MARC RATING METHODOLOGY

LIFE INSURANCE FINANCIAL STRENGTH

INTRODUCTION

The common methodology used to analyse general insurers can be similarly applied to life insurers. This criteria paper seeks to address rating factors unique to the life insurance industry. Life companies display inherently superior operating stability compared to general insurers due to the high degree of predictability of claims outcome using mortality and morbidity tables.

In the life insurance business in Malaysia, there are 25 insurers, including takaful operators, as at end-2016. The growth of the industry has been moderate, with new business growth averaging 5.5% per annum between 2011 and 2016. A significant share of new business growth has been attributed to investment-linked insurance and takaful policies which now account for 32.9% of total life insurance and family takaful business.

The insurance penetration rate, measured by the ratio of total number of insurance policies in force to the total population, ranged between 54% and 56% over the last five years. The penetration rate is considered low relative to developed countries' penetration rates of over 100%. A low penetration rate in the domestic market provides room for growth for insurers. However, affordability and the access required to service policies in underserved market segments remain key barriers to higher levels of penetration.

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BUSINESS REVIEW

MARC's prospective view of the life insurer's franchise strength and its earnings generation capacity is informed by:

- The insurer's overall mixed of business, its product lines and the growth rate of business in force for product which constitute a substantial portion of its business. Prudent diversification across a number of profitable or potentially profitable product lines fosters higher resilience to unfavourable changes in the economic environment.
- market position, i.e. ranking relative to peers, and how this has changed/been maintained over the last three years
- market share and growth
- competitive strengths and weaknesses
- distribution capabilities
- expense efficiency
- technological capabilities.

Competition for investment funds exists in the form of direct equity investments, unit trust funds, investment companies, and banks, which offer products that compete directly with insurers. The distribution expenses for these competitors are markedly lower than traditional insurance distribution systems. Additionally, life insurers are increasingly faced with competition from non-traditional players in particular from the insurance technology companies.

Life companies in Malaysia have been largely reliant on the agency system to sell their products to the public. Such reliance carries with it high commission payments and training expenditure. Moreover, a high drop-out rate and agency movement between companies add to losses in potential business generation. Some measures were implemented in 1987 to address these issues, including standardising the first year remuneration to agents and smoothening commissions over a seven-year period (to induce agents to improve after-sales service and persistency of policies).

While the advent of e-commerce would aid in the diversification of distribution platforms, increasing market penetration and also lowering the ongoing distribution cost for insurers, sales via the internet are likely to be low initially and its acceptance as a distribution channel will be a gradual process. After all, insurance is still regarded as a product that is sold rather than bought (at least in developing countries) and given the complexity of the product, the traditional method of personal interaction with clients may still be what it takes to close a contract.

Companies writing large portfolios of participating and investment-linked businesses are vulnerable to stock market disruptions, as the crediting rates of these products to policyholders bear a high correlation with the performance of the equity market. The underlying investments of these products are largely equities. A sustained bear market will likely affect growth of these product lines.

MANAGEMENT AND CORPORATE STRATEGY

Management is assessed for its role in developing and implementing long-term strategies that will determine whether the insurer has a sustainable competitive advantage.

In respect of the strategic planning function:

- What are its corporate objectives (e.g. maximise shareholders' value, target market share and market positioning)?
- Can the company identify its core competencies?
- What competitive advantages is it leveraging on to grow market share?
- Is the management's strategy consistent with the capabilities and weaknesses of the business and its management?
- Are the assumptions backing the plan reasonable?

The analyst assesses management flexibility in responding to changing market conditions. Is the management known to have discontinued products that are loss-making? Has it been able to meet new products from competitors, or even better, introduce its own innovative products into the market? What actions has it taken to improve productivity as measured by production per agent (e.g. cost-cutting programme)? The analyst also tracks the agents' productivity trend over the past five years and evaluates the management's propensity to terminate unproductive agents.

What is the company's dividend policy (at or above market rate, faster than inflation, vis-à-vis retention in the non-par fund)? Is the management under pressure to meet shareholders' dividend expectations and thus has to strategise its product mix in favour of non-par policies, in order to accrue all surpluses to shareholders? Does the management set a minimum acceptable level of free assets[1] to be maintained by the fund? Is there a certain minimum return on policyholders' capital that is used to price its products?

