IFRS 17: A New Paradigm of Insurance Accounting
A practitioner’s view on challenges and perspectives

Jens Chyba
17 October 2019, Hannover
## Agenda

1. The Hannover Re Group
2. Why has IFRS 17 been introduced
3. How IFRS 17 works
4. Implementation - a glance at the project set-up
5. Understanding the effects - IFRS 17 financial and operational management
6. The road to IFRS 17
Reinsurance has the character of a specialty market
Hannover Re among the top reinsurers in the world

Market size primary insurance vs. reinsurance

Global insurance premiums ~ EUR 4.3 trillion

Global reinsurance premiums ~ EUR 230 billion (5%)

Premium ranking 2018 in m. USD

<table>
<thead>
<tr>
<th>Rank</th>
<th>Group</th>
<th>Country</th>
<th>GWP</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Swiss Re</td>
<td>CH</td>
<td>36,406</td>
</tr>
<tr>
<td>2</td>
<td>Munich Re</td>
<td>DE</td>
<td>35,814</td>
</tr>
<tr>
<td>3</td>
<td>Hannover Re</td>
<td>DE</td>
<td>21,952</td>
</tr>
<tr>
<td>4</td>
<td>SCOR</td>
<td>FR</td>
<td>17,466</td>
</tr>
<tr>
<td>5</td>
<td>Berkshire Hathaway Inc.</td>
<td>US</td>
<td>15,376</td>
</tr>
<tr>
<td>6</td>
<td>Lloyd's¹</td>
<td>UK</td>
<td>14,064</td>
</tr>
<tr>
<td>7</td>
<td>China Re</td>
<td>CN</td>
<td>11,564</td>
</tr>
<tr>
<td>8</td>
<td>RGA</td>
<td>US</td>
<td>11,341</td>
</tr>
<tr>
<td>9</td>
<td>Great West Lifeco</td>
<td>CA</td>
<td>7,737</td>
</tr>
<tr>
<td>10</td>
<td>Korean Re</td>
<td>KR</td>
<td>6,803</td>
</tr>
<tr>
<td>11</td>
<td>General Insurance Corporation of India²</td>
<td>IN</td>
<td>6,582</td>
</tr>
<tr>
<td>12</td>
<td>PartnerRe</td>
<td>BM</td>
<td>6,300</td>
</tr>
<tr>
<td>13</td>
<td>Everest Re</td>
<td>BM</td>
<td>6,225</td>
</tr>
<tr>
<td>14</td>
<td>XL Group</td>
<td>BM</td>
<td>5,219</td>
</tr>
<tr>
<td>15</td>
<td>Transatlantic Holdings</td>
<td>US</td>
<td>4,451</td>
</tr>
</tbody>
</table>

Source: own research (global market size based on estimate of total ceded premiums by primary insurers) as at May 2019

For further information please see A. M. Best “Market Segment Report” (September 2019)
1) Reinsurance only
2) Fiscal year-end 31 March 2019
Key facts about Hannover Re
A story of growth and sustainability

1966
Founded by HDI (P&C reinsurance only)

1990
Start of L&H reinsurance as strategic growth segment

1994
Initial Public Offering of Hannover Re

2004
50.2%
Majority shareholder, held by Talanx AG

2013
Subsidiaries, branches / representative offices worldwide

2018: >100
Total staff of employees

2018: ~3,300
Largest reinsurer in the world

3rd
Largest reinsurer in the world

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Why IFRS 17 insurance contracts?
IFRS 4 weaknesses lead to a new reporting standard

IFRS 4
an interim standard with severe limitations

- How the solution calculates historical and current estimates of future cash flows and how flexible is the solution to perform aggregations / allocations of IFRS 17 components to different levels of granularity.

- Wide range of insurance contracts accounting principles based on different jurisdictions and products

- Incomplete view of the insurance contracts’ effect on a company’s underlying financial position and performance

- Accounting policies for insurance contracts do not provide information reliable or relevant to the economic decision-making needs of users of financial statements (“sunset-clause”)

Thus, IFRS 4 has caused problems in comparing and understanding insurance contracts across jurisdictions.

IFRS 17
the final standard for insurance contracts

- Published in 2017 and edited in 2019, effective on 1 Jan 2022 with a transition phase in 2021, IFRS 17 aims to harmonize accounting practices and therefore increase transparency and comparability between peers.

- Goals of IFRS 17
  Account for all insurance contracts, so that
  - current estimates at each reporting date of the obligation created by the insurance contracts reflecting up-to-date information about cash flows arising from insurance contracts, as well as the timing and risk associated with those cash flows are provided.
  - information about (i) the sources of profit or losses through underwriting activity and investing premiums from customers; and (ii) the extent and nature of risks arising from insurance contracts are provided.

