



WHITE PAPER

# IFRS 17 A Paradigm Shift for Insurance Accounting

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# Introduction

The IFRS insurance accounting standard, IFRS 17, was finally published by the IASB in May 2017 after 20 years in the making. IFRS 17 is designed to align insurance accounting across the globe, and increase consistency, comparability and transparency in financial reporting for insurance products. The effective date is not until Jan. 1, 2021, but the one-year comparative reporting requirement, as well as potential financial and business impact assessments that insurers will want to conduct in preparation for the transition, will make IFRS 17 a reality much sooner than 2021. Due to the comprehensive technical requirements, it will be a significant undertaking to implement IFRS 17. In this article, we will introduce the IFRS 17 measurement models, along with its numerous granular requirements in computation, transition and reporting. We will also discuss the key elements required for a successful implementation and the impact on actuarial systems.

## Overview of Measurement Models

IFRS 17 defines a general measurement model that is by default applicable to all (re)insurance products. Insurance contract liability consists of three components under the general measurement model, which is often referenced as the Building Block Approach (BBA):

- Unbiased probability-weighted mean present value of future cash flows
- Risk Adjustment, for the compensation required by the issuing entity for bearing the non-financial risks
- Contractual Service Margin (CSM), which is established at initial recognition as a deferred profit liability, then tracked and released over time

There are slight variations to the general measurement model that apply to insurance contracts falling in the following categories:

- **Short-term contracts** with coverage period of one year or less
  - A simplified measurement model called the Premium Allocation Approach can be applied if the entity reasonably expects the simplification to produce a liability that would not differ materially from that produced under the general measurement model. While the approach can also be applied to contracts of longer coverage, it introduces additional calculation requirements such as allowing for time value of money.
- **Indirect participation contracts** – The level of discretion needs to be explicitly or implicitly defined by the entity, and the resultant discretionary cash flows will adjust the CSM.
- **Direct participation contracts** – For direct participating features that meet certain eligibility criteria, the Variable Fee Approach (VFA) is applied to the subsequent measurement for such contracts.

## Computation Requirements

From a computation requirement perspective, under the general measurement model, the three contract liability components, or three building blocks (the first block introduced below is also sometimes referenced as two building blocks with the time value of money separated out as a building block) under the IFRS 17 general model can be analyzed as follows:

### 1. Expected present value of cash flows

– *Stochastic approach and cash flow identification*

IFRS 17 requires the expected present value of cash flows to be an “unbiased probability-weighted mean of the full range of possible outcomes” considering all reasonable and supportable information available at the reporting date without undue cost or effort. IFRS 17 does not specify the quantification of time value of options and guarantees (TVOG) embedded in insurance contracts, but it is implicitly required under the general measurement model. For contracts with embedded options and guarantees, insurers will need to justify that the calculated present value of cash flows captures the cash flow asymmetry caused by such options and guarantees, whether through a separate TVOG liability component or included as part of the expected present value of contract cash flows. This will require insurers to exercise caution and carefully determine whether a stochastic run is warranted for contracts with optionalities. Under existing financial reporting standards, deterministic valuation is often the prevalent approach, even for variable products sometimes.

This prevalence could be due to several reasons that vary by economies, one of which is that current liabilities are often a “book value” type of liabilities that do not fully capture the “current” cost of optionalities embedded in insurance contracts. Hence, it may have been viewed by accounting practitioners or actuaries as less critical to employ a stochastic approach to capture the optionality cost of a full range of possible outcomes. However, under the IFRS paradigm, the contract liability is supposed to represent a current estimate of what takes to fulfill the contract, thus it becomes more important to consider stochastic scenarios to capture the contract obligations when there are embedded options and guarantees.

In addition, the ability to identify cash flows subject to the IFRS 17 measurement model is key to insurers. This requires the valuation team to understand what expenses are attributable to the valued contracts, while the identification and allocation of costs such as acquisition expenses may require insurers to develop new processes. The determination of discount rate also requires careful evaluation and new calculations to derive the top-down or bottom-up rates that reflect the characteristics of the cash flows arising from each contract portfolio.