[1] *Free assets are the surplus of total life fund assets after setting aside the margin of solvency and bonus allocated to policyholders during the year. Total assets, instead of admitted assets are used as they are more encompassing and reflect the "total' assets after netting off the solvency margin and liability, that are available to the insurer. Asset admissibility is merely a concept used to regulate the risk exposures of a fund's investments.*

OPERATING PERFORMANCE

A life fund's profitability can be measured by the year-on-year change in the embedded value of the fund as determined by the actuary (but stripping out changes in the actuarial assumptions or discount rate). The source of growth in the embedded value can arise from new business growth, improved profits arising from the in-force book, or higher investment returns. The embedded value is the present value of future profits on an insurer's existing portfolio of policies. Because of the long-tail nature of the life business, future profits will materialise as the existing portfolio runs off (assuming the actuary's projections are accurate), and this may take many years. Changes in the economic environment, which may affect the assumptions used in the calculation, can result in a dramatic change in the embedded value.

An insurer's income stream comprises both premium income and non-premium income.

- Premium income mix – whole life, endowment, temporary, health, investment-linked and annuities; new premiums vs. renewal business premiums; single premium vs. annual premiums (single premium business tends to be more erratic); par vs. non-par. Growth in new business premiums - new business levels are a function of the economic environment, consumer confidence and government initiatives that encourage the take up of insurance coverage by individuals (e.g. through tax incentives). Highly rated insurers normally show persistent growth in new annual premiums.

- Non-premium income is made up of recurring income from investments, i.e. interest and dividends, and capital gains/losses. As both premium and investment income display rather stable characteristics, income fluctuations largely stem from stock price volatility. In 1997/98, many companies experienced sharp falls in their non-premium income as a result of the large provisions for diminution in the value of their share portfolio.

The life office's recurring outgoings constitute benefit payments (e.g. death, maturity, surrenders and bonuses), commission and agency-related expenses, and management expenses. A young insurance company benefits from relatively small policy payments in its earlier years due to the long-tail nature of life policies. As the business grows, it may even benefit from economies of scale as expenses are spread over a greater volume of business. Over the longer term, however, as the average age of the insured policyholders catches up, policy payouts will rise. In Malaysia, terminations as a result of death and maturity remains low, each constituting less than 1% of total sums insured terminated, reflecting its relatively young population.

The **expense ratio** is compared against peers, i.e. the ratio of the sum of commission and management expenses (related to ordinary life business only) to total premium income other than single premiums. The analyst evaluates the source of improvement/deterioration of the expense ratio (cost-cutting initiatives, implementation of a more efficient workflow, IT-driven re-engineering). However, such cost efficiency measures, which bear longer term benefits, normally involve heavy one-off capital expenditure (e.g. IT infrastructure, termination payments, rationalisation/ restructuring costs). If these measures were implemented in prior periods, the analyst will assess their effectiveness in the current period. It is also important to ascertain whether there are any cost overruns or underruns compared with the actuary's original pricing forecast.

While business growth plays an important role in an insurer's operating performance, loss of business can be significant in eroding its profitability too. Thus, a measure of the persistency of its ongoing business is necessary. MARC looks at the **weighted forfeiture rate** defined as the ratio of annual premiums forfeited to new annual premiums in respect of policies written in the last three years, weighted at 20%, 56% and 24% for the latest year, first preceding year and second preceding year respectively. Another measure, the **surrender rate,** is the ratio of the total sums insured discontinued in the year by surrender, i.e. with the payment of a surrender value, to the sums insured in force at the beginning of the year. A third ratio, the **conservation ratio,** calculates the current year's renewal premiums to the previous year's first year and renewal premiums.

