



# **Society of Actuaries in Ireland**

*Discussion paper*

***DRAFT***

## **Example considerations for actuarial reporting in respect of life insurance financial statements**

**Life Committee**

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## 1. Introduction

The financial statements of insurance undertakings or an insurance holding company can include a number of balances (e.g. policyholder liabilities, intangible assets and liabilities) where an actuary may be involved in their calculation, review and/or documentation. (This paper excludes consideration of balances relating to pension scheme obligations.)

The extent of involvement, if any, by the actuary (hereafter referred to as a “Reporting Actuary”) in the reporting of such balances in the financial statements will depend on the particular circumstances (e.g. the agreed actuarial scope, the financial statement accounting basis, the nature of the business written).

Where an actuary is involved in the reporting of such balances in the financial statements, the actuary may produce a report on his or her work. There is currently no legislative or regulatory requirement in Ireland for an actuary to produce a report in relation to his/her work in respect of financial statements.

A working party of the Society of Actuaries in Ireland was asked to consider what, if any, areas an actuary may wish to consider including in such a report in respect of financial statements, if applicable.

This paper lists a number of example areas for potential consideration in producing such a report (hereafter referred to as a “Reporting Actuary Report” or “the Report”).

The list of areas for potential consideration suggested below is neither intended to be wholly complete nor to form a minimum or maximum set of areas that an actuary may consider in the Report. In particular, it is not expected that all areas would necessarily apply to a single insurance company. The list is provided only for educational purposes.

There are likely to be exceptions and circumstances where many, but not all, of the areas below are appropriate for individual companies to consider. There may also be circumstances where areas beyond those listed below would be appropriate to consider.

## 2. Possible areas for consideration in a Reporting Actuary Report

In many cases, it may be appropriate to cross-reference to other documentation, e.g. reports produced for Solvency II such as the ARTPs.

Each area listed below includes some examples for consideration. In particular, example considerations below are not intended to be a checklist in respect of each area.

#	Possible area	Example considerations
<b>General considerations for the report, governance and controls</b>		
1.	General	<ul style="list-style-type: none"> <li>• Table of contents and page numbers</li> <li>• Who the report is addressed to / anticipated users of the report</li> <li>• Responsibilities of the Board</li> <li>• Scope of the Reporting Actuary's work</li> <li>• Other team members involved in the production of the report</li> <li>• Executive summary</li> <li>• Recommendations</li> <li>• Conclusions</li> <li>• Subsequent events</li> <li>• Simplifications and approximations</li> <li>• Material uncertainties</li> <li>• Reliances and limitations</li> <li>• Glossary</li> <li>• Version control, history</li> <li>• Appendices, e.g.               <ul style="list-style-type: none"> <li>○ Summary descriptions of products and of reinsurance</li> <li>○ Status of previous recommendations</li> <li>○ Statement relating to compliance with any relevant ASP's</li> <li>○ Table of compliance with ISAP 4 / relevant ESAP</li> <li>○ Data sources</li> </ul> </li> <li>• Cross references to other documents for relevant content which is not repeated in this report (e.g. to ARTPs)</li> </ul>
2.	Governance and controls	<ul style="list-style-type: none"> <li>• Key risks and corresponding controls</li> <li>• Review and sign-off process and application</li> </ul>
<b>Context / background / scope of the Reporting Actuary</b>		
3.	Nature of financial statements	<ul style="list-style-type: none"> <li>• Whether:               <ul style="list-style-type: none"> <li>○ entity financial statements (e.g. "local" FS),</li> <li>○ supporting reporting to a parent (e.g. "group reporting), or</li> <li>○ consolidated financial statements (e.g. line-by-line consolidation for holding company)</li> </ul> </li> </ul>
4.	Financial statement accounting basis	<ul style="list-style-type: none"> <li>• IFRS, FRS 101, FRS 102, US GAAP, Canadian GAAP etc</li> <li>• Whether it has changed in the period</li> <li>• Any applicable local regulations, e.g. 2015 Insurance Accounts regulations (as amended in 2016)</li> </ul>
5.	Accounting policies for insurance, insurance with-DPF and investment with-DPF classified contracts	<ul style="list-style-type: none"> <li>• Modified Solvency I, modified Solvency II, US GAAP, Canadian GAAP, MCEV</li> <li>• Whether it has changed in the period</li> </ul>

