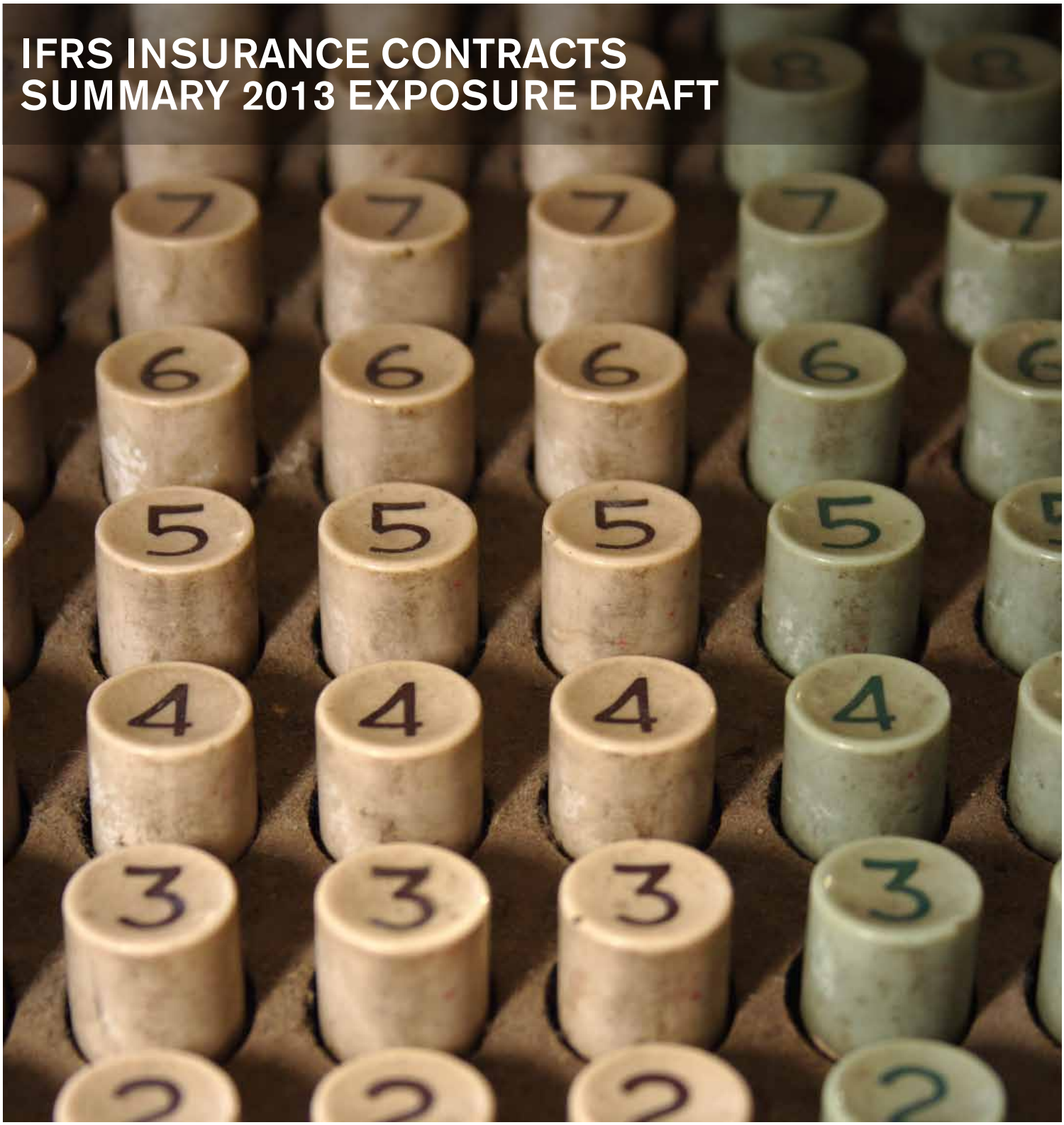
Prepared by:
Kurt Lambrechts, IABE
Alexander Ofutin, FIA, CERA
Takanori Hoshino, FIAJ, FSA, CERA, CMA
William Hines, FSA, MAAA
Henny Verheugen, AAG

August 2013

Milliman

IFRS INSURANCE CONTRACTS SUMMARY 2013 EXPOSURE DRAFT



Milliman is among the world's largest providers of actuarial and related products and services. The firm has consulting practices in healthcare, property & casualty insurance, life insurance and financial services, and employee benefits. Founded in 1947, Milliman is an independent firm with offices in major cities around the globe.

www.milliman.com

TABLE OF CONTENTS

1 INTRODUCTION

IFRS 4 is the current IFRS standard for accounting of insurance contracts.

It allows insurers (under certain conditions) to keep using the existing GAAP for these contracts. The main reason was that at the time that listed European insurance companies were required to report under IFRS (2005), a comprehensive standard for insurance contracts was not yet ready.

Phase 2 of the project is now ongoing to develop this comprehensive IFRS for insurance contracts. This project is a joint effort between the International Accounting Standards Board (IASB) and the US Financial Accounting Standards Board (FASB).

Following a first exposure draft (ED) in 2010, a re-exposure draft was published by the IASB in June 2013. Publication of the final standard may follow by early 2015, and insurers will then get approximately three years' time to get ready for the first-time application.

This paper reviews the main characteristics of the proposed IFRS with special attention to the new elements in the 2013 re-exposure draft.

Separate sidebars will compare relevant topics with the Solvency II and MCEV[1] valuation frameworks and deviating proposals by FASB regarding new US GAAP standards for insurance contracts.

[1] Market Consistent Embedded Value following the European Insurance CFO Forum Market Consistent Embedded Value Principles (Copyright© Stichting CFO Forum Foundation 2008)

2 CONTRACTS IN SCOPE

The scope of the proposed IFRS is still the same as in the current version of IFRS 4.

It includes insurance and reinsurance contracts that an entity issues, plus reinsurance contracts that it holds. It does not apply to insurance contracts held by policyholders.

Some contracts similar to insurance are, however, out of scope: warranties by manufactures, leases, self-insurance and employee benefits plans.

An insurance contract is defined as a contract under which one party accepts significant insurance risk (a risk other than financial risk) from another party by agreeing to compensate the policyholder if a specified uncertain future event adversely affects the policyholder.

This means that some contracts issued by an insurance company, which do not transfer significant insurance risk, are out of scope: pure savings products, unit-linked without significant insurance cover, financial reinsurance, etc. These should be measured according to IFRS 9, *Financial Instruments*.

However, some of these contracts share with insurance contracts discretionary participation features (DPF), whereby a contract provides a right for additional benefit amounts that are made at the discretion of the issuer. Often these contracts are part of the same portfolio as insurance contracts. As an exception, the proposed IFRS also applies to financial instruments with DPF when they are issued by an insurer.

