Facing the challenge
Business implications of IFRS 4, 9 and Solvency II for insurers
Executive summary

Insurers face a huge challenge in synchronising the implementation of IFRS 4 Phase II with IFRS 9 in the coming years. Managing the timelines and interdependencies between these two frameworks, alongside other new IFRS standards, Solvency II and other finance transformation and change programmes that may be underway, will place many companies in a conflicting position. Systems and processes are being significantly updated to comply with an earlier regulatory deadline to implement Solvency II. This heightens the need to assess overlapping requirements with other projects, and evaluate the risk and cost of making large investments (such as building data warehouses and actuarial systems) against the risk and cost of deferring them with interim solutions.

The size and complexity of the multi-year implementation of IFRS 4 and IFRS 9 will have a major impact on data, systems, processes, governance, organisation and business. With many organisations soon to commit to significant IT and process budgets to meet Solvency II reporting requirements, there is no time to wait in addressing these issues, potential synergies and differences. It is important that appropriate resources and skill sets are in place to perform the necessary analysis, planning and efficient implementation. And to be clear, this is not necessarily about accelerating work on IFRS 4 Phase II given the many uncertainties still remaining. At a minimum, it will require achieving sufficient understanding of overlaps and differences to inform the Solvency II project on options regarding the timing of large strategic and expensive solutions versus more short-term, lower-cost tactical ones.

The purpose of this paper, therefore, is to focus on implementation and project management considerations from an IFRS 4 Phase II and IFRS 9 perspective by analysing the main areas that will be impacted, and also referencing other major changes underway, such as Solvency II, to inform timing and approach.
Overview

The development of a new standard to replace IFRS 4 Insurance Contracts will profoundly change accounting for insurers, both for insurance contracts issued and for investments held. Under IFRS 4 Phase 1, there were limited changes to statutory accounting rules for insurers. However, the complexity of implementing IFRS 4 Phase II in conjunction with IFRS 9 Financial Instruments is likely to be at the level of a full IFRS conversion or a large Solvency II project, and will significantly impact accounting, processes, systems and people. Furthermore, in the next two years insurance groups will simultaneously have to consider and implement other accounting changes issued by the International Accounting Standards Board (IASB) on topics such as consolidation, leases, fair value measurement and revenue recognition.

IFRS 4 Phase II needs to be considered in conjunction with IFRS 9 and Solvency II, creating interdependencies that need to be defined and managed, as in any large and complex implementation project. The classification and measurement of financial instruments, in interaction with the structure and measurement of insurance liabilities, will determine the level of volatility in financial results caused by accounting mismatches and changes in economic circumstances. There are so many overlaps

Figure 1. Expected timeline of IFRS 4 Phase II, Solvency II and IFRS 9
between Solvency II and future IFRS reporting and modelling that an independent implementation of both regimes would simply not be cost efficient. With many converging accounting and regulatory changes, it is important for insurers to address these issues so they will not continuously need to revise and “reopen” their data, systems and processes.

**Timeline for implementation**

Currently, development timelines have been extended. A review draft of the final standard or the revised exposure draft for insurance contracts is now expected in the second quarter of 2012. IASB has yet to determine a final publication date for the new insurance standard (the end of 2012 or even 2013) and a mandatory effective date for application of this standard (2015 at the earliest). The IASB recently moved the mandatory effective date of IFRS 9 to annual periods beginning on or after 1 January 2015, with earlier application permitted.

Recent concerns over the Solvency II preparations of some member states and the European insurance industry have motivated the European Council to propose delaying the commencement date for Solvency II to 1 January 2014. These changes would give insurers a unique window of opportunity to leverage the interaction between projects.

Many insurance companies are taking advantage of the additional time to concentrate on Solvency II implementation, and to influence standard setting. While the insurance industry is in favour of a common effective date for both IFRS 4 Phase II and IFRS 9, that would mean an accumulated project workload.

