# Table of Contents

## BACKGROUND AND SCOPE OF THE SURVEY

1. RESULTS AND ANALYSIS

- **PART 1: STATUS OF PREPAREDNESS**
- **PART 2: IMPLEMENTATION PLANNING**
- **PART 3: SOLVENCY II/EV**
- **PART 4: IT INFRASTRUCTURE**
- **PART 5: ASSUMPTION UPDATE PROCESS**
- **PART 6: DISCOUNT RATES**
- **PART 7: RISK ADJUSTMENT CALCULATION**
- **PART 8: CONTRACTUAL SERVICE MARGIN AND LOSS COMPONENT**
- **PART 10: METHODS AND CHOICES**
- **PART 11: ASSET VALUATION CHOICES**
- **PART 12: TRANSITION METHODS**
- **PART 13: BUSINESS ISSUES**

## HOW MILLIMAN CAN HELP

33
Background and scope of the survey

Milliman conducted this survey to measure the preparedness for International Financial Reporting Standard (IFRS) 17 among insurers. The survey was sent to Milliman’s worldwide clients who would be impacted by implementation of the IFRS 17 accounting standard. We received responses from more than 115 companies from across the globe.

The survey’s 71 questions are divided into the following subtopics:

- General status of preparedness
- Implementation planning
- Relation with Solvency II/Embedded Value (EV)
- Information technology (IT) infrastructure
- Assumptions updating process
- Discount rates setting
- Cohort definition
- Methodology of risk adjustment calculation
- Tracking of contractual service margin (CSM) amortisation
- Methods applied towards different lines of business
- Asset valuation choices
- Transition and business issue

Thank you to each of our survey respondents for taking the time to share their insights and, in so doing, making this survey as comprehensive as possible—we’ve taken special effort to include any particular concerns respondents mentioned in their survey replies.
Results and analysis

PART 1: STATUS OF PREPAREDNESS

This section of the survey introduces the general questions about participants.

Q5: What is the status of your preparations for the implementation of IFRS 17?

- **Implementation Project Underway**: 34% (2018), 34% (2017)
- **Scoping Activities Underway**: 24% (2018), 22% (2017)
- **Gap Analysis Underway**: 14% (2018), 14% (2017)
- **Just Following at a Distance**: 6% (2018), 11% (2017)
- **No Activity**: 10% (2018), 10% (2017)

Q6: What percent of the following elements has your company completed to date?

**Valuation Methodology**

- **PERCENT COMPLETE**
  - 0%: 0
  - 1-10%: 5
  - 11-20%: 10
  - 21-30%: 15
  - 31-40%: 20
  - 41-50%: 25
  - 51-60%: 30
  - 61-70%: 35
  - 71-80%: 40
  - 81-90%: 45
  - 91-100%: 50

**Valuation Assumptions**

- **PERCENT COMPLETE**
  - 0%: 0
  - 1-10%: 5
  - 11-20%: 10
  - 21-30%: 15
  - 31-40%: 20
  - 41-50%: 25
  - 51-60%: 30
  - 61-70%: 35
  - 71-80%: 40
  - 81-90%: 45
  - 91-100%: 50
Q6: What percent of the following elements has your company completed to date? (continued)

Transition Methodology

Governance Process

Data quality requirements
Strategic considerations

Reporting and disclosure templates

Accounting system
Q7: Who will be responsible for implementing IFRS 17 in your company?

For insurers who selected 'Other,' most anticipated having a combination of chief finance officer (CFO), chief actuary, and chief accounting officer managing the project. Others stated that the responsibilities were under consideration.
Q8: Are you currently using or do you expect to use external resources to assist in implementation?

- Yes: 88%
- No: 12%

Q9: Is there someone within your organization with responsibility to follow developments in the IFRS 17 project and report internally?

- Yes: 78%
- NO - RELY ON UPDATES FROM SERVICE PROVIDERS: 16%
- NO - NOT FOLLOWING: 6%

Q10: Who within your organization will need some level of training with regards to IFRS 17?