If an insurance contract contains a distinct investment component or an embedded derivative that is not closely related to the host contract, then an insurer must account for it in accordance with IFRS 9. The same separation requirement also holds for distinct performance obligations.

Comparison with FASB proposals
FASB accounts for financial instruments with DPF as financial instruments.

3 MEASUREMENT FRAMEWORK

The proposed accounting model is a current value model that uses updated estimates and assumptions at each reporting date, with maximum use of market-consistent information where available. This measurement reflects the time value of money and takes into account differences in uncertainty to the liability.

The valuation measure for pre-claim liabilities is the sum of:

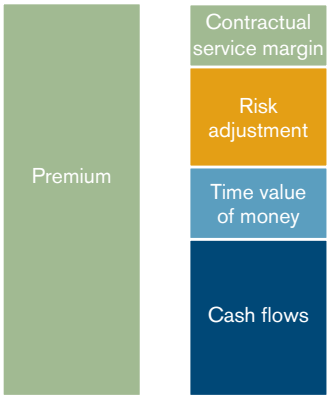
- The *fulfilment value*: the expected present value of net cash flows that will arise as the insurer fulfils the insurance contract
- A *contractual service margin* that eliminates any gain at inception

The fulfilment value includes estimated future cash flows from the perspective of the insurer, which are discounted and adjusted for any uncertainty in the underlying cash flows.

The measurement approach can therefore be seen as a *building block approach* that consists of:

- Unbiased expected (mean) value of future cash flows
- A discount rate that adjusts for the time value of money
- A risk adjustment to adjust the value for uncertainty as to the amount and timing of the future cash flows
- The contractual service margin

FIGURE 1: BUILDING BLOCKS



Comparison with MCEV

Traditionally, EV is thought to be a present value of expected future shareholder cash flows in addition to the net asset value, which is the difference between market value of assets and statutory liabilities.

Under the market-consistent approach, MCEV can be also viewed as an economic net asset value, or the market value of assets less market value of liabilities, and less the frictional costs. Time value of financial options and guarantees is part of the current estimate of market value of liabilities. Cost of residual non-hedgeable risk is also part of market value of liabilities, which is a component comparable to risk margin of Solvency II.

With the latter approach, an MCEV balance sheet can be compared to the proposed IFRS and Solvency II balance sheets. Assumptions required for MCEV are similar to those for Solvency II, where economic assumptions should be obtained from the market wherever possible and non-economic assumptions should be entity-specific.

MCEV does not include an equivalent of the contractual service margin that defers gains.

Comparison with Solvency II

The current value approach of *fulfilment value* is similar to the *exit value* of Solvency II.

The IASB actually used the term *current exit value* to summarize its earlier proposals in a 2007 discussion paper, where it is described as the *amount the insurer would expect to pay at the reporting date to transfer its remaining contractual rights and obligations immediately to another entity.*

However, from a strict point of view, the exit value concept raised some questions. For instance, it would require reflecting a market-consistent level of future expenses rather than the specific expense level on an insurer. A cost-efficient insurer could then show added value by having lower expenses than those used in the exit value. In practice, however, it is not possible to determine market levels for portfolio expenses. Solvency II ignores this by allowing for entity-specific expenses anyhow.

It was also clear from the start that an exit value is only a theoretical concept, as in practice insurance contracts are rarely transferred to third parties. Apart from the mitigation of excess risk through reinsurance, insurance companies in general intend to keep and fulfill their obligations until the end of the underwritten contracts.

Therefore, the focus was redirected to *the cash flows that arise as the insurer fulfills the contract*. This makes it unambiguously clear that expenses can be determined from the perspective of the entity. Market values, however, should be consistent with observable market prices.

Comparison with FASB proposals
FASB has decided not to separate the margin into a risk adjustment and contractual service margin in the measurement. In this case there is only a single (composite) margin, combining the risk adjustment and contractual service margin from the proposed IFRS.

A consequence of the missing risk adjustment and the locked-in feature is that a contract could tend to become less onerous at the initial measurement under US GAAP than under the proposed IFRS. However, for contracts whose expected cash flows have been revised to reflect higher expected costs in the future (lower profitability), a higher liability is likely to be held under US GAAP than under IFRS due to the locked-in feature of the margin.

3.1 Estimated cash flows

Definition
Cash-flow projections should include explicit, unbiased and probability-weighted estimates.

However, the key purpose is to obtain an unbiased *mean value* of future cash flows. It is not required to identify and quantify all possible scenarios to estimate this mean. However, the ED identifies that in cases where cash flows are affected in a non-linear fashion to changes in economic conditions, it might be necessary to use stochastic modelling.

Inclusion of future expenses
An important element is that only those cash flows that are directly attributable to fulfilling the portfolio obligations should be included. This includes activity-based costs, which are incremental at the level of a portfolio, as well as some, but not all, indirect expenses that can be linked to fulfilment efforts at the portfolio level.

General company overhead expenses and indirect costs that are not directly attributable to contract activity, however, such as product development and training costs, are *not* part of the fulfilment cash flows.

Directly attributable acquisition costs that can rationally be allocated to the portfolio of contracts, even though immediately reflected in the profit and loss (P&L) statement when incurred, are used to determine the contractual service margin during initial measurement, and are used for the insurance contract revenue measurement.

Expenses that are not part of the fulfilment value must be recognized in P&L when they occur.

Unit of account
Estimated cash flows are generally to be determined at the portfolio level. Under the proposed standard, a portfolio is defined as a group of contracts that provide coverage for similar risks and that are priced similarly relative to the risk taken on, and are managed together as a single pool.

Comparison with Solvency II
In Solvency II, *all* company expenses are allocated to the insurance contracts. For overhead expenses this is usually allocated in a way that is specific to each entity.

As Solvency II then aggregates everything into a holistic balance sheet, the perspective taken for capital requirements is ultimately at the company level.

In IFRS, however, the carrying amount of the insurance liabilities is only a part of the IFRS balance sheet, with other components subject to other standards (like IFRS 9 for financial instruments) whose valuation may provide for additional entity expenses.

Comparison with MCEV
Like Solvency II, all expenses relating to the covered business should be reflected to MCEV.

Overhead costs including an allocation of holding companies' operating expenses or investment in systems required to support the covered business should be included as well. Where costs of managing the covered business are incurred within other service companies, profits or losses to the service companies should be taken into account on a *look-through* basis.

Comparison with FASB proposals
The FASB proposal includes in current fulfilment value only those acquisition costs associated with successfully issued policies. The IASB proposal includes costs associated with acquiring a portfolio of contracts, which could include costs associated with both successful and unsuccessful sales efforts.

3.2 Discount rate

A discount rate[2] must be applied to the current estimate of the future cash flows to adjust those cash flows for the time value of money (unless the effect of discounting would be immaterial, see §3.5.2 on short duration contracts).

