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Transition to Thailand Risk-Based Capital 2 Framework: QIS 2 results

Introduction

A risk-based capital framework was introduced for insurers in Thailand in September 2011. The Office of Insurance Commission (OIC), the Thai insurance regulator, has subsequently sought industry feedback on the initial RBC rules (RBC 1) with the aim to continually improve the standards. In particular, the intention has been to make refinements to RBC 1 and transition to a new framework (RBC 2) over time.

Key points of focus:

- Changes from RBC 1 to RBC 2
- QIS results and the transition to the new framework
- Timing
- Implications

In April 2016, the OIC released draft proposals for the RBC 2 framework, which was discussed in our e-Alert published in July 2016[1]. There has subsequently been further market testing carried out, including two industrywide quantitative impact studies (QIS) in 2016 and 2017, respectively. The results of the 2017 QIS (QIS 2) were released in late December 2017.

In this e-Alert, we compare the key changes between the proposed RBC 2 framework set out in the recent OIC release and RBC 1. We also show the impact on the Capital Adequacy Ratio (CAR) for the overall Thai life insurance industry under the two QIS exercises. This includes an analysis of change between RBC 2 and RBC 1 based on the QIS 2 results. We conclude with some comments on the proposed new framework and its potential impact for life insurers in Thailand.

Changes from RBC 1 to RBC 2

The RBC 1 framework takes into account five risk categories:

1. Insurance risk – the risk associated with adverse lapse, mortality, and morbidity experience and unexpected increases in administrative expenses
2. Market risk – the risk of losses associated with adverse movements in market prices
3. Credit risk – the risk of defaults on debts, including counterparty risk from different assets and reinsurance agreements
4. Concentration risk – the risk arising from excessive exposure to a particular counterparty
5. Surrender risk – the risk that the insurer lacks sufficient funds to pay for cash surrender values in the event of mass lapse

The RBC 2 framework introduces operational risk as a new risk category, with the operational risk charge quantified as 1% of gross written premium in the past 12 months. The new framework also adds a new risk subcategory of market risk called “specific risk,” associated with the change in spreads and market prices of bonds. The risk charge varies by the credit rating of the issuer and the remaining term to maturity of each bond.

The correlation matrix associated with the diversification benefit for market risk has been refined. The RBC 2 framework also introduces correlation between asset risk and insurance risk.

The table below lists some other key changes to the existing components of the RBC framework.

	RBC 1	RBC 2
COMPONENTS OF TOTAL CAPITAL AVAILABLE	- Available capital is divided into Tier 1 capital and Tier 2 capital according to asset quality - Tier 1 capital must exceed Tier 2 capital	- Tier 1 capital is decomposed into Common Equity Tier 1 (CET1) and Additional Tier 1 (AT1) - Tier 1 capital need not exceed Tier 2 capital. Rather, CET1 must be no less than 65% of the Total Capital Required (TCR) and Tier 1 capital must be no less than 80% of the TCR
DEDUCTIONS FROM TOTAL CAPITAL AVAILABLE	- Deductions are applied at the Total Capital Available level	- Deduction allocated by capital tiers - Equity cross-holdings between insurance companies (but excluding investments from reinsurers, brokers, and fund management companies) and equity investment in other life or non-life insurance companies become deduction items from CET1

[1] Draft Risk-Based Capital 2 Framework for Thailand

	RBC 1	RBC 2
PREMIUM LIABILITY RISK CHARGE	- The risk charge is determined at the company level	- The risk charge is determined at the line of business level
INTEREST RATE RISK CHARGE (REFERRED TO AS "GENERAL MARKET RISK" IN RBC 2)	- Best estimate liability cash flows are used in the calculation of the interest rate risk charge	- 75th percentile liability cash flows are used in the calculation of the interest rate risk charge

The risk charge parameters for some of the risks have been refined:

- The provision for adverse deviation (PAD) factors for insurance risk charge parameters are reduced under the RBC 2 framework, whilst the risk charge parameters for market risk are generally increased.
- The bond characteristics (e.g. domestic versus foreign issuer, Thai Baht denomination versus foreign currency denomination, sovereign bonds versus privately issued bonds) and the risk grades for the determination of credit risk charge and the credit risk charge parameters have been refined. Long-term bonds of risk grade 1 under the RBC 2 framework consist only of AAA, Aaa, or A++ rated bonds, whereas other bonds that are classified as risk grade 1 in RBC 1 become risk grade 2 under the RBC 2 regime, with consequential increases in RBC 1 risk grades 2-4 by one grade under RBC 2. The lowest risk grade under RBC 2 is still risk grade 6 and is equivalent to risk grades 5 and 6 combined under RBC 1.

Surrender risk charge and concentration risk charge methodologies remain unchanged.

QIS results and the transition to the new framework

The tables below show the Capital Adequacy Ratio (CAR) (defined as the Total Capital Available/Total Capital Required) for all Thai life insurers under the QIS 1 and QIS 2 exercises. Results show the average, maximum, and minimum CAR across the industry using a 95%, 97.5%, and 99.5% confidence level for the calculations for RBC 2, respectively, and are compared against the equivalent RBC 1 results (which is based on a 95% confidence level).

QIS 1 RESULTS

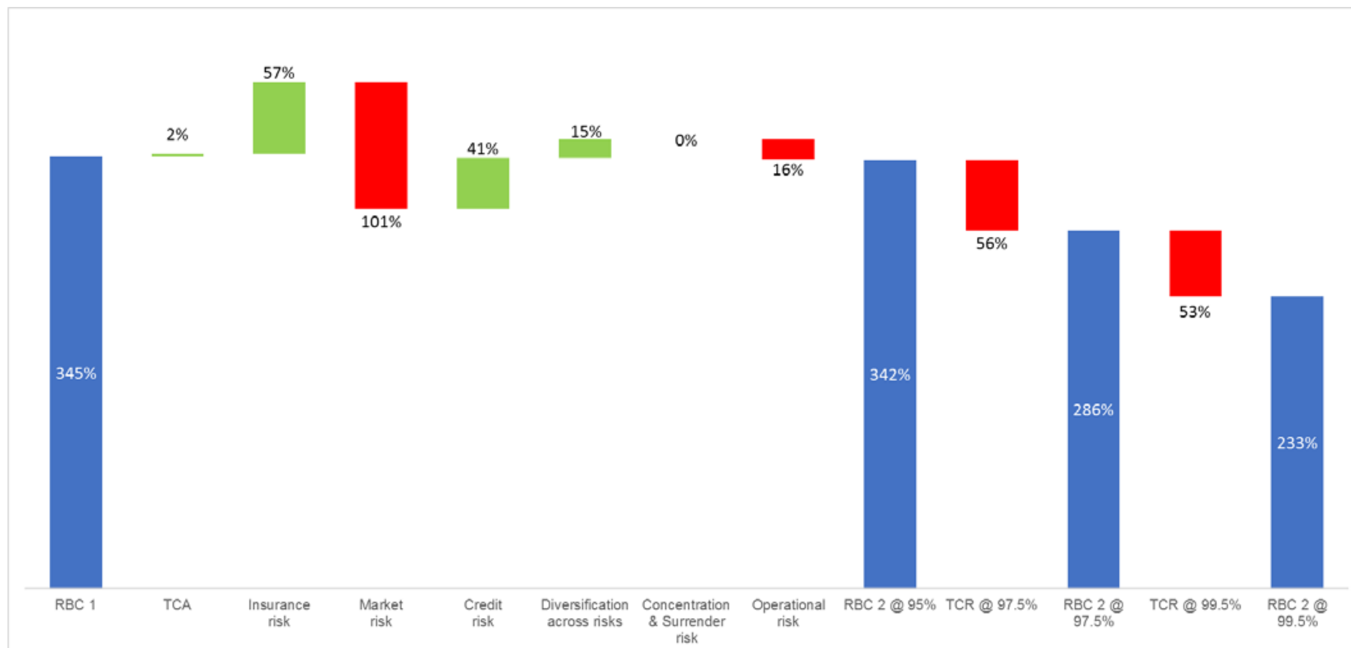
CONFIDENCE LEVEL	CAPITAL ADEQUACY RATIO (CAR) AS OF DECEMBER 2015		
	AVERAGE	MAXIMUM	MINIMUM
RBC 1: 95% CONFIDENCE LEVEL	390%	931%	151%
RBC 2: 95% CONFIDENCE LEVEL	277%	814%	89%
RBC 2: 97.5% CONFIDENCE LEVEL	220%	571%	73%
RBC 2: 99.5% CONFIDENCE LEVEL	171%	398%	62%