IFRS 17 will cost companies a lot, but is expected to come with long-term benefits through enhanced transparency and decision usefulness.
IFRS 17 – completely forward-looking!
A new methodology in insurance accounting

Current view

„traditional“ accounting view

IFRS 17 view
From 1 January 2022 on
(transitional year 2021)

• Past development as the basis of reporting
• Focus on current cash flow in the financial year
• Focus on earned and incurred
• Locked-in assumptions, no discounting of P&C reserves

• Forward-looking
• Valuation of future cash flows (including expected future profits)
• Financial elements separated from insurance (e.g. non-distinct investment components, savings contributions)
• Commissions netted against premiums

IFRS 17 represents a fundamental change in insurance accounting
# Comparison of IFRS 17 and Solvency II
## Differences between accounting and regulatory perspective

<table>
<thead>
<tr>
<th>Solvency II</th>
<th>IFRS 17</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Main objective</strong> of SII-supervision is the adequate protection of policyholders and beneficiaries.</td>
<td><strong>Main objective</strong> is to improve transparency and decision usefulness of information on insurance contracts as well as to provide a consistent accounting framework.</td>
</tr>
</tbody>
</table>

Solvency II is not designed to serve as a performance reporting metric, but focuses on **capital required**. Consequently, any comparison between Solvency II and IFRS 17 is meaningful for balance sheet information only.

## Key similarities
- Both regimes have similar measurement of insurance contracts rights and obligations, such as (i) the valuation of future estimated cash flows, (ii) the use of discount rates consistent with current rates in financial markets and (iii) the adjustment for risk.

As much as Solvency II and IFRS 17 valuation can be harmonized, **cost effect** and burden can be **reduced**. Nevertheless, the **performance reporting metric** CSM makes a big difference and should be taken into thorough consideration.
The evolution of IFRS 17 insurance contracts

- 1999 – IASC publishes Issues Paper as a first step on IFRS accounting for insurance contracts
- 2001 – IASB publishes Draft Statement of Principles (DSoP)
- 2005 – First-time application of IFRS 4 Insurance Contracts (“Phase 1”)

Current situation:
- The implementation of IFRS 17 is a legal requirement for the Group
- The IFRS 17 standard represents probably the most serious challenge ever for us in terms of IFRS accounting change
- First external consolidated financial reporting expected as of 31 March 2022 from today’s perspective
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Component approach
Separating non-insurance components

Separation of certain components from an insurance contract required – but separating components prohibited if not required

| 1 | 2 | 3 How IFRS 17 works | 4 | 5 | 6 |

- Measured under the insurance standard IFRS 17
- Measured under the insurance standard, but excluded from the aggregate premium and claims
- Measured under the financial instruments standard IFRS 9
- Measured under the revenue recognition standard IFRS 15

Each additional contract feature increases accounting complexity
Level of aggregation
Unit of account: grouping of contracts

- Grouping into at least three groups at the earliest of (i) begin of coverage period, (ii) date of first payment becomes due and (iii) indication that group is onerous

- Durable groups („once this group, always this group“)

- One group may only contain contracts issued within one year → every twelve months for each portfolio three (or more) groups possible

- At subsequent measurement, within a group of insurance contracts, which contains contracts developing apart over time, it is permitted to balance profitable with onerous contracts - insurance principle (mutualisation), essentially already captured by calculating the fulfilment cash flow based on actuarial/average assumptions

- Release of CSM under consideration of inheritance of CSM from derecognized insurance contracts of this group
Level of aggregation
Slicing insurance portfolios into group of contracts and annual cohorts

IFRS 17 contract groupings

- Portfolio
  - group(s) of contracts subject to similar risks and managed together as a single pool

- Group of contracts
  - Any onerous contracts at inception should be grouped separately from those that are not onerous at inception.
  - Only permitted to group contracts issued within one year.
  - Initial and subsequent measurement on basis of these durable groups ("once this group, always this group")
  - IFRS 17 limits offsetting onerous contracts against profitable ones

Annual cohorts increase data volume significantly
IFRS 17 measurement models
The standard introduces three different measurement models

- **General Measurement Model (GMM / BBA)**
  - The default general measurement model, expected to be applied to non-participating L&H insurance contracts.

- **Premium Allocation Approach (PAA)**
  - Applicable to short term contracts, such as many P&C reinsurance contracts.

- **Variable Fee Approach (VFA)**
  - A variation on the general measurement model for participating primary insurance contracts (not relevant for reinsurance).
General Measurement Model ("Building Block Approach")

Initial recognition

Components of the insurance contract liability

- Expected cash flows
  - Current estimates of future cash flows, unbiased, probability-weighted amounts expected to be collected from premiums, paid out for claims, benefits, expenses
  - Estimated using up-to-date information

- Discounting
  - Adjustment for time value of money and financial risks that uses an interest rate to convert future cash flows into current amounts

- Risk adjustment
  - Assessment of the uncertainty about the amount and timing of future cash flows

- Contractual service margin (CSM)
  - Deferral of expected present value of future profits earned during the provision of services (coverage period)
General Measurement Model ("Building Block Approach")

Initial recognition of onerous contracts

Components of the onerous insurance contract liability

- **Onerous Contracts**
  - Onerous contracts are written either by mistake or because of long-term customer relationship considerations
  - E.g. insurance for young drivers may be onerous due to higher risk of accidents, but is justified by a retention of the customer resulting in future profitable contracts

- **Loss Component (LC)**
  - While the Contractual Service Margin of a group of contracts eliminates any day one profit and is broken down over the coverage periods, the loss component is to be immediately realized in P&L

Source: KPMG

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Loss component immediately realised in P&L
Disclosure requirements: Overview
What to disclose

Recognized amounts
- Reconciliations / roll-forwards BoP to EoP
- Specific disclosures depending on measurement model
- Analysis of insurance contract revenue, effect of new business, expected timing of CSM release

Significant judgement
- Inputs, assumptions and estimation techniques
- Disclosures for discount rates and risk adjustment for non-financial risk

Nature and extent of risks
- Similar to current requirements but more detailed or specific
  - Insurance, market, credit and liquidity risk
- Accompanied by sensitivity analyses
  - E.g. gross, net P&L and equity in case of mortality rate change by 1%

Many requirements are new or more specific than current ones

Source: KPMG IFRS 17 Illustrative Financial Statements
Disclosure requirements: overview
Level at which to disclose

The disclosures are made at a level necessary to satisfy the general disclosure objective.