**No time to wait**

In light of these recent developments, insurers are urged to continue preparing to implement IFRS 4 and IFRS 9 for three main reasons: the need to manage dependencies with Solvency II and finance transformation programmes; size and complexity of the projects; and a scarcity of resources.
Manage dependencies with Solvency II and finance transformation programmes

Because significant investments are now being made in Solvency II system infrastructure and processes, it is key to understand the impacts of IFRS 4, and make informed decisions about the implementation approach to manage the costs.

Solvency II started with the intention of building upon measurement rules of the future IFRS for insurance contracts. This is clearly visible in the interdependencies between the two frameworks. Even if both regimes have diverged over time, and differences in parameters, discount rates or contract boundaries exist, common elements are appreciable, and will lead to sensible synergies if properly managed. From a conceptual financial reporting point of view, the main differences are limited to the residual margin and the premium allocation approach (see Figure 2).

The different IFRS and Solvency II timelines place insurance companies in a conflicting position. They need to implement Solvency II now in order to comply with the earlier regulatory deadlines in 2013/2014. However, it would be more efficient to integrate the requirements as a basis for the system and data change. For example, adding data fields for cash flow projections under the two different regimes in an actuarial solution once would be less costly than a two-step implementation approach.

The ultimate objective, therefore, should be to avoid redundancy, and leverage synergies between the two projects wherever feasible. The pushback of the Solvency II commencement date represents a unique opportunity to work towards this objective. Insurance groups should assess all overlapping requirements in detail. They should elaborate solution options, and evaluate the risk and cost of making large investments in actuarial modelling, reporting systems and data management versus deferring those investments by implementing tactical, i.e., less sophisticated, interim solutions. For example, it could be a cost-saving and risk-reducing measure to defer the technical design of a new data warehouse solution at least partially to a point in time in 2012, when IFRS requirements will become clearer.
Similarly, many international insurance groups are undertaking major finance transformation programmes and making large investments in data warehouses and other system infrastructure. This is often in conjunction with continuing organisational and process change through the development of shared services centres, reporting centres of excellence and off-shore or outsourced operations. It is important to understand the interdependencies of these programmes with IFRS and Solvency II.

Size and complexity of the projects
IFRS 4 and IFRS 9 implementations are complex multi-year projects with multiple impacts on data, systems, processes, governance, organisation and business. They require significant time to plan, implement, and familiarise project staff with the new rules. Therefore, it is important to understand the challenges and critical path of the implementation projects as early as possible.

Probably the most costly, resource and time-consuming impact will be on data and systems. Insurers operating in multiple countries face the challenge of moving to a consistent basis of IFRS accounting for insurance contracts.

Main impacts on data
- New sets of data need to be created and existing data enriched. New data requirements include assumptions at reporting dates, policyholder behaviour, cash flows by cohort, additional KPIs and disclosures. In addition, data will have to be reorganised to support analysis and reconciliations (e.g., IFRS data on business unit level with Solvency II data on a legal entity level).
- Insurers will find that the quality of existing data needs improvement in multiple cases (as we are already seeing under Solvency II). Few organisations have completed the complex and lengthy process of implementing the data governance frameworks required by Solvency II. The aim should be to build integrated data management for IFRS 4, IFRS 9 and Solvency II.

Main impacts on systems
- Feeder systems like policy administration, claims, investment or pricing systems deliver the input data for actuarial modelling and financial reporting and, therefore, need to be adjusted.
- Key design decisions must be made around changes to source systems versus building data warehouses. While source system changes are often not feasible due to legacy system landscapes in many insurance companies, designing and building data warehouses for Solvency II purposes takes significant time. Some leading insurance groups are currently in the process of building Solvency II data warehouses, leaving a placeholder to extend the development to cover future IFRS data requirements. Other institutions are currently heading towards interim non-sustainable solutions, building upon existing data tools across the organisation.
- Actuarial systems (or alternative tools) will have to be significantly enhanced or developed to comply with new measurement rules. Insurance companies developing an internal Solvency II model should analyse to what extent their solution can be enhanced to include IFRS 4.

