MANAGING INTEREST RATE RISK IN A LOW INTEREST RATE ENVIRONMENT – CONSIDERATIONS FOR LIFE INSURERS

BACKGROUND

Post-Brexit, as global interest rates were further lowered, life insurers continue to be challenged with managing their businesses in this unprecedented, persistent global low interest rate environment. Global interest rates have been on a downward trend during the past 10 years, and for most currencies currently close to all-time lows [Exhibit 1].

Life insurers face immediate two-fold challenges:

i a structural challenge predominantly driven by the mismatch between long-dated liabilities vs. shorter dated assets. This mismatch tends to be exacerbated in declining interest rate environments, eroding insurer's economic value of equity as the value of liabilities increases more than the value of shorter dated assets; and

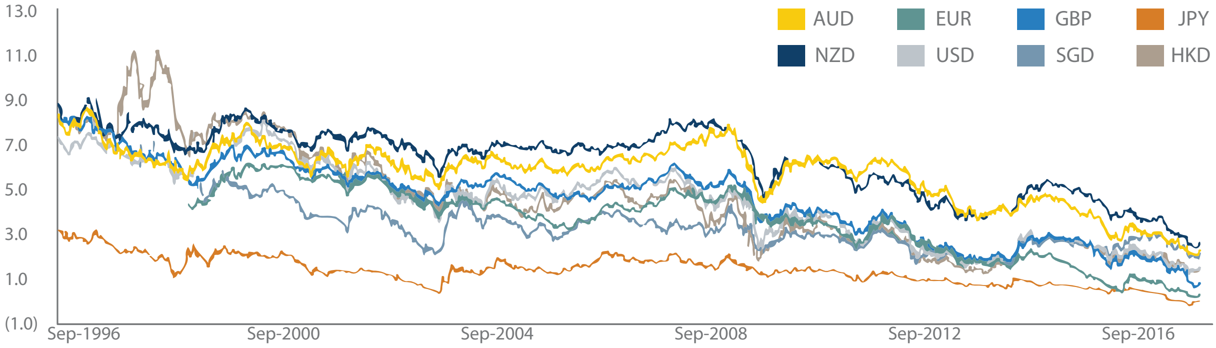
ii reduced investment returns in a low interest rate environment. This is a particular problem for life insurers which have large guaranteed return portfolios.

In markets with recent monetary tightening or the expectation thereof, insurers are concerned with sharp interest rate hikes. Any increase in policy surrenders could potentially result in realised losses due to forced selling of favourable yielding fixed income assets currently held in order to cover surrender benefits.

THE IMPACT ON LIFE INSURERS IN ASIA PACIFIC

Whilst the effect on life insurers across Asia-Pacific varies greatly from country to country and insurer to insurer, the impact tends to be driven by two major factors:

EXHIBIT 1:
Global 10 year interest rate swap rates (%)



Source: Bloomberg (20 Sep 2016)

1. The existing insurance liability composition and its sensitivity to interest rates, e.g. guaranteed products vs. unit linked, term vs. yearly renewable policies

Duration risk is less of an issue for the Australian and New Zealand life insurance markets, where many insurers have negative life insurance contract liabilities. Such negative contract liabilities reflect estimated net present values of policies in favour of the insurer. Consequently, their liabilities decrease as interest rates fall. Additionally, many insurers have portfolios largely consisting of yearly renewable term policies, reducing the importance of long term investment returns compared to insurers with large portfolios of long term, guaranteed return products. Hence, the principle effect of low interest rates in Australia and New Zealand is decreased interest income on investment portfolios which are heavily weighted towards cash.

At the other end of the spectrum are markets where life insurers have significant whole of life or guaranteed return portfolios. This usually coincides with large positive life insurance liabilities since these policies having been priced with significantly higher interest rate assumptions. These legacy portfolios are highly vulnerable to low or declining rate environments. These issues are prevalent in the life insurance markets in Taiwan, Japan and South Korea.

2. The stage of development of accessible capital markets, e.g., emerging markets in Asia Pacific facing shortages of domestic high grade assets, or liquid markets for hedging

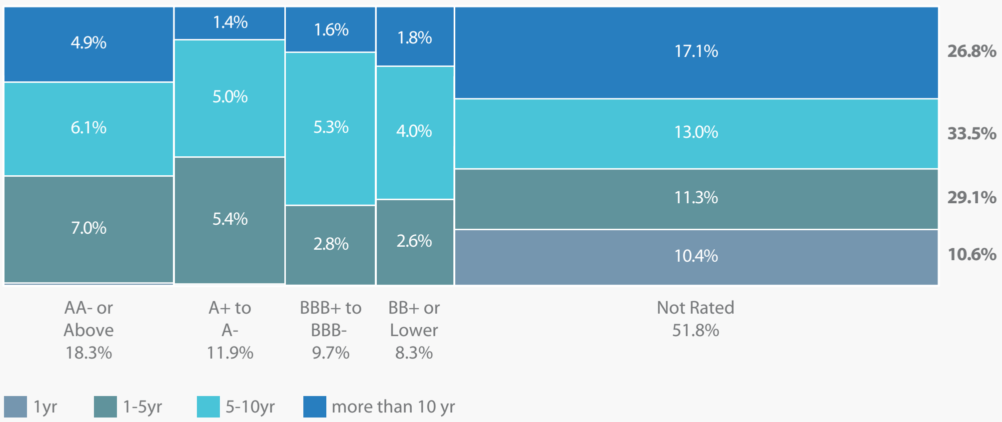
In Asia Pacific, Australia, Hong Kong and Singapore for example, tend to have higher proportions of high grade assets in the domestic capital markets, supported by the relative high country credit ratings or issuance by state

