14 September 2016

# Singapore: RBC2 Review – Third Consultation

On 15 July 2016, the Monetary Authority of Singapore (MAS) issued its third consultation paper on proposed changes to the Risk-Based Capital (RBC) framework for insurers in Singapore, commonly dubbed "RBC2". This was followed by further details on the matching adjustment and illiquidity premium allowances that was released by MAS a month later on 15 August 2016. As part of this consultation process, MAS has asked insurers to conduct a second quantitative impact study (QIS2) using updated technical specifications issued alongside the consultation paper. Companies need to provide their response to QIS2 by 20 October 2016.

In this e-Alert we highlight and discuss some of the features of the proposed RBC2 framework and specifications that have changed in this latest consultation from those used for the previous quantitative impact study (QIS1), which was performed as part of the second consultation, issued in March 2014.

# **POLICY LIABILITIES**

## **DISCOUNT RATES**

The latest consultation paper is proposing changes to the long end of the risk-free yield curve used to discount policy liabilities. For QIS1 the proposal was to move away from the current approach of having a long-term risk-free discount rate (LTRFDR) to using the 30-year SGS market yield for discounting liabilities beyond 30 years. MAS is now considering the use of a long-term ultimate forward rate (UFR) which would apply after the last liquid point (LLP) for each currency. This should bring more stability to the valuation of long-dated liabilities, which, in turn, will result in less balance sheet volatility for insurers with asset durations shorter than the LLP. Where insurers hold assets with durations longer than the LLP, we might see increased volatility in the balance sheet as a result of the basis mismatch between the asset and liability valuation. However, by definition, this would only affect assets in the illiquid region.

Another change to the discounting of policy liabilities being explored under this consultation relates to investment-linked business (ILPs). Under the current RBC framework, many companies project unit reserves forward using best-estimate growth rates and then discount non-unit liabilities back using the risk-free curve. MAS has found that this inconsistency can lead to very negative non-unit reserves and for QIS2 are investigating the possibility of projecting unit reserves and discounting the non-unit reserves using a consistent approach—either at the best estimate fund growth rate or the risk-free rate.

#### **MATCHING ADJUSTMENT**

MAS introduced the matching adjustment (MA) concept for QIS1, which enabled insurers to add a margin to the risk-free rate used to discount liabilities of specific products. To take advantage of the MA, there were quite stringent requirements that needed to be met: the liability cash flows had to demonstrate predictability (as measured by sensitivity to the C1 insurance stresses) and the portfolio of assets backing the liabilities had to demonstrate adequate matching (as measured by shortfalls in asset to liability cash flows). Predictability and matching requirements still need to be met for QIS2, but the specific requirements have been refined such that we expect more products to be eligible for the MA—in particular the matching requirement is now limited to the next 20 years of cash flows rather than all future years as it was for QIS1.

As with QIS1, the MA for QIS2 not only helps to reduce the size of the policy liabilities, but can also offer significant relief to the C2 credit spread risk requirement. This makes being able to apply the MA very advantageous as it both increases the financial resources and reduces the risk capital required. With the relaxation of the eligibility criteria, we expect companies will take greater advantage of the MA, and it could then play a significant role in companies' investment strategy criteria.

## **ILLIQUIDITY PREMIUM**

The illiquidity premium (IP) is a new addition to RBC2 for QIS2 and also allows insurers to add a margin to the risk-free rate used to discount liabilities. It is an alternative option to the MA for which the eligibility criteria are less stringent, intended for products where there is a lower level of certainty about future cash flows. The IP can be used for any products classified as Whole Life, Endowment or Annuity, without further assessment, but is not applicable to ILPs. The margin that can be added to the risk-free rate for the IP is based on a prescribed proportion of a reference spread, both of which will be set by MAS based on industry data

(40% and 110bps, respectively, for QIS2), and weighted for the proportion of investment in Qualifying Debt Securities and Other Debt Securities. This differs to the approach for the MA, where companies need to determine the margin based on their own specific asset portfolio.

The IP only affects the valuation of the policy liabilities and gives no relief to any of the risk requirements. As such, we would expect insurers to view it as a second choice option after the MA, and the extent of its application will depend on how difficult insurers find it to meet the criteria for the MA.