Examples of the aggregation bases that may be appropriate are:

- Types of contract (e.g. major product lines)
- Geographic areas (e.g. region or country)
- Reportable segments (as defined in IFRS 8 Operating Segments)
Transition - assumes first reporting as of Q1/2022

The meaning of retrospective application

- Retrospective application, corresponding adjustment to retained earnings:
  - measure each portfolio of existing contracts at present value of fulfilment cash flows
  - estimate contractual service margin (simplifications, practical expedients!)
  - derecognise any existing balances of DAC
  - derecognise any insurance intangible assets arising from prior business combinations (PVFP / VOBA)

- Significant impact on B/S, P&L, OCI and equity!
Transition principles
How to measure existing business under IFRS 17 for the first time

• Default at transition date: Identify, recognise and measure each group of insurance contracts as if IFRS 17 had always been applied → Full retrospective approach

• If, and only if it is impracticable (e.g. if, after making every reasonable effort, the company is unable to gather historical data for contracts issued many years before) for a group of insurance contracts, a relaxation is applicable:
### Presentation of insurance contract revenue

<table>
<thead>
<tr>
<th>Expected cash flows</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Premiums received</td>
<td>420</td>
<td>400</td>
<td>380</td>
<td>1,200</td>
</tr>
<tr>
<td>Expected claims and benefits</td>
<td>-200</td>
<td>-350</td>
<td>-500</td>
<td>-1,050</td>
</tr>
<tr>
<td>Net cash flows</td>
<td>220</td>
<td>50</td>
<td>-120</td>
<td>150</td>
</tr>
<tr>
<td>Release of risk adjustment</td>
<td>32</td>
<td>30</td>
<td>28</td>
<td>90</td>
</tr>
<tr>
<td>Release of contractual service margin</td>
<td>23</td>
<td>19</td>
<td>18</td>
<td>60</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Presentation</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insurance contract revenue(^1)</td>
<td>255</td>
<td>399</td>
<td>546</td>
<td>1,200</td>
</tr>
<tr>
<td>Actual claims and benefits (amounts incurred)</td>
<td>-200</td>
<td>-350</td>
<td>-500</td>
<td>-1,050</td>
</tr>
<tr>
<td>Underwriting result (gross margin)</td>
<td>55</td>
<td>49</td>
<td>46</td>
<td>150</td>
</tr>
</tbody>
</table>

- Assumptions:
  - Portfolio of 3-year contracts
  - Time value of money immaterial
  - No investment component, acquisition costs, expenses, changes in estimates or experience adjustments, losses on initial recognition
  - All claims and benefits incurred as expected
  - All claims and benefits paid immediately
  - Expected cash flows, risk adjustment and margin release pattern as presented in table to the right
  - Numbers presented exclude interest accretion

\(^1\) Insurance contract revenue is the sum of compensation for actual claims and benefits, release of risk adjustment and release of contractual service margin
Statement of Profit or Loss and OCI

<table>
<thead>
<tr>
<th>Presentation (example)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Insurance contract revenue</td>
<td>475</td>
</tr>
<tr>
<td>Claims and benefits incurred</td>
<td>-320</td>
</tr>
<tr>
<td>Fulfilment expenses incurred</td>
<td>-60</td>
</tr>
<tr>
<td>Recognition of acquisition costs</td>
<td>-20</td>
</tr>
<tr>
<td>Changes in estimates of future cash flows</td>
<td>-10</td>
</tr>
<tr>
<td>(if not offset against the contractual service margin)</td>
<td></td>
</tr>
<tr>
<td>Losses on initial recognition of insurance contracts</td>
<td>-30</td>
</tr>
<tr>
<td>Unwind of previous changes in estimates</td>
<td>5</td>
</tr>
<tr>
<td>Underwriting result (Gross margin)</td>
<td>40</td>
</tr>
<tr>
<td>Investment income</td>
<td>60</td>
</tr>
<tr>
<td>Insurance finance expense (i.e. Interest on insurance liability)</td>
<td>-54</td>
</tr>
<tr>
<td>Profit or loss</td>
<td>46</td>
</tr>
<tr>
<td>Other comprehensive income:</td>
<td></td>
</tr>
<tr>
<td>Change in insurance contract liability due to changes in discount rate</td>
<td>9</td>
</tr>
<tr>
<td>Fair value movements on FVOCI assets</td>
<td>-10</td>
</tr>
<tr>
<td>Total comprehensive income</td>
<td>45</td>
</tr>
</tbody>
</table>

- Written and earned premiums will be replaced by a new measure, “insurance contract revenue”. This concept is a fundamentally different notion from today’s premium.

- Insurance contract revenue is allocated to periods in proportion to the value of coverage (and other services) the company is entitled to by reference to the estimated pattern of expected claims and expenses.

