth trends are considered in the context of market conditions and company-specific strategic initiatives. Recognising that in many markets around the world life insurance is a mature industry, Fitch generally views modest growth in sales, consistent with market averages, as a sign of health. Fast growth is often a sign of aggressiveness, especially if growth is focused on new products (or new product features), and could have a negative impact on ratings. Sharp reductions in sales could be the sign of a weakening franchise, which could place pressure on management to take on added risks to increase sales. Qualitative interpretations of the key drivers of growth trends are an important part of Fitch's evaluation.

Appendix 1: Financial Ratios and Definitions

Fitch's global master insurance criteria report sets out select key ratios that are commonly applicable to insurers, especially life and non-life companies. Discussed below are some key financial ratios that may be used by Fitch in its financial review of life (re)insurance companies specifically. However, the list is not exhaustive and neither will all ratios always be relevant for all life insurers.

Financial ratios are evaluated relative to industry norms, specific rating benchmarks, and expectations developed by Fitch specific to the rated entity. In many cases, there is information value in the change in ratio values over time as well as the absolute level. As such, Fitch typically looks at a time series made up of at least five years of historical data.

Profitability

Expense Ratio

The expense ratio serves as an indicator of operating efficiency (commissions, general insurance expenses and insurance taxes, licences and fees) relative to total assets and/or premiums. Variances among insurers can be due to differences in product mix, distribution system costs (company-owned, direct, independent), level of fixed versus variable costs, cost efficiencies and productivity, and profit sharing and contingent commission arrangements.

Return on Equity

The ROE ratio measures a company's after-tax net income relative to mean equity or total capital, and indicates both overall profitability and the ability of a company's operations to generate surplus internally. Variances among companies are explained by both differences in operating profitability and differences in net operating and/or financial leverage. For a profitable company, a less favourable (i.e. higher) leverage position will result in a more favourable result on this test.

Return on Assets

ROA measures a company's after-tax, post-policyholder-dividend operating profitability relative to mean assets. It is accordingly less sensitive to differences in operating leverage than the ROE ratio above. A company's mix and age of in-force business affects this measure.

Value of New Business (VNB) Margin

The VNB margin is defined as the present value of profit on new business, expressed as a percentage of present value of new business premiums (PVNBP) or annualised premium equivalent (APE[1]). This ratio is only relevant for life insurers that provide supplementary reporting on an "embedded value" basis, in addition to their primary GAAP or IFRS reporting. This mainly includes large life insurers in the EMEA and Asia-Pacific regions. VNB, where available, provides an indication of the long-term profitability of the new business currently being written which, over time, is important for long-term creditworthiness.

Premium/Deposit Growth Rate

The premium/deposit growth rate ratio is useful in comparing peer companies and judging a company relative to cyclical industry trends. Companies exhibiting above-average growth rates may be doing so as a result of underpricing their products or taking on risks. Premium growth is also a useful measure of franchise value, as negative growth can be a sign of an eroding franchise.

[1] APE is a commonly used measure in EMEA and Asia-Pacific of the volume of life new business written, and is defined as the sum of annual premiums written plus 10% of single premiums written

Investment and Liquidity

Below-Investment-Grade Bonds/Capital

Below-investment-grade bonds as a percentage of capital measures the capital exposure to below-investment-grade bonds (rated lower than 'BBB−'), which are considered to possess above-average credit risks. Exposure to below-investment-grade bonds is also evaluated as a percentage of total invested assets. In some jurisdictions where the Country Ceiling is below investment-grade level, Fitch measures the actual exposure to "stressed" investments as a substitute measure.

Unaffiliated Equities/Capital

Unaffiliated equities as a percentage of capital measures the capital exposure to equity investments. Since equities are subject to high price volatility relative to bonds, a high level of equities potentially adds an element of volatility to capital levels.

