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**Disclosure of Information
about Insurance Contracts under
International Financial Reporting Standards
[IFRS 2008]**

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Committee on Insurance Accounting**

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This International Actuarial Note (IAN) is promulgated under the authority of the International Actuarial Association. It is an educational document on an actuarial subject that has been adopted by the IAA in order to advance the understanding of the subject by readers of the IAN, including actuaries and others, who use or rely upon the work of actuaries. It is not an International Standard of Actuarial Practice (“ISAP”) and is not intended to convey in any manner that it is authoritative guidance.



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1. Scope

The purpose of this INTERNATIONAL ACTUARIAL NOTE (IAN) is to provide advisory, non-binding guidance to ACTUARIES or other PRACTITIONERS that they may wish to take into account when providing ACTUARIAL SERVICES in accordance with INTERNATIONAL FINANCIAL REPORTING STANDARDS (IFRSs) with respect to:

1. support for developing or changing ACCOUNTING POLICIES regarding disclosures;
2. support in deriving the data to be disclosed; and
3. identification of where disclosure of information included in the REPORTING ENTITY'S FINANCIAL STATEMENTS might be required by IFRSs or might be applied to draw appropriate attention of the INTENDED USER to that information.

This IAN does not establish disclosure requirements, but rather it provides advisory, non-binding guidance with respect to the implementation of the principles, rules, guidance, and examples provided in INTERNATIONAL FINANCIAL REPORTING STANDARD (IFRS) 4 and other IFRSs with respect to CONTRACTS often offered by INSURERS.

This IAN is limited to providing guidance regarding how to perform WORK in conjunction with the development or provision of needed disclosures according to IFRS 4.36–4.39A (also see Appendix A). This includes guidance regarding some of the requirements of IFRS 7 made applicable to INSURANCE CONTRACTS by IFRS 4.39 (d). The application guidance provided may also be relevant to disclosures made for FINANCIAL INSTRUMENTS offered by insurers subject to IFRS 7, especially if they are contracts or parts of contracts subject to IFRS 4.

The guidance provided in this IAN is generally limited to disclosure regarding contracts within the scope of IFRS 4. Guidance for COMPONENTS of such contracts that are outside the scope of IFRS 4 is limited to general remarks. To some extent, this guidance might be helpful in developing disclosures for contracts that fall within the scope of IAS 18 and IFRS 7 if similar circumstances exist and the same IFRS requirements apply. As in IFRS 4, this IAN focuses on disclosures regarding insurance contracts and addresses the following disclosure issues:

1. sensitivity analysis;
2. concentration of INSURANCE RISK;
3. claims development;
4. changes in INSURANCE ASSETS, insurance liabilities, and related INTANGIBLE ASSETS;
5. contractual and/or constructive links between assets and liabilities;
6. information about expected future changes in risk exposure based on risks existing at the end of the reporting period;
7. risk management methods;

8. information about credit risk, liquidity risk and market risk inherent in insurance contracts; and
9. information about credit risk, liquidity risk and market risk inherent in EMBEDDED DERIVATIVES not reported at FAIR VALUE.

In addition, disclosure is subject to both the principle of materiality and the relevance to the reporting entity, to be determined by the preparer with the intended users in mind and in the context of the complete financial statements.

The structure of guidance provided here does not address the presentation structure of disclosures in the financial statements.

Reliance on information in this IAN is not a substitute for meeting the requirements of the relevant IFRSs. Practitioners are therefore directed to the relevant IFRSs (see Appendix B) for authoritative requirements. The IAN refers to IFRSs that are effective as of February 1, 2008, as well as amended IFRSs not yet effective as of February 1, 2008 but for which earlier application is made. If IFRSs are amended after that date, practitioners should refer to the most recent version of the IFRS and consider whether the changes might affect the ongoing validity of the guidance in this IAN.

2. Publication Date

This IAN was published on 14 June 2008, the date approved by the Council of the INTERNATIONAL ACTUARIAL ASSOCIATION (IAA) and updated on 28 March 2014.

3. Background

Actuaries may be involved in the development of an entity's financial statements, e.g., production of required disclosures or development of an ACCOUNTING POLICY for meeting such requirements. Disclosures are part of the notes to the financial statements or directly accompanying information in other parts of the financial statements (IAS 1.42). Actuarial guidance and support may be required to identify disclosure needs and determine certain disclosure items given the provisions of IFRS 4. It is important to note that, according to IFRS, the establishment of accounting policy with respect to disclosure is the responsibility of the preparer of the financial statements, normally the board of directors, but the task may be delegated to a designated committee of the board, or the entity's senior management, depending on the applicable jurisdiction. With this in mind, the practitioner typically provides advice to those responsible and prepares information intended to be used in the associated disclosures.