1 See Appendix A for an illustration of the main impact on systems, with examples of requirements.
Accounting and reporting systems need to be adjusted to provide new output data, e.g., residual margin, risk margin, effect of changes in assumptions, stress test data and new KPIs. New internal and external reporting templates will also be required, with typical functionality systems that include multiple GAAP accounting, and support changes to the reporting content and structure. Systems also must be ready to provide two different complete sets of financial statements during the transition period.

Main impacts on processes

- Accounting is a core process in every insurance company, delivering the financial data that forms the basis of financial and business decisions. Consequently, the implementation of IFRS 4 Phase II and IFRS 9 will affect processes across the company, e.g., accounting, closing, reporting, controlling, planning, actuarial, pricing and product design, risk management, and also certain operational processes (if additional data needs to be collected which was not available in the past).

- Time pressures on accounting and actuarial departments will increase with required timelines for Solvency II reporting. This regulatory data must reconcile to local GAAP and IFRS data, and any resulting steering measures and management judgement in the closing process needs to take place before these deadlines.

- As accounting rules and KPIs change, value-based management rules (as well as related balanced scorecards and executive incentive compensation schemes) need to be redesigned to fit into the new financial environment. External and internal stakeholders will depend upon detailed explanations to understand the new IFRS accounting and its metrics, requiring insurers to design new reports and reporting lines.

- Any change to existing or new processes should be documented in accounting policies and guidelines, process flows and desktop procedures, and tested.

Main impacts on governance

- As systems and processes undergo multiple changes, there is a greater risk of incorrect, inaccurate or incomplete financial data. It is our experience from many conversion projects that governance aspects of every change should be considered from the start. The aim is to make appropriate changes to governance simultaneously, as solutions are developed and processes are designed and implemented.

- These changes concern:
  - Guidelines to ensure valuation assumptions are consistently applied and auditable
  - Updated investment guidelines
  - Internal controls, including data reconciliation and transparent end-to-end audit trail
  - Documentation of internal control systems, e.g., SOX
  - Management information systems and KPIs that are aligned to the new standard and allow for efficient analysis and steering of results
  - Outsourcing arrangements and partnerships
  - Approval by external auditors and insurance supervisory bodies, especially for materiality considerations and simplified approaches

Main impacts on the organisation

- A significant challenge of IFRS 4 and IFRS 9 implementation programmes is to bring accounting, controlling, actuarial, risk and investment management functions closer together, i.e., to enhance collaboration, mutual understanding and communication. For example, in addition to cultural differences, actuaries tend to understand and think about actuarial methods, inherent uncertainties and underlying assumptions while accountants typically focus on booking methodologies, such as roll forwards or true-ups. However, any future misunderstanding between these functions bears a real risk of financial misstatement. In light of these changes, some companies may find it beneficial to rethink organisational responsibilities and reporting lines in order to promote collaboration and integrated skill sets.

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2 See Appendix B-1 for sample questions about how IFRS 4 and IFRS 9 will impact processes.
• From our experience, every organisational change should be accompanied by appropriate change management measures. Ideally, end-users should be involved in the planning, design, configuration, testing and roll-out of new systems and processes to help overcome natural resistance to change. A resource and skill gap analysis should be performed early in the project to ensure sufficient time to hire new resources or build respective knowledge internally.

• Finally, project team members and end-users need to be trained. Training not only refers to IFRS 4 Phase II and IFRS 9 technical and actuarial knowledge, but also to new processes, systems and KPIs, as well as overlaps and differences with Solvency II.

Main impacts on the business

• Any change in accounting rules automatically alters the mechanism of how business transactions affect equity and financial results. Many insurance groups have committed to a minimum ROI, pursuing the objective to reduce volatility of reported profit within and between reporting periods. This is why IFRS 4 Phase II and IFRS 9 impact strategies on investments, insurance products and operational structures.

• For example, a scenario analysis may show that, under the new IFRS regime, certain products will create undesired results, and consequently, these products or features need to be altered or withdrawn. Another practical example could be a change to the new business commissioning system, which has an impact on related cost structure and the residual margin.