Policy cancellations and lapses normally escalate in an economic downturn as rising unemployment trim household budgets, resulting in reductions in, or outright cancellation of their life cover. MARC's analyst will examine the trend of policy persistency and the proportion of policies remaining in force for at least five years. Is the actual termination experience within the range that was factored into the cost of the product, i.e. is persistency better or worse than the pricing assumptions? Low persistency leads to higher expenses because there is not enough time to recover the high acquisition costs. Accounting profit is not an accurate measure of profitability for a life insurance company because the amount of life fund surplus transferred to the profit and loss account depends on the type of policies (par and non-par mix) underwritten and the degree of conservatism of management. Only 10% – 20% of the aggregate amount allocated from the par fund surplus is transferred to shareholders while the remaining 80% – 90% is allocated to par policyholders in the form of reversionary bonuses, which are reinvested and only paid out upon policy maturity. Surpluses arising from the non-par fund, however, accrue solely to the shareholders. The amount of bonus declared out of the par fund surplus is normally at a minimum acceptable rate (but within the policyholders' reasonable expectations), since the shareholders' take of the total allocation is limited. The bonus level is decided by the company's actuary, and tends to be relatively steady to smoothen the volatile investment return. Once declared, the bonus becomes a permanent liability of the fund.

It is in the non-par fund allocation where management conservatism is judged. At one extreme, an ultra-conservative management may decide to set aside the surplus arising from the non-par fund as reserves to smoothen the effects of bad investment years (that could result in a deficit in the fund) or to support shortfalls in the par fund. At the other extreme, management that is beholden to shareholders may be prepared to transfer the whole amount of its surplus to profit and loss, boosting the company's accounting profit for that year.

INVESTMENTS

Life products generally have longer liabilities, and proper asset-liability management would have matching assets held for a similarly long duration. However in Malaysia, assets are generally managed on an aggregate basis without taking into account the specific liabilities which they support.

MARC's investment analysis includes examining:

- Investment guidelines and management controls
- Credit, market and liquidity risks - Market risk arises due to a potential change in asset valuation as a result of volatility in market conditions including stock market, property market and interest rates
- Diversification of portfolio by major asset class, industry sector and individual investments
- Historical performance – how well investment strategies have been executed
- Investment yield, total return, default experience, maturity structure
- Management's exit strategies with respect to each class of investment asset.

The holding of investment properties has an inverse relationship with liquidity, because of the difficulty in disposing of these assets urgently to pay claims under severe liability surrender and withdrawal scenarios. Moreover, the distressed sale of properties would likely result in large haircuts for the insurer. How much of the investment property is entering the insurer's book via foreclosed mortgage loans? The analyst assesses the credit quality of the tenants. For spread of the property portfolio – what is the composition of the largest unit of property in the portfolio?

Shares that were accumulated when the stock market valuation was low provide an insurer with large unrealised gains. However, many insurers had locked-in profits by disposing of these shares and recording high capital gains during the Kuala Lumpur Stock Exchange (currently known as Bursa Malaysia) rally in 1993 and 1996. With the buffer of unrealized gains slowly disappearing, insurers became increasingly exposed to falling stock prices, particularly so if the disposal proceeds were used to replenish their equities portfolio at the then high market values.

In times of low interest rates, insurers have the opportunity to realise investment gains from the disposal of bonds, but this could quickly reverse when interest rates trend upwards.

Apart from the common major classes of assets invested by general insurers, life insurers also have policy loans in their investment portfolio. These loans are not the result of a deliberate investment decision by the insurer, but rather are a result of options exercised by policyholders. The amount that can be extended as a policy loan cannot exceed the policy's cash value, thus any overdue principal amount and accumulated interest on the loan may be deducted from the cash surrender or policy proceeds.

To narrow the asset-liability mismatch of their portfolios, life insurers provide mortgage loans, which typically have long-term and fixed-rate characteristics. As with commercial loans, MARC's analysis of mortgage loans encompass an evaluation of its credit underwriting criteria, loan-to-value limits, proportion of problem loans and provisioning policy.

Asset allocation is more discretionary for a par fund because of its limited guarantee feature. Insurers normally back these policies with asset classes which have the highest historical long-term returns i.e. equities and properties. Non-par policies pay a fixed benefit on the death of the insured or maturity of the policy. Given that these policies have guaranteed liabilities attached to them, the non-par fund should appropriately be matched with investments in fixed-income securities. In the early stages of a long-term policy's life, the premiums may be invested in equities/properties for their superior capital returns, but as the policy nears maturity, it would be switched to lower-yielding and less volatile short-term fixed-interest securities.