The most frequently applicable IFRSs pertaining to this IAN are enumerated in Appendix B. In addition, certain other sources of relevant information are included in Appendix B.

4. International Actuarial Note

4.1 General considerations

The accounting principles and policies applied by the reporting entity form the basis for the accounting practices of a reporting entity, including those applied in the preparation of financial statements in accordance with IFRSs. Since IFRSs do not provide detailed guidance regarding disclosure that may arise for contracts within the scope of IFRS 4, further consideration of disclosure requirements of existing accounting policies and of the accounting principles underlying those policies applied both before and after first-time application of IFRSs is appropriate.

Disclosure requirements or principles in IFRSs, or in IFRS 4 in particular, cannot cover every possible disclosure issue or the unique characteristics of every reporting entity or its products. The guidance provided in IFRS 4.36– 4.39A is not intended to be exhaustive but rather is principle-based and focused mainly on describing the information needs of the user of the financial statements. It does not exempt an insurer from applying disclosure requirements of other IFRSs, e.g., IAS 1 and IAS 8, where insurance contracts are not explicitly excluded from their scope. For example, IFRS 4.39(d) and 4.39A(a) indicate that the disclosure requirements of IFRS 7 and INVESTMENT CONTRACTS with a DISCRETIONARY PARTICIPATION FEATURE (DPF) are fully subject to the disclosure requirements of IFRS 7. In addition, any legal or regulatory requirement to which the IFRS financial statements might be subject would also have to be considered.

In general, the IFRS disclosure requirements do not dictate the format of the disclosure (emphasised in IFRS 4, BC201 (b), BC 201(c), BC204, BC217 and IG 12). Rather, disclosure is designed to meet the needs of the users of the financial statements, reflecting the individual circumstances of the reporting entity; in fact, BC201 (b) encourages experimentation to develop a more effective means of disclosure. In addition, in providing actuarial services in connection with financial statements, the practitioner may recommend certain disclosures in order to comply with IFRS principles and specific requirements, even if the reporting entity's accounting policy does not explicitly require such disclosures.

In assessing whether or not to recommend to the preparer of the financial statements the appropriateness of a particular disclosure, the practitioner may refer to other IFRSs, especially IAS 1, and also to the INTERNATIONAL ACCOUNTING STANDARDS BOARD (IASB) *Framework* to help assess whether that information would be useful in the context of the qualitative characteristics of the financial statements as applied to a particular entity. When doubt arises as to the applicability of a disclosure principle, the practitioner typically considers the principles underlying the disclosure to ensure that potentially relevant and significant information be made available to the intended users.

The general principle underlying IFRS disclosure requirements is provided in IFRS 4.1(b) that requires "... disclosure that identifies and explains the amounts in an insurer's financial statements arising from insurance contracts and helps users of those financial statements understand the amount, timing and uncertainty of future cash flows from insurance contracts."

In addition, IAS 1.17(c) requires that a reporting entity "... provide additional disclosures when compliance with the specific requirements in IFRSs is insufficient to enable users to understand the impact of particular transactions, other events and conditions on the entity's financial position and financial performance."

Disclosure may describe certain technical details of methodology or assumptions used that are too complicated for the user not familiar with insurance. Nevertheless, complexity by itself is not a sufficient reason to omit information (IASB *Framework*, paragraph 25). If necessary, users are expected to make use of external expertise to enable them to understand the information. However, this does not imply that efforts to simplify the language used are not worthwhile.

Although Implementation Guidance in an IFRS is not binding (IAS 8.9), IFRS 4, IG11–71, may be useful in providing guidance for specific application of the principles included in IFRS 4.36–4.39A (IFRS 4, IG12). Full compliance with the principles in IFRS is required, although discretion is allowed in the way the information is presented.

Policies in respect of disclosure that were established prior to adoption of IFRS may continue unchanged if they are found to be consistent with the disclosure requirements as outlined in IFRS 4 and IFRS 7. However, policies for disclosure established before adoption of IFRS 4 might be subject to an in depth review when applying the specific disclosure guidance in IFRS 4.