In the exposure draft, it is further specified that this discount rate must:

- Be consistent with observable current market prices for instruments with cash flows whose characteristics reflect those of the insurance contract liability, in terms of, for example, timing, currency and liquidity.
- Exclude any factors that influence the observed rates but are not relevant to the insurance contract liability (e.g., risks not present in the liability but present in the instrument for which the market prices are observed). Own credit risk of the insurer should *not* be considered when determining the discount rate.

2 Not one single rate, but a yield curve

The IASB does not prescribe a single method to determine the discount rate, but acknowledges two acceptable approaches:

- A *bottom-up* approach, where a risk-free rate is the starting base for adding extra characteristics that are part of the fulfilment cash flows, like illiquidity
- A *top-down* approach, where the return on a reference asset portfolio is the starting base and then stripped of all characteristics that are not inherent to the fulfilment cash flows

Suggested top-down approach

As said, a way to obtain the discount rate is to apply a top-down approach that starts from the investment return on the actual assets (or a reference portfolio) and then eliminates from this all components inherent to the assets, but not inherent to the liabilities.

The expected asset return should be adjusted in three steps to get an appropriate discount rate for insurance liabilities:

- Type I: Adjust for differences in expected timing of the cash flows, effectively moving to a 'matching' reference portfolio.
- Type II: Adjust for risks inherent in the assets, but not inherent in the liabilities.
  For bonds, IASB staff suggests a two-step adjustment:

  1. Adjust for expected credit losses
  2. Adjust for the remaining credit risk premium

- Type III: Adjust for differences in the level of liquidity.
  The IASB proposal is to *ignore* this difference in the top-down approach.

This approach is *not* supposed to lead to an asset-based discount rate; asset yields are only a starting point and then stripped from all characteristics not inherent to the liabilities.

In principle, the result should produce the same set of discount rates as the bottom-up approach:

risk free rate + illiquidity premium.

For this reason, debt instruments (like bonds) are the most straightforward starting point. Other investments (like equities and real estate) have characteristics that are very different from the characteristics of insurance cash flows. Consequently, the inclusion of these investments in a top-down approach will require significant additional considerations.

A benefit to choosing the *top-down* approach is that the proposed IFRS would *not* require a Type III adjustment for possible differences between assets and liabilities in the level of the illiquidity premium.

Locking in the discount rate

As we will see later in the section on total comprehensive income, the discount rate determined at inception of the contract will be locked in for presentation purposes. The unwinding of this discount rate as time evolves will be the basis for the interest expense that goes through P&L, while any changes in the value of the liability from changes in the discount rate will go through other comprehensive income (OCI).

If a contract modification adds an obligation to provide extra benefits, then the addition must be recognized as a new contract with a separate locked-in discount rate and contractual service margin.

Replicating portfolio techniques and embedded financial options

Some contracts combine insurance coverage with a savings component that may contain embedded options and guarantees. Besides a current intrinsic value, such options can also have a material time value from the fact that the value of the underlying item of the option varies in time.

In this situation, discounting expected cash flows with a risk-free discount rate would not lead to a current value that is consistent with observable market prices. Other techniques, such as a replicating portfolio, can be employed to match the value of the embedded option with the observable price of a similar option, or a market-consistent valuation can be used.

The IASB allows that in this situation such valuation techniques should be used, but the wording in the exposure draft is not so clear: 'An entity might use discount rates that are consistent with the measurement of those assets, and that have been adjusted for any asymmetry between the entity and the policyholders in the sharing of the risks arising from those assets.'

See Section 5 on participating contracts for more guidance.

Comparison with MCEV

Discount rates for MCEV should be derived by the bottom-up approach, and do not differ between non-participating and the other insurance contracts, including those which would be accounted for by IFRS 9.

Discount rates for MCEV are swap rates plus illiquidity premium. If market swap rates are not robust enough, alternatives such as government bond yields can be used. Also, consideration may be given to the actual ability to access the illiquidity premium in the investment policy.

3.3 Risk adjustment

The IASB requires insurers to adjust the current expected value of cash flows for the uncertainty in the underlying cash flows. The risk adjustment is calibrated to where *the insurer* becomes indifferent between fulfilling the insurance liabilities or a fixed liability with the same expected present value.

The description of the risk adjustment refers to the insurers' view towards a compensation of the risk it bears.

The proposed IFRS does not prescribe a specific method for the risk adjustment, thereby implying that a small number of well-established methodologies are not necessarily sufficient to determine an adjustment for the risks in insurance cash flows and new methods may evolve with time for all types of insurance contracts.

Link with pricing

They do require, however, that the insurer holds this view in a consistent way. According to the working papers of the IASB,[3] it seems to mean that the same method used to adjust a current value for risk is expected to be part of the underwriting premium that is set in the pricing of the insurance contracts. This link with the pricing approach is also referenced in board discussions regarding the chosen levels of diversification benefits between different portfolios.

The risk adjustment is to be included as a separate building block, except in cases where a replicating portfolio approach is used (see section on discounting).

Comparison with Solvency II

The risk margin under Solvency II corresponds to the risk adjustment of the proposed IFRS. Following earlier valuation frameworks like the Swiss Solvency Test, the risk margin is set as a 6% cost of capital, where the capital should include only non-hedgeable risks and is calibrated to a one-year 99.5% value at risk.

Insurers who have adopted this risk adjustment method for their pricing can equally use it for IFRS purposes as well. However, they are not obliged to have the same method for pricing and IFRS and can decide to limit the use of the cost of capital method to regulatory Solvency II purposes only.

Comparison with FASB proposals

The FASB prefers a single margin without a separate risk adjustment for the measurement of insurance contracts. The FASB believes that a separate risk adjustment cannot be reliably measured.

After the initial measurement of the risk adjustment, consecutive measurements of the risk adjustment evolve with the related uncertain cash flows and the continued use of the same underlying methodology.

Changes in the risk adjustment always go through P&L.

Confidence level equivalent

Although every insurer can choose its own method, comparison between IFRS accounts is key for various stakeholders outside the company.

Therefore, the IASB requires that the confidence level equivalent (CLE) of the risk adjustment is disclosed. The CLE is the confidence level that is achieved by adding the risk adjustment to the current estimate (where the expected value has, e.g., a 50% confidence level, the CLE will be higher than 50%).

[3] Paper 2C of February 2012, §21

Provision for adverse deviation (PAD)
Reflecting PAD to assumptions used to project future cash flows, as, for example, currently seen for Canadian GAAP and other accounting practices, would be one way to calculate the risk adjustment by the confidence level approach.

3.4 Contractual service margin

Interpretation

The definition of the contractual service margin directly refers to the aim of avoiding any gain at first recognition of the *insurance contract*. This does not mean, however, that the overall contractual service margin of an insurer can be described as the present value of future profits of the *company*.