## 2. Risk Adjustment

### – Estimation, aggregation and reporting

IFRS 17 does not specify any estimation technique to determine the risk adjustment for non-financial risk, but sets out five qualitative principles that should be followed (paragraph B91 of IFRS 17). Simplified approaches such as a percentage factor applied to liabilities is most likely not in compliance with the prescribed principles for establishing a reasonable risk adjustment. Insurers will need to evaluate and determine an appropriate approach that produces a desired level of the risk adjustment that represents the level of compensation required for bearing the risks inherent in the products. There are estimation techniques already in practice for similar concepts under other reporting frameworks that can be leveraged, such as cost of capital, value at risk, or conditional tail expectation. However, they need to be utilized with IFRS 17's requirements in mind, such as which risks are not allowed to be reflected, and whose view the compensation is quantified from.

The level of aggregation will need to be carefully evaluated for the risk adjustment. Since IFRS 17 is a principle-based framework, the reporting of the risk adjustment is only required at the reporting entity level, which can be after the reflection of any diversification effect. However, the risk adjustment is technically also required at the group level, for the purpose of unlocking the CSM from one period to another. If the level of calculation for the risk adjustment is somewhere in between, which may be the case if insurers determine the risk adjustment by product or by type of risk, additional complexity is introduced to handle proper aggregation and allocation.

In addition, the required confidence level disclosure for the risk adjustment may also drive the increased use of stochastic modeling. While IFRS 17 does not specify any estimation technique, it requires the reporting entity to disclose the confidence level used to determine the risk adjustment for non-financial risk. To meet this disclosure requirement, it will be necessary for insurers to understand the probability distribution of the risks inherent in the contract cash flows and determine the percentile on the probability distribution of present value of cash flows that corresponds to the reported risk adjustment. There may be shortcuts insurers could take by leveraging existing Solvency II or economic capital calculations, but it is certain that a traditional deterministic approach would not be adequate any more.

## 3. Contractual Service Margin (CSM)

### – Release, unlocking and tracking

The CSM is probably the most challenging concept under IFRS 17 in terms of the technical requirements around it. It can be analogized to a deferred profit liability. In the case of a loss at inception, the CSM is floored at zero and the loss is recognized in profit or loss immediately. For a positive CSM, over time, it is released to reflect the services provided in the current period on the basis of duration and quantity of services, and unlocked for changes in estimates related to future services. The following requirements introduce challenges in implementing the functionalities needed to release, unlock and track the CSM:

- IFRS 17 requires insurers to divide a portfolio by issue year into at least three groups – a loss-making group that would have had a negative CSM at initial recognition (loss-making contracts are called “onerous”), a profitable group with positive initial CSM as well as no significant possibility of becoming onerous subsequently, and a group of other profitable contracts. The determination of grouping requires individual contract level assessment, unless there is reasonable and supportable information to conclude the grouping for a set of contracts.
- The variations of the general measurement model mostly revolve around the CSM unlocking. Proper implementation requires appropriate classification of contracts, multiple attribution runs and storage of cash flows at the chosen unit of measurement.
  - Under the general model, a change in discount rate does not adjust the CSM. Instead, the impact of the change in discount rate is either recognized in profit or loss, or other comprehensive income (OCI), depending on the insurer's accounting policy. Any other changes in the estimates of fulfilment cash flows and experience adjustments related to future services do adjust the CSM.
  - For indirect participation contracts, any change in discretionary cash flows, even related to financial risks, adjusts the CSM.
  - For direct participation contracts, under the VFA approach, changes in estimates related to financial risks adjust the CSM.
- For onerous contracts, even though the CSM is floored at zero, it still needs to be tracked in the form of a loss component which is used to adjust future revenue – and in case the previously recognized onerous amount is reversed due to favorable changes.
- The CSM is released or amortized to reflect the services provided in the current period, on the basis of coverage units defined by insurers. The release process itself is similar to how a deferred acquisition asset is handled under US Generally Accepted Accounting Principles (GAAP).