- BOARD OF DIRECTORS: 19%
- SENIOR MANAGEMENT: 34%
- ACTUARIAL STAFF: 31%
- ACCOUNTING STAFF: 14%
- IT STAFF: 3%
Q11: In which areas do you expect additional training will be required?

<table>
<thead>
<tr>
<th>Area</th>
<th>Number of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk Adjustment</td>
<td>1</td>
</tr>
<tr>
<td>ALM in an IFRS 9/IFRS 17 environment</td>
<td>5</td>
</tr>
<tr>
<td>Product classification and measurement</td>
<td>6</td>
</tr>
<tr>
<td>Transition and related choices</td>
<td>15</td>
</tr>
<tr>
<td>Interpreting the annual accounts of an insurance company after implementation of IFRS 17</td>
<td>16</td>
</tr>
<tr>
<td>Mechanisms of the income statement, CSM, and OCI</td>
<td>39</td>
</tr>
<tr>
<td>All of the above</td>
<td>21</td>
</tr>
</tbody>
</table>

Q12: What do you consider to be the main challenges of implementing IFRS 17?

IT/system and process development were the most common issues cited by respondents. Dealing with technical issues and the complexity of the new requirements appeared to add to the IT and process concerns, resulting in many respondents indicating that the time available before implementation was too short. The full list is below. Many respondents replied with more than one area of concern.

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Number of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reinsurance</td>
<td>3</td>
</tr>
<tr>
<td>Granularity of data/cohorts</td>
<td>4</td>
</tr>
<tr>
<td>Education of stakeholders</td>
<td>4</td>
</tr>
<tr>
<td>Link between accounts and actuarial</td>
<td>4</td>
</tr>
<tr>
<td>Budget/cost</td>
<td>6</td>
</tr>
<tr>
<td>Interpretation of results</td>
<td>7</td>
</tr>
<tr>
<td>Data requirements/management</td>
<td>13</td>
</tr>
<tr>
<td>Technical calculations (transition calc, risk adjustment, CSM)</td>
<td>14</td>
</tr>
<tr>
<td>Complexity/lack or understanding/clarity of the standard</td>
<td>15</td>
</tr>
<tr>
<td>Resources with IFRS 17 expertise (internal or external)</td>
<td>18</td>
</tr>
<tr>
<td>Time/short deadline</td>
<td>20</td>
</tr>
<tr>
<td>IT/system/process development</td>
<td>34</td>
</tr>
</tbody>
</table>
Q13: If you have implemented Solvency II or a comparable framework, do you expect that the development and implementation of IFRS 17 will be less complex, comparable, or more complex?

Almost half of respondents said that the implementation of IFRS 17 would be more complex than for Solvency II or a comparable framework.

Q14: What year does your company plan to be ready for shadow/dry runs?

For insurers who selected ‘Other,’ almost all of the respondents have yet to define the timeline.

Q15: Do you think the implementation date of 2021 is achievable? If not what year would be achievable?

The majority of respondents indicated that implementation by 2021 was achievable. A delay of one or two years was most common among those who responded with an estimated year that was achievable. The International Accounting Standards Board (IASB) has voted to delay the implementation by one year since we opened the survey.
### PART 2: IMPLEMENTATION PLANNING

This section of the survey focuses on the resources planning for implementing the IFRS 17 standard.

#### Q16: What level of internal resources do you expect to need to implement IFRS 17 (# of FTE)?

There was a wide range of responses to the question. For those who responded, about 35% said that they have yet to determine the resources required. Most estimates were in the range of one to 20 full-time employees (FTEs).

![Resource Distribution Chart](chart1.png)

#### Q17: What budget do you expect to require for implementing IFRS 17 ($)?

There was a wide range of responses to this question. Most participants indicated they did not yet have valid estimates. For those that did provide estimates, actuarial and IT costs were higher than the anticipated accounting or other costs.