As pointed out in the section on estimated cash flows, the fulfilment cash flows only include expenses that are directly related to the insurance obligations. Expenses that cannot be attributed to fulfilment activities are excluded.

The contractual service margin on an insurance portfolio is therefore supposed to cover both the profitability target of the company and (part of) the general overhead expenses.

To be completely accurate, it should be noted that also the risk adjustment, as compensation for risk, could be viewed as part of the future expected profits.

The contractual service margin cannot be less than zero. Thus, the minimum liability is the sum of the present value of expected cash flows plus the risk adjustment. This must, however, be considered at the portfolio level. Portfolios where the minimum liability is larger than the value of the premiums charged are referred to as onerous.

Release of the contractual service margin

When any gain at inception of the contract is avoided, it is of course key to know when exactly these gains (and partial coverage of overhead expenses) will flow through P&L. Two basic rules apply:

- The contractual service margin will accrete with interest at the rate that was locked in at inception of the contract.

- The contractual service margin is to be released over the coverage period on a systematic basis that is consistent with the pattern of transfer of services provided under the contract. The ED, however, does not prescribe the unit of account after initial recognition to determine this.

Adjustment of the contractual service margin

Another important matter is whether the contractual service margin should be adjusted for changes in the fulfilment value and, hence, adjusted estimates for future gains or losses.

The IASB has changed its original view on this to an approach where the contractual service margin can be a *shock absorber* to offset changes in future estimates. However, the margin cannot become negative. To the extent that changes in future estimates would reduce the margin below zero, the margin would be set to zero and any excess amount would be reflected directly in income.

The resulting adjusted contractual service margin will be more reflective of the level of future profit and expense coverage that should be expected on the portfolio of contracts being measured.

A distinction must be made here between:

- Experienced differences between expected and actual cash flows during the current period: these are part of the underwriting result of that period and do not adjust the contractual service margin.
- Changes from updated assumptions for cash flows *relating to future coverage and other future services*, which can be absorbed by the contractual service margin.

The reference to *future coverage and other future services* is meant to avoid some unintended consequences of unlocking the service margin, for instance:

- The contractual service margin should not absorb changes in estimates for already incurred claims.
- Current period differences between assumed and actual premiums or repayments are not to cause a profit or loss, while the corresponding change in future cash flows is absorbed by the contractual service margin.
- When expected future cash flows increase or decrease as a result of the investment return in the current period, without affecting future services, then the service margin should not be adjusted for changes in future cash flows. In this situation it is however possible that side effects occur. For example, increases in asset values for unit-linked contracts may lead to an increase in estimated future asset based charges. The increase in future charges may impact the re-measurement of the CSM on non-mirrored cash flows if the charges are related to future coverage or other future services.

Equally importantly, it must be noted that the IASB at present excludes the following effects from being absorbed by the contractual service margin, for instance:

- Changes in the discount rate
- Changes in the risk adjustment

Comparison with FASB proposals
The single margin cannot be unlocked. The impact of all changes in future estimates impacts P&L directly.

Transitional measures

Given the huge impact (the IASB originally thought that contractual service margin was marginal, but industry pointed out it was not), the IASB is now proposing a retrospective approach where the contractual service margin is calculated for all prior periods for which it is practicable to do so on the basis of objective information.

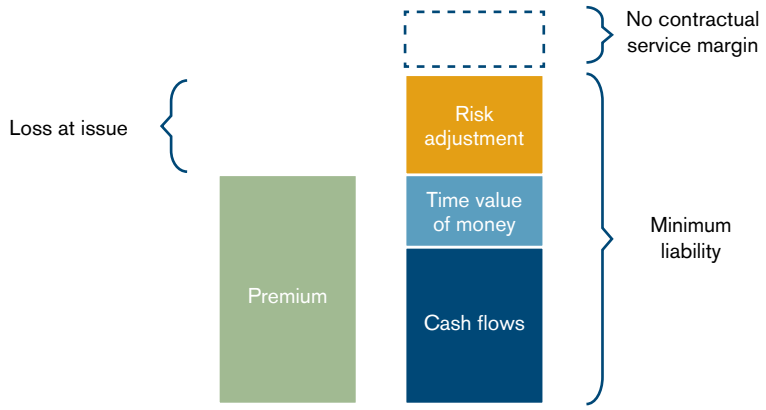
The IASB has proposed several practical expedients to make the transition less onerous on insurers. It proposes to assume that current assumptions and views as to risk adjustment can be substituted for what might have been determined at inception of in-force contracts. Discount rates will need to be redetermined back to contract inception, but several shortcut methods are proposed as well.

3.5 Special cases

This section highlights four situations where the proposed IFRS requires deviation from the standard building block approach.

3.5.1 Onerous contracts

FIGURE 2: INITIAL MEASUREMENT–ONEROUS CONTRACTS



The contractual service margin is meant to prevent the expected present value of future profits from being recognized immediately in P&L at inception of the contract and instead being recognized over the coverage period. It cannot, however, be negative, so the contractual service margin cannot be used to eliminate any *loss* at inception.

It is then of course possible that insurance contracts do not have a contractual service margin.

This means that at inception, the sum of the present value of future cash outflows and the risk adjustment could exceed the present value of future cash inflows. The ED says to consider this possible situation at portfolio level.

With no contractual service margin, the impact of all future changes in the assumptions will go immediately through P&L. For contracts with long-term guarantees, this will create significant volatility.

This situation can arise at inception of the contract or in a later stage, depending on how the contractual service margin is released over time and used to absorb previous changes in the fulfilment value. We have understood that the contractual service margin can be reinstated if favourable changes subsequently occur.

3.5.2 Short duration contracts

The IASB proposes to allow a premium allocation approach (PAA) for the pre-claim liabilities of short-term contracts. This means that the initial premium (and present value of future premiums, if any) is taken as the initial measurement of the insurance liability.

No discounting would be required when this has no material effect. The latter is considered to be the case when the coverage period is 12 months or less.

The PAA should be considered as an approximation of (not an exception to) the building block approach. The premium implicitly includes a risk adjustment and contractual service margin, but over a short coverage period it is considered acceptable to assume that defining and releasing these building blocks over time would not differ from releasing the total premium as a whole.

The IASB proposes this as an option for all contracts where it is an acceptable approximation of the building block approach.

Comparison with FASB proposals
FASB considers PAA as a separate method and proposes to make its use mandatory.

3.5.3 Reinsurance

Reinsurers are to apply the same accounting methods to reinsurance contracts issued.

Also, reinsurance contracts held by insurers (as cedant) are in scope of the proposed IFRS.