Figure 1: General measurement model - onerous contract at inception

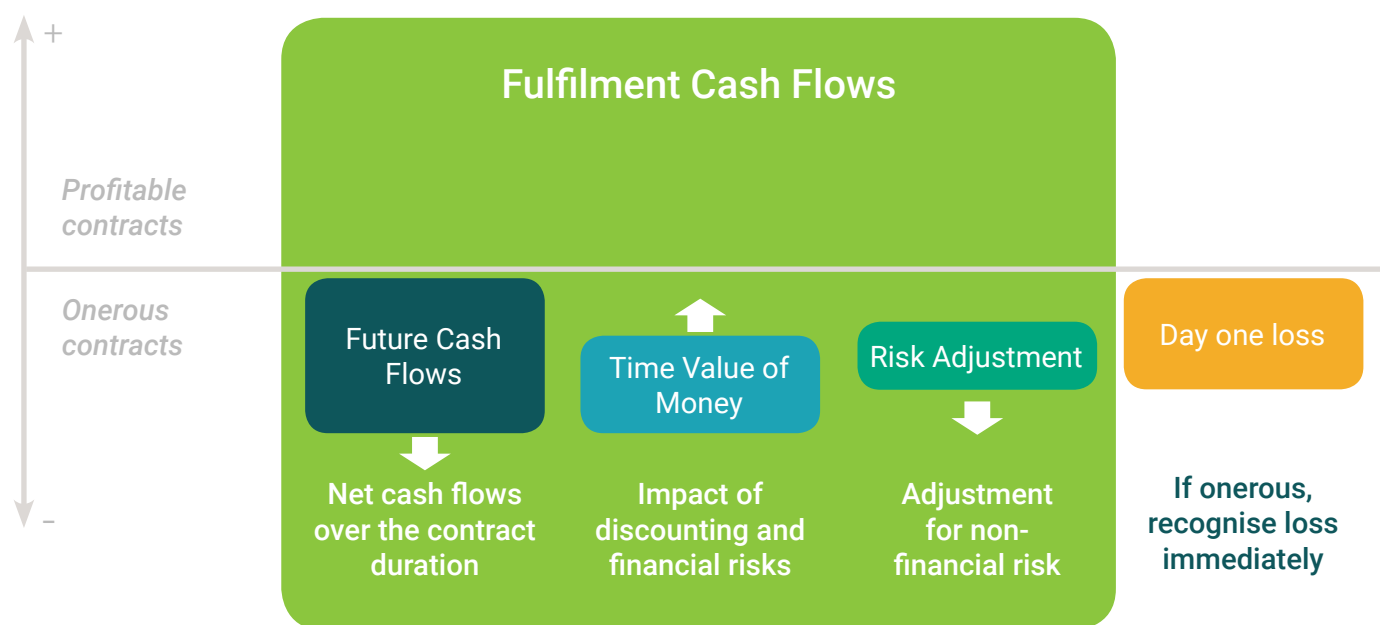
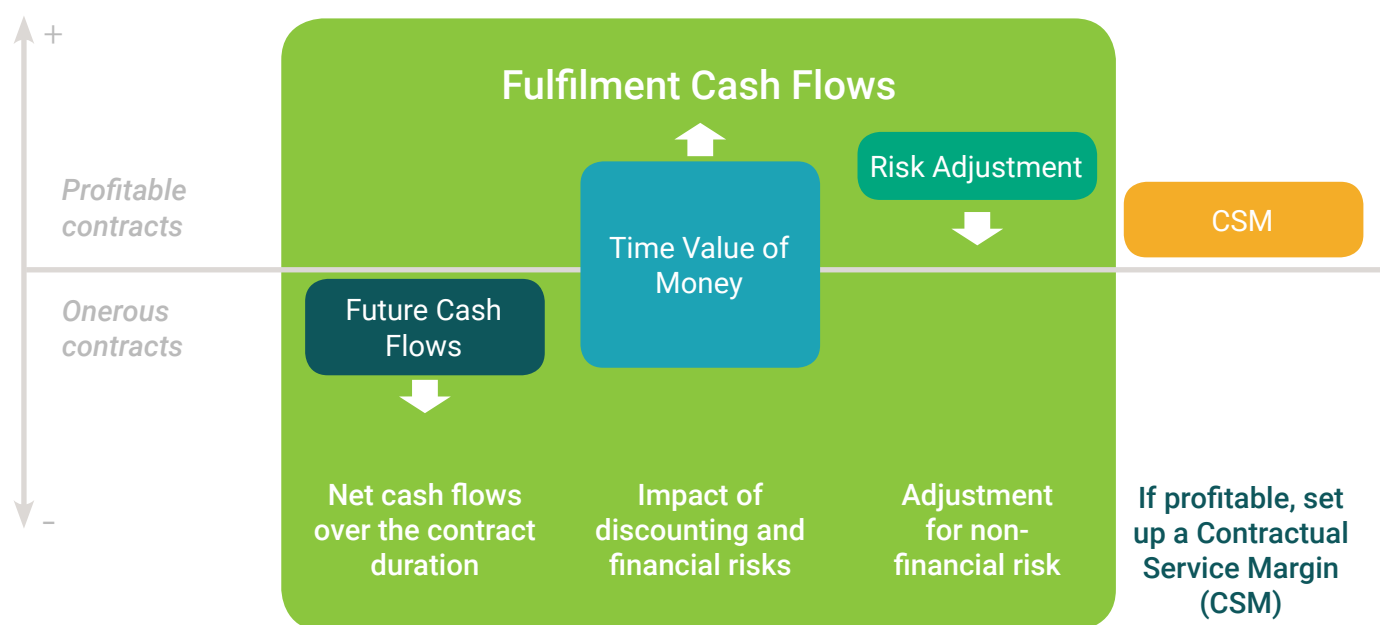