![Budget Distribution Chart](chart2.png)
### PART 3: SOLVENCY II/EV

This section of the survey provides insight on whether the infrastructure of Solvency II or Embedded Value (EV) would be relied on for IFRS 17 reporting.

#### Q18: On what basis do you currently report shareholder value?

<table>
<thead>
<tr>
<th>Basis</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>OTHER</td>
<td>6%</td>
</tr>
<tr>
<td>LOCAL GAAP</td>
<td>36%</td>
</tr>
<tr>
<td>SOLVENCY II</td>
<td>18%</td>
</tr>
<tr>
<td>TRADITIONAL EV</td>
<td>18%</td>
</tr>
<tr>
<td>EEV</td>
<td>8%</td>
</tr>
<tr>
<td>MCEV</td>
<td>14%</td>
</tr>
</tbody>
</table>

#### Q19: Which of the following existing calculation platforms do you plan to leverage for IFRS 17 or do you plan to build or buy a new system?

<table>
<thead>
<tr>
<th>Platform</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUILD NEW</td>
<td>27%</td>
</tr>
<tr>
<td>PURCHASE NEW SYSTEM</td>
<td>19%</td>
</tr>
<tr>
<td>EMBEDDED VALUE</td>
<td>22%</td>
</tr>
<tr>
<td>SII</td>
<td>32%</td>
</tr>
</tbody>
</table>
PART 4: IT INFRASTRUCTURE

Q20: To what extent do you plan to adapt existing valuation platforms to perform the following IFRS 17 calculations?

There was a wide variety of responses. The most frequent response was life insurance products generally and participating or with-profits products specifically. Unit-linked products also received several responses.

Q21: which products will require the greatest need for adaption or development as identified in the previous question?

There was a wide variety of responses. The most frequent response was life insurance products generally and participating or with-profits products specifically. Unit-linked products also received several responses.
PART 5: ASSUMPTION UPDATE PROCESS
This section of the survey provides insight into whether assumptions from Solvency II or EV reporting will be relied upon for IFRS 17 reporting.

Q22: Under IFRS 17, all assumptions for the best estimate liability will need to be current as of the valuation date. Do you have a process in place to produce current assumption sets at each valuation date or will this process need to be built?

Q23: If you report under Solvency II, do you expect the IFRS 17 assumptions to be the same as under Solvency II?
For insurers who selected ‘0% the same’ almost all indicated that they do not report on Solvency II or it was not applicable.

Q24: If you report under Embedded Value, do you expect the IFRS 17 assumptions to be the same as under Embedded Value?
Most insurers expect assumptions to be mostly the same as under EV.
Q25: When determining contract boundaries do you expect to apply the existing definition that is currently used for IFRS or regulatory reporting?
For those that responded no, differences noted included annuitisation benefits, reinsurance, additional premiums, riders and differences versus regulatory reporting.

Q26: Do you plan to include cash flows after a future renewal date within a boundary for your renewable products?
A significant number of respondents anticipate including some type of renewal cash flows in their IFRS reserves.

Q27: If you plan to include cash flows after a future renewal date within a boundary for your renewable products, what is the evidence you plan to cite for support?

- INABILITY TO REASSESS THE RISK OF THE PORTFOLIO AND SET A PRICE OR LEVEL OF BENEFITS THAT FULLY REFLECTS OF THAT PORTFOLIO: 33%
- RENEWABLE RIDERS ARE ATTACHED TO A NON-RENEWABLE BASE PLAN AND THEREFORE CONSIST OF A SINGLE POLICY: 28%
- PRICING IS REFLECTED BY THE RISKS AFTER THE RENEWAL DATE: 39%
Q28: How do you plan to prove the evidence used to include post-renewal cash flows?

- Local Industry Consensus: 23%
- Internal Documents: 21%
- Stipulated by Policy Documents: 43%
- Stipulated by Laws: 13%

Q29: Is the intended renewal treatment significantly different from the basis you use to evaluate shareholder value (see Q18)?

