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Unpacking LRC and LIC Calculations for P&C Insurers

This paper covers the following topics:

- » Overview of the measurement models under IFRS 17
- » Further analysis of the liabilities for incurred claims (LIC), including the roll-forward and the granularity of calculation required
- » Liability for remaining coverage (LRC) calculations under the Premium Allocation Approach (PAA), including subsequent measurement and the underlying issues
- » The challenge in the treatment of premium experience compared to expected (known as the premium variance)
- » Acquisition expenses and the implications from the change in the amendment

The main requirements facing P&C insurers

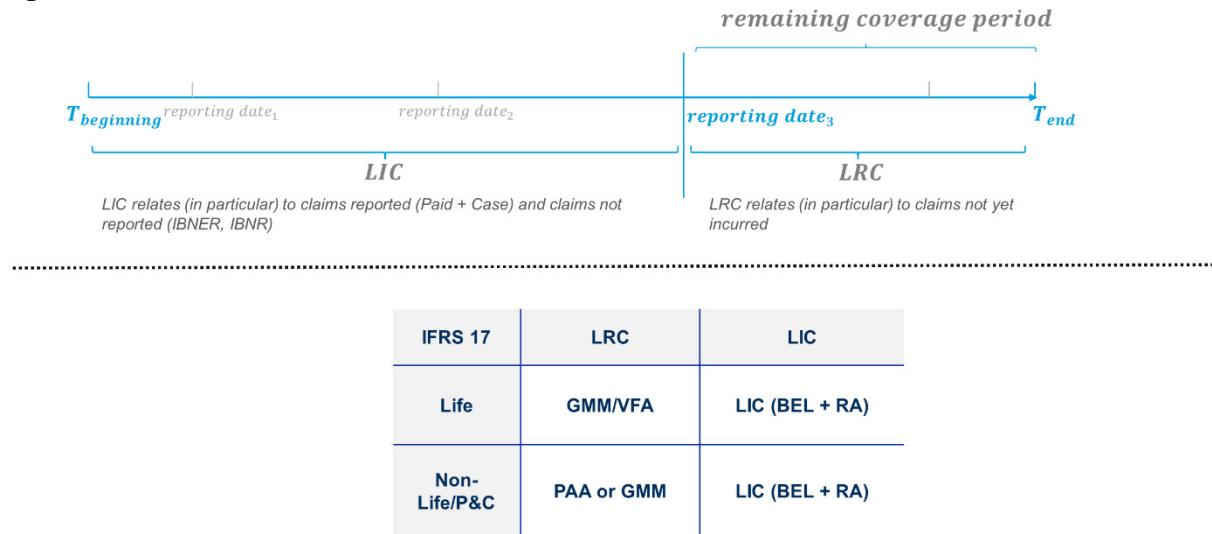
The new IFRS 17 insurance contracts accounting standard has created the need for a revised set of measurement, accounting, and reporting functionalities for insurers. These range from data manipulation, preprocessing (for example, the grouping of insurance contracts), and IFRS 17-specific calculations around LIC and LRC, to the disclosures. In particular, for P&C insurers, a few of the main challenges include:

- » Assessing eligibility to use the Premium Allocation Approach (PAA) for contracts with coverage longer than one year
- » Making a policy choice to use the PAA and simplifications allowed under the approach
- » Producing estimates of future cash flows using outputs from current reserving processes
- » Having the ability to discount the future cash flows longer than 12 months and selecting the appropriate discount rate
- » Improving the IFRS 17 Chart of Accounts and posting logic, and tackling more complex issues such as the impact of actual cash flows on measurement of insurance contracts
- » Taking advantage of the full General Measurement Model (GMM)—often referred to as the Building Block Approach (BBA)—if the PAA option is not available; a key component is the contractual service margin (CSM) on initial recognition and subsequent measurement
- » Converting accident-year claims triangles to underwriting-year triangles
- » Separating reserve developments into past and current service
- » Defining IFRS 17 risk groups

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Overview of the Measurement Model under IFRS 17

Figure 1 IFRS 17 Measurement Model



In the measurement model shown in Figure 1, the insurance contract liabilities must be split into two components: LIC and LRC.