Investment-linked policy benefits are directly linked to the performance of the underlying assets in which the premiums are invested. There is no guaranteed sum insured payable at maturity. Thus, investment risk is transferred to the insured, while the insurer retains mortality risk.

Bonus rates are a source of competitive advantage for some insurers. Due to unfavourable investment conditions, some insurers had to revise the bonus rates for participating life insurance plans.

It is important to ascertain whether companies are under pressure to pay out bonuses that are higher than justified by actual operating performance. If the problem is short-term in nature and the shortfall manageable, transfers from the shareholders' funds can be the solution. However, if the bleak investment climate is prolonged, the company can risk being insolvent. It is expected that some life companies will reduce their average assumed interest rates for new policies written.

With the halving of the minimum amount required to be invested in low-risk assets to 10% of the "Amount", i.e. the aggregate of the liabilities of an insurance fund and the margin of solvency, insurers are likely to shift out of low-yielding investments in an effort to boost asset yields to help overcome the problem of negative spreads. Over the long term, experience supports the belief that returns from equities investment do outperform fixed interest investments. Hence, insurers which have some leeway before the 30% limit is reached, may likely migrate their excess liquid funds into shares. Volatility in stock prices, which may result in valuation losses when prices plunge, can place an insurer's solvency margin under pressure.

Companies with the best-managed investments are those with well-balanced investment portfolios and integrated asset selection processes relative to the liabilities written. There has to be some coherence between the actuary and investment manager in investment decision-making. The actuary is responsible for pricing insurance products based on realistic yield and capital gain assumptions, and the investment manager needs to place the funds in a manner befitting those assumptions.

LIQUIDITY

A life fund's assets cannot just be adequate, they have to be sufficiently liquid to satisfy policyholders' claims. Liquidity is influenced largely by an insurer's investment profile, product surrenderability characteristics and persistency experience. From a liquidity standpoint, the product should ideally be designed to discourage surrender activity, and the purpose of asset management should be to maintain an investment portfolio that is sufficiently liquid to pay current obligations under a variety of economic conditions. In today's competitive business environment, however, this remains a challenging ideal due to the need to maintain high crediting rates and consumer pressures for surrenderability features.

Liquidity needs are subject to scheduled and unscheduled withdrawals. The latter, in turn, is dependent on the withdrawal option features of the insurer's products. The higher the surrender charges, the less likely are policyholders to surrender their contracts. However, if policyholders can shift their insurance contracts from one insurer to another without having to incur high surrender penalties, liquidity becomes an issue. Scheduled withdrawals refer to certain contractual payouts including lump-sum payments upon policy/contract maturity, and also includes maturing debt obligations. An insurer should hold ready liquidity for at least the next year's maturing obligations, and as a benchmark, between 140% – 180% of potential and maturing liabilities.

Outgoings have to be covered by premium income. With an increasingly mature portfolio, insurance payouts are expected to rise. Excellent persistency and a portfolio weighted towards annual premiums provide a stable source of cash flow. Single premium businesses are less stable in nature, being dependent on each year's sales.

Maintaining a high level of liquidity necessitates sacrificing on investment returns, as liquidity is typically achieved through investments in shorter term, lower-yielding assets.

The analysis on liquidity encompasses a review of:

- the fund's liabilities, including provisions and restrictions on surrenderability
- the investment portfolio, to determine cash convertibility. MARC's definition of liquid assets comprise cash and deposits, government securities and Cagamas papers
- operational cash flow.

CAPITALISATION

MARC's evaluation of capitalisation focuses on the development of the actuarial surplus in the life fund, the sources of surplus and the distribution of surplus. A surplus arises when the total life fund assets exceed the amount of liability to policyholders as valued by the actuary. A surplus is derived when on a net basis, the actual interest, expense, mortality and capital gain/loss experience is more favourable than the assumptions used in arriving at that reserves valuation. A change in the valuation basis can also result in a surplus/deficit. The surplus generated from existing business is used to support the insurer's new business plans. The comparison of actual results versus assumptions is set out in the Financial Condition Report. In addition, a Bonus Reserve Valuation report prepared by the actuary comments on the sustainability of the bonus scale and whether or not bonus rates have to be cut during prolonged weak investment conditions.