QIS 2 RESULTS

CONFIDENCE LEVEL	CAR AS OF DECEMBER 2016		
	AVERAGE	MAXIMUM	MINIMUM
RBC 1: 95% CONFIDENCE LEVEL	345%	821%	154%
RBC 2: 95% CONFIDENCE LEVEL	342%	798%	159%
RBC 2: 97.5% CONFIDENCE LEVEL	286%	674%	139%
RBC 2: 99.5% CONFIDENCE LEVEL	233%	571%	120%

ANALYSIS OF CHANGE IN CAPITAL ADEQUACY RATIO

The chart below shows the analysis of change between the average CAR for the Thai life insurance industry using the current RBC 1 framework and the proposed RBC 2 framework under the QIS 2 exercise, firstly at a 95% confidence level, and then moving to a 97.5% and 99.5% confidence level, respectively.



Figures may not be additive due to rounding.

The proposed RBC 2 framework, at the 95% confidence level, results in a very similar average CAR to that under RBC 1, with a slight reduction of the average CAR from 345% to 342%. However, there are differing impacts on the average CAR resulting from the changes to the various risk charges:

- The insurance risk charge drops due to less stringent stress factors (increasing the average CAR by 57%).
- Market risk charge significantly increases due to higher risk charge parameters (reducing the average CAR by 101%).
- Overall, the credit risk charge decreases (increasing the average CAR by 41%).
- Interestingly, the addition of the new operational risk charge has only a relative marginal impact, reducing the average CAR by 16%.

Timing

After final approval from the OIC, the new framework is scheduled to be implemented in 2019 using a 95% confidence level, although the precise timing during 2019 is not stated.

The move to a 99.5% confidence level calibration, likely via an interim 97.5% confidence level, is expected over subsequent years although, somewhat surprisingly, no specific implementation dates have currently been set. The transition is likely to be in conjunction with future refinements to the framework, potentially including a requirement for internal models to be used for policy loan calculations and the refinement of equity risk charge parameters for infrastructure funds.

Conclusion

The RBC 2 framework represents a further enhancement in Thailand's capital standards and has been eagerly anticipated. The changes to the existing RBC 1 framework are seen to be a gradual transition towards global best practice standards, with the allowance for operational risk charge being introduced first, together with some changes to other risk charges, but retaining the confidence level for calculations at 95%. Whilst the changes in 2019 are not expected to have a material impact on the overall life insurance industry level CAR, based on the QIS 2 results, individual insurers may be affected to differing degrees. In particular, the new framework is likely to increase capital strain for life insurers with larger asset/liability duration gaps and for those with a material portion of their investments in equites and property. Companies with significant protection portfolios could see increases in their CAR from the reduction in insurance risk charges.

The QIS 2 results highlight that moving to a 99.5% confidence level will significantly weaken the solvency position of many life insurers in Thailand, and is likely to result in some companies breaching the regulatory minimum CAR of 140% under current market conditions. A gradual transition towards the 99.5% confidence level could be seen as a sensible approach, especially given the continuing challenges posed by depressed interest rates and fixed interest yields in Thailand. However, as global capital and reporting standards increasingly converge, it will be important that local standards keep pace with evolving international developments, even if it means some existing players having to revise their operating model and product and distribution strategy or seek additional capital.

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