## **UNIVERSAL LIFE**

One of the lines of business that will be most affected by the changes from QIS1 to QIS2 is universal life, with the latest proposals allowing for the removal of the surrender value (SV) floor for all universal life policy liabilities, such that the reserves will be set for each policy as the higher of the best-estimate liability (BEL) and the minimum condition liability (MCL). This will lead to a possible reduction in policy liabilities as the SV floor is often in excess of both BEL and MCL. Currently, insurers struggle with the inconsistency between the dynamic market valuation of assets and the valuation of liabilities, which can be static when the SV floor bites. Removing the SV floor will mean that the assets and liabilities should move more in line with each other. However, this will only be the case if the best estimate return for the BEL is also actively updated or if the MCL bites.

The latest consultation paper makes it clear that capital requirements for universal life policies should be based on the MCL valuation only, without any application of a SV floor. For companies that previously included the SV floor, this will lead to an increase in the C1 requirements, but a reduction in the C2 mismatch requirements. There will also be an additional mass lapse risk requirement (included as part of C1 requirements) that only applies specifically to universal life policies, currently proposed as 30% of any excess of SV over the reserve at a policy level. This is in response to removing the SV floor from the policy liabilities themselves, but this risk requirement can be reduced by diversification benefits.

## FINANCIAL RESOURCES

## PAR BUSINESS: AGGREGATE PROVISION FOR NON-GUARANTEED BENEFITS

For QIS2, MAS has proposed removing the 50% factor that applies to the aggregate provision for non-guaranteed benefits (APNGB) when determining the financial resources from non-guaranteed benefits (an adjustment to financial resources under RBC2). The 50% applies under RBC1, but during the second consultation process, the industry successfully argued that under the severe one-in-200-year stress scenarios that the capital requirements are calibrated to, an insurer would be able to suspend any future bonuses. As such, MAS has proposed to remove the 50% factor for QIS2, but the benefit that companies will receive from this will vary as the limit of policy liabilities less MCL still remains.

Our analysis of RBC forms from December 2015 suggests that removing the 50% factor would give some companies an increase in par fund financial resources of over 20%, whereas for others there would be no benefit at all (as the policy assets less MCL threshold is already biting).

#### **NEGATIVE RESERVES**

In the previous consultation, MAS introduced a positive regulatory adjustment to financial resources for negative reserves. The allowance was based on any negative reserves calculated on a basis that includes allowance for the C1 insurance stresses, but for prudence MAS proposed a haircut to only allowed companies to recognise 50% (25% for ILP) of these negative reserves. For QIS2, MAS has removed the haircut, so insurers can now recognise all negative reserves, although there is still an element of prudence retained as it is measured with the application of the C1 stresses.

## **RISK CAPITAL REQUIREMENTS**

## **C1 INSURANCE RISK MODULE**

The underlying risk factors for the C1 shocks are mostly unchanged from those proposed in QIS1 with the exception of insurance catastrophe stress. Previously, MAS had proposed for this stress to be composed of a morbidity and mortality element, but for the latest consultation, the morbidity catastrophe shock has been removed, whilst the mortality catastrophe shock has doubled from 0.5 to 1 death per 1000.

The more significant changes to the C1 requirements for QIS2 are likely to be the greater allowance for diversification. Disability, lapse, conversion of option and expense risks have all been added to the correlation matrix for diversification within the C1 risk module. This increased diversification will reduce the overall C1 risk requirements.

# **C2 INVESTMENT RISK MODULE**

The proposed changes to the C2 risk requirements are more significant than for C1 with the general trend being a relaxation on the stresses:

- For equity risk, the charge for unlisted equities has been reduced from 60% to 50%, bringing it in line with the risk charge for equities in undeveloped markets, but the charges for equities listed in developed markets remains at 40%.
- There have been some small changes to calibration of the interest rate mismatch stresses at various durations with the ultimate stresses at 20+ years slightly less severe than under QIS1.
- The credit spread stresses under QIS2 have been reduced across the board with the biggest reductions for higher grade (Aand above) and shorter terms.
- The property risk charge for collective real estate investment vehicles has been made more severe, rising from 35% to 50%.
  However, this is to encourage insurers to use a look-through basis, noting that the risk charge for immovable property remains at 30%.
- On the foreign currency risk requirements, the reintroduction of the buffer of 10% of total assets for forex mismatch (actually increasing to 20% for offshore insurance funds) will also reduce the risk requirements under QIS2 as compared to QIS1, actually bringing it back in line with RBC1for onshore insurance funds.