The standard method of calculating the LRC is to use the GMM (or BBA) method which consists of a discounted best-estimate of future cash flows (BEL), a risk adjustment (RA), and a contractual service margin (CSM) representing the unearned profit. A simplified approach known as the PAA for contracts that fulfills certain criteria is optional and similar to the current Unearned Premium Reserve (UPR) approach.

The PAA can be used for insurance contracts with a coverage period of 12 months or less, or where the PAA and BBA do not materially produce different results. This may be the case for many general insurance contracts but is a question for multi-year contracts and risk attaching reinsurance, and remains a challenge for business acquired through acquisition or portfolio transfer.

The second component, the LIC, related to past coverage is measured similarly under both approaches. It corresponds to components such as Incurred But Not Reported (IBNR) and Incurred But Not Enough Reported (IBNER) reserves, and outstanding reported case reserves for expired risk under the current reserving approach.

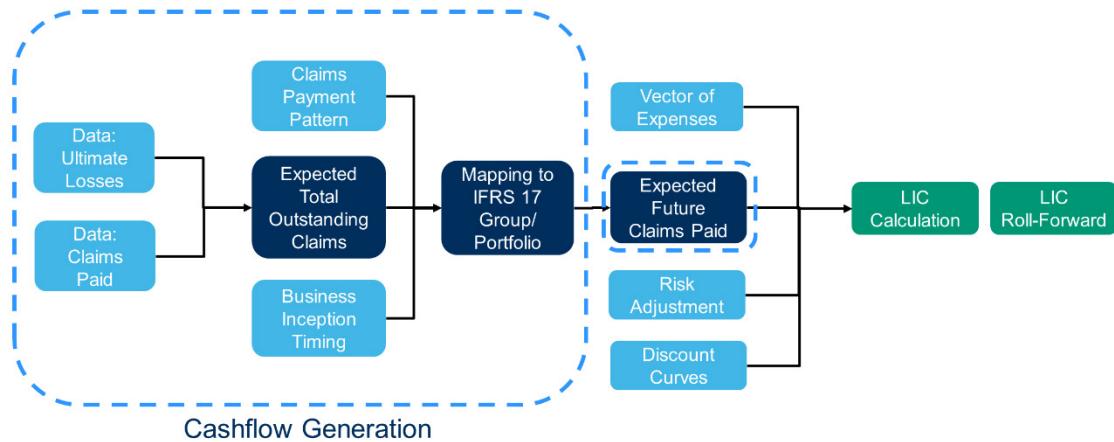
On a higher level, the requirements appear feasible and consistent with current practice. For example, LIC is already calculated for many insurers, particularly P&C insurers, and it is an important item in managing profitability.

However, challenges arise when looking into the details of IFRS 17 requirements. The granularity of the calculations, including discounting for the disclosure, is not the same as the current practice. Therefore, it becomes more difficult.

For the LRC under the PAA, some elements under IFRS 17 such as the unearned premium reserve, premium receivable, and deferred acquisition costs asset will be estimated similar to current practice. However, combined into one element and in practice, new calculations may require significant effort.

Liabilities for incurred claims (LIC)

Figure 2 LIC calculation – data inputs



In the LIC calculation (Figure 2), the present value of future expected claims and expenses, and the risk adjustment are the two components.

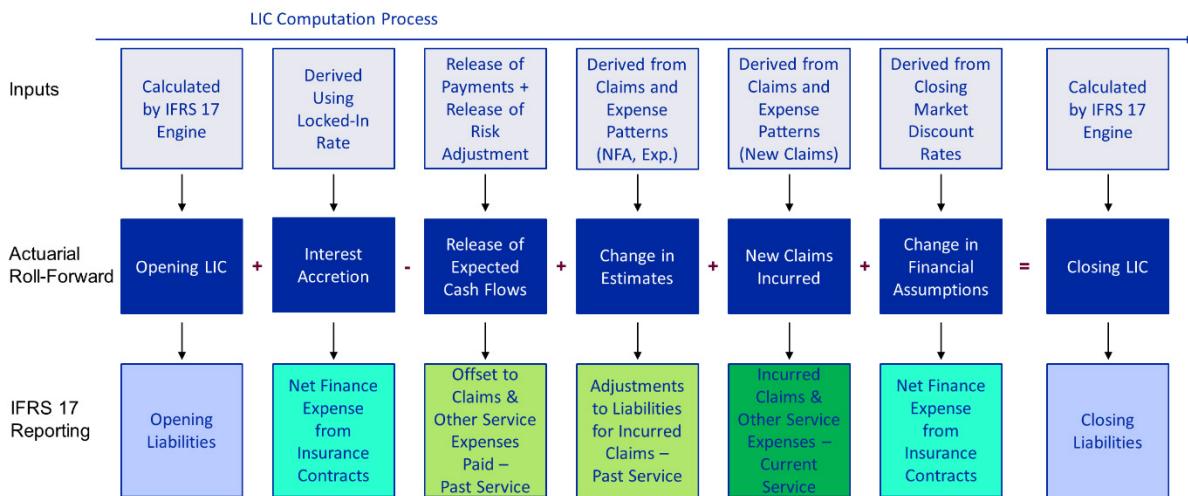
For the present value of cash flows (the best estimate liability (BEL)), we consider only the expected claim payments. If claims will not be paid within 12 months from the incurred date, those cash flows need to be discounted, which is different from current reserving processes.