4.2 Aggregation and materiality

The unavoidable need for aggregation of information represents a major challenge in providing meaningful disclosures in the insurance business. Considering the wide range of contracts and contract features offered by most insurers that often vary widely by geographic jurisdiction, local law and regulation, distribution channel and target market, and generation of products that affect the liabilities, relevant contract-related information usually exceeds the volume of information that can reasonably be presented to users of financial statements. This contrasts with many other industries where simple sets or homogeneous groupings of products form the large majority of their business. Guidance provided for such forms of business may not be suitable for insurance business. However, the following excerpt from IFRS 7.B3 may be relevant:

An entity decides, in the light of its circumstances, how much detail it provides to satisfy the requirements of this IFRS, how much emphasis it places on different aspects of the requirements and how it aggregates information to display the overall picture without combining information with different characteristics. It is necessary to strike a balance between overburdening financial statements with excessive detail that may not assist users of financial statements and obscuring important information as a result of too much aggregation. For example, an entity shall not obscure important information by including it among a large amount of insignificant detail. Similarly, an entity shall not disclose information that is so aggregated that it obscures important differences between individual transactions or associated risks.

In the case of a large diversified multi-national insurance group, information concerning a specific product, contract, assumption, or measurement approach will usually not be especially useful. Hence, focus is often on qualitative risk-related information, addressing the risk management practices of the group, the assessment of macro-level risks related to its significant products, insurance liabilities and assumptions, and identification of extraordinary or material risks. Risks associated with significant uncertainty as to future cash flows are usually described in detail and provided in quantitative terms – a balance between quantitative and qualitative information is required for disclosure purposes. The level of quantitative disclosure is also a function of the reliability of the quantification. In contrast, specialised insurers, especially those operating in only one country with a limited range of products, normally provide detailed information about their risk exposures, since the relevant detail is not likely to exceed its usefulness to the user and the significant diversification effects do not reduce the relevance of individual information.

The disclosure approach should be consistent with the management approach of the specific reporting entity. For a large diversified multi-national insurance group, management might not direct and control the business on the basis of detailed product data but rather might apply general risk management tools that are used in conjunction with certain key metrics. The management of a specialized insurer would more likely have direct concern for the detailed product data. Therefore, analysing the disclosures as “through the eyes of the management” (IFRS 4, IG51(a)) provides indications about relevant information and irrelevant details.

As a consequence, setting forth a specific set of rules regarding the proper level of aggregation is quite difficult. Generally this has led to the development of accounting

disclosure standards to be structured in terms of a limited number of principles, together with a set of relevant examples that might not be appropriate in all cases. Judgment is required regarding what level of information best serves the information needs of the intended users of the entity's financial statements.

IFRS 4, IG41(a), explains:

There should be a balance between quantitative and qualitative disclosures, enabling users to understand the nature of risk exposures and their potential impact.

That balance is determined based on the individual circumstances of the individual reporting entity.

IFRS 4, IG42, continues:

In developing disclosures to satisfy paragraphs 38-39A of the IFRS, an insurer decides in the light of its circumstances how it would aggregate information to display the overall picture without combining information that has materially different characteristics, so that the information is useful. An insurer might group insurance contracts into broad classes appropriate for the nature of the information to be disclosed, taking into account matters such as the risks covered, the characteristics of the contracts and the measurement basis applied. The broad classes may correspond to classes established for legal or regulatory purposes, but the IFRS does not require this.

In situations where there are too many homogeneous classes of business to provide details by class or where the classes need to be so aggregated that potentially misleading information would result, qualitative information can be more suitable.

In addition, IFRS 8, *Operating Segments*, includes a reference for determining the proper level of aggregation. The accounting policy of the reporting entity will usually cover the basis for an entity's segment reporting. At a minimum, certain information is disclosed for those segments, but information one level below that may also be provided where warranted. IFRS 4, IG43, states:

Under IFRS 8 *Operating Segments*, the identification of reportable segments reflects the way

in which management allocates resources and assesses performance. An insurer might adopt a similar approach to identify broad classes of insurance contracts for disclosure purposes, although it might be appropriate to disaggregate disclosures down to the next level. For example, if an insurer identifies life insurance as a reportable segment for IFRS 8, it might be appropriate to report separate information about, say, life insurance, annuities in the accumulation phase and annuities in the payout phase.