The biggest changes to the C2 risk requirements are, however, in the allowance for diversification. For QIS1, there was no allowance for diversification between the different risk requirements within the C2 module, with MAS including implicit allowance for diversification within the separate risk charges. As part of the latest consultation, MAS has introduced correlation matrices to explicitly allow for diversification between the different risk charges. We expect that this could yield a significant reduction to the C2 risk requirements.

## **C3 CONCENTRATION RISK MODULE**

QIS1 did not introduce any changes to C3 risk requirements from the current RBC framework. In the latest consultation, there is also no proposed change to calculation of any C3 risk requirements, but it has been proposed to move them from being required capital to a negative adjustment to financial resources. The current C3 risk charges create a risk requirement for any asset value above the concentration limits, but as companies are expected to meet a capital adequacy ratio (CAR) above 100%, this effectively requires the company to hold more capital than the value of the excess assets themselves. By changing the C3 requirement to be a reduction to financial resources, the impact is simply to remove any asset value in excess of the concentration limits from the capital available, which intuitively makes more sense. Whilst the risk charges are unchanged, this change will result in an increase in CAR for any insurers with C3 requirements (assuming that the CAR is already greater than 100%).

## **C4 OPERATIONAL RISK MODULE**

The allowance for operational risk is a new requirement for RBC2. The risk requirement proposed in the previous consultation was 4% (0.25% for ILP) of the higher of average gross written premium income or gross policy liabilities, over the past three years. For the latest consultation, this has been changed to remove the averaging over the previous three years and to reduce the factor on the policy liabilities to 0.5% (an increase for ILP, though). The gross premium element also includes an adjustment for any growth in premiums over the past year that exceeds 20%. We expect these changes to make the operational risk requirement less onerous for QIS2, with the exception for ILP business where the requirement will likely be higher.

## CONCLUSIONS

Overall, we expect that the proposed changes for QIS2 will result in higher RBC2 capital adequacy ratios for companies in Singapore than under the proposed specifications used for QIS1. The increased allowance for diversification is one of the key drivers for this, particularly for the C2 investment risks where there was previously no explicit allowance for diversification. In addition, the proposed changes to the financial resources for negative reserves and APNGB will further help to improve the RBC2 solvency metrics from QIS2 when compared to QIS1.

Under the proposals used for QIS1, it seemed that RBC2 was going to have a particularly adverse effect on the capital requirements for participating (par) business. However, as par business tends to be backed by a more diverse range of assets than other life business (in particular having significant equity content), the introduction of diversification for the C2 risk charges for

QIS2 is likely to have the biggest beneficial impact for par business. This, together with the removal of the 50% restriction on the APNGB, will significantly improve the impact of RBC2 for par business under QIS2 in comparison to the previous RBC2 proposals.

Universal life is another product line that is expected to benefit from the changes proposed for QIS2. As well as the removal of the surrender value floor in policy liability valuation, the relaxation of the eligibility requirements for using the MA will have a significant benefit. As universal life business tends to be backed by long-term corporate bonds, the credit spread risk charges without the MA allowances are very onerous. Under the QIS1 proposals, it could have been difficult to meet the matching requirement for universal life due to the long-term nature of the liability cash flows and the absence of assets of such long duration. With the changes proposed for QIS2, however, it should be easier for universal life portfolios to meet the eligibility requirements for MA.

How the solvency measures under the latest RBC2 proposals will compare to the existing RBC solvency levels are less obvious, and will vary by company depending on business models. Only once QIS2 has been carried out, and companies have provided their feedback, will we really be able to tell what the impact of latest RBC2 proposals will be on solvency measures like CAR when compared to existing RBC measures. If there is a change, however, it will be important for observers to understand that it is the result of the change in the metric itself, and they made need to recalibrate their view of an appropriate CAR measure.

Overall, the latest consultation paper indicates that MAS has listened to the industry feedback during the previous consultation and taken it into account when preparing the latest proposals for QIS2. This shows the importance of the industry's involvement in the consultation process, and the results from QIS2 will likely have a further impact on the future development of the new RBC2 framework.

## CONTACT

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