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Figure 4. Main activities and key implementation challenges

<table>
<thead>
<tr>
<th>Analysis and planning</th>
<th>Design</th>
<th>Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>▶ Determine key accounting differences and overlaps with Solvency II</td>
<td>▶ Optimise financial statements</td>
<td>▶ Prepare restatements and comparatives</td>
</tr>
<tr>
<td>▶ Assess impact on business</td>
<td>▶ Reconcile data requirements</td>
<td>▶ Implement workarounds and quick wins as interim solutions</td>
</tr>
<tr>
<td>▶ Assess impact on result and equity</td>
<td>▶ Define presentation and disclosure approach, design new KPIs</td>
<td>▶ Adjust systems in a flexible way</td>
</tr>
<tr>
<td>▶ Define the project scope, e.g., regarding business units and other projects</td>
<td>▶ Determine actuarial and posting methodologies</td>
<td>▶ Implement new Chart of Accounts</td>
</tr>
<tr>
<td>▶ Prioritise conversion activities and make recommendations</td>
<td>▶ Adjust Chart of Accounts</td>
<td>▶ Map accounts</td>
</tr>
<tr>
<td>▶ Decide on tactical approaches</td>
<td>▶ Select and/or design IT solutions and system changes</td>
<td>▶ Test system changes and remediate</td>
</tr>
<tr>
<td>▶ Set up project management and infrastructure</td>
<td>▶ Determine testing strategy</td>
<td>▶ Train end users</td>
</tr>
<tr>
<td>▶ Prepare conversion roadmap</td>
<td>▶ Redesign closing, planning and other processes and respective controls</td>
<td>▶ Perform end-to-end dry run</td>
</tr>
<tr>
<td>▶ Plan for budget and resources</td>
<td>▶ Prepare policies and procedures</td>
<td>▶ Approve and roll-out policies and procedures</td>
</tr>
<tr>
<td>▶ Educate and raise awareness</td>
<td>▶ Design roles and responsibilities</td>
<td>▶ Document processes and controls</td>
</tr>
<tr>
<td>▶ ...</td>
<td>▶ ...</td>
<td>▶ Roll-out process and system changes</td>
</tr>
</tbody>
</table>

Key implementation challenges

▶ Identification of major impacts and strategic issues
▶ Decision and timing of big solutions vs. tactical/internal solutions
▶ Recruiting and training
▶ Management of volatility of results
▶ High complexity of requirements
▶ Actuarial design and assumptions
▶ Data availability and consistency
▶ System capacities
▶ Amount and complexity of parallel changes in different systems
▶ Explain new KPIs
▶ Preparation of transition statements
Scarcity of resources
With the insurance industry demanding similar skill sets internally and externally at the same time, acting early will mean a competitive advantage. If internal resources are not sufficient, they need to be increased or supplemented by external resources. Already today actuaries and insurance accountants have become “scarce goods” on the European labour and consulting market.

Implementation approach and key implementation challenges
Figure 4 summarises the main activities and key implementation challenges for each of the typical project phases: analysis and planning, design and implementation.

Interdependencies between different projects significantly impact the project structure. It is our experience that if different projects are combined, the final product becomes too big to manage. By contrast, leaving related projects mostly independent bears the risk that different pieces do not fit together in the end. Our recommendation is to manage related projects separately, but to formally link them, e.g., through an integration team, frequent mutual learning sessions, monitoring of key integration topics and regular common steering committee meetings to address them.

We also recommend building a model that simulates the effects on equity and financial results early in the project.

Figure 5. Dealing with uncertainty

Such a simulation model should also include financial assets under IFRS 9 to consider the effects of accounting mismatches. This brings the following advantages:

- Better understanding of mechanisms and accounting options (e.g., the fair value option under IFRS 9), as well as managerial judgement
- Early identification of strategic decision needs
- Identification of company-specific problem areas and implementation gaps
- Training requirements

The fact that many accounting requirements for insurance and investment contracts are under discussion clearly represents another implementation challenge, but does not mean that project planning cannot start immediately. The basic principles presented in the EDs are unchanged, and establish a solid basis for planning activities. Our recommendation is to take a two-step approach:

1. Perform an initial impact analysis and planning exercise based on the present state of knowledge, taking into account existing drafts and preliminary IASB decisions. One can either consider all draft requirements, or take a probability-weighted approach as shown in Figure 5.