#	Possible area	Example considerations
6.	Balances (or “line items”) in scope of the report	<ul style="list-style-type: none"> <li>• Policyholder liabilities, reinsurance asset, deferred acquisition costs asset, deferred income liability, deferred tax asset recoverability, withholding tax asset</li> <li>• Any note disclosures in scope</li> </ul>
7.	Materiality threshold applied	<ul style="list-style-type: none"> <li>• Nominal amount(s), how they have been determined</li> </ul>
8.	Overview of the undertaking in scope	<ul style="list-style-type: none"> <li>• Nature of business written (e.g. classes (e.g. life class I), types (e.g. term assurance, annuities, unit-linked), where business written (e.g. Ireland, UK, Italy), whether sold on FOS or FOE basis for each country</li> <li>• Whether open or closed to new business (and when closed)</li> <li>• When started writing business</li> <li>• Reporting currency</li> </ul>
9.	Overview of key relevant developments in the reporting period	<ul style="list-style-type: none"> <li>• New (or changes to existing) products and reinsurance</li> <li>• Closure to new business</li> <li>• Acquisitions, portfolio transfers</li> <li>• Change in ownership</li> <li>• Changes in outsourcing, systems, resourcing, processes</li> <li>• Changes in accounting / regulatory requirements or policies</li> <li>• Changes in the operating / business environment</li> </ul>
<b>Classification, unbundling, embedded derivatives, service contracts</b>		
10.	Classification of contracts (i.e. under IFRS 4 / FRS 103) between investment w/o DPF, insurance w/o DPF, insurance with DPF, investment with DPF and for reinsurance	<ul style="list-style-type: none"> <li>• Summary of exposure to each classification</li> <li>• Threshold for significant insurance risk transfer (e.g. 5%, 10%) and how applied</li> <li>• Reference to documentation of application of contract classification, e.g. document with contract/product level classification, conclusion and supporting rationale</li> <li>• Approach to classification of policies with an option to invest in with-DPF</li> </ul>
11.	Unbundling of deposit and insurance components	<ul style="list-style-type: none"> <li>• Whether required (and why) or applied as an option</li> <li>• Where applied, e.g. which blocks of business</li> <li>• Approach to hybrid UL UWP policies</li> </ul>
12.	Embedded derivatives (EDs)	<ul style="list-style-type: none"> <li>• Nature of any embedded derivatives in the actuarial liabilities, e.g. type of ED, classification of host contract (e.g. insurance non-DPF)</li> <li>• Whether any embedded derivatives required separation and fair valuation</li> </ul>
13.	Contracts outside of scope of IFRS 4 / FRS 103 and of IFRS 9 / FRS 102	<ul style="list-style-type: none"> <li>• E.g. service contracts (or unbundled components) under IFRS 15 / FRS 102</li> </ul>
<b>Reserving methodology, models, data, assumptions, reinsurance</b>		
14.	Investment (non-DPF) methodology	<ul style="list-style-type: none"> <li>• Approach to accounting for deposit component vs investment management services component</li> <li>• Unit reserves valuation (e.g. bid value of units)</li> <li>• Approach to actuarial funding</li> <li>• Reserving changes in the period</li> </ul>