EXHIBIT 2:
Developed vs. Developing Bond market structure by tenor and rating[1]

DEVELOPED MARKET – HONG KONG, SINGAPORE, AUSTRALIA

> Investment Grade ("IG") assets (including unrated government bond issues) ~74% of total bond volumes
- within "Not Rated" category, government bonds account for ~65% by volume
- Given high country ratings, unrated government bonds reflect IG assets

> Limited IG rated assets with tenor over 10 years: ~8% of total outstanding bond volume

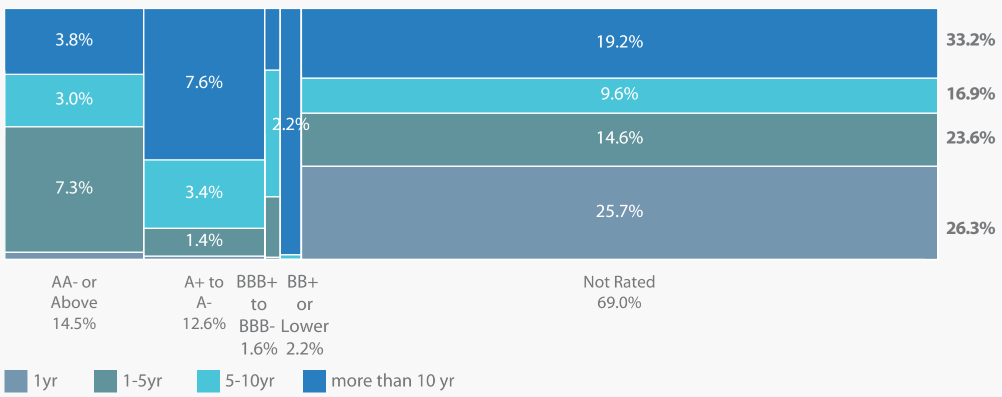


DEVELOPING MARKET – INDONESIA, THAILAND, MALAYSIA

> Limited availability of IG rated domestic assets: ~29% of total outstanding volume

> Limited IG rated assets with tenor over 10 years: ~12% of total outstanding bond volume

> In developing markets, within the "Not Rated" category, government bonds account for ~90% of total outstanding bond volume



1 Note: Data represents corporate and government bonds listed on country exchanges and unlisted bonds screened using country of incorporation, only S&P rating considered for the analysis, industry sector classification as per Bloomberg, does not include certificates, municipals, private securities and preferred instruments, tenor represents original maturity. Data source: Bloomberg (bonds outstanding as of 31 Aug 2016).

EXHIBIT 3:
Range of solutions considered by insurers

Changes to existing business model	New asset types	Extension of asset duration	Search for yield
• Re-designing product features, e.g. reduce/ eliminate guarantee features • Diversifying into asset management	• Bespoke private placements • Mortgage backed securities/ covered bonds • Absolute return funds • Move in to loan markets	• Interest rate swaps • Offshore debt capital markets • Government bonds • Bespoke infrastucture lending	• Taking increased credit risk or longer tenors targeting higher returns • Portfolio allocation toward equities • Global search for offshore high yielding fixed income assets. Typically hedged back to local currency

Source: ANZ, Risk.net, Moody's, The Financial Times

owned entities/governments. Markets in South East Asian countries are developing, reflecting limited availability of high grade investment assets, often constrained by the country credit ratings. This could have been one of the drivers for insurers in such markets to look offshore for assets. Please refer to Exhibit 2.

WHAT IS THE SOLUTION?

While there may not be a single solution that solves the existing issues of life insurers, there are a range of typical solutions considered by insurers [Exhibit 3]. Long-term solutions tend to involve strategic changes to a life insurers' businesses.

ADDRESSING THE DURATION GAP

For example, rebalancing product portfolios away from guaranteed products, redesigning product features to limit costly embedded financial options and including terms in policies which shift the burden of lower rates to policyholders will considerably alter the product offering of life insurers. However, this approach would require time to meaningfully alter the life insurer's product portfolio composition due to the "legacy" portfolios.