For such reinsurance contracts :

- The estimated cash outflows should consider the risk of non-performance by the reinsurer and recognize changes in the reinsurer's credit standing in profit or loss.
- The contractual service margin should be calibrated to the premium paid to the reinsurer, which means there are two sources that can create a difference with the reinsured liabilities:
  - The reinsurance tariff can be different from the tariff basis of the underlying insurance contracts.
  - The discount rate at first recognition of the reinsurance contract can be different from the (aggregate) discount rate(s) of the underlying insurance contracts.
- The risk adjustment, however, should represent the actual ceded portion of risk.

Both day-one gains and losses are to be recognized over the coverage period.

In a normal situation, this involves from the perspective of the cedant a negative contractual service margin that is released with the same pattern as the positive service margin (if any) of the reinsured contracts.

For short-term reinsurance contracts it is also possible to use the premium allocation approach.

3.5.4 Mirroring approach

One of the goals of the proposed IFRS is to show economic mismatches between insurance liabilities and related assets when they occur, and to reduce artificial accounting mismatches when assets and liabilities are economically matched but measured differently.

This means that in a situation where economic mismatches are impossible, the IFRS aims to induce no accounting mismatches. This is the case when a contract specifies a direct link to returns on underlying assets *and* the entity is required to hold these assets. In this situation, the insurer must measure the insurance cash flows by mirroring the underlying assets:

- Measure the *linked* fulfilment cash flows by reference to the carrying value (either the fair value or amortized cost value) of the underlying items
- Report changes in the carrying value in the same way as for the underlying items in either P&L or OCI

A key condition is that the contract actually requires the entity to hold the underlying assets, so that economic mismatch is not possible. Depending on the contract terms, this may be the case in so-called *unit-linked* contracts.

If these contracts do not require the entity to hold the underlying assets and the insurer has discretion to match its liabilities or not, then the mirroring approach is not applicable. In this situation, the ED speaks of *index-linked* rather than *unit-linked* contracts and the standard building block approach would apply.

4 TOTAL COMPREHENSIVE INCOME

Changes in the subsequent carrying amount of the fulfilment values and contractual service margin at consecutive reporting periods will lead to an IFRS statement on the revenue and profits of the insurer.

Although at each reporting date a new current value should be determined at the prevailing discount rate, the IASB proposes to split the impact due to updating discount rates on the total comprehensive income into:

- An interest expense determined using a discount rate that was locked-in at inception of the contract, which is presented in P&L. This is considered as part of the basic underwriting performance.
- The difference of the interest expense between the locked-in discount rate and the rate prevalent at the beginning of the reporting period, which is presented in OCI.
- The change in present value of estimated future cash flows by updating the discount rate to the current rate, which is also presented in OCI.

As noted in the prior section, changes in the fulfilment value that come from updated assumptions relating to future coverage and services are not recognized as part of the income statement, but absorbed by the contractual service margin (as long as it is available).

Therefore, changes in the value of the different building blocks are in total distributed over three possible ways:

- Changes through profit and loss (P&L)
- Changes absorbed by the contractual service margin
- Changes through other comprehensive income (OCI).

Changes through profit and loss (P&L)

These include:

- Differences between actual and expected cash flows in the current period
- Interest Expense (corresponding to Item 1 above)
- Changes in the risk adjustment, caused by its gradual release and/or adjustments on the assessment of underlying risks
- Gradual release of the contractual service margin

Changes absorbed by the contractual service margin

As explained in §3.4, the contractual service margin can be seen as the amount of unearned profit in the contract. The IASB proposes to *unlock* the contractual service margin for changes in future estimates relating to future coverage.

The contractual service margin, however, should not be negative; in such a situation the contract must be treated as onerous. All negative changes in excess of the contractual service margin should be recognized immediately in P&L.

Changes through other comprehensive income (OCI)

The following drivers of change in the liability measurement should be presented separately from P&L in the Statement Of Comprehensive Income:

- The difference of the carrying amount between the locked-in discount rate and the rate prevalent at the beginning of the reporting period
- The change in present value of estimated future cash flows by updating the discount rate to the current rate

These results are illustrated in the following composition of total comprehensive income:

FIGURE 3: MARGIN PRESENTATION OF TOTAL COMPREHENSIVE INCOME

Release risk adjustment		**RRi**
Release contractual service margin		**RRe**
Gross underwriting margin		**(RRi+RRe)**
Experience adjustments	**expected claims**	**EC**
	- actual claims	**-AC**
Increase in present value of future cash flows of beyond what can be absorbed by contractual service margin		**(-ΔA)**
Underwriting result (UR)		**(RRi+RRe) + (EC-AC) -ΔA**
Investment income		**Inv**
- Locked-in interest accreted		**- I**
Investment result (IR)		**(Inv-I)**
Profit or loss		**UR+IR**
Other comprehensive income		**- ΔDR**
Total comprehensive income		**UR+IR- ΔDR**

5 ON DISCOUNT RATES AND ASSET RETURNS

The previous sections noted that the discount rate should only reflect the characteristics of the fulfilment cash flows and is one of the drivers for the determination of the contractual service margin (future profits).

We also saw that for presentation purposes this discount rate is locked in at the initial recognition of the contract and used at subsequent measurements to:

- Accrete interest on the contractual service margin
- Determine an interest rate expense on the insurance liabilities, which goes through P&L

As such, the time value of money is reflected in P&L in an approach similar to amortized cost for financial instruments.

It is not uncommon, however, that the *amount* of future fulfilment cash flows also is affected by financial parameters, as is the case for so-called participating contracts.

In §3.5.4 we noted the IASB's proposal that a mirroring approach be used when fulfilment cash flows are directly linked to assets that the insurer is required to hold. There are situations, however, where an insurance contract has cash flows that vary with returns on underlying items, but where the mirroring approach is not allowed:

- The entity has a discretionary choice in determining the amounts that reflect those returns.
- The entity uses the underlying assets as a reference point, without a contractual requirement to hold them.