#	Possible area	Example considerations
15.	Insurance / with-DPF methodology	<ul style="list-style-type: none"> <li>• Methodologies used (e.g. NPV, GPV etc)</li> <li>• Unit reserves valuation (e.g. bid value of units)</li> <li>• Reserving changes in the period</li> </ul>
16.	Models	<ul style="list-style-type: none"> <li>• Key models used</li> <li>• Modelling changes in the period</li> <li>• Projection period</li> <li>• Results of model governance, e.g. “baselining” (independent testing), change control</li> </ul>
17.	Data	<ul style="list-style-type: none"> <li>• Key types of data used (e.g. policyholder data)</li> <li>• Sources (e.g. internal sources, external sources)</li> <li>• Data used for assumption setting</li> <li>• Changes in data in the period</li> <li>• Completeness and accuracy of the data</li> <li>• Extent of data cleansing required</li> <li>• Checks and controls performed</li> <li>• Data governance</li> <li>• Data limitations</li> </ul>
18.	Assumptions	<ul style="list-style-type: none"> <li>• Whether best estimate</li> <li>• Adjustments to best estimate (e.g. PADs)</li> <li>• Differences vs Solvency II</li> <li>• Appropriateness of assumptions</li> <li>• Consideration of uncertainties in assumption setting</li> <li>• Expert judgements involved in assumption setting</li> <li>• Effect of discontinuities in experience on assumption setting</li> <li>• Whether the assumption set is reasonable in the aggregate</li> <li>• Alternative assumptions and sensitivity testing</li> <li>• Internal consistency of assumptions</li> <li>• Consideration or otherwise of entity specific assumptions (including whether entity specific data has been used to set assumptions)</li> </ul>
19.	Reinsurance	<ul style="list-style-type: none"> <li>• Type of reinsurance, e.g. quota share, XoL</li> <li>• Treaties open / closed to new business</li> <li>• Changes in the period</li> <li>• How modelled (e.g. vs underlying)</li> <li>• Approach to haircut (of a reinsurance asset) for counterparty risk</li> <li>• Impairment testing of a reinsurance asset</li> <li>• Split by counterparty / counterparty rating</li> </ul>
<b>Reserving results and analysis</b>		
20.	Liability adequacy testing (“LAT”)	<ul style="list-style-type: none"> <li>• How assessed, whether on a qualitative basis or a quantitative basis, e.g. by comparison of booked reserves (less related intangibles) in the financial statements against a best estimate</li> <li>• How the best estimate value (used in the comparison) was determined, e.g. whether based on Solvency II BEL and if any adjustments applied (e.g. inclusion of post-contract boundary VIF)</li> <li>• LAT results split by contract classification (see example table below)</li> <li>• Explanation of movement in LAT results in the period</li> </ul>
21.	Breakdown of reserves	<ul style="list-style-type: none"> <li>• By sales source (e.g. product type, country/region, business unit)</li> <li>• By reserve type (e.g. UPR, AURR, IBN(E)R, ICOP, unit reserves, non-unit reserves for unit-linked business)</li> <li>• By modelling source, e.g. modelling system vs out-of-model</li> </ul>

#	Possible area	Example considerations
22.	Movement analysis	<ul style="list-style-type: none"> <li>• Opening to closing analysis</li> <li>• How calculated, whether independent (approach to any unreconciled items)</li> <li>• Explanatory narrative (e.g. for each movement component)</li> <li>• Split by gross/net, product group, reserve type</li> <li>• Sense checks performed and results</li> </ul>
23.	Out-of-model items (e.g. manual reserves, adjustments)	<ul style="list-style-type: none"> <li>• Description (e.g. nature, why required)</li> <li>• Classification (e.g. investment, insurance)</li> <li>• How calculated (data, assumptions and methodology)</li> </ul>
24.	Reconciliations of reserves to other reporting basis	<ul style="list-style-type: none"> <li>• Local vs group</li> <li>• FS to Solvency II</li> </ul>
25.	Sensitivities	<ul style="list-style-type: none"> <li>• By product group</li> <li>• Gross vs net of reinsurance</li> </ul>
26.	Analysis of surplus	<ul style="list-style-type: none"> <li>• Approximations / adjustments / limitations</li> <li>• Untraced tolerance levels</li> </ul>
<b>Other items</b>		
27.	DAC, DIL	<ul style="list-style-type: none"> <li>• Nature of costs and fees deferred and not deferred, and why</li> <li>• Amortisation period, how determined and if changes</li> <li>• Consistency of amortisation period with when services are provided</li> <li>• Approach to policy “offs” (such as surrender, maturity, death), i.e. whether write down DAC/DIL and consistency with amortisation period</li> <li>• Reconciliation of new deferred (before amortisation) to incurred in period</li> <li>• Approach to DAC recoverability, e.g. grouping level</li> <li>• Roll-forward from opening to closing (see example further below)</li> </ul>
28.	Shadow accounting	<ul style="list-style-type: none"> <li>• Where and how applied</li> </ul>
29.	Acquisition accounting and investments in subsidiaries	<ul style="list-style-type: none"> <li>• Description of acquisitions, accounting applicable (e.g. whether a business combination, whether under common control) and methodology applied</li> <li>• Goodwill, e.g. how determined, impairment testing</li> <li>• AVIF, e.g. how determined, amortisation, impairment testing</li> <li>• Investment in subsidiaries valuation approach</li> </ul>
30.	Contingent liabilities (FS note disclosure)	<ul style="list-style-type: none"> <li>• How relates to policyholder liabilities, if applicable</li> </ul>
31.	Tax	<ul style="list-style-type: none"> <li>• DTA recoverability approach and results</li> <li>• Withholding tax asset recoverability approach and results, e.g. recovery mechanism used (and sequence) for Italian withholding tax asset</li> <li>• Consistency of DTL with DAC / AVIF</li> </ul>

### 3. Appendix

This Appendix includes example analytical formats for two areas which may be relevant to some companies.