Licensed insurers are subject to Bank Negara Malaysia's (BNM) Risk-Based Capital (RBC) Framework, which sets out the requirements to determine the adequacy of the available capital to support the required capital. The capital adequacy ratio (CAR) is calculated by dividing the total available capital with the total required capital. BNM has set a supervisory target capital level of 130%. A licensed insurer whose CAR breaches the supervisory target capital level will face stricter supervisory action, which may include business restrictions and restructuring measures. In addition, licensed insurers are also required to set an individual target capital level, which must be higher than the supervisory target capital level. Breaching the individual target capital level will attract an increasing level of supervisory attention.

MARC also uses the free asset ratio, which is the ratio of life fund assets in excess of the liabilities to policyholders (including bonus allocated to policyholders) to benchmark the insurer's capitalisation level against its peers.

Modest growth in new business, good persistency and favourable mortality experience of its in-force business are instrumental in maintaining an insurer's capital strength. When an insurer's life fund does not build up as fast as its insurance liabilities (which could be as a result of rapid growth and the corresponding heavy up-front commission and marketing expenses), capital injection by shareholders would be required.

RATING SYMBOLS & DEFINITIONS

INSURER FINANCIAL STRENGTH RATINGS

SECURE RANGE

AAA An institution rated AAA has an exceptionally strong capacity to meet its financial commitments and exhibits a high degree of resilience to adverse developments in the economy, and in business and other external conditions. These institutions typically possess a strong balance sheet and superior earnings record.

AA Insurance companies rated AA possess a very strong ability to meet their policyholder obligations. Their overall risk profile, while low, is not quite as favourable as for insurance companies in the highest rating category.

A Insurance companies rated A possess strong ability to meet their policyholder obligations but are somewhat more susceptible to adverse changes in economic and underwriting conditions than companies in higher-rated categories.

BBB Insurance companies rated BBB possess an adequate ability to meet their policyholder obligations. However, adverse changes in economic and underwriting conditions over time could affect their claims-paying ability.

VULNERABLE RANGE

BB Insurance companies rated BB exhibit some weaknesses in their operating profile and/or financial condition. Currently able to meet their policyholder obligations, but claims-paying ability is regarded as marginal and cannot be assured over a long period of time. Such companies are vulnerable to adverse changes in economic and underwriting conditions.

B Insurance companies rated B exhibit fundamental weaknesses in their operating profile and/or financial condition. Currently able to meet their policyholder obligations, but claims-paying ability is regarded as weak. Such companies have limited capacity to withstand adverse changes in economic and underwriting conditions.

C Insurance companies rated C possess a very weak ability to meet their policyholder obligations. The continued capacity of these companies to meet their policyholder obligations is poor and highly dependent on favourable economic and underwriting conditions.

D Insurance companies rated D possess an inadequate ability to meet their policyholder obligations. Such companies require periodic external support or regulatory intervention, without which their continued viability is in doubt. The rating indicates that a default may have already occurred, or there is a high likelihood of default on their policyholder obligations.

Note: Ratings from AA to B may be modified by a plus (+) or minus (-) suffix to show its relative standing within the major rating categories.

RATING OUTLOOK

MARC's Rating Outlook assesses the potential direction of the entity's rating over the intermediate term (typically over a one- to two-year period). The Rating Outlook may either be:

POSITIVE which indicates that a rating may be raised;
NEGATIVE which indicates that a rating may be lowered;
STABLE which indicates that a rating is likely to remain unchanged; or
DEVELOPING which indicates that a rating may be raised, lowered or remain unchanged.

MARC has refined its methodology for assessing Life Insurance Financial Strength Rating. This methodology partly amends and supersedes MARC's "Rating Approach to Life Insurance Financial Strength Rating" published in 2006. The revised methodology should be read in conjunction with MARC's "Non-Financial Corporates" methodology which is available on MARC's website at www.marc.com.my.

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