- Insurance contract revenue excludes the amounts to be paid to policyholders regardless of whether an insured event occurs (‘the investment components’)

- Amounts related to reinsurance ceded will continue to be separately presented from amounts related to direct insurance contracts.
Strong interaction of functional approach, implementation and management

- Development of functional approach in terms of accounting and actuarial guidance of the Group
- Decisions on accounting options (e.g. top down vs. bottom up discounting approach)
- Discretionary decisions (for example, determination of coverage units for CSM allocation)
- Calibration of selected methodology (“no gain at inception”)
- As part of ongoing finalisation of IASB work and EU endorsement, there may still be changes on key issues (e.g. reinsurance, annual cohorts in participating business, transition provisions)

- Finance management in line with defined/ yet to be defined KPIs, taking into account IFRS 17 concepts
- Operational control e.g. in terms of sales specifications, new products, policy administration
- Design, calibration and specific implementation of the functional methodology influence the handling and achievement of target KPIs

- Implementation on group level:
  - Setup of group-wide chart of accounts, service margin tools and, if necessary, insurance sub-ledger
  - Adjustment resp. design of processes and data flows in accounting, actuarial, IT, risk mgmt., asset mgmt., controlling

- Implementation at local level of operational units:
  - Adjustment of actuarial projection models (business specifications and granularity)
  - Development of interactive processes between actuaries, accounting, IT and asset management
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Objective, mission and design principles of an IFRS 17 project

Objective

• Fully compliant implementation of the IFRS 17 Standard for the purpose of group financial statements

Mission

• Report IFRS 17 results and explanations on the same timeline and quality as under current IFRS today starting with Q1/2022.
• Report analysis for IFRS 17, contribute to explanations for differences to Solvency II.

Design principles

• Optimise implementation cost by re-use of existing systems and processes wherever feasible
• Generate and leverage synergies when possible
• Reduce risk of failure and facilitate functional decisions

• Fully compliant reporting according to IFRS 17 in 2022 is a legal requirement
• To fulfil the requirement of IFRS 17 comparative figures, all systems have to be ready for parallel run in 2021
  – Implementation needs to be finalised by end of 2020
  – Therefore, dry-runs need to be performed covering the IT readiness (systems and interfaces), target processes as well as test calculations (starting on selected portfolios and ending with at least one full system based closing process)
IFRS 17 Implementation Project - overall goals

**Maintenance of complete and correct submissions** in the group closing processes

**Interface coordination** with related projects and functions (especially Solvency II, IFRS 9)

**Functional guidance and support** for local implementation

**Define controlling guidelines** on the basis of IFRS 17 related KPIs and accordant implementation of internal reporting capabilities

**Fully compliant implementation of the Standard for the purpose of group financial statements**

**Test calculations** of the introduction of IFRS 17 needs to be assessed together with the IFRS 9 impact, including transition measures

**Enabling the communication departments** to appropriately communicate the transition from IFRS 4 to IFRS 17 to the interested public
Business areas affected by IFRS 17
Impacts along the entire value chain

<table>
<thead>
<tr>
<th>Product management</th>
<th>Asset management</th>
<th>Marketing</th>
<th>Sales / Distribution</th>
<th>Underwriting / Risk management</th>
<th>Policy administration</th>
<th>Claims management</th>
</tr>
</thead>
<tbody>
<tr>
<td>P&amp;C</td>
<td>L&amp;H</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

IT: Systems, data flow, work processes

Accounting: production of financial statements

Controlling: KPIs, target matrix, financial planning and steering of business

Product design / Investor Relations / Human Resources (e.g. variable remuneration) / …

Elements affected by IFRS changes

- IFRS 17 impacts financial systems and processes, as well as processes and products associated with various elements of Hannover Re’s value chain
  - Overarching processes such as IT, Accounting and Controlling are also affected - various points of view, interests and consequences need to be considered

- Implementation project set-up needs to reflect the great variety of areas and topics

Impacts of IFRS 17 result in redesign of processes and collaboration models
IFRS 17 vendor selection general considerations

IFRS 17 based situation

- Introduction of IFRS 17 requires substantial change to processes, data and IT systems
- In particular IFRS 17 requires detailed information on Fulfilment Cash flows and Contractual Service Margin (CSM)
- Data delivery is generally complex

What is the impact of IFRS 17 on our IT architecture?

What are the software selection criteria?

What IT solutions are available?

Do we need to build or buy?

Starting points and considerations

- Proposed solutions need to be up-and-running in 2021/2022 and ready for dry/test runs in 2020
- Generally solutions should support multi-GAAP reporting and should connect to Solvency II as much as possible
- Multiple IT vendors and options for IFRS 17 with varying ‘claims to fame’
- Desire to not ‘re-invent the wheel’.
High-level view: future IFRS 17 closing process
Functional walkthrough (focusing on insurance specific activities)

- Cost Allocation
  - Splitting of incurred costs in direct and non-direct attributable costs and allocation of direct attributable costs to actuarial calculations.

- Actuarial Valuation
  - Use of IFRS 17 economic parameters (e.g. interest).

- Technical Figures
  - New calculation methodology and granularity in actuarial systems.

- Investment Figures (IFRS 9)
  - New KPI development and governance.

- Non-technical Figures
  - New chart of account and key figure tree.

- Preparation of IFRS Package
  - New KPI development and governance.