It is not always appropriate to report detailed information at the segment, or even the sub-segment, level although certain data that support effective segment reporting might be provided. Segment disclosure is particularly suitable if the risk exposures vary significantly by segment. Geographical (national) criteria often are based on risk differences, because most insurance business is local, with differences arising because of various factors such as local insurance regulation, taxation, legal system (common law or civil code), usual products, and nation-specific POLICYHOLDER behaviour. Nevertheless, broad classes of insured risks may provide meaningful bases for the broad risk characteristics involved, e.g., life insurance and automobile insurance. In some cases, the most detailed information that might be provided might be sales or other current year transaction data, although certain balance sheet items also could be helpful at that level (IFRS 4, IG46). In the case of non-required disclosures, COST considerations can influence the information provided.

The implementation guidance of IFRS 4 indicates cases where a detailed description of an individual issue may be warranted, such as where there was significant uncertainty or where a contract by itself is material. (IFRS 4, IG44-45).

The usefulness of information at a given level of aggregation is assessed by judgment, considering the space, focus, and clarity needed to be meaningful to the users of the information and the degree of homogeneity of the coverages included in each category. If a particular level of detail is not useful or is potentially misleading relative to the cost of assembling the underlying detailed information, its provision may not be appropriate. In addition, too much technical information can lead to information overload. In that case, qualitative information is usually provided and unnecessary detail is eliminated.

The choice of the level of detail and aggregation often involves a compromise between the acceptable volume, considering both cost and possible utility for the user, and the importance of details to achieve the targets as outlined in IFRS 4.36-39A. Since that compromise is made in that specific case, there is no general permission to omit important detailed information. It might only be omitted if its usefulness is severely

limited because of the volume of information involved. The practitioner might provide an overview of the volume of information that could be included in the disclosures and from that provide a recommendation about suitable disclosures, including pertinent details that might be published only if the overall volume permits.

Materiality is also an important consideration in designing disclosures of information on a gross of reinsurance basis. Details that would not materially affect the conclusions reached by the intended users and, therefore, would not provide useful information to their decision-making needs, would typically not be provided. If the inclusion of such detail detracts from essential information, providing such detail would usually be counter-productive. Decisions regarding materiality generally are made by the preparer of the financial statements in accordance with the entity's accounting policy, subject to confirmation by its auditor. Due to the many disclosure-related decisions that can be affected by materiality, the practitioner makes use of the entity's accounting policy and further guidance provided by the preparer. When in doubt, the practitioner might consider contacting the entity's auditor.

4.3 Explanation of recognised amounts

4.3.1 Accounting policies (IFRS 4.37(a), IG17–18)

IFRS 4.37a requires disclosure of the reporting entity's accounting policies for insurance contracts. This relates both to continuation of existing accounting policies, as well as to changes in accounting policy that occurred during the reporting period.

Since many accounting policies in use prior to adoption of IFRS continue unchanged if they are found to be consistent with the requirements as outlined in IFRS 4, prior disclosures about the accounting policies might provide a first step in identifying disclosure needs after adopting IFRS. Unusual in the context of IFRSs, a wide variety of approaches are permitted under IFRS 4. An example is the case of contracts with discretionary participation features, in which limited measurement guidance is provided in IFRS 4 and hence multiple accounting approaches are possible. As a result, adequate disclosure regarding the approach used could be essential to assist users in understanding the reported information.

Laws and regulations may affect the development of the entity's accounting policies. Where such constraint might narrow the choices under IFRSs or extend the requirements of the IFRSs through guidance for providing further information, that would also be disclosed. In addition, any internal non-uniform accounting approaches would ordinarily be disclosed, e.g., any such approach used that varies by jurisdiction.

Specific areas where accounting policies for insurance contracts can be constrained by limitations in IFRS 4 include contract classification issues, recognition, measurement, presentation, consolidation of subsidiaries, and changes of accounting policies and accounting estimates.

4.3.1.1 Contract classification issues

Classification issues refer to decisions made regarding the categorisation of the reporting entity's insurance contracts, reinsurance contracts, investment contracts, contracts with discretionary participation features, embedded derivatives, and other contracts (including SERVICE CONTRACTS). Such categorisations usually relate to scope issues under IFRSs, but in some cases the accounting policies applied after first-time adoption for insurance contracts require further classification evaluations, e.g., for forms of new contracts initially issued after first-time adoption. Additional accounting policy disclosure might be appropriate if contract renewal issues or contract changes affect their classification, although the general rule is "once an insurance contract, always an insurance contract."

