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Bermuda Regulatory Changes—Life Insurance Implications

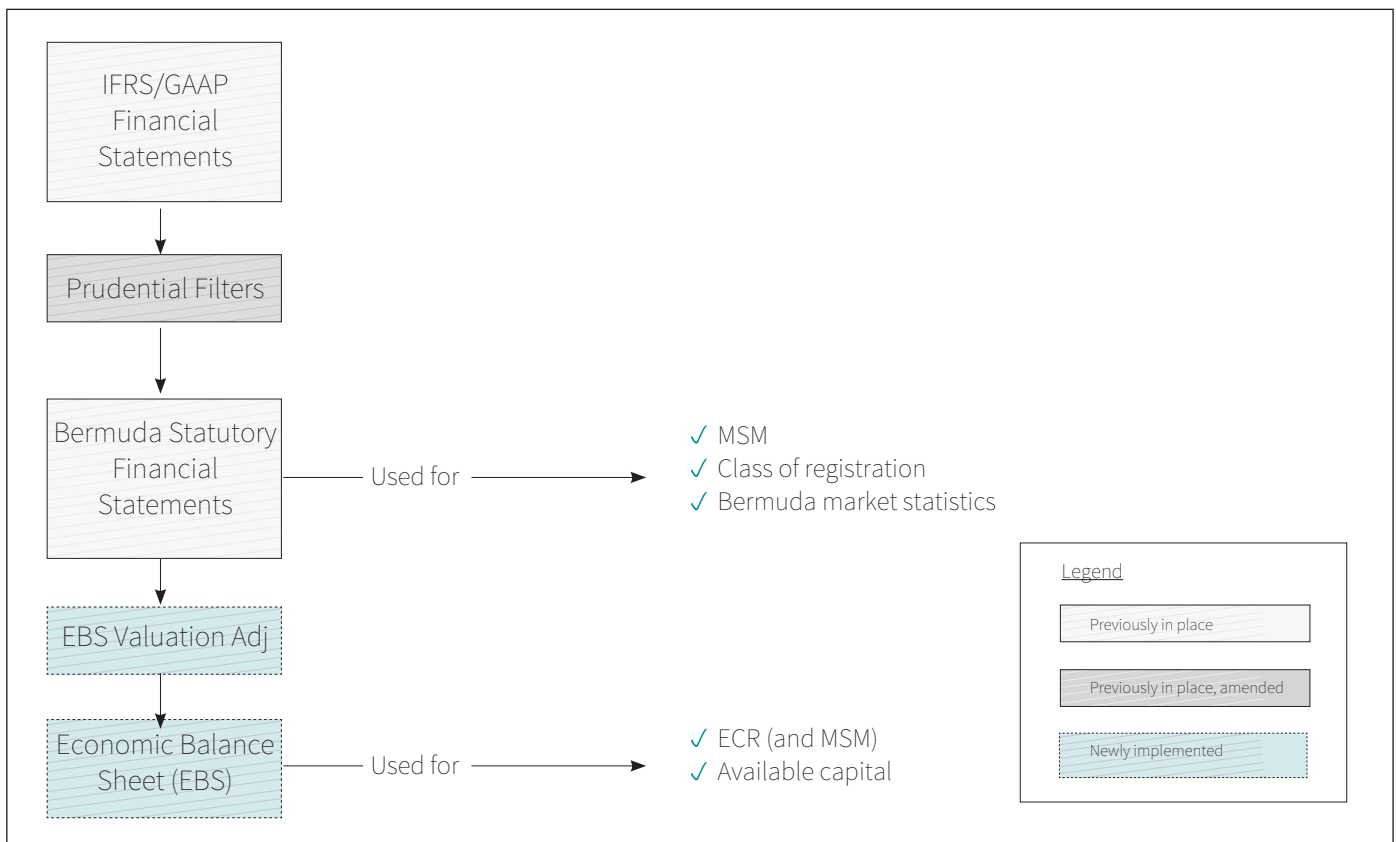
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Note: The views expressed herein are those of the authors and do not necessarily reflect the views of Ernst & Young LLP or the global EY organization.