Several responders indicated this issue was still under review.

- Yes, 29%
- No, 71%

Q30: Do you plan to apply the option to use the fair value of a replicating portfolio instead of the fulfillment cash flows (paragraph B46 of IFRS 17 for the measurement of IFRS 17 liabilities at transition)?

For those that responded yes, segregated funds and unit-linked products were the most common.

- Yes, 15%
- No, 85%
PART 6: DISCOUNT RATES
This section of the survey questions the discount rates assumption-setting process.

Q31: Discount rates will need to be derived that reflect the characteristics of the liabilities. Has your company determined the process it will use to determine the discount rates?

No, 72%
Yes, 28%

Q32: Will it be a “bottom-up” or “top-down” approach?

TOP-DOWN 32%
BOTTOM-UP 68%

Q33: Have you determined how you will derive discount rates beyond the observable market yield curve?

No, 82%
Yes, 18%
Q34: If you report under Solvency II, what differences do you expect in deriving the discount rates?
For insurers who selected ‘Other,’ almost all have indicated they have yet to determine the approach.

- **VOLATILITY ADJUSTMENT**: 14%
- **OVERALL METHOD**: 32%
- **MATCHING ADJUSTMENT**: 8%
- **EXTRAPOLATION BEYOND OBSERVABLE TERM STRUCTURE**: 6%
- **OTHER (PLEASE SPECIFY)**: 40%

Q35: If you report under Embedded Value, what differences do you expect in deriving the discount rates?
For insurers who selected ‘Other,’ almost all have indicated they have yet to determine the approach or that the question is not applicable.

- **OVERALL METHOD**: 39%
- **ILLIQUIDITY ADJUSTMENT**: 34%
- **EXTRAPOLATION BEYOND OBSERVABLE TERM STRUCTURE**: 4%
- **OTHER (PLEASE SPECIFY)**: 22%
PART 7: RISK ADJUSTMENT CALCULATION
This section of the survey focuses on the risk adjustment.

Q36: Have you defined a methodology that you expect to use to determine the risk adjustment?

![Yes 37% No 63%]

Q37: Select method you expect to use.
For respondents who selected 'Other,' a majority of the insurers have indicated the method is under consideration. One respondent mentioned the use of deterministic prudence margin.

<table>
<thead>
<tr>
<th>Method</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>VALUE AT RISK (VAR)</td>
<td>19%</td>
</tr>
<tr>
<td>COST OF CAPITAL</td>
<td>47%</td>
</tr>
<tr>
<td>CONFIDENCE INTERVAL</td>
<td>14%</td>
</tr>
<tr>
<td>OTHER (PLEASE SPECIFY)</td>
<td>19%</td>
</tr>
</tbody>
</table>

Q38: At what confidence level to you expect the risk adjustment to be set?

<table>
<thead>
<tr>
<th>Confidence Level</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other</td>
<td>6%</td>
</tr>
<tr>
<td>60-70%</td>
<td>7%</td>
</tr>
<tr>
<td>70-80%</td>
<td>41%</td>
</tr>
<tr>
<td>80-90%</td>
<td>13%</td>
</tr>
<tr>
<td>90-99%</td>
<td>33%</td>
</tr>
</tbody>
</table>
Q39: What is the time horizon used to determine the risk adjustment?

- Lifetime: 33%
- Multi Year: 22%
- 1 Year: 45%

Q40: Do you have a solution in place to determine the confidence interval of the risk adjustment that is required to be disclosed under IFRS 17?

Finding a solution to determining the confidence interval remains a significant need for most companies.
PART 8: CONTRACTUAL SERVICE MARGINS AND LOSS COMPONENT

This section of the survey focuses on CSM cohort definition and calculation.

Q41: Do you expect that you will use further distinctions when defining the groups at which the CSM is calculated?