Further, the matter of unbundling could be covered broadly under "contract classification issues". If the accounting policy addresses unbundling, the disclosure of accounting policies might identify that fact. In addition, the disclosure might describe the criteria applied, the approach used to split the contract elements, the principles governing their recognition and measurement and the presentation of the components. Further, any decision made with respect to the choices given in IFRS 4.10 might be disclosed, especially whether or not the amounts reported as insurance liabilities include a DEPOSIT COMPONENT.

4.3.1.2 Discretionary participation features

IFRS 4 covers both insurance and investment contracts with discretionary participation features. Under IFRS 4, DPFs can be treated either as an element of equity or as a liability, or split between the two elements. Where relevant, an insurer would disclose how DPFs have been treated and in which balance sheet item they have been included. An insurer might also disclose if there are any differences in treatment between similar contracts with and without DPFs. For example, investment contracts with DPFs may be accounted in a manner similar to insurance contracts under IFRS 4 and their treatment would be included under the disclosure of accounting policies for insurance contracts, whereas investment contracts without DPFs would be accounted for under IAS 39. Note that the liabilities for investment contracts without DPFs are not

included with the insurance contract liabilities but rather with the liabilities for investment contracts.

4.3.1.3 Recognition

Disclosures pertaining to accounting policies on recognition of revenue, assets and liabilities include information about the recognition of insurance contracts, e.g., when the obligations are recognised in the technical cycle of the underwriting process. The same applies to recognition issues regarding DPF elements. Derecognition information might also be relevant in non-life insurance matters, or in the recognition of intangible assets, such as deferral of ACQUISITION COST or an intangible asset arising from a business combination as described in IFRS 4.31.

4.3.1.4 Measurement and presentation (IFRS 4, IG17–18)

Presentation of the treatment of issues affecting the reporting entity are described in the financial statements, e.g., regarding presentation of premiums, and any significant off-setting of positive and negative liabilities. Appendix A includes a list of applicable measurement-related items that might be considered for separate disclosure. Measurement disclosure can also address issues of any accounting policies regarding application of asset impairment or liability adequacy testing.

One aspect often addressed in a reporting entity's accounting policies is the choice of measurement approaches and objectives in the selection of measurement assumptions. These policies typically address the minimum amount of disclosure provided.

In life insurance, a variety of methods for valuing insurance liabilities are in use as allowed under IFRS 4 where recognition and measurement of insurance liabilities are based on local GAAP. Clear disclosures help users of the financial statements to compare insurers in different territories. Key features refer to prospective/retrospective approaches, approaches applying lock-in for assumptions, deferral approaches for premium loadings, choice of margins, implicit or explicit assumptions for future cost, anticipation of acquisition cost loadings in future premiums (Zillmerisation) or net premium approaches possibly combined with an explicit deferral of acquisition cost, implicit or explicit consideration of future participation rights, choice of discount rates, measurement of embedded options, how the valuation allows for risk and uncertainty, etc. Considering the possible variety of approaches and freedom to use prior accounting policies, special care is advised in describing the approaches used in determining the INSURANCE LIABILITY. It cannot generally be assumed that users of financial statements will be able to assess the

information if the disclosures simply refer to the accounting system from which the approaches originally were derived.

For general insurance claim liabilities, disclosure as to whether these liabilities are discounted for the time value of money, and if so, the approach and interest rate(s) used, may be particularly relevant. In some cases, claims liabilities are determined on the basis of an actuarial estimate of the aggregate ultimate cost. In some other cases, claims liabilities are determined on the basis of using a claim-by-claim investigation of most likely claims payment. Further, the approach to measuring unearned premium liabilities might be described, particularly if a prospective approach is applied.

One might provide supplementary information, such as embedded values or sensitivity analyses, that reflects measurement approaches not used to measure related balance sheet items. In such cases, it would be useful for the user to be provided with a description of the significant differences between the measurement approach used in the balance sheet and that of the supplementary information. In that regard, IFRS 4.39A (a) provides guidance for compliance with IFRS 7.41 as well. Such supplementary disclosures should be accompanied by an explanation of the alternative method and its objectives and limitations. It might also be accompanied by commentary on the relevance and reliability of such figures, especially if the measurement approach, and/or the recognition approach, deviates from that used for determining the insurance liability or from IFRS principles.