Today's life insurers are able to learn from the Japanese life insurance industry in the 1990s. In the 1980s, Japanese life insurers had offered long-term savings products with guarantees as high as 8%. By 1999, interest rates had fallen as low as 3% causing many small and medium sized life insurers to fail. Those that survived were those that quickly changed their product mix, cut costs and re-priced products. Also, importantly, the survivors were the insurers who locked interest rates in early – while interest rates were low, they continued to decline and have since yet to recover.

ANZ has been discussing hedging solutions, using interest rate swaps and derivatives such as options/swaptions to address the asset-liability duration gap. Life insurers could use long tenor interest rate swaps to extend the duration of the asset portfolio, and thereby reduce the duration gap. The flexibility of entering into swaps (irrespective of historically low rates) when considering the impact on available capital for both assets and liabilities, generally provides many life insurers with more confidence as opposed to the more significant risk associated with a potential rise in interest rates.

However, the challenge in Asia Pacific markets is the limited liquidity in domestic long-dated interest rate instruments making it difficult for life insurers to hedge meaningful parts of their investment portfolios and address duration gaps. In the presence of tight liquidity conditions when putting on any sizable hedges from a markets perspective, requires careful planning and execution to ensure that executed transaction prices do not become punitive.

Finally, take up of such hedging solutions have been relatively limited in Asia Pacific as compared to Europe or the US. This is mostly driven by regulatory benefits that can be achieved in the developed market Solvency/RBC frameworks combined with deeper liquidity in such instruments. However, potential convergence of global insurance regulatory standards considered by the IAIS, and the continued adoption and evolution of risk based capital frameworks in Asia Pacific (e.g. Singapore's RBC2 and Hong Kong's RBC consultations) is expected to increase incentives for life insurers to consider using such hedging solutions, as the evolving regulatory approaches will be a significant factor in managing capital and enhancing policy holder protection.

OPTIONS IN THE LONG END: ALTERNATIVE ASSETS AND LOANS TO ADDRESS DURATION AND YIELD CHALLENGES

Insurers will have to re-think their asset allocation and risk management strategies to cope with the "new normal" of today's market environment. In the long run, insurers are likely to expand asset allocation to alternative assets and loans to overcome the existing duration gap issues.

REGULATIONS ARE SIGNIFICANTLY INCREASING CAPITAL COSTS FOR MOST BANKS. CONSEQUENTLY, BANKS ARE REALLOCATING CAPITAL FROM LOW RETURN, CAPITAL INTENSIVE BUSINESSES, SUCH AS INFRASTRUCTURE TERM LENDING OR PROJECT FINANCE, TO MORE CAPITAL EFFICIENT BUSINESS SUCH AS CASH MANAGEMENT AND TRANSACTION BANKING.

Alternative assets, such as infrastructure or project finance loans, can offer attractive yields, long term cash flows and desired asset liability matching against interest rate fluctuations. As restrictive regulations on offshore investments are eased in markets such as mainland China, Taiwan and Korea, alternative assets are likely to become more main stream.

Some of the portfolio reallocations are expected to follow incentives provided by insurance regulations. For example, the China Insurance Regulatory Commission (CIRC) Risk Oriented Solvency System ("CROSS") has credit risk based capital charges that are quite beneficial for infrastructure (1%-13%) and real estate exposures (8%-12%), as compared to charges for equity exposures of 31%-48%: the spate of Chinese insurer's offshore search and investments in such assets could have been partly driven by such regulatory incentives.

Regulations are significantly increasing capital costs for most banks. Consequently, banks are reallocating capital from low return, capital intensive businesses, such as infrastructure term lending or project finance, to more capital efficient business such as cash management and transaction banking. This reallocation provides an opportunity for insurers to fill the funding or capital needs of companies where banks have reduced the area of product offerings. *"However, Banks can still play an important role with existing borrower relationships: they can be the bridge between such borrowers and insurers, by matching and structuring the long term funding needs of companies with the long term investment needs of insurers"*, says Elodie Norman, Head of FIG Hong Kong.

The potential challenge for insurers to partake in a scalable manner in the Asia Pacific alternative and loan markets in its present state is the lack of standardised documentation for the currently individually highly customised loan and alternative transactions. Lacking such a standard (e.g. like US Private Placement documentation) would require insurance investment teams to either set up their own credit administration operations, similar to banks, or outsource to financial service providers that can offer such services.

SHARING OUR INDUSTRY INTELLIGENCE WITH CLIENTS

The FIG, Global markets and Client Insights & Solutions teams in ANZ have been engaged with insurers across Asia Pacific in assessing potential solutions.

"The low interest rate environment will continue to see demand for long dated assets as asset managers with life and annuity exposure are faced with increasing liabilities on their portfolios. Combined with the risk of declining long dated global yields will see asset managers look for alternatives to traditional swap yields. This in itself will create opportunities for high grade borrowers who have longer term funding needs," says Mark Lindon, Client Insights, New Zealand.

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