Figure 2: General measurement model - profitable contract at inception



As discussed above, IFRS 17 sets out one comprehensive measurement model that is widely applicable to all contracts, with some variations for certain short-duration contracts and contracts with participation features. This model includes a mechanism to build a risk provision into the liability, recognize losses, and defer and release profits in a systemic way. This differs from existing reporting standards in many economies in many ways. A design of such a comprehensive measurement model comes with many technical requirements that will require significant efforts to implement.

## Transition

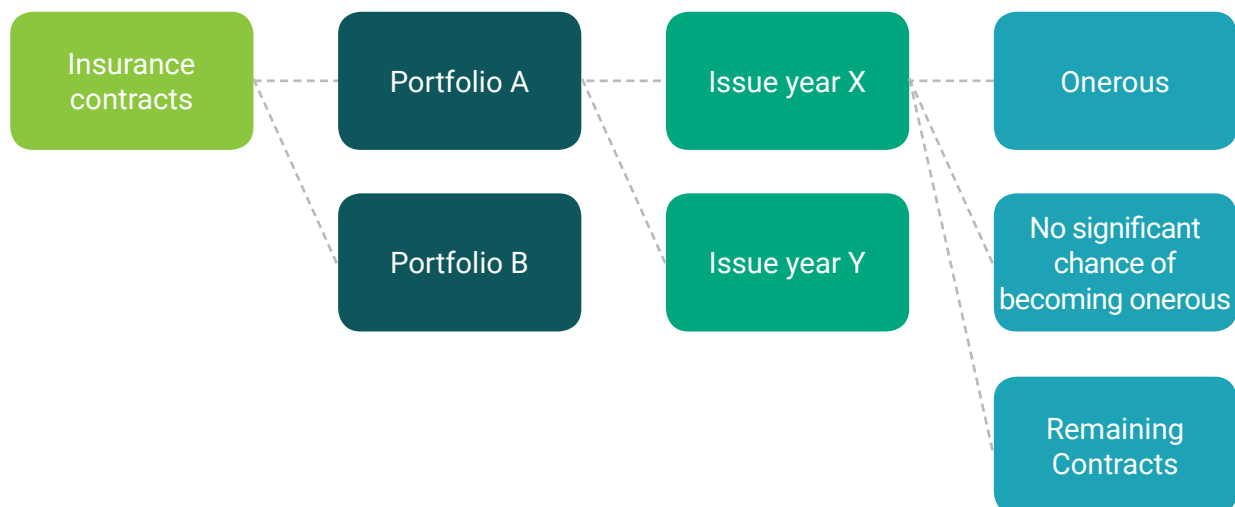
The effective date of IFRS 17 is Jan. 1, 2021, with an opening balance sheet required as of Jan. 1, 2020. IFRS 17 sets out the following transition approaches:

- Full retrospective application approach, where insurers at the transition date identify, recognize and measure each group of insurance contracts as if IFRS 17 had always applied
- If and only if, it is impracticable to apply the full retrospective approach, insurers have the choice to apply:
  - Modified retrospective approach, or
  - The fair value approach

While transition is a one-off exercise, it is a critical component of the IFRS 17 implementation. The full retrospective approach will require insurers to go back to the initial recognition of the insurance contracts and identify all past cash flows, changes in in-force attributes, and economic and non-economic assumptions. It will be an enormous effort to apply this approach for any insurer that has been around for decades.

If it is truly impracticable to source all historical data and implement the full retrospective approach, insurers will want to carefully determine which alternative approach to apply, between the modified retrospective approach and the fair value approach, by considering among other things, financial impact and cost of implementation.

Figure 3: Dividing a portfolio into contract groups



## Presentation and Disclosures

IFRS 17 presentation and disclosures are very actuarial driven, unlike any conventional accounting presentation. As discussed earlier, the CSM is established at initial recognition and captures the future profit. If experience emerges exactly as anticipated, its release is expected to be the main profit driver. In reality, profits will not emerge as anticipated, and the IFRS 17 presentation and disclosures capture different dimensions to provide increased transparency to readers of financial statements:

- 1. By income sources** – The IFRS 17 statement of comprehensive income (SCI) presents the insurance revenue separately from investment income, expected insurance claims and expenses separately from actual. Although the presentation is not split by detailed sources such as mortality and surrenders, that level of information may need to be tracked in order to derive the required presentation. Similarly, while there is no explicit deferred acquisition cost in the IFRS 17 measurement model, the acquisition expenses still need to be tracked behind the scenes and amortized for the purpose of presentation.
- 2. By liability components** – Expected present value of cash flows, the risk adjustment and the CSM. Paragraph 101 of IFRS 17 requires disclosure of reconciliations from opening to closing separately for each of the three liability components.
- 3. By service periods** – IFRS 17 is very specific as to the treatment of services from the past, current and future. For instance, the general measurement model also applies to the reserves set up for incurred claims, which is related to past services provided. For current period services, information such as the release of CSM, risk adjustment recognized for the risk expired during current period, and other experience adjustments are all required in the presentation and associated disclosures. For future services, changes in estimates related to future services will impact all three liability components, and there will be an impact on income statement if the CSM for certain groups is not sufficient to absorb unfavorable changes related to future services. In addition, paragraph 104 of IFRS 17 requires the disclosure in the reconciliations (required in paragraph 101) to include changes that relate to past, current and future services.
- 4. Other disclosures** – Insurers are also required to disclose information about sensitivities to changes in risk exposures arising from insurance contracts. A similar requirement, as mentioned earlier, is the confidence level disclosure for the risk adjustment that will require insurers to demonstrate the understanding of the distribution of risks.