- Consolidation of IFRS Packages
  - New disclosure requirements.

- Publication

New IFRS 17 related closing activities

- Including onerous contract assessment.

- Implementation - a glance at the project set-up
Preparing for IFRS 9 financial instruments & IFRS 17 insurance contracts

Main challenges

**Higher P&L volatility**
- The “new normal”
- More granular disclosures
- KPI overhaul

**New processes & interfaces**
- New controls to be implemented
- Intense exchange between IFRS 17 and IFRS 9 (e.g., joint test calculations)
- Adjusting closing process to meet IFRS 17 requirements
- Potential presentation mismatch
  - IFRS 9 transition prospective, prior year comparatives not required
  - IFRS 17 transition retrospective, prior year comparatives required

**First-time application**
- Important issue of reinsurance asset related mismatch (onerous underlying business)
- Monitoring of further IASB decisions

**Globally operating insurance groups**
- National / local adoption and accounting requirements - one unified implementation date!
- Implementation of local IFRS 17 specifics in central accounting process and systems

**Determination of Risk Adjustment (RA) Approach**
- Evaluation of a holistic RA approach
- Inter-company-neutral consolidation of RAs
- Disclosure of implicit Group confidence level

**Business steering**
- Amendments to the KPI matrix
- Will there be a separate internal reporting?

**Data management/IT capabilities**
- Implementation of new actuarial and allocation tools
- Higher posting volume will impact IT performance
- Potentially heterogeneous IT landscape

**First-time application**
- Important issue of reinsurance asset related mismatch (onerous underlying business)
- Monitoring of further IASB decisions
Overview of major IFRS 17 actuarial database functionalities
General assessment based on IFRS 17 requirements

<table>
<thead>
<tr>
<th>Allocation / Aggregation</th>
<th>Traceability and Analytics</th>
</tr>
</thead>
<tbody>
<tr>
<td>How the solution calculates historical and current estimates of future cash flows and how flexible is the solution to perform aggregations / allocations of IFRS 17 components to different levels of granularity.</td>
<td>How traceable is the data flow in the solution from inputs to the actuarial movements.</td>
</tr>
<tr>
<td>Discounting</td>
<td>Onerous contract test</td>
</tr>
<tr>
<td>How the solution calculates the discounted cash flows, unwind of discount, OCI impact and integrates with the Group platform that provides the discount curve and stores different discount rates for each reporting period.</td>
<td>How the solution is able to integrate the profitability result calculated by another system.</td>
</tr>
<tr>
<td>Risk adjustment</td>
<td>Currencies</td>
</tr>
<tr>
<td>How the solution calculates the risk adjustment.</td>
<td>How the solution is able to integrate the profitability result calculated by another system.</td>
</tr>
<tr>
<td>How the solution adds the risk adjustment to specific contracts or groups (e.g. loading factor as a %).</td>
<td>Coverage of SII</td>
</tr>
<tr>
<td>CSM subsequent measurement</td>
<td>To what degree can the solution leverage and integrate Solvency II requirements with the ones of IFRS 17.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Effort and Complexity</th>
</tr>
</thead>
<tbody>
<tr>
<td>high</td>
</tr>
</tbody>
</table>

4 Implementation - a glance at the project set-up
Topics to keep in mind for insurance groups implementing IFRS 17

Business impacts that insurers expect – a market study

**Business areas expected to be most impacted**
Among respondents that expect more than a financial impact, % that selected…

<table>
<thead>
<tr>
<th>Area</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product design and pricing</td>
<td>79%</td>
</tr>
<tr>
<td>Costs and cost allocation</td>
<td>71%</td>
</tr>
<tr>
<td>Investment policy</td>
<td>59%</td>
</tr>
<tr>
<td>Risk management</td>
<td>51%</td>
</tr>
<tr>
<td>Reinsurance strategy</td>
<td>34%</td>
</tr>
<tr>
<td>Executive compensation</td>
<td>24%</td>
</tr>
<tr>
<td>Mergers and acquisitions</td>
<td>21%</td>
</tr>
<tr>
<td>Distribution strategy</td>
<td>17%</td>
</tr>
<tr>
<td>Don't expect significant impacts</td>
<td>3%</td>
</tr>
<tr>
<td>Other</td>
<td>6%</td>
</tr>
</tbody>
</table>

- 97% of respondents agree that IFRS 17 will give rise to business impacts beyond systems challenges
- A number of these are expected to give rise to potential opportunities for reinsurers, e.g. helping release primary insurers from the financial impacts of certain portfolios

Source: Navigating Change, KPMG International
Challenging workload in transition period (2021)
Preparation of prior periods for transition causes double-reporting

Technical transition approach
- Produce 2020 annual IFRS closing ("old" IFRS 4) in Q1 2021
- Produce 2020 annual HGB closing (German GAAP) in Q1 2021
- Produce 2020 annual Solvency II closing (on IFRS timeline) in Q1 2021
- Produce "old" IFRS 4 Q1, Q2, Q3 quarterly financial statements for 2021 regular publication in fast close mode in Q2, Q3, Q4 2021
- Produce "new" IFRS 17 / IFRS 9 opening B/S and Q1, Q2, Q3 quarterly comparative financial data for later 2022 publication in Q1, Q2, Q3, Q4 2021
- Produce and submit Solvency II Q1, Q2, Q3 and Q4 (additional stand-alone) quarterly data in a fast close mode in Q2, Q3, Q4 2021
- Produce 2021 annual IFRS closing ("old" IFRS 4) for 2022 regular publication in fast close mode in Q1 2022
- Produce "new" IFRS 17 / IFRS 9 annual closing/ opening B/S 2022 in Q1 2022
- Potential further requirements, e. g.:
  - Give external outlook / indications on likely impact of "new" IFRS
  - Requirements of ESEF reporting
  - Requirements from International Capital Standard (ICS / ComFrame)
  - Additional EIOPA requirements (stress tests, etc.)
- Initiate discussion of potential measures, including
  - Absence / vacation planning
  - Early communication and announcement