Investments in Affiliates/Capital

Investments in affiliates as a percentage of capital measures the capital exposure to affiliated investments. High levels of affiliated investments can reduce liquidity, expose capital to fluctuations (if common stock) and potentially signal a "stacking" of capital within the organisation.

Operating Cash Flow Coverage

Operating cash flow coverage serves as a cash flow measure of a company's liquidity and indicates the relative strength of cash inflows as a multiple of outflows. The ratio is evaluated both in absolute terms and from period to period.

Liquid Assets/Policyholder Liabilities

The liquid assets/policyholder liabilities ratio compares the amount of invested assets that can be readily converted to cash with policyholder liabilities, which may be adjusted for non-surrenderable liabilities. The ratio is evaluated both in absolute terms and from period to period.

Investment Yield

Investment yield is calculated as a percentage of mean beginning and ending cash and investments and accrued investment income. It is a measurement of investment performance. Acceptable values vary over time depending on market conditions. Deviations among companies can be explained by differences in the taxable/tax-exempt mix, the credit quality and resultant yield characteristics of the bond portfolio, concentrations in higher-return/lower-yielding common stocks, the level of investment expenses and the quality of portfolio management.

Capital Adequacy

Operating Leverage

Operating leverage indicates the amount of liabilities (excluding separate account or unit linked) supported by each unit of capital. This is not a risk-adjusted measure. Where ratios are high in either absolute terms or compared with peers offering similar products, this would generally be viewed negatively.

Regulatory Capital

Regulatory capital ratios are also reviewed in jurisdictions where they are available. These include the National Association of Insurance Commissioners' risk-based capital ratio in the United States, the minimum continuing capital and surplus requirements in Canada, the Solvency I or Insurance Groups Directive ratio in Europe and various solvency margins in other jurisdictions. However, in some jurisdictions, local regulatory capital rules can be limited in scope, which results in greater emphasis on other assessments of capital adequacy discussed above.

Financial Leverage and Coverage

Total Financing and Commitment

The total financing and commitment ratio is a comprehensive measure of debt-related leverage, making use of a broad definition of debt to include essentially all financing activities (including "traditional" financial debt as well as both recourse and non-recourse securitisations, letters-of-credit facilities with banks provided to third-party beneficiaries, and so-called match-funded debt), and debt guarantees and other financing-related commitments. The ratio is designed to measure the debt, financing and capital markets "footprint" of an organisation, and its overall reliance on ongoing access to funding sources.

The measure is intended to flag those companies that have an above-average reliance on the capital markets for funding, which would trigger further analysis by Fitch to understand the relative risk of the company's various funding activities. Perceived high levels of risk would have a negative impact on ratings.

Adjusted Debt/Total Capital

The adjusted debt/total capital ratio measures the use of financial leverage within the total capital structure. Financial debt excludes operational debt, such as obligations issued by non-insurance finance subsidiaries. Special care is taken in assessing the "quality" of reported equity, taking into consideration the portion supported by intangible assets such as goodwill. This ratio is adjusted to account for equity credit for any hybrid securities, which possess both debt and equity characteristics, and liquid assets maintained at the holding company.

Fixed Charge Coverage

Fixed-charge coverage ratios are calculated on both an operating earnings and cash flow basis to judge economic resources available to pay interest expense, including the interest portion of rent expense, and preferred dividends. Where applicable, coverage ratios are also calculated to reflect dividend restrictions from regulated entities.

Interest Coverage

Interest coverage ratios are calculated on both an earnings and cash flow basis to judge economic resources available to pay interest expense associated with outstanding debt. Where applicable, coverage ratios are also calculated to reflect dividend restrictions from regulated entities.

Appendix 2: Examples of Attributes of Rated Issuers

Attributes of One Highly Rated, Investment-Grade Life Insurer

AA Life Insurer (AA Life) is a wholly owned subsidiary and lead operating company of AA Holdco, a large, publicly traded insurance holding company. The company is a large life insurer with top-tier market positions in four major business lines: individual life, individual annuities, group pensions and asset management. The company's key competitive strengths include strong brand-name recognition, significant operating scale, and diversified product profile and distribution channels.