Through these multiple dimensions, the IFRS 17 presentation and disclosures will provide greater transparency to readers of financial statements compared to existing reporting standards. Due to the detailed requirements, the modeling and calculations required to produce the necessary numbers will be enormously challenging for insurers. Data management capabilities and proper internal governance will need to be put in place or upgraded in order to produce sustainable and repeatable high-quality financial information under IFRS 17.

## Data, Systems and Processes

Actuarial systems, and the processes around them, will need enhancing to meet the additional calculation challenges of IFRS 17. The extent to which this needs to happen will vary across economies as well as business lines, and will partly be driven by the existing approaches to liability valuation. In addition to modeling cash flows, any business that is measured using the BBA needs to calculate the CSM.

The CSM calculation requires inputs from multiple sources. These include actuarially calculated values, such as future cash flows and the risk adjustment, as well as opening balances and actual cash flows over the period. In the case of the VFA, it also requires a determination of the entity's share of underlying items. This has a number of implications for data management.

As inputs to the calculations involve both actuarial and accounting values, robust processes must be put in place to ensure that accurate data is available at the required level of granularity. These processes will potentially span multiple departments and systems – increasing both the risk of using manual approaches and the need for strong governance. The use of locked-in assumptions varying by cohort will be a new requirement for many insurers, giving them a greater volume of assumptions and data to manage as well as changing the cash flow and risk models themselves.

It is useful to think of IFRS 17 calculations as having to produce two distinct sets of results. First, closing and expected balance must be captured at the required unit of measurement. This information need not be made available to downstream finance systems. But it must be stored and provided in future reporting periods so that values can be carried forward and analysis of change may be performed. Second, reports and disclosures must be produced in line with the IFRS 17 standard and delivered for consumption by finance systems.

Capturing the longer-term needs of the business will require looking beyond immediate reporting requirements. IFRS 17 by its nature takes a long-term view of insurance contract profitability, making it necessary to forecast profit-and-loss statements and capture the sensitivity to unexpected changes in future periods. This, in turn, increases calculation demands, thanks to the interconnectivity between the various component calculations. So, an integrated modeling framework will be critical to meeting differing business demands.

## Other Implementation Considerations

As discussed above, in the process of implementing IFRS 17, actuarial models and IT infrastructure will require significant enhancement to facilitate alternative assumptions, increase in number of runs, more detailed and granular output, faster processing, and storage of cash flows and attributions. Tracking, releasing and unlocking of the CSM will involve both finance elements and actuarial elements. The IFRS 17 presentation and disclosure are complicated and will require finance professionals to work with actuaries more than ever.

In addition to meeting the challenging computation requirements, transition, presentation and disclosures as discussed above, there are other implementation factors to consider:

- **Existing capabilities and future target state**

Implementation of the new standard provides opportunities for making calculation and reporting processes faster, more robust and capable of delivering greater business insight. This may involve rationalizing models, automating processes and introducing a more comprehensive governance framework.

- **Interaction between IFRS 17 and IFRS 9**

The IFRS 9 standard can be implemented in parallel with IFRS 17 – and for contracts measured using the VFA, there is a direct link with reported investments. Any IFRS project for insurance should consider both standards together to understand dependencies and synergies between the two.

## CONCLUSION

IFRS 17 defines a comprehensive measurement model and resultant financial presentation that are both conceptually and technically different from the existing reporting standards in many economies. It is a paradigm shift in many ways, and will require the significant investment of time and coordination from cross-disciplinary professionals. Insurers need to carefully evaluate the amount of effort involved, and balance out the leverage of existing capabilities with the development of new functionalities. While it is clearly a compliance exercise, insurance professionals should also consider the business impact of implementing the new standard. With the end state of implementation always in mind, they could turn IFRS 17 into an opportunity to think outside of the “valuation” box – and find new ways to standardize and modernize their overall process and operating model.

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