- Not Yet Defined: 27%
- Product: 19%
- Distribution Channel: 6%
- Seriatim: 3%
- Model Point: 8%
- Major Line of Business or Portfolio: 32%
- No: 5%

Q42: Do you expect to use quarterly, semi-annual or annual cohorts?

- Annual: 74%
- Semi-Annual: 14%
- Quarterly: 12%
- Other: 1%
- No, 48%

Q43: Will your current valuation system support this level of cohorts?

- Yes, 52%
- No, 48%
Q44: In what environment to you plan to do the following?

Calculate the initial CSM:

- **Valuation Systems**: 35%
- **Spreadsheet**: 18%
- **General Ledger**: 4%
- **Data Warehouse**: 6%
- **Actuarial Ledger**: 12%
- **Other**: 1%

Amortise the CSM:

- **Valuation Systems**: 25%
- **Spreadsheet**: 22%
- **General Ledger**: 5%
- **Data Warehouse**: 10%
- **Actuarial Ledger**: 12%
- **Other**: 0%

Track loss component:

- **Valuation Systems**: 19%
- **Spreadsheet**: 18%
- **General Ledger**: 10%
- **Data Warehouse**: 15%
- **Actuarial Ledger**: 11%
- **Other**: 2%
Q45: Do you expect to build or purchase new systems to calculate and/or track CSM or loss components?

- Build: 35%
- Purchase: 50%
- N/A: 15%

Q46: If you will be purchasing a system have you started implementation?

- Yes: 31%
- No: 69%

Q47: If you will be purchasing a system will it be a cloud-based or an on-premise solution?

- ON-PREMISE: 41%
- CLOUD: 59%
Q48: How will you define onerous contracts at initial recognition (e.g., pricing reports, embedded value VNB reports, new calculation)?

While 20% of respondents said they were still evaluating how they would determine onerous contracts, almost half of those that had determined the method expect to use a new calculation. Pricing reports and value of new business (VNB) reports represented the other half.

Q49: At what level of aggregation will you determine onerous contracts at initial recognition?
Q50: What percent of new issues in the first year after adopting IFRS 17 do you expect to fall into the following categories?

Most insurers expect less than 10% of their new issues to be onerous. A surprisingly large number of insurers expect the vast majority of their business to be classified as unlikely to be onerous.

![Bar chart showing the distribution of new issues](chart.png)

- **100%**: 12% unlikely to be onerous, 9% could become onerous, 0% onerous
- **76-99%**: 12% unlikely to be onerous, 0% could become onerous, 0% onerous
- **51-75%**: 5% unlikely to be onerous, 1% could become onerous, 0% onerous
- **26-50%**: 9% unlikely to be onerous, 7% could become onerous, 3% onerous
- **11-25%**: 3% unlikely to be onerous, 10% could become onerous, 10% onerous
- **1-10%**: 17% unlikely to be onerous, 34% could become onerous, 34% onerous
- **0%**: 20% unlikely to be onerous, 25% could become onerous, 26% onerous
PART 10: METHODS AND CHOICES
This section focuses on the areas of the Standard which allow insurers a choice over the approaches adopted when complying with IFRS 17.

Q51: For which lines of business do you anticipate using Other Comprehensive Income (OCI) for reflecting changes in discount rates?
In the 2017 survey most respondents indicated that they have yet to evaluate the use of OCI. In the 2018 survey 40% of respondents had yet to evaluate the use of OCI. Those that had evaluated it noted that individual insurance, both participating and nonparticipating, were the most likely lines of business for using OCI to reflect changes in discount rates.

Q52: For which lines of business do you anticipate applying the variable fee approach?
Survey results were similar for both years. Participants anticipated applying the variable fee approach on products such as: unit-linked or variable contracts, interest-sensitive or universal life insurance, and participating contracts. The remainder believed that the approach was not applicable to their businesses. The responses did not vary by geographic regions.