The expected stream of future cash flows that insurers must include in the LIC calculation is a new requirement. Insurers may not have this available as an output of current reserving processes. Moody's Analytics has worked with clients to enable them to produce the stream of cash flows using their current resulting output (that is, the total outstanding claims reserve). We use the insurer's claim payment patterns to generate the stream of cash flows by IFRS 17 group.

Although the process may seem straightforward, it gets complicated if insurers have different cash flows that may or may not be related to each other, or if they have to allow for events not in the data. Also, maintaining the link between direct insurance and reinsurance may be a challenge.

Roll-forward of LIC

Figure 3 LIC calculation – granularity of analysis



LIC roll-forward is driven by the IFRS 17 reporting and disclosure requirements. Insurers have to produce reconciliation of the opening and closing balances by isolating specific items for reporting.

Figure 3 shows the requirements in terms of reporting in the bottom row. Looking at the actual roll-forward, we see the middle row showing the steps in the calculation that insurers need to isolate. The top row is an example of the inputs required to produce these results.

The standard requires insurers to split the insurance result from the finance result. This means that items related to discounting (time value of money) and any changes must be isolated in this roll-forward. These are reported in separate parts of the insurer's P&L. The interest accretion, the unwinding of insurers' discount rates, or any changes in financial assumptions are the elements reported as the net finance expense from insurance contracts.

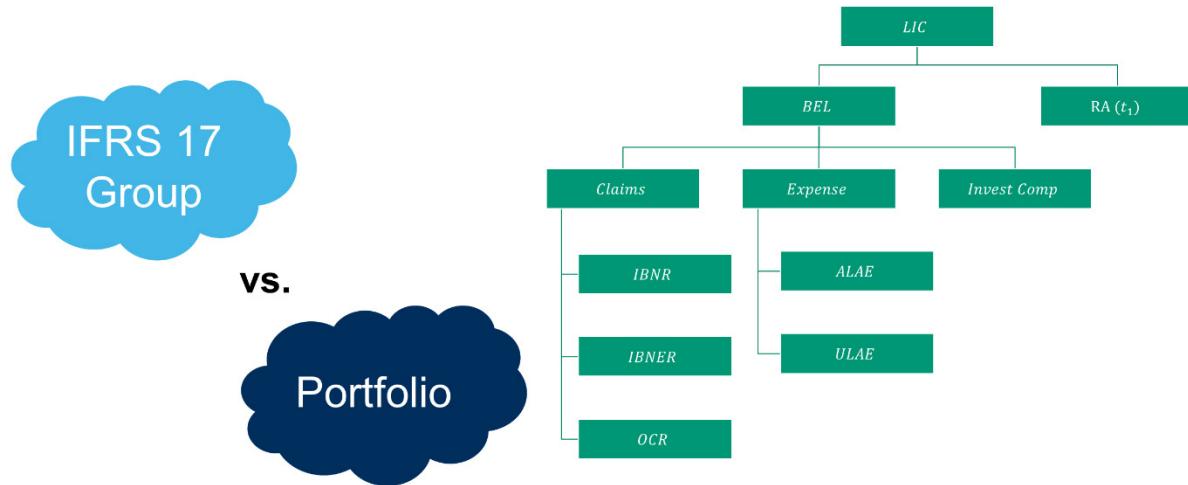
Another requirement under IFRS 17 is a split between current and past service. Past service relates to the changes in estimates of claims that are incurred in previous reporting periods. An example would be a change in what is known as the Incurred But Not Reported (IBNR) for previous years, together with any variation between what insurers were expecting to pay for previous years' incurred claims and what was paid. Those variations will go into the P&L as past service.