2. Create a project structure that allows for updating the initial analysis on a timely basis as the standards are finalised.
For example, it is certain that a residual margin will be required, while discussions about unlocking the residual margin are still ongoing. The IASB staff regularly updates and publishes a paper that indicates how the proposals in the ED *Insurance Contracts* would change as a result of the IASB’s tentative decisions to date.

By taking this approach, insurers gain an overview of the impact of changes to the current exposure drafts, and build internal technical knowledge on a broader basis. As a result, they are in a position to act rather than react at an early point in time. This reduces the risk of inefficiencies, cost-overruns and time delays.

**How Ernst & Young can help**

Ernst & Young currently assists many insurance organisations with Solvency II implementations and finance transformation projects. We fully understand overlaps and linkages between IFRS, Solvency II and finance transformation, as well as related implementation challenges and practical solution options. With broad experience and industry-specific knowledge, we are in a position to help insurers with comprehensive impact assessment, detailed solution designs, operational processes and systems implementations.

The first step is a comprehensive GAP analysis, which identifies key gaps for all areas described above, i.e., data, systems, processes, governance, organisation and business. Our recommendation is to emphasise interdependencies between different related projects, i.e., IFRS 4, IFRS 9, Solvency II, finance transformation, and data warehouses. Ideally, this assessment leads to a project structure and an implementation roadmap, defining key deliverables, milestones and priorities, to provide the business with a clear direction for the most efficient and sustainable way to deliver the changes.

Ernst and Young’s IFRS 4 Global GAP Analyzer helps to perform an initial gap analysis in a structured way. The GAP Analyzer is a web-based tool that aims to support insurers in analyzing and understanding the accounting gaps and impacts of IFRS 4 Phase II implementation on processes, data, systems and modelling, with a particular focus on the potential overlaps with Solvency II projects. In order to identify the specific accounting gaps, the GAP Analyzer has been prepopulated with the accounting requirements in the ED, enriched by preliminary decisions taken by the Board, and current local GAAP of a number of EMEIA countries.

**Figure 6. Sample reporting**

![IFRS 4 Phase II - GAP Analyzer](image-url)

Key findings: Solvency II effect

Sub-benchmark with gaps required to Solvency II

Solvency II effect on severity of the gaps

- **Before Solvency II**
  - Major gap: 11%
  - Moderate gap: 44%
  - Minor gap: 41%
  - No gap: 4%

- **After Solvency II**
  - Major gap: 36%
  - Moderate gap: 41%
  - Minor gap: 41%
  - No gap: 3%
The output from the tool is a series of gaps which would be prioritised and grouped across the end-to-end process for further analysis and validation on the path towards developing a roadmap and project structure. The tool includes post-Solvency II elements, i.e., identifies the current gap, as well as the likely gap post implementation.

The GAP Analyzer will produce standard reports (charts and detailed analysis) that, together with an executive summary, can be used to present the impact assessment to management. The tool has two components, the Accounting GAP Assessment and the Impact Assessment, and can be easily updated to current standard developments.

The GAP Analyzer has a flow of questions related to the topic under assessment, and a rating system (from “no gap” to “major gap”). This rating is provided before and after any mitigating actions of an existing Solvency II project.

The tool is populated based on information gathered in a series of interviews, and several approximately two-hour workshops held separately with members of the actuarial, finance/IT and tax departments. The GAP analysis can be done high level or detailed - with or without the development of an implementation roadmap.