Q53: For lines of business where you intend to apply the variable fee approach, in what percent of cases do you not hold the underlying assets?
Only 27% of those respondents who said they would apply the variable fee approach (VFA) do not hold the underlying assets. Almost three-quarters of respondents hold the assets.

Q54: Do you expect to apply the option regarding risk mitigation when applying the variable fee approach?

None 73%
Some 27%

Yes, 32%
No, 68%
Q55: What portion of your business do you expect to apply the following methods?

Eighteen percent of the respondents answered that the methods are still under consideration or the methods are not applicable. Another 18% is also represented it as to be determined (TBD) or not applicable (N/A), as shown in the following charts:

Premium Allocation Approach (PAA)

Variable Fee Approach

General Model
Q56: Do you intend to use the PAA for contracts with greater than 1 year duration, and if so specify the type of business?

Twenty percent of respondents indicated they plan to apply the PAA for contracts with durations greater than one year.

---

Q57: What types of contracts do you expect will qualify as service or investment components and need to be unbundled under IFRS17?

We received only a few responses to this question. Contract types or elements mentioned include policy loans, savings or interest components, endowments, experience refunds, with-profits contracts, full and partial surrender benefits and unit-linked fund balances.

---

Q58: If you currently report on an IFRS basis, will you re-determine significant insurance risk for any of your business?

Fewer 2018 respondents anticipate redetermining the significance of insurance risk.

---
PART 11: ASSET VALUATION CHOICES
This section of the survey focuses on the adoption of IFRS 9 for asset reporting and its interaction with IFRS 17.

Q59: Do you anticipate changes to existing asset valuation categories with IFRS 17 implementation?
Fewer 2018 respondents indicated they expect changes to assets relative to the existing asset valuation categories.

Q60: Do you plan to defer adoption of IFRS 9 until adoption of IFRS 17?
PART 12: TRANSITION METHODS
This section of the survey focuses on the available approaches to the transition to IFRS 17.

Q61: What portion of business in force do you believe you will be able to apply the full retrospective approach (based on number of contracts)?
In 2018 many more respondents have made an estimate of whether the full retrospective approach can be used. The majority of respondents have indicated that 25%, or less, of their business will be suitable for this approach.

Q62: What portion of business in force do you believe you will be able to apply the modified retrospective approach (based on number of contracts)?
Similar to the full retrospective approach results, many more respondents have estimated the ability to utilise the modified retrospective approach, with the majority believing that 25% or less of their business will be able to use it.
Q63: What portion of business in force do you believe you will be able to apply the fair value approach (based on number of contracts)?

Many companies are expecting to use the fair value approach for a majority of their business. This is an increase in the use of fair value versus last year’s survey.

Q64: How will you define fair value for that portion of the business?

As with the 2017 survey, a majority of the respondents who answered the question said that the definition of fair value is still to be determined. Of those that did identify a method, a form of Embedded Value—Market-Consistent Embedded Value (MCEV), European Embedded Value (EEV)—was the most common response. Some others indicated they would look to market indicators such as direct product or reinsurance pricing.

Q65: For how many years do you believe you will be able to apply the full retrospective approach?

The 2018 survey saw a significant increase in the percentage of respondents who felt they could use the full retrospective approach.
Q66: Do you expect to use the option to present historic changes in insurance liability amounts in OCI as well as retained earnings at transition?

About one-third of respondents expect to use the option.
PART 13: BUSINESS ISSUES
This section of the survey focuses on the future impact of IFRS 17 reporting on other areas of the business.

Q67: Do you expect IFRS 17 to affect any of the following?
Both surveys show respondents expect that many areas of the company’s operations will be affected by IFRS 17.

Q68: Do you anticipate you will continue to present financial results in the current format (premiums, investment returns, claims expenses, change in reserve) as additional information once IFRS 17 is adopted?
The majority of respondents indicate they plan to continue to present financial results in a traditional income statement format.