Thorough reporting process and time planning for 2021 early on
<table>
<thead>
<tr>
<th></th>
<th>Agenda</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The Hannover Re Group</td>
</tr>
<tr>
<td>2</td>
<td>Why has IFRS 17 been introduced</td>
</tr>
<tr>
<td>3</td>
<td>How IFRS 17 works</td>
</tr>
<tr>
<td>4</td>
<td>Implementation - a glance at the project set-up</td>
</tr>
<tr>
<td>5</td>
<td>Understanding the effects - IFRS 17 financial and operational management</td>
</tr>
<tr>
<td>6</td>
<td>The road to IFRS 17</td>
</tr>
</tbody>
</table>
Understanding the effects applying IFRS 17

Valuation approach
- Is PAA preferred valuation approach for Property & Casualty?
- Life & Health: Hannover Re applies the GMM (primary insurers apply VFA as well)

Accounting unit
- Segmentation into groups of insurance contracts: especially for controlling purposes, loss-making business, etc.

Cost accounting
- Definition of attributable costs influences contractual service margin and technical results
- Allocation of acquisition costs to future periods outside contract boundaries for expected renewals/extensions

Discounting
- Choice of discount rates and considering related effects
- Use of the OCI Option?
- Consideration of the interrelations to IFRS 9 valuation

Transition (reconciliation approach)
- Fair value or modified retrospective approach?
- How can the CSM be optimized in transition?
- How is equity affected?
- Which profit/loss contributors are affected?

Coverage units
- Determination of coverage units
- Determination of the allocation of the CSM

Risk adjustment
- Definition of methodology and calibration (including confidence level)
- The extent and release of the risk adjustment affect the CSM as well as the technical result
New KPI framework considering IFRS 9 & 17 “go live”
Draft KPI assumptions for a new performance matrix

- KPIs on group level and on segment level to give a first impression of future steering

KPIs will …
- remain
- be changed
- be new

Even for the remaining KPIs the calculation base and target values broadly need to be reviewed

This is the starting point telling the equity story based on figures and ratios defined during test calculation phases

Different performance measures
Agenda

1. The Hannover Re Group
2. Why has IFRS 17 been introduced
3. How IFRS 17 works
4. Implementation - a glance at the project set-up
5. Understanding the effects - IFRS 17 financial and operational management
6. The road to IFRS 17
Standard development: EFRAG IFRS 17 case study participation

**Germany**
- Life, VFA model: Participating business and corporate life & health
- Non life, General Model: Multi year P&C
- Non Life, PAA: P&C, reinsurance held

**UK**
- Life, VFA model: Unit linked, with
- Life, General Model: Annuities (Individual and Bulk purchase), Individual protection reinsurance ceded
- Non life, PAA: Motor, P&C, reinsurance held

**Belgium**
- Life, VFA model: Corporate life and health,
- Life, General Model: Corporate life and health,
- Non life, General Model: P&C, reinsurance assumed and held

**Spain**
- Life, VFA model: Unit linked, participating business, fixed index annuity
- Life, General model: Annuities
- Non life, General model: Motor, PAA, P&C

**France**
- Life, VFA model: Unit Linked, participating business,
  life savings, multi support,
- Life, General model: Loan/credit insurance
- Non life, General model: Multi year P&C, motor, reinsurance assumed, and held

**Ireland**
- Life, VFA model: Participating business,
- Life, General model: Loan/credit insurance

**Italy**
- Life, VFA model: Participating business
- Non life, PAA: Motor

**Non EEA jurisdictions (Switzerland, US, Canada & Asia)**
- Life, VFA model: Unit linked
- Life, General model: Individual protection, fixed index annuities
- Non life, General model: Multi year P&C
- Non life, PAA: P&C, reinsurance assumed
The “bumpy” road to IFRS 17
Effective date considerations

- **Effective date considerations**
  - Given expected timeline for ED comment period and subsequent IASB redeliberations (may be up to 18 months) as well as EU endorsement process (at least 12 months expected), such endorsement is – in our view – not likely until some time in 2H/2021, potentially in Q4/2021
  - Given currently expected date of EU endorsement and the need for certainty on “EU-IFRS” the discussion to propose a change to the effective date of IFRS 17 relaunched
Feedback to the standard setter – comment letters
Our central concern: Narrow definition of proportionate reinsurance

Hannover Re’s individual comment letter on re-Exposure Draft

- Narrow definition of accounting for “proportionate” reinsurance held
  - We are concerned about the population of types of reinsurance covered in practice and therefore urgently recommend change of definition

- Requirement to provide fully restated and audited comparative financials at transition to IFRS 17 creates conceptual break between IFRS 17 and IFRS 9 requirements for transition
  - We recommend to make IFRS 17 comparatives at transition optional (as IFRS 9 does)

- Interim financial statements shall be quarter-to-date as per IFRS 17.B137
  - We suggest year-to-date in line with IAS 34 “Interim Financial Reporting”

First overview: Comment letters to the IASB on re-Exposure Draft

- IASB received 121 comment letters until due date 25 September 2019:
  - National accounting and supervisory authorities, audit firms, rating agencies, industry groups, actuarial and accounting bodies, academics, individual companies
  - In its letter EFRAG "disagrees with 1 January 2022 as the effective date" and regards "01.01.2023 … a realistic effective date, with early application permitted". As EFRAG is the organisation that consults the EU in endorsement issues this is a remarkable statement for the IFRS 17 adoption on EU level.