The group has a highly experienced management team with a favourable track record of meeting expectations. Risk management processes are well developed at the division level but less well developed at the enterprise level. The group is developing an economic capital model to help assess risk and manage capital across the enterprise.

Profitability levels have improved in recent years due to stable interest margins on a growing asset base, favourable underwriting margins in the individual life business, and progress on various initiatives to reduce expenses and improve productivity. Growth in the unit-linked and asset management businesses has improved the balance between fee-based, spread-based and underwriting earnings.

Strong balance sheet fundamentals include the group's moderate financial leverage, strong risk-based capitalisation, good liquidity profile and strong asset quality. The group's capital structure consists of a conservative mix of debt, hybrid securities and equity. Outstanding debt maturities are well laddered, which mitigates refinance risk. Equity-adjusted financial leverage is expected to be maintained in the 20%–25% range. Financial flexibility is considered to be very good — the group has demonstrated the ability to access the debt and equity market to raise capital, at least when capital markets have been functioning normally.

AA Holdco's debt service is primarily funded from upstream dividends from AA Life, which is subject to regulatory dividend restrictions, and the asset management subsidiaries. Other liquidity sources include committed holding company cash balances, which amount to two times annual debt service, and a commercial paper programme, which is backstopped by bank liquidity commitments consistent with Fitch's rating guidelines.

AA Life's risk-based capitalisation is maintained at levels in line with the assigned rating and is well in excess of regulatory minimums. Based on its expected business growth and earnings profile, Fitch expects the company to be able to self-fund future capital needs to support organic growth.

Invested assets, which are primarily concentrated in investment-grade, publicly traded securities, are tagged to specific liabilities, and duration is tightly matched. The company limits credit risk by maintaining a diversified investment portfolio that is subject to well-defined sector and issuer limitations. Asset liquidity and interest rate risk is managed within the context of the company's ALM process, and is well controlled in the aggregate. Over the long term, investment performance has been favourable relative to benchmarks and peers.

Attributes of One Lower-Rated, Non-Investment-Grade Life Insurer

BB Life Insurer (BB Life) is a wholly owned subsidiary and sole operating company of BB Holdco, a small, privately held insurance holding company. The company is a small life insurer with a niche market position selling fixed-annuity products through financial institutions. The operating track record has been negatively affected by lack of scale, and limited product profile and distribution channels.

The company has an experienced management team but lacks depth. Risk management processes are not well developed but considered adequate given the company's simple operating structure. Given the company's product focus, primary risk exposure is to large increases and decreases in interest rates. BB Life does not have any type of hedging programme to protect earnings and capital from adverse interest rate scenarios.

Operating performance has been negatively affected in recent years by low interest rates, which reduced interest margins; decreased revenue; and lower earnings. BB Life's earnings profile continues to be negatively affected by high expense levels due to the company's limited operating scale. Continued low interest rates will likely lead to further reduction in interest margins and operating losses.

BB Life's risk-based capitalisation is considered adequate, but financial leverage is considered high. Equity-adjusted financial leverage is expected to be maintained in the 40%–45% range over the near term. Outstanding debt consists entirely of a term bank loan that is due in 18 months. Financial flexibility is very limited due to the company's size and high financial leverage.

BB Holdco's debt service is primarily funded from upstream dividends from BB Life, which is subject to regulatory dividend restrictions. BB Life's dividend capacity is constrained due to the company's risk-based capital levels.

Invested assets, which are primarily concentrated in investment-grade, publicly traded securities, are tagged to specific liabilities, and duration is reasonably well matched. Credit risk is limited as the company does not buy below-investment-grade bonds. However, about 30% of invested assets are residential mortgage-backed securities, which further expose the company to interest rate risk.