4.3.1.5 Consolidation

A single practitioner will usually not consider all aspects of disclosure policy; for example, actuaries typically do not often get involved in reviewing accounting policies regarding corporate consolidation. Regarding consolidations, the entity's accounting policy for consolidations will normally be disclosed if relevant and material, particularly addressing the approach taken with respect to entities within a consolidated group or under common control. In addition, this accounting policy will address the method to be applied to transactions between related parties that affects obligations to third parties and would normally be disclosed when significant, e.g., in the case of participating business.

4.3.1.6 Business Combinations

Disclosures regarding accounting policies with respect to a business combination may be important as well, especially if the entity made use of the permissions in IFRS 4.31 to develop an expanded presentation. In that case, the accounting policies both for parts of the insurance liability and for the

amortisation of any applicable intangible asset could be of interest to the users of the financial statements.

4.3.1.7 Changes in accounting policy and changes in MODELS and assumptions used in the development of accounting estimates (IAS 8.28–31, 39–40)

Changes in accounting policy, including those made upon first-time application of IFRS 4, and/or changes in accounting estimates, are subject to the general disclosure requirements of IAS 8. The practitioner highlights and brings to the attention of the intended users through disclosure any changes relative to prior periods in measurement approaches and/or assumptions, if such changes result in an accounting estimate change. Clearly, changes of accounting policies would not normally be applied by the practitioner without prior consent of the preparer of the financial statements, who is responsible for the choice of accounting policies. The practitioner might provide a suitable description of the changes in accounting policies in the notes to the financial statements and point out where relevant information might be needed.

IAS 8.39 indicates that this type of disclosure includes changes from previously used assumptions if the entity's accounting policies do not provide for such changes, such as in the case of adjusting liabilities as a result of application of a LIABILITY ADEQUACY TEST or adjusting assets as a result of an impairment test. Disclosure of accounting errors is subject to IAS 8.49.

Where an entity's accounting policy for insurance contracts follows a set of comprehensive accounting standards, such as U.S. GAAP or other national accounting systems, which has been continued under IFRS 4, the extent of any deviations from these standards are disclosed, not only in the year of change but also for other reporting periods presented in the financial statements.

The disclosure of a change such as first-time application of IFRS 4 is also made. This disclosure may include a description of the reason the change was made (for additional guidance on relevance of accounting changes see IAN 8, *Changes in Accounting Policies under IFRS*).

4.3.2 Disclosure of amounts reported (IFRS 4.37(b), IG19–30)

Appendix A lists certain financial statement elements common to insurers. The amounts and methods of these elements would commonly be disclosed in insurers' financial statements. Some of these items are discussed below.

To comply with IFRS 4.37(b), an insurer discloses all items resulting from insurance contracts separately from other business. This can be done directly in the balance sheet, income statement, or cash flow statement, or alternatively in the notes to the financial statements. Aggregations do not combine insurance contracts and contracts classified as non-insurance contracts, regardless of whether they are investment contracts with or without discretionary participation features or service contracts. However, the third sentence of IFRS 4, B25, points out that it is not necessary to separate out a relatively small number of non-DERIVATIVE investment contracts; in this case, the entire group of contracts can be considered to consist only of insurance contracts and all are therefore subject to IFRS 4.

Other than for segment reporting, disclosure is generally provided at the level of the entire business of the reporting entity. Separate disclosure is required for insurance contracts and related ceded reinsurance, i.e., amounts are not presented net of reinsurance. IFRS 4, IG20, indicates that IAS 1 requires certain minimum disclosures on the face of the balance sheet. To satisfy those needs, the following amounts may need to be presented separately: “(a) liabilities under insurance contracts and reinsurance contracts issued, (b) assets under insurance contracts and reinsurance contracts issued, (c) assets under reinsurance ceded. Under IFRS 4.14(d) (i), these assets are not offset against the related insurance liabilities.”

IFRS 4, IG22, indicates that IAS 1 also requires certain items to be disclosed either on the face of the balance sheet or in the notes. The appropriate items to be disclosed will depend upon the entity’s operations,

... but might include items such as

- (a) unearned premiums.
- (b) claims reported by policyholders.
- (c) claims incurred but not reported (IBNR).
- (d) provisions arising from liability adequacy tests.
- (e) provisions for future non-participating benefits.
- (f) liabilities or components of equity or components of equity relating to discretionary participating features. (...)
- (g) receivables and payables related to insurance contracts. (...)
- (h) non-insurance assets acquired by exercising rights to recoveries.