Number and variety of comment letters imply that the IASB will require a considerable period of time for their assessment, discussion and potential steps to adjust the standard IFRS 17.
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# IFRS 17 insurance contracts – glossary and abbreviations

Terminology used in the standard IFRS 17 (1/6)

<table>
<thead>
<tr>
<th>Term</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>(BBA) building block approach</td>
<td>See <em>general measurement model (GMM)</em></td>
</tr>
<tr>
<td>(BEL) best estimate liability</td>
<td>The calculation of the BEL is based on the projection of future cash in- and outflows including premium, claims and expenses. Best estimate (BE) assumptions are used in calculating the BEL.</td>
</tr>
<tr>
<td>BoP</td>
<td>Beginning of Period</td>
</tr>
<tr>
<td>(CSM) contractual service margin</td>
<td>Component of the carrying amount of the asset or liability for a <em>group of insurance contracts</em> representing the unearned profit the entity will recognise as it provides services under the <em>insurance contracts</em> in the group.</td>
</tr>
<tr>
<td>coverage period</td>
<td>Period during which the entity provides coverage for <em>insured events</em>. This period includes the coverage that relates to all premiums within the boundary of the <em>insurance contract</em>.</td>
</tr>
<tr>
<td>EoP</td>
<td>End of Period</td>
</tr>
<tr>
<td>experience adjustment</td>
<td>Difference between: a) (for premium receipts and any related cash flows such as <em>insurance acquisition cash flows</em> and insurance premium taxes)—the estimate at the beginning of the period of the amounts expected in the period and the actual cash flows in the period; or b) (for insurance service expenses excluding insurance acquisition expenses)—the estimate at the beginning of the period of the amounts expected to be incurred in the period and the actual amounts incurred in the period.</td>
</tr>
</tbody>
</table>

Source: In analogy to IFRS 17 Insurance Contracts, IASB
### IFRS 17 insurance contracts – glossary and abbreviations

Terminology used in the standard IFRS 17 (2/6)

<table>
<thead>
<tr>
<th>Term</th>
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</tr>
</thead>
<tbody>
<tr>
<td>financial risk</td>
<td>Risk of a possible future change in one or more of a specified interest rate, financial instrument price, commodity price, currency exchange rate, index of prices or rates, credit rating or credit index or other variable, provided in the case of a non-financial variable that the variable is not specific to a party to the contract.</td>
</tr>
<tr>
<td>(FCF) fulfilment cash flows</td>
<td>An explicit, unbiased and probability-weighted estimate (i.e. expected value) of the present value of the future cash outflows minus the present value of the future cash inflows that will arise as the entity fulfils insurance contracts, including a risk adjustment for non-financial risk.</td>
</tr>
</tbody>
</table>
| (GMM) general measurement model | Measurement of a group of insurance contracts at the total of:  
  a) the fulfilment cash flows, which comprise:  
   (i) estimates of future cash flows (previously often called “best estimate liability”, BEL);  
   (ii) an adjustment to reflect the time value of money (i.e. discounting) and the financial risks related to the future cash flows, to the extent that the financial risks are not included in the estimates of the future cash flows; and  
   (iii) a risk adjustment for non-financial risk  
  b) the contractual service margin (CSM) |

Source: In analogy to IFRS 17 Insurance Contracts, IASB
### Terminology used in the standard IFRS 17 (3/6)

<table>
<thead>
<tr>
<th>Term</th>
<th>Explanation</th>
</tr>
</thead>
</table>
| (GIC) group of insurance contracts                                   | A set of insurance contracts resulting from the division of a portfolio of insurance contracts into, at a minimum, contracts written within a period of no longer than one year and that, at initial recognition:
|                                                                      | a) are onerous, if any;  
|                                                                      | b) have no significant possibility of becoming onerous subsequently, if any;  
|                                                                      | c) do not fall into either (a) or (b), if any.                                                                                                                                                           |
| insurance acquisition cash flows                                     | Cash flows arising from the costs of selling, underwriting and starting a group of insurance contracts that are directly attributable to the portfolio of insurance contracts to which the group belongs. Such cash flows include cash flows that are not directly attributable to individual contracts or groups of insurance contracts within the portfolio. |
| insurance contract                                                   | Contract under which one party (the issuer) accepts significant insurance risk from another party (the policyholder) by agreeing to compensate the policyholder if a specified uncertain future event (the insured event) adversely affects the policyholder. This definition is applicable to reinsurance contracts as well. |
| insurance contract with direct participation features (syn.: direct participating contracts) | An insurance contract for which, at inception:
|                                                                      | a) the contractual terms specify that the policyholder participates in a share of a clearly identified pool of underlying items;  
|                                                                      | b) the entity expects to pay to the policyholder an amount equal to a substantial share of the fair value returns on the underlying items; and  
|                                                                      | c) the entity expects a substantial proportion of any change in the amounts to be paid to the policyholder to vary with the change in fair value of the underlying items. |
## IFRS 17 insurance contracts – glossary and abbreviations