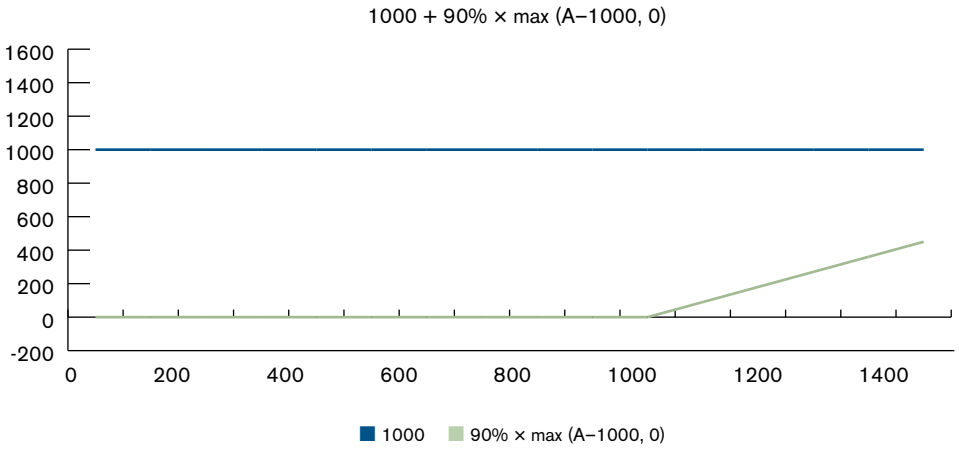
The IASB proposals require insurers to discern between:

- **Cash flows that do not vary with underlying items**: These are *base case* cash flows where the locked-in discount rate does the job.
- **Cash flows that vary directly with underlying items**: These cash flows include those discussed in the mirroring approach, but also include linked cash flows where the mirroring approach is not applicable (see above). Basically, the direct link must be seen as a linear relationship.
- **Cash flows that vary indirectly with underlying items, for example in a non-linear way**: When the return on the underlying items affects the amount of the fulfilment cash flows, this effect is recognized in P&L.

The consequence is that the fulfilment cash flows on an insurance contract need to be decomposed in different subsets.

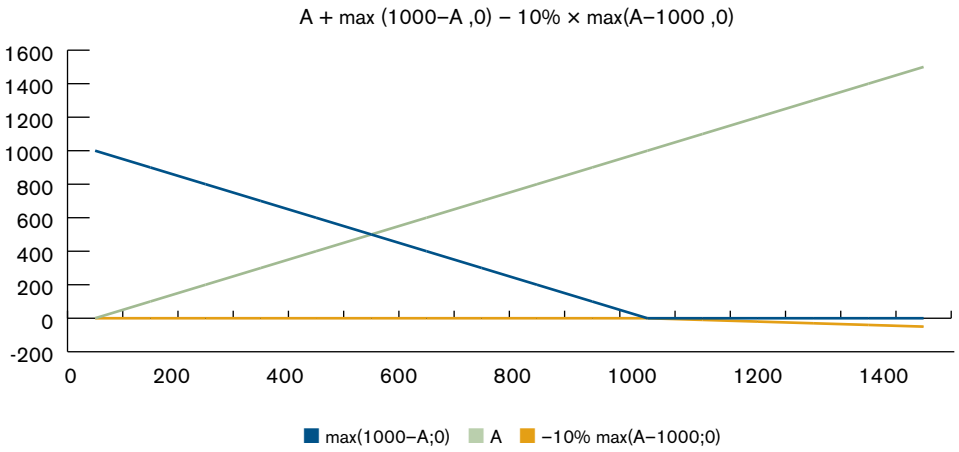
Appendix B of the ED (§ B86) shows an example of a contract that promises a minimum of CU 1,000 plus 90% of the increase of the underlying assets.

FIGURE 4: DECOMPOSITION OF CASH FLOWS–VIEW 1



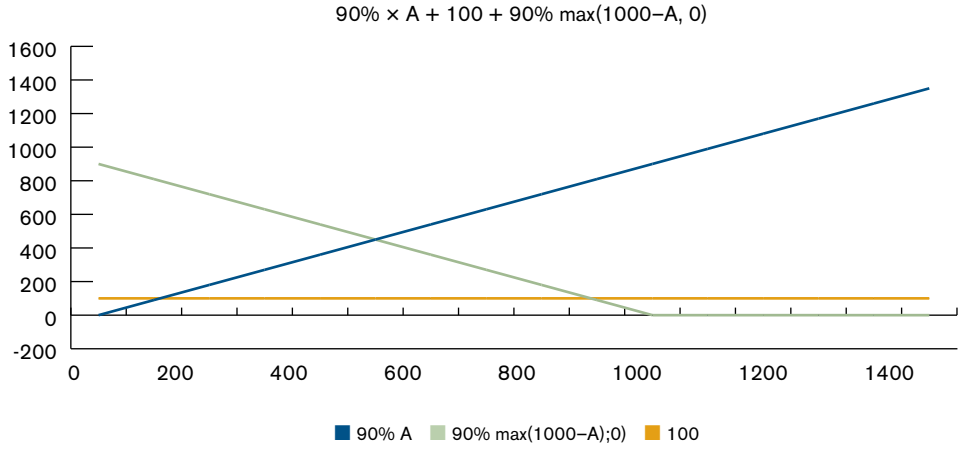
When expressed as a fixed CU 1,000 plus a call option, the focus is on the minimum guarantee only.

FIGURE 5: DECOMPOSITION OF CASH FLOWS–VIEW 2



When expressed as the underlying assets plus a put option, the focus is only on the direct link with the asset.

FIGURE 6: DECOMPOSITION OF CASH FLOWS–VIEW 3



The IASB proposes therefore to consider the cash flows in a way that gives priority to showing:

- Cash flows with a direct (linear) link with underlying assets (90% A)
- Amounts that clearly do not vary with the underlying assets (100)

With this decomposition, the measurement of the insurance liabilities is as follows:

1. 90% A:
1a) If the contract requires the entity to hold the underlying assets, then the value measurement and treatment of value changes must be mirrored (see §3.5.4).

1b) If not, then the fair value of A is used for the measurement and changes in that fair value (affecting the amount of the fulfilment cash flows) flow through P&L.

2. 100: Use the locked-in discount rate at initial recognition.

3. 90% max(1000-A, 0): An indirect link to underlying assets, treated as in 1b).

In this example, a fixed cash flow amount of 100 is included in the contract pay-out. Notice, however, that even the presence of fixed expenses may be sufficient to require a split in the set of contract fulfilment cash flows.

It is also important to notice that IFRS9 will have the option to designate financial instruments at fair value through profit and loss (FVTPL). In the above example one may need to consider whether to put asset A in this category to achieve accounting measurement that matches with items 1b) and 3.

6 PRESENTATION

Section 4 described how the total comprehensive income is determined in the building block approach. This section shows how Income must be presented.

We will see that in the presentation extra items must be reported, like revenue volumes, claims, benefits and expenses. By doing so, a *revenue measure* is added to the income presentation. It is important to realize, however, that this presentation mode does not impact the total income discussed in section 4, but is only another way of presenting the same gains and losses.

The proposed presentation method is often referred to as the *earned premium presentation*. Its key characteristic is that the income presentation starts with a top line revenue number and explains from there the total comprehensive income from the building block approach.

This revenue should be the *earned premium for insurance coverage*,[4] which means:

- Revenue is recognized (earned) as the insurer delivers its services, i.e. insurance coverage to the policyholder. The total premium amount over the life of a contract should be equal to the total premium received (excluding any investment component and adding the effect of interest accretion).
- An insurer has to exclude any payments for investment components, which have been deposited by the policyholder and must be repaid regardless an insured event occurs. The only premiums that are relevant for a revenue statement are related to insurance coverage and services provided.