IFRS 4, IG24 indicates that IAS 1 lists minimum line items that an entity should present on the face of its income statement. IAS 1 also requires the

presentation of additional line items when this is necessary to present fairly the entity's financial performance. IFRS 4, IG 22 goes on to say that

An insurer might conclude that, to satisfy these requirements, it needs to disclose the following amounts in its statement of comprehensive income:

- (a) revenue from insurance contracts issued (without any reduction for reinsurance held);
- (b) income from contracts with reinsurers;
- (c) expense for policyholder claims and benefits (without any reduction for reinsurance held);
and
- (d) expenses arising from reinsurance held.

Gains and losses from the purchase of reinsurance are separately disclosed (IFRS 4.37(b)). If the entity's accounting policies require a deferral of such gains and losses in a manner not in compliance with the measurement of the ceded liability, the deferred amount and its amortisation are also to be disclosed. To the extent that it can be demonstrated that amounts paid by the REINSURER are recoveries of acquisition cost related to the ceded portion of the business, depending on local GAAP used, if any, these amounts may be disclosed as related to acquisition cost, rather than as gains or loss.

In case of non-uniform accounting policies, it might be appropriate to report such amounts separately for each accounting contract type if those differences have a material effect on the resulting amounts.

In some cases, insurers have developed detailed guidance regarding sources of earnings or embedded values. Such information might contribute to the understandability of the financial condition or effectiveness of the entity's operations. However, if such information, e.g. to comply with sensitivity information requirements, is presented within the financial statements it would be made clear that the information is not required by IFRS, and additional information about such values might be appropriate, as described in 4.3.1.3.

Appendix A provides further guidance concerning details that may be disclosed regarding specific issues.

IAS1.51-52 require disclosure of the current/ non-current split of liabilities, and the disclosure of amounts in each asset and liability line item that are expected to be settled before and after the twelve-month period following the balance sheet date, respectively. In this respect, for long-term insurance contracts, insurers may define the current/ non-current split and expected settlement period based on expected cash flows underlying the insurance

liabilities or alternatively based on the stated maturity dates of the insurance contracts.

4.3.3 Process used to determine assumptions (IFRS 4.37(c), IG31–33, BC211–213)

Disclosures are provided about the significant assumptions used to determine amounts referred to in 4.3.2 to the extent that they have a material effect on those amounts reported. In addition to disclosures indicated by a reporting entity's accounting policies regarding its choice of assumptions, further information can be provided regarding the approaches taken to determine those assumptions.

IAS 1.16 requires disclosure of critical accounting estimates and assumptions. For insurers, these critical accounting estimates and assumptions might include assumptions used in measuring the insurance liabilities.

The ability to quantify assumptions to provide meaningful information to intended users may be limited by the fact that assumptions are chosen based on a complicated set of characteristics of a wide variety of contracts, like age (mortality) or remaining duration of cash flows (discount rates that differ by duration and, depending upon the accounting policy, are possibly dependent upon when the contract was issued). The presentation of relevant and useful multidimensional tables of assumptions might be difficult to convey in printed financial statements. An alternative to providing a rigorous set of detailed and quantified assumptions is to provide carefully prepared information regarding the process used to develop the assumptions. That might be particularly useful in the case of large diversified multi-national insurance groups, since in such circumstances individual assumptions might only rarely have a material effect on the amounts reported. In some cases, assumptions may be based on widely used and available industry experience data, in which case reference to such data is appropriate.

In describing such processes, disclosure of some or all of the following types of information may be appropriate:

1. a user-friendly description of the assumptions and the need for, or application of, the assumptions, including characteristics of the most significant classes of contracts or classes of insurance liabilities for which the assumptions are used;
2. the characteristics of the assumptions, such as whether the practitioner's measurement objective is to achieve a CURRENT ESTIMATE without risk margins, expected values or risk-adjusted measures, the latter reflecting the currently expected risk-averseness of market participants, protection of

creditors, avoidance of insolvency, or intended levels of security or prudence;

3. the sources of data used as a basis for the assumptions, derived from sources such as historical experience of the portfolio of identical or similar contracts or liabilities, portfolios historically acquired based on comparable risk selection approaches and assumed to contain the same risk exposure, industry-wide data from industry or professional associations, or observed market data including costs of capital or coverage prices;
4. the timing of data analysis and the trigger for reviewing assumptions if not made on the regular schedule;
5. the approaches used to validate the assumptions, e.g., with observed market data, published industry studies, or entity-specific historical experience;
6. reasons for deviating from historical data from the same or similar contracts;
7. approaches to consider and reflect interdependencies between assumptions;
8. assumptions regarding allocations or adjustments of premiums or BENEFITS under participation or premium adjustment clauses and the basis of choosing such assumptions;
9. approaches taken to updating previously used assumptions; and
10. a description of the level of uncertainty involved in estimating the assumptions and methods of risk management used and available to manage the associated uncertainty and risk.