### Terminology used in the standard IFRS 17 (4/6)

<table>
<thead>
<tr>
<th>Term</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>insurance contract without direct participation features</td>
<td>An <strong>insurance contract</strong> that is not an <strong>insurance contract with direct participation features</strong>.</td>
</tr>
<tr>
<td>insurance risk</td>
<td>Risk, other than <strong>financial risk</strong>, transferred from the holder of a contract to the issuer.</td>
</tr>
<tr>
<td>insured event</td>
<td>An uncertain future event covered by an <strong>insurance contract</strong> that creates <strong>insurance risk</strong>.</td>
</tr>
<tr>
<td>investment component</td>
<td>The amounts that an <strong>insurance contract</strong> requires the entity to repay to a <strong>policyholder</strong> even if an <strong>insured event</strong> does not occur.</td>
</tr>
</tbody>
</table>
| investment contract with discretionary participation features | A financial instrument that provides a particular investor with the contractual right to receive, as a supplement to an amount not subject to the discretion of the issuer, additional amounts:  
   a) that are expected to be a significant portion of the total contractual benefits;  
   b) the timing or amount of which are contractually at the discretion of the issuer; and  
   c) that are contractually based on:  
      (i) the returns on a specified pool of contracts or a specified type of contract;  
      (ii) realised and/or unrealised investment returns on a specified pool of assets held by the issuer; or  
      (iii) the profit or loss of the entity or fund that issues the contract. |

**KPI**

**Key performance indicator**

Source: In analogy to IFRS 17 Insurance Contracts, IASB
### Terminology used in the standard IFRS 17 (5/6)

<table>
<thead>
<tr>
<th>Term</th>
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</tr>
</thead>
<tbody>
<tr>
<td>(LIC) liability for incurred claims</td>
<td>An entity’s obligation to investigate and pay valid claims for <strong>insured events</strong> that have already occurred, including events that have occurred but for which claims have not been reported, and other incurred insurance expenses.</td>
</tr>
<tr>
<td>(LRC) liability for remaining coverage</td>
<td>An entity’s obligation to investigate and pay valid claims under existing <strong>insurance contracts</strong> for <strong>insured events</strong> that have not yet occurred (i.e. the obligation that relates to the unexpired portion of the <strong>coverage period</strong>).</td>
</tr>
<tr>
<td>Policyholder</td>
<td>A party that has a right to compensation under an <strong>insurance contract</strong> if an <strong>insured event</strong> occurs.</td>
</tr>
<tr>
<td>(PIC) portfolio of insurance contracts</td>
<td><strong>Insurance contracts</strong> subject to similar risks and managed together.</td>
</tr>
<tr>
<td>(PAA) premium allocation approach</td>
<td>Simplified approach to measure the liability for remaining coverage (LRC) of certain <strong>insurance contracts</strong>, if at inception of such (group of) <strong>insurance contracts</strong>: a) the <strong>coverage period</strong> of each contract in the group is one year or less; or b) there is a reasonable expectation that the PAA would produce a measurement of the LRC for the group that would not differ materially from the one that would be produced applying the general measurement model. The PAA measures the LRC as the amount of premiums received net of acquisition cash flows paid, less the amount of premiums and acquisition cash flows that have been recognised in profit or loss over the expired portion of the <strong>coverage period</strong> based on the passage of time.</td>
</tr>
</tbody>
</table>

Source: In analogy to IFRS 17 Insurance Contracts, IASB
## Terminology used in the standard IFRS 17 (6/6)

<table>
<thead>
<tr>
<th>Term</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>reinsurance contract</td>
<td>An insurance contract issued by one entity (the reinsurer) to compensate another entity for claims arising from one or more insurance contracts issued by that other entity (underlying contracts).</td>
</tr>
<tr>
<td>risk adjustment for non-financial risk</td>
<td>The compensation an entity requires for bearing the uncertainty about the amount and timing of the cash flows that arises from non-financial risk as the entity fulfils insurance contracts.</td>
</tr>
<tr>
<td>underlying items</td>
<td>Items that determine some of the amounts payable to a policyholder. Underlying items can comprise any items; for example, a reference portfolio of assets, the net assets of the entity, or a specified subset of the net assets of the entity.</td>
</tr>
<tr>
<td>(VFA) variable fee approach</td>
<td>Not applicable for reinsurance: The VFA modifies the treatment of the contractual service margin (CSM) under the general measurement model to accommodate insurance contracts with direct participating features (direct participating contracts), written by primary insurers. The definition of direct participating contracts assumes that significant investment-related services are included in the contract when an entity promises an investment return based on underlying items, as long as those are clearly identified by the contract. A contract meets the definition of a direct participating contract when these services are substantial. In this case, accounting reflects the notion that changes in the investment-related fees are considered to relate to future service. The approach is called variable fee approach, because the CSM is adjusted to reflect the variable nature of the fee.</td>
</tr>
</tbody>
</table>