A comparable GAP Analyzer tool for IFRS 9 will be available soon. Another tool that Ernst & Young has developed to facilitate the implementation of IFRS 9 is “Visual Portfolio”, an automated solution for the classification of financial instruments applying the characteristics of financial assets test. Using “Visual Portfolio” saves time and effort by significantly reducing the need for manual analysis of financial instrument documentation. An Ernst & Young impairment tool is now also available that calculates the provision amounts for the three buckets, with the potential to run simulations.
Conclusion

The size and complexity of IFRS 4 Phase II and IFRS 9 implementation will place enormous demands on insurers, requiring the establishment of significant programme infrastructure that has the ability to deal with and respond to changing requirements and timetables. There is no time to wait. It is critical to start preparing early given the size of the challenges that lie ahead.

Ernst & Young has been closely monitoring the development of these projects and the interdependencies that are of particular importance to insurance organisations. We recommend starting with analysis and planning work as soon as possible for three reasons:

› Avoiding redundancy and leveraging implementation synergies with Solvency II and finance transformation projects
› Assuring sufficient time to implement the complex requirements that have multiple impacts on data, systems, processes, governance, organisation and business
› Assuring appropriate and sufficient resources and skills

In the current regulatory environment, insurers are forced to constantly deal with existing uncertainties. In our opinion, they should aim for a position to act early, rather than react at a later stage, thus reducing the risk of inefficiencies, cost overruns and time delays while still maintaining sufficient flexibility.

We have expressed our views and given examples on the overall project approach and key implementation challenges. Project work should start with a GAP analysis that ideally leads to a project structure and an implementation roadmap defining key deliverables, milestones and priorities. Ernst and Young's GAP Analyzer can help to perform that initial gap analysis in a structured and efficient way.
Appendix

Appendix A: illustrates the overall impact on systems, including feeder systems (such as policy administration, asset data and support areas), data warehouses, actuarial systems (stochastic models and other valuation tools) and accounting and reporting systems.

Appendix A-1: focuses on how these systems inter-relate.

<table>
<thead>
<tr>
<th>Policy admin systems</th>
<th>Asset data</th>
<th>Supporting systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life</td>
<td>Investment management systems</td>
<td>Agency and commissions</td>
</tr>
<tr>
<td>Non-life</td>
<td>External data/third-party data providers</td>
<td>Claims</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reinsurance</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Product development</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Underwriting</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pricing</td>
</tr>
</tbody>
</table>

Actuarial systems

- Deterministic models
- Stochastic models
- Economic scenario generator
- Other valuation tools

Data warehouse

- Operational DWH
- Financial DWH

Accounting/reporting

- General ledger and consolidation system
- Reporting tools
Appendix A-2: documents examples of detailed system requirements for implementing IFRS 4 Phase II and IFRS 9.

<table>
<thead>
<tr>
<th>System</th>
<th>Example for detailed requirements</th>
</tr>
</thead>
</table>
| Feeder systems             | • Data granularity sufficient to support the measurement of homogeneous portfolios  
• Portfolios sub-divided by inception date and duration (cohort level) in order to calculate the residual margin  
• Market and non-market data available at the appropriate level to update measurement assumptions  
• Additional data available and stored to comply with “new” concepts, such as contract boundary and unbundling  
• Cost allocation algorithms to provide outputs at portfolio level and to exclude indirect acquisition costs and overheads from renewal costs  
• Investment accounting systems capable of delivering new investment categories, three buckets, and historical loss data to determine expected losses under IFRS 9 |
| Data warehouses            | • Amortisation patterns existing for the residual margin in cases where the release from risk is not time proportional  
• Historical amortisation data available of the residual margin per cohort  
• Storage and audit of historical cash flow projections possible regarding technical, operational and financial assumptions  
• Data reconciliation functionalities available |
| Actuarial systems          | • Specific cash flows at portfolio level and by cohort projected, including stochastic modelling where required  
• Changes in cash flow estimates manageable  
• Residual margin and its amortisation calculated  
• Differences and changes in assumptions, discount rates, cash flows and risk margins manageable  
• Adequate system capacity for more frequent, complex calculations ensured  
• Contracts measured according to the Premium Allocation Approach accounted for separately from other contracts  
• Reinsurance amounts calculated based on the building block model |
| Accounting and reporting systems | • Charts of accounts and general ledgers updated  
• Posting logics adjusted  
• Functionalities to support analysis and reconciliation of data available, e.g., to analyse the effect of changes in different assumptions, and reconcile IFRS data with Solvency II data or post- and pre-implementation financials at the time of transition to IFRS 4 Phase II and IFRS 9 |
Appendix A-3: The figure below shows the ED requirement for changes in cash flow estimates, and its impact on actuarial and reporting systems. The complexity will further increase if the current IASB discussion to adjust the residual margin for specified changes in estimates becomes effective.