Despite the fact that this method involves extra computational challenges, the IASB prefers this approach because:

- The earned insurance revenue is consistent with the measure of revenue that has been proposed in the exposure draft on Revenue from Contracts with Customers. It puts the presentation of insurance revenue in line with the presentation for other industries.
- Insurance revenue is then highly similar to the run-off of the premium in the premium allocation approach for short-duration contracts. One presentation method is sufficient for both the building block approach and PAA.

Disaggregation of investment components

The goal of the earned premium presentation is to present as revenue the implied charges for the service of providing insurance. In order to do this properly, those portions of the premium that are related to any investment component must be excluded, which means they are rather a deposit than revenue.

The ED requires that this split is also made for presentation purposes in cases where the investment component cannot be unbundled from the insurance component and even in cases where there is no explicit investment balance account.

The total deposit premium is determined as the present value of those amounts to be paid to the policyholder regardless of whether an insured event occurs, using the locked-in discount rate. This should be accomplished largely by combining accreted premium amounts with surrender and mortality assumptions.

[4] Alternatives that have been considered as well include *written premium* (new contracts) and *due (paid) premium*.

A key question, then, is how to determine this insurance revenue for each reporting period.

The basic concept can be illustrated by two simple perspectives:

A margin-based perspective

In the building block approach, the insurance liability is measured as the sum of the present value of estimated cash flows, the risk adjustment and the contractual service margin.

A direct interpretation of *earned premium* for a specific period would then be the sum of the following items[5]:

(EC) The estimated expected claims and expenses relating to coverage in that period

(RRi) The release of risk adjustment in that period

(RRe) The release of contractual service margin in that period

The sum of the expected insurance revenue over all periods, discounted at the locked-in rate, gives the initial measurement of the insurance contract. This perspective is therefore equal to splitting a multi-period contract in a series of forward starting one-period contracts.

A liability-based perspective

Another way of looking at the earned premium is by considering the current insurance liability as the present value of insurance revenue that has not been earned yet:

Liability at start of period + premiums received + interest accreted − earned premiums − repayment of investment components = liability at end of period

So:

Earned premiums = (Liability at start of period + premiums received + interest accreted) - (liability at end of period + repayment of investment components)

$$= (X + P + I) - (Y+IC)$$

FIGURE 7: MARGIN-BASED PRESENTATION OF REVENUE

Liability at start of period		**X**
Premiums received		**+P**
Locked-in interest accreted		**+I**
-Earned premiums	**-Expected insurance claims**	**-(EC-IC)**
	-Release risk adjustment	**-RRi**
	-Release contractual service margin	**-RRe**
Repayment of investment components		**-IC**
Liability at end of period		**Y**

[5] An allocation of the portion of the premium that relates to recovering directly attributable acquisition costs is also part of earned premium. However, as it is just for the presentation purpose, it is omitted here.

In the real world, however, there are effects that disturb this perfect picture:

- Actual cash flows can be different than expected. The difference goes through P&L.
- The current discount rate is different from the locked-in discount rate. This leads to other comprehensive income.
- The assumptions for future coverage can be changed at the end of the reporting period. The contractual service margin absorbs the impact, unless the contractual service margin becomes zero. In that case the residual unabsorbed impact goes through P&L.
- The IASB requires that directly attributable acquisition costs be recognized as services are provided (see sidebar).

Recognition of acquisition costs directly attributable to an insurance portfolio

Insurance premiums generally include a charge for recovering the originally incurred costs to acquire a contract. The introduction of a revenue presentation causes an extra complication because the general IFRS view on recognizing revenue from a contract is as services are being provided. In this perspective, it would be an inconsistency to recognize the premium part related to acquisition costs at the start of the contract (when the acquisition cost incurred but no services are yet provided).

The IASB therefore decided to stick with the general principle and to order that:

- The premium related to these acquisition costs should be recognized over the coverage period as revenue, following the pattern of services provided by the contract.
- The acquisition cost should be recognized as an expense in the same pattern.

Acquisition costs that are not directly attributable to a portfolio are recognized when they occur.

The following table shows a more realistic evolution of the liability measurement:

FIGURE 8: EVOLUTION OF TOTAL LIABILITY–REAL WORLD SITUATION

	IDEAL WORLD		REAL WORLD	P&L	CONTRACTUAL SERVICE MARGIN	OCI
Liability at start of period	X		X			
Premiums received	+P		+P			
Locked-in interest accreted	+I		+I	-I		
- Repayment of investment components	-IC		-IC'			
-Expected insurance claims	-(EC-IC)	Actual Claims	-(AC-IC')			
		Experience Adjustment	-[(EC-IC)-(AC-IC')]	+[(EC-IC)-(AC-IC')]		
-Release risk adjustment	-RRi		-RRi	+RRi		
-Release contractual service margin	-RRe		-RRe	+RRe		
-Premium related to directly attributable acquisition costs			-Acq	+Acq		
Recognition of directly attributable acquisition costs			+Acq	-Acq		
Change assumptions for future Cash Flows	-		+ΔA	(-ΔA)	-ΔA	
Update discount rate	-		+ΔDR			-ΔDR
Liability at end of period	Y		Y '			

In this real-world situation, it turns out that:

$$Earned\ Premiums = ((EC - IC) + RRi + RRe + Acq) = (X + P + I) - (Y' + IC' - \Delta A - \Delta DR - Acq)$$

which is a practical way to extract the insurance revenue from the movement in the liability for remaining coverage.

Once the earned premium is determined, a simple revenue presentation can be presented as follows:

FIGURE 9: EARNED PREMIUM PRESENTATION

Earned premiums	(EC-IC)+RRi+RRe+Acq
- Actual insurance claims	- (AC-IC')
(Change in assumptions when contractual service margin is zero)	(-ΔA)
Portion of directly attributable acquisition costs	-Acq
Underwriting Result	(EC-IC+RRi+RRe)-(AC-IC')-(ΔA)

Comments

Based on comments from users of the financial statements of insurance companies, the IASB has chosen an income presentation approach that clearly shows revenue that is consistent with the IFRS revenue recognition framework.

The earned premium presentation only works, however, if all investment components are previously disaggregated from premiums received. This leads to extra operational difficulties that we intend to explore further in our case studies.

7 DISCLOSURES

The framework for measuring insurance liabilities is necessarily determined by a wide range of assumptions about the future development of uncertain cash in- and outflows. Therefore, the IFRS requires extensive disclosure in order to enable users of these financial statements to better understand the nature, amount, timing and uncertainty of these insurance cash flows.

The requirements are grouped into three parts:

- Explanation of the recognized amounts
- Disclosure on significant judgments made in applying the proposed IFRS
- Disclosure of the nature and extent of risks arising from insurance contracts

Explanation of the recognized amounts

In this section, we provide illustrative examples of the different presentations that the proposed IFRS requires regarding the income statement and the change of liability values.