Insurers need the capability to do some of these calculations. This is necessary to capture the impact from a change in the previous and current assumptions, such as a change in the discount rate.

The granularity of the analysis required is complex and requires new data. The calculations are subject to audit because they represent items in an insurer's P&L. Insurers need a robust system that can manage the data and calculations, and store them in an auditable system.

The granularity of calculation for LIC

Figure 4 LIC calculation – granularity of calculation



For the level of granularity at which calculations need to be performed (Figure 4), there are two aspects to consider. First is the unit of account (UoA). The standard unit of account under IFRS 17 is the group contracts.

The second aspect relates to the level at which insurance contract assets and liabilities are reported. Before the amendments to IFRS 17 were published in June 2020, insurers had to perform their LIC calculation at the group contract level to identify whether a group of contracts was an asset or liability. With the amendments, the International Accounting Standards Board (the Board) has changed the requirement; insurers can now report assets and liabilities at the portfolio level.

However, some requirements may still need calculations on the group contract level—for example, if insurers decide to disaggregate insurance finance expense between the P&L and OCI. The expense is based on the rate locked in at inception, which is determined at the IFRS 17 group level. Hence, insurers must do the calculations at that level.

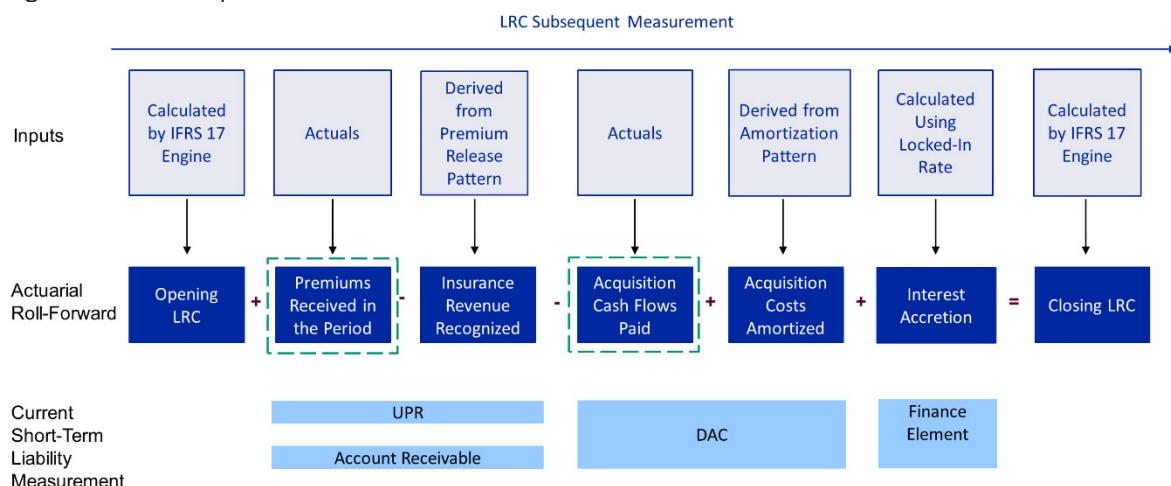
These issues drive the need for a robust system to perform calculations and store the results at the group contract level to report on these results.

LRC calculations under PAA, and the underlying challenges

The calculation method for LRC will depend on the model that has been used; for P&C insurers, it will be either PAA or GMM. The GMM is complex because it contains multiple building blocks with interaction between those elements. The movements of each element must be analyzed in each reporting period and for each group of contracts. For short duration contracts, this extensive analysis would not deliver much value as the movements would not be as significant. This is why the Board introduced the PAA approach, which is simpler. Under this approach, there is no need to separate the components of the LRC.

Measurement of the LRC under the PAA is not very different from the current measurements model for short-term liabilities in many jurisdictions.

Figure 5 LRC computation under PAA



The middle row of Figure 5 shows the roll-forward of the LRC under the PAA. Note, there is no separate calculation for earned premium reserve and for premium receivable under PAA. All the calculations are based on the premiums received, less the expected premiums to be received allocated to the period.