Example cash flows

<table>
<thead>
<tr>
<th>Quarter 1</th>
<th>Quarter 2</th>
<th>Quarter 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original estimate in Q1 for Q3</td>
<td>Revised estimate in Q2 for Q3</td>
<td>Total estimate for Q3</td>
</tr>
<tr>
<td>60</td>
<td>+30</td>
<td>30</td>
</tr>
<tr>
<td>60</td>
<td>60</td>
<td>90</td>
</tr>
<tr>
<td>75</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Actual cash flow

<table>
<thead>
<tr>
<th>Actual cash flow of Q3</th>
</tr>
</thead>
<tbody>
<tr>
<td>75</td>
</tr>
</tbody>
</table>

Accounting P&L impact

<table>
<thead>
<tr>
<th>“Change in estimate”</th>
<th>“Experience adjustment”</th>
</tr>
</thead>
<tbody>
<tr>
<td>+30</td>
<td>-15</td>
</tr>
</tbody>
</table>

System impact

- Cash flow estimates need to be generated and stored
- Each estimate must refer to a specific financial accounting period
- The total estimate per financial accounting period must be calculated
- Actuals must be matched to the respective total estimate
- The difference between actual and total estimate must be calculated (-15 in the example)
- Changes in estimates need to be stored separately
- The difference between actual and total estimate must be stored separately ("true-up")
Appendix B-1: This chart provides questions for insurers to ask about the impact on residual margin, presentation, discounting, short-duration contracts and other key processes.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Example questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unbundling</td>
<td>Is there a process in place to assess when new products need to be unbundled?</td>
</tr>
<tr>
<td>Contract boundaries</td>
<td>Are there policies and processes in place to derive best estimate assumptions about policyholder behaviour for existing and new contracts?</td>
</tr>
<tr>
<td>Best estimate cash flows</td>
<td>Is there a policy and methodology to determine which specific cash flows will be included in the best estimate cash flow calculation?</td>
</tr>
<tr>
<td>Discounting</td>
<td>Is there a policy defining the yield curves and illiquidity premium to be applied?</td>
</tr>
<tr>
<td>Risk adjustment</td>
<td>Have rules been defined for reconciling the aggregate of the risk margin at a cohort level to the total at a portfolio level?</td>
</tr>
<tr>
<td>Residual margin</td>
<td>Is there a policy and process in place to evaluate whether or not the residual margin balance needs to be adjusted for lapsed contracts (including materiality thresholds)?</td>
</tr>
<tr>
<td>Reinsurance</td>
<td>Is there a process in place to identify the risk of non-performance of a reinsurer on an expected loss basis?</td>
</tr>
<tr>
<td>Presentation</td>
<td>Has a policy and methodology been defined for analysing financial performance data?</td>
</tr>
<tr>
<td>Premium Allocation Approach</td>
<td>Has a process been described to identify onerous contracts at inception, and at the end of every reporting period?</td>
</tr>
<tr>
<td>Corporate taxes</td>
<td>Are there processes in place to calculate deferred tax assets and liabilities in respect of temporary differences affected by the ED?</td>
</tr>
<tr>
<td>Investments</td>
<td>Is there a back testing process installed to minimise deviations between expected impairment and actual experienced losses?</td>
</tr>
</tbody>
</table>
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