Q69: Which lines of business, if any, do you believe will be less attractive under IFRS 17?
In our 2017 survey, a few respondents indicated products with high minimum interest rate guarantees would be less attractive. Most respondents did not yet have views. In our 2018 survey many types of products were noted as potentially less attractive, including deferred annuities, traditional insurance products, fund business, savings products, all products with high minimum guarantees, single premium business, unit-linked business, universal life business and both short-term and long-term business.
Q70: What impact do you expect to the opening IFRS equity balance?
We note that fewer respondents in 2018 expect large changes in the opening equity balance.

Q71: What impact do you expect to ongoing level of IFRS earnings?
The 2018 survey showed more respondents expecting the level of earnings to be different from current accounting. It is possible that this is due to additional analysis performed by companies between the two surveys. In addition there seems to be a weighting of responses more towards increases in earnings versus the prior report, which was weighted more towards expected decreases.

Q72: Do you plan to invest in new accounting or actuarial systems during implementation of IFRS 17?
In the 2018 survey we saw more respondents indicating they plan to invest in accounting systems than in the prior year’s survey.
Q73: What reporting basis will primarily drive your day-to-day decision making after implementation of IFRS 17 and IFRS 9?
For respondents who selected 'Other,' they either plan to use a regulatory reporting basis or were still investigating the issue.

Q74: Will the treatment of reinsurance under IFRS 17 be a significant issue for your business?
Respondents were fairly evenly split in their response.

For those that felt it would be an issue for their business the primary issues were the mismatch of the CSM with the underlying contract measurement, and data or modelling issues. Several reinsurers responded that this will have a large impact on their business due to the CSM mismatch and they will need to evaluate their offerings.

Q75: If possible, which parts of the standard would you adjust?
Three elements of IFRS 17 stood out as parts that survey participants would adjust; the mismatch between the CSM for direct contracts and reinsurance contracts held, the limits on the level of aggregation and transition provisions, particularly the modified retrospective approach.
How Milliman can help

An IFRS 17 implementation project should definitely be on the agenda of insurance companies reporting under IFRS. With our international exposure and diverse experience, Milliman is well-suited to accompany you along your IFRS 17 implementation journey. In particular, we are ready to provide specialist assistance in the following areas:

**CONSULTING**
- Multi-term planning for IFRS 17 implementation
- Development of IFRS 17 methodologies and internal standards
- Advice relative to international best practice
- Gap analysis and readiness monitoring
- Assumption setting
- Development of performance measures
- Financial impact analysis
- Analysis of interactions between IFRS 17 and IFRS 9
- Training courses for board and staff members

**MODELLING**
- Development of models using MG-ALFA® (an in-house modelling tool kit), Prophet and other projection/valuation tools
- Development of run schedules to generate the inputs for the income statement, balance sheet and disclosures
- Model testing and documentation
- Data validations
- Development of data interface into project software

**REPORTING**
- Assistance with data warehouse solutions and reporting engines
- Reconciliation of Solvency Assessment and Management (SAM), EV and other IFRS calculations with IFRS 17 calculations
- Workflow management
- Validation of outputs
- Assessing the impact of the Standard on profitability and opening equity
- Development of dashboards and red amber green (RAG)-tables for high-level monitoring
Milliman is among the world’s largest providers of actuarial and related products and services. The firm has consulting practices in life insurance and financial services, property & casualty insurance, healthcare, and employee benefits. Founded in 1947, Milliman is an independent firm with offices in major cities around the globe.

milliman.com/IFRS

CONTACT
William Hines
william.hines@milliman.com

Thomas Bulpitt
thomas.bulpitt@milliman.com

Takanori Hoshino
takanori.hoshino@milliman.com

© 2019 Milliman, Inc. All Rights Reserved. The materials in this document represent the opinion of the authors and are not representative of the views of Milliman, Inc. Milliman does not certify the information, nor does it guarantee the accuracy and completeness of such information. Use of such information is voluntary and should not be relied upon unless an independent review of its accuracy and completeness has been performed. Materials may not be reproduced without the express consent of Milliman.