#### 3.1 Liability Adequacy Testing (“LAT”) – example format

The following table is one example, amongst others, of how a company may decide to analyse and present its LAT for the reporting period. The structure and components in this example may not be applicable or appropriate to an individual company. Dummy numbers are included in the table.

YEXX	Investment (without DPF)	Insurance (without DPF)	Insurance (with DPF)	Investment (with DPF)	Total
Amounts in € millions Gross of reinsurance					
<b>Financial statements</b>					
FS unit reserves (A)	1,000	1,000	1,000	1,000	4,000
FS non-unit reserves (B)	0	150	200	100	450
<b>Total reserves (C = A + B)</b>	<b>1,000</b>	<b>1,150</b>	<b>1,200</b>	<b>1,100</b>	<b>4,450</b>
DAC (D)	120	130	80	80	410
DIL (E)	100	0	0	0	100
<b>FS reserves net of intangibles (F = C - D + E)</b>	<b>980</b>	<b>1,020</b>	<b>1,120</b>	<b>1,020</b>	<b>4,140</b>
<b>Best estimate</b>					
BE unit reserves (G)	1,000	1,000	1,000	1,000	4,000
BE non-unit reserves (H)	-120	-30	50	-100	-200
<b>BE total reserves (I = G + H)</b>	<b>880</b>	<b>970</b>	<b>1,050</b>	<b>900</b>	<b>3,800</b>
<b>“Headroom” (J = F - I)</b>	<b>100</b>	<b>50</b>	<b>70</b>	<b>120</b>	<b>340</b>



### 3.2 DAC / DIL roll-forward – example format

The following table is one example, amongst others, of how a company may decide to analyse and present its DAC or DIL roll-forward for the reporting period. The structure and components in this example may not be applicable or appropriate to an individual company. Dummy numbers are included in the table.

Specify whether amounts are gross or net of reinsurance.

Amounts in € millions	YEXX	YEX[x-1]	Movement
<b>Opening balance</b>	<b>592</b>	<b>700</b>	<b>-108</b>
Impact on opening of changes in methodology	-60	0	-60
<b>Existing business at start of period</b>			
Adjusted opening balance	<b>532</b>	<b>700</b>	<b>-168</b>
LESS: Amortisation on opening balance	55	70	-15
Amortised %	10.3%	10.0%	0.3%
Post amortisation amount	477	630	-153
LESS: Impact of offs on post amortisation amount	25	30	-5
LESS: Impact of impairment	0	50	-50
<b>Closing amount for existing business (A)</b>	<b>452</b>	<b>550</b>	<b>-98</b>
<b>New business during the period</b>			
Amount deferred	80	50	30
LESS: Amortisation on amount deferred	4	3	1
Amortised %	5.0%	6.0%	-1.0%
Post amortisation amount	76	47	29
LESS: Impact of offs on post amortisation amount	2	1	1
LESS: Impact of impairment	0	4	-4
<b>Closing amount for new business (B)</b>	<b>74</b>	<b>42</b>	<b>32</b>
<b>Total closing balance (A + B)</b>	<b>526</b>	<b>592</b>	<b>-66</b>

#### 4. Glossary

<b>ARTP</b>	Actuarial Report on Technical Provisions (Solvency II)
<b>ASP</b>	Actuarial Standard of Practice
<b>AVIF</b>	Acquired Value of In-Force business
<b>BEL</b>	Best Estimate Liability (Solvency II)
<b>DAC</b>	Deferred Acquisition Costs asset (may also be referred to as Deferred Origination Costs “DOC” for investment classified contracts)
<b>DIL</b>	Deferred Income Liability (may also be referred to as Deferred Origination Fees “DOF”, Deferred Income Reserves “DIR”, Deferred Front-end Fees “DFEF”, Unearned Revenue Reserve “URR”)
<b>DPF</b>	Discretionary Participation Features, e.g. with-profits
<b>DTA</b>	Deferred Tax Asset
<b>DTL</b>	Deferred Tax Liability
<b>ED</b>	Embedded Derivative
<b>FRS</b>	Financial Reporting Standards (as applied in Ireland / UK)
<b>FS</b>	Financial Statements
<b>GAAP</b>	Generally Accepted Accounting Principles
<b>IFRS</b>	International Financial Reporting Standards
<b>LAT</b>	Liability Adequacy Test
<b>SAI</b>	Society of Actuaries in Ireland