In 2015, the Bermuda Monetary Authority (BMA) released guidance for the implementation of the Economic Balance Sheet (EBS) framework. The underlying principle of the EBS framework is that both assets and liabilities are valued on an economic basis (i.e., market or fair value basis). The EBS framework will now be used as the basis to determine a (re)insurer’s solvency ratios (available capital and required capital) and will also be the basis for the Approved Actuary’s opinion.

The EBS framework impacts all Bermuda based commercial (re) insurance entities, and was effective as of Jan. 1, 2016 with an

Illustration 1



option for transitional arrangements for certain long-term liabilities. The regulatory changes have a broad effect on Bermuda companies, including but not limited to financial reporting and capital requirements. This article summarizes key aspects of the EBS framework with respect to valuation of long-term liabilities. Further, we highlight key implications of the EBS framework for life insurers and actuaries.

SOLVENCY II EQUIVALENCE

Since the placement of the Solvency II Directive in 2009, the EU has been working towards the implementation of Solvency II regulations which aim to unify the EU insurance market and promote consumer protection. Solvency II has had strong influences on the recent Bermuda insurance regulatory changes. For the last few years, Bermuda has been working towards attaining Solvency II equivalence, a designation which means that Bermuda’s commercial (re)insurers and insurance groups would not be disadvantaged when competing for, and writing, business in the EU.

Full Solvency II equivalence was achieved by Bermuda in November of 2015, after numerous amendments to Bermuda regulations. Both EU Solvency II requirements and new Bermuda regulations came into effect on Jan. 1, 2016.

BERMUDA REGULATORY CHANGES¹

Prior to the recent amendments, companies in Bermuda were required to file Statutory Financial Statements (SFS), which were directly derived from the IFRS/GAAP financial statements by applying a series of adjustments, referred to as “prudential filters” by the BMA. The SFS were used as the basis to calculate the insurer’s Enhanced Capital Requirement (ECR), as well as used to determine Minimum Solvency Margin (MSM), class of registration under the BMA, and Bermuda market statistics.

As part of the BMA’s efforts to attain Solvency II equivalence, the EBS requirement was introduced. The EBS is now used as the basis to calculate the ECR and available capital, and it also indirectly impacts the MSM calculation as MSM is floored at 25 percent of the ECR. Illustration 1 summarizes the Bermuda reporting regime and its uses.

As part of the introduction of EBS, the prudential filters applied to IFRS/GAAP financial statements to derive SFS were modified, shown in the illustration. Examples of amendments to the prudential filters applied to actuarial line items include:

- Deferred Acquisition Costs (DAC) is to be carried onto the SFS and valued consistent with IFRS/GAAP standards, whereas previously DAC was not an admitted asset on the SFS.
- Goodwill is not carried onto the SFS.

ECONOMIC BALANCE SHEET (EBS)

The general principle is that both assets and liabilities should be included on the EBS on an economic basis. As shown in Illustration 1, the IFRS/GAAP financial statements are the starting point for the EBS, to which valuation adjustments are applied for cases where IFRS/GAAP does not require an economic valuation.

Two key valuation adjustments with respect to actuarial long-term liabilities are as follows:

- IFRS/GAAP reserves are replaced by insurance technical provisions, and
- DAC is eliminated as an asset.

TECHNICAL PROVISIONS

The technical provisions are the sum of two components:

1. Best Estimate (BE)—calculated as the present value of projected liability cash flows (based on best estimate assumptions), including the value of policyholder options and guarantees, and

2. Risk Margin—reflects the uncertainty associated with the best estimate cash flows.

Best Estimate

The underlying calculation of the BE is defined as the present value of the probability-weighted average of future cash flows. Hence for products with embedded option and guarantees, a stochastic approach needs to be considered. The BE must reflect all future cash inflows and outflows related to the insurance contract, throughout the lifetime of the policy, based on unbiased assumptions as of the valuation date. The projected cash flows include premiums, benefits, expenses (including acquisition costs, maintenance expenses, commissions, premium taxes, investment expenses and overhead expenses), and other cash flow items required to settle future obligations.

The BE is calculated gross of reinsurance, with the reinsurance recoverable amount on a best estimate basis shown separately.

The general principle used to calculate the BE is that the discount rate reflect the currency’s risk free-rates with an illiquidity adjustment. The BMA provides two methods for the calculation of the BE:

1. Standard approach, and
2. Scenario based approach.

The choice of method for the calculation of the BE is left to the discretion of both the BMA and the (re)insurer. The BMA plans to further refine the standards to reflect the results of the 2015 trial run.