We exclude for simplicity the following aspects that should additionally be taken into account when creating the full financial statement of an insurer:

- There should be separate lines for gross insurance liabilities and reinsurance assets.
- Indirect expenses, which were excluded from the fulfilment cash flows, must be added to obtain a total comprehensive income at company level.

A useful way to explain in more detail the evolution of the complete set of insurance liabilities is by showing separately:

- The evolution of liabilities for the remaining coverage period; these liabilities are measured either by the building block approach, or premium allocation approach.
- Changes in liability resulting from changes in the assumptions for future coverage, which are not absorbed by the contractual service margin.
- Provisions for incurred claims.

FIGURE 10: DISCLOSURE OF LIABILITY EVOLUTION BY LIABILITY TYPE

	REMAINING COVERAGE	LOSS AT INITIAL RECOGNITION	INCURRED CLAIMS	TOTAL
Liability at start				**X**
Premiums received	**P**			**P**
Interest accretion	**I_1**		**I_2**	**I**
Earned premiums	**-(EC-IC)-RRi-RRe-Acq**			**-(EC-IC)-RRi-RRe-Acq**
Recognition of directly attributable acquisition costs				**+Acq**
Change assumptions		**+ΔA_1**	**+ΔA_2**	**+ΔA**
Change discount rate	**+ΔDR1**		**+ΔDR2**	**+ΔDR**
Repayments of investment components	**-IC'**			**-IC'**
Liability at end of period				**Y'**

A second useful presentation explains in detail the evolution of the different building blocks. The provisions for incurred claims are here now part of the present value of all expected cash flows.

In this presentation, the IASB intends also to include information on written new business volumes. For non-onerous contracts there should be a zero impact, as the contractual service margin will avoid profit at inception.

FIGURE 11: DISCLOSURE OF LIABILITY EVOLUTION BY BUILDING BLOCK

		PRESENT VALUE EXPECTED CASH FLOWS	RISK ADJUSTMENT	CONTRACTUAL SERVICE MARGIN	TOTAL
Liability at start					**X**
	Release		**-RRi**	**-RRe**	**-RRi-RRe**
	Experience adjustment	**-[(EC-IC)-(AC-IC')]**			**-[(EC-IC)-(AC-IC')]**
	Change assumptions	**ΔA**		**-ΔA or 0**	**0 or ΔA**
Profit or loss	**Interest accretion**	**I_1**		**I_2**	**I**
	Attributable acquisition costs				**-Acq**
	Recognition of directly attributable acquisition costs				**+Acq**
OCI	**Change discount rate**	**ΔDR_1**		**ΔDR_2**	**ΔDR**
New Contracts	**Expected premiums**	**..**			**-NC**
	Expected claims and margins	**..**	**..**	**..**	**+NC**
	Premiums received	**+P**			**+P**
Cash Flows	**Actual claims**	**-(AC-IC')**			**-(AC-IC')**
	Repayments of investment components	**-IC'**			**-IC'**
Liability at end					**Y'**

Significant judgments

An insurer shall disclose information on judgments, and changes in judgments, that significantly affect the determination of the amount and timing of revenue from insurance contracts, including:

- Inputs for the measurements that have the most material effects
- Methods and input used to estimate the risk adjustment, discount rates and policyholder dividends
- Effects from changes in methods and an explanation of the reason for the change
- The confidence level equivalent of the used risk adjustment
- The yield curves used for the discount rate

Nature and extent of risks

Required disclosures also include information about the nature and extent of risks that may affect the amount, timing and uncertainty of the cash flows.

This involves general information about the following items:

- Risk exposure
- Risk management policy
- Effect of relevant regulatory frameworks
- Insurance risk before and after risk mitigation, and risk concentrations
- Claims development
- Credit risk and counterparty risk arising from reinsurance
- Liquidity risk
- Sensitivity analysis for market risk and information about the exposure to embedded derivatives

Additionally, with regard to liquidity risk, the proposed IFRS would require disclosure of:

- The liquidity risk management policy.
- A maturity report: net cash outflows for each of the first five years and in aggregate beyond five years.
- The amounts payable on demand, compared to the carrying amount of the related contracts.
- The ED allows an entity to use alternative methods (such as embedded value analysis or value at risk) to disclose information on certain risks if such methods are actually used to manage the sensitivity to those risk conditions.

Comments

In line with other ongoing initiatives, the IASB tries to ensure that financial statements include essential information as much as possible and that entities omit any information that is not essential.

In the ED this is expressed by stressing that an entity should consider whether the above disclosures are relevant in meeting the objectives of the disclosures. If not, such items can be omitted. Vice versa, an entity is expected to disclose additional information if the above list of disclosures would be insufficient.

8 CONCLUSIONS

The IASB has come a long way since its first intention to develop a fair value based accounting measurement for insurance contracts. The current result is a robust framework where all items seem to match together.

The comment period is open until October 25, 2013, and further preparations towards the final IFRS will show whether the IASB has succeeded in balancing the compliance cost for preparers with the benefits for the users of the financial statements.

Some items will definitely draw closer attention:

- The locked-in discount rate and related subsequent measurements
- Decomposition of premiums into a deposit and insurance component
- Decomposition of fulfilment cash flows into subsets with different discounting approaches
- The earned premium concept
- Determination of the CLE
- The retrospective determination of the discount rate and contractual service margin

In order to understand the implications of all of these proposals, modelling of the impact and practical implications must be performed and the strategic business implications must be analysed. Look for further analyses from us on these topics.

Kurt Lambrechts, IABE, is a senior consultant with the Brussels office of Milliman. Contact him at kurt.lambrechts@milliman.com.

Alexander Ofutin, FIA, CERA is a senior consutlant with the Düsseldorf office of Milliman. Contact him at alexander.ofutin@milliman.com.

Takanori Hoshino, FIAJ, FSA, CERA, CMA, is a principal and senior consultant with the Tokyo office of Milliman. Contact him at takanori.hoshino@milliman.com.

William Hines, FSA, MAAA, is a principal and consulting actuary with the Boston office of Milliman. Contact him at william.hines@milliman.com.

Henny Verheugen, AAG, is a principal and consulting actuary with the Amsterdam office of Milliman. Contact him at henny.verheugen@milliman.com.

CONTACT

If you have any questions or comments on this briefing paper or any other aspect of IFRS4 exposure, please contact any of the consultants below or speak to your usual Milliman consultant.

Kurt Lambrechts
kurt.lambrechts@milliman.com

Alexander Ofutin
alexander.ofutin@milliman.com

Takanori Hoshino
takanori.hoshino@milliman.com

William Hines
william.hines@milliman.com

Henny Verheugen
henny.verheugen@milliman.com

milliman.com