The PAA does not have an explicit deferred acquisition cost element. Insurers will report the acquisition costs that are already paid, less the amortized portion of those expenses. This results in a significant challenge created by the timing of the premium received, and whether it is based on an installment or if it is correlated.

Premium variance treatment

One other area of complexity under the PAA is the premium variance treatment, which involves the treatment of the premium experience adjustment. Deciding whether premium experience adjustments relate to current, past, or future service may be difficult and require judgment. A situation may occur in which insurers will have a mixture of adjustments to current or past and to future years.

The IFRS 17 Transition Resource Group (TRG) offered some guidance in 2019 and concluded that the premium experience relating to current or past service should be recognized immediately in the P&L as part of the insurance revenue. In addition, the TRG provided some examples to illustrate it. However, the examples do not reflect all the scenarios, and some questions remain.

For the TRG examples, the insurer did not know at the start of the period about the future premium adjustment and did not include it in the calculation of future revenue. However, in real life insurers might have a good prediction of what the future premium adjustment will be. Hence, the problem arises when deciding if this additional premium paid later is indeed a new premium adjustment, or known expected future cash flows that should be included in the calculation from inception.

There may also be a situation in which the insurer expects future premium adjustments not at the end of the period, but later. In such a situation, the assumptions must be monitored and updated at the end of the reporting period. If there was a situation where the future premium adjustment was not paid as expected, then the revenue already recognized in the previous period would

result in losses in subsequent periods. Here lies the complexity, with the increased need for continuous tracking of the assumptions and the number of necessary adjustments.

In another scenario, there may be a delay of the premium payment at the end of the year, such as a premium that is due on December 30 but is paid on January 2. The standard approach to recognize a premium adjustment at the end of the year would result in writing off an expected revenue from a contract at the end of the period—even though the premium was delayed only by a few days. This creates unnecessary volatility between periods and does not portray the real nature of the transaction.

Finally, there are also questions if the premium dissipates in a subsequent period after coverage ends. How would it be treated on the balance sheet of that year? Do insurers still have LRC even though the coverage expired, and they are not providing any further coverage, or is it some other sort of receivable?

Thus, there are several issues and varying interpretations to remember when designing a reporting solution so the system can offer various options to address significant issues.

Acquisition expenses

Another amendment issued by the Board relates to acquisition expenses. Although it is helpful for many insurers, it also adds more complexity.

Before the amendment, insurers were required to allocate all initial acquisition expenses to contracts already written. This could result in recognizing significant losses on initial contracts. It would not be consistent with economic substance, under which some of those acquisition costs borne upfront existed because insurers expect renewals of the contracts in the future periods.

The amendment brings the process closer to the current practice. It requires insurers to allocate the directly attributable acquisition cash flows in a systematic and rational way between the current and future renewal groups. Expenses related to future contracts will be kept as an asset until the contracts are written. This amendment should make profit recognition more stable. However, insurers should be aware of the complexity created by this amendment. For example:

- » The Board did not prescribe what methods to use for systematic and rational allocation. Thus, insurers must develop their own methods and exercise judgment when they analyze which cash flows relate to expected future renewals. These allocation methods may need to be revised and updated at the end of each reporting period if the expectations about the number of the renewals change.
- » Another element to look at is impairment. The test is not required at every period, but only when facts and circumstances suggest there is a need for it. The test itself is complicated and consists of two different steps. Similar to systematic rational allocations, insurers need to develop policies regarding impairment. More work might be required when performing those steps at the end of every period.
- » The granularity of calculations will be different compared to the current practice. The calculations that relate to future cash flows and to the impairment will be required on a group contract level. Identifying future groups of contracts may be a complex task that depends on judgement.
- » New disclosures will be required because of this amendment. One of them will be a reconciliation from opening to closing balances of the assets.
- » The asset for acquisition cash flows will be shown as part of the current amount for the related portfolio and not as a separate asset. This is another difference to insurers' current practices.

One of the ways to avoid the complexity under the acquisition costs amendment would be to expense acquisition costs immediately. However, by doing so companies would lose all the benefits of this amendment. To take advantage, insurers must be aware and address all of these complexities.

Conclusion

There are multiple scenarios under which changes required to current models, data, and reporting might be more than trivial. To comply with the new requirements, insurers should assess their current calculation engines' capacity, and plan ahead for the necessary updates.

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