BE—Standard Approach

Under the standard approach, the discount rate is equal to a risk-free rate plus an illiquidity adjustment. The BMA recognizes that the insurance liabilities are not fully liquid and, as such, allows for the inclusion of an adjustment in the discount rate to reflect the illiquidity premium.

The discount rate under the standard approach is provided quarterly by the BMA for the major currencies. As a result, all businesses valued under the standard approach use the same discount rate curve as of a particular valuation date.

BE—Scenario-Based Approach

Recognizing that the standard approach may not capture the market sensitivity of certain businesses, the BMA developed an alternative scenario-based approach. The scenario-based approach uses the actual portfolio of assets assigned to the (re) insurer’s block of business and captures the extent to which assets and liabilities are cash flow matched. Different blocks of business are to be evaluated separately.



The BMA has developed a set of eight stress interest rate scenarios in order to target reasonable market events that are within one standard deviation from the mean. The eight stress scenarios along with the baseline scenario are run individually to determine the amount of assets required at the beginning of the projection to cover the projected liability cash flows. Reinvestment assumptions used in the projection should reflect the (re)insurer's investment strategy. This process results in nine different asset requirement amounts, of which the highest one is set as the BE.

In preparation for the Bermuda EBS trial runs, companies have leveraged existing U.S. statutory cash flow testing or Canadian CALM reserve models to calculate results under the scenario-based approach.

Risk Margin

The technical provisions are the sum of BE and a risk margin. The risk margin intends to reflect the uncertainty associated with the cash flows, that is, the instances in which actual cash flows exceed the expected cash flows. The method prescribed by the BMA to determine the risk margin is the cost-of-capital approach. Key aspects of the risk margin calculation prescribed by the BMA are as follows:

- Cost-of-capital rate of 6 percent;
- Calculation should reflect Bermuda regulatory capital requirements, defined as the ECR;

- Risks to be accounted for are insurance risk, counterparty credit risk and operational risk; and
- Calculation should use a risk-free discount curve.

The cost-of-capital approach closely resembles one of the risk margin calculation methods under Solvency II,² and is one of the approaches proposed by IASB for IFRS risk adjustment reporting.

Transitional Arrangements

(Re)insurers may apply for transitional arrangements for certain long-term technical provisions, which would apply only to business written on or before Dec. 31, 2015, where the standard approach has been used. Transitional arrangements allow the (re)insurer to grade to the EBS reserves over a period of 16 years. During the transitional period, the (re)insurer is to calculate technical provisions both under the current approach and the full EBS approach, and interpolate between the two values.

IMPLICATIONS FOR INSURERS IN BERMUDA

Changes in the Bermuda reporting landscape for commercial (re)insurers have significant implications on the life actuary's role, particularly the BMA's implementation of the EBS. Some key implications are as follows:

Actuarial opinion—The BMA will require a formal actuarial opinion regarding the technical provisions in the EBS.

Modeling capabilities—There will be an increased need for modeling capabilities, especially when the scenario-based approach is used.

Assumption and model governance—Given that the EBS requires using best estimate assumptions at each point in time (as opposed to account value and locked-in assumptions for some products under US GAAP), there will be increased need to analyze experience on a more regular basis. This will increase the need for assumption and model governance as the assumptions will directly impact the financial statements, capital requirements and available capital levels.

Reserve and capital ratio volatility—Given that the EBS best estimate assumptions are updated at each valuation date (as opposed to being locked-in for some products), EBS financials will reflect an increased volatility of surplus, compared to US GAAP. Furthermore, an increased volatility of surplus will result in greater volatility of capital ratios.

Methodology—There will be a need to establish methodologies for the EBS calculation where clear guidance is not provided and/or where simplifications are required. Some examples in-

clude the treatment of separate accounts and appropriate drivers for purposes of risk margin estimation.

Product pricing—Certain products may look more attractive to (re)insurers. Additionally, changes to the (re)insurer’s current pricing may be required if capital requirements are materially impacted. ■

ENDNOTES

- 1 Bermuda Monetary Authority Guidance Notes for Commercial Insurers and Insurance Groups Statutory Reporting Regime, February 2016
- 2 EIOPA, Guidelines on the valuation of technical provisions



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