4.3.4 Effect of changes in assumptions (IFRS 4.37(d), IG34–36)

IFRS 4.37(d) requires that the effect of changes in assumptions be disclosed if the changes are material to the financial statements. Such changes in assumptions include those that are normally locked-in at issue unless the corresponding asset is impaired or liability is not expected to be adequate, as well those regularly reviewed or based on current circumstances at each reporting date. Disclosure of the process used to estimate assumptions underlying an accounting estimate comply with the part of IAS 1 that refers to the selection of measurement approaches used to estimate the assumptions. Hence, changes in processes used to develop significant assumptions would ordinarily be disclosed.

Assumptions that are not normally locked-in (except in the case of an adverse liability adequacy test result) are usually monitored to determine whether they should be changed (such as when a current estimate of the assumption would be materially different from the prior estimate). This materiality is assessed not only with respect to the current balance sheet but can also extend to the expected effect of the change on future financial statements. For example, even though the current liability does not change materially, changes in certain assumptions, especially when various amounts are matched, can significantly affect future financial statements, as a result of altered future cash flows.

If an adjustment of liabilities or assets required by a liability adequacy test is determined by taking the difference between the carrying amount and the minimally required amount according to the test, the assumptions underlying the liability adequacy test are considered to be the new assumptions (unless the accounting policy requires that the difference be established as a separate liability and that the old assumptions continue to be locked-in for future measurement, e.g., so the additional liability can be reduced later, but not below the original amount).

The effects of such changes are normally disclosed separately, even if their effects offset each other, e.g., a simultaneous change in expense and mortality assumptions, and in estimates of gross and corresponding ceded reinsurance basis. If a locked-in approach is used, in exceptional circumstances several assumptions may be changed simultaneously with limited net effect; in such cases, the effect might be disclosed on a combined basis.

In an approach in which current estimates are used, it may be helpful to the intended users if not only the overall effect of changing assumptions is disclosed, but also an analysis of the effect of the individual changes is made. If the interdependence of assumptions in measuring the item does not permit the individual effects to be determined precisely or if the effect of each individual change is not meaningful to users of financial statements, that would also be disclosed. Materiality in many cases would be determined based on the effect of the change of an individual assumption.

4.3.5 Reconciliation of changes in items (IFRS 4.37(e), IG37–40, BC214)

The movement (change from one reporting period to the next) of different INSURANCE LIABILITIES, insurance assets and related intangible assets often reflects the effect of different events in an aggregated manner, including the effect of new business of the reporting period. Certain users may be most interested in information regarding the amount of new insurance written or the associated assets or liabilities recorded during the reporting period. In those

cases, changes in the liability for prior existing business may constitute additional useful information. A basic movement schedule for these items for the period reported may be useful. The following cases may need to be distinguished, depending on the products subject to disclosure:

1. establishment of new contracts, causing potentially new types of cash flows;
2. a new cohort of claims; and
3. acquisition of further rights or obligations in exercising rights under an existing contract.

4.3.5.1 New business

The disclosure of the effect of new business on the balance sheet and income statement may be used to isolate the effect of current management or current sales efforts. Here, new business may include new contracts with existing policyholders, as well as transfers of previously existing contracts from other insurers.

In some cases, the initially recognised amount for existing contracts can change character during the reporting period. For example, what is initially an insurance asset may have become an insurance liability by the reporting date, e.g., a Zillmer asset for life/health insurance, and a contract that under current accounting policy can have a negative liability due to a decreasing life insurance benefit or an increasing premium schedule. When this occurs, it may be desirable to include a discussion of the changed nature of the item in question, including sufficient detail to make the change understandable to the user of the information. Because in many such cases both the insurance asset at the beginning of the period and the insurance liability at the end of the period will be relatively small, it may be more important to disclose the accounting policy in this regard and to disclose initially recognised insurance assets from new business.

4.3.5.2 New claims

For general insurance claim liabilities, it may be desirable to disclose separately the incurred amounts arising from newly incurred claims, and incurred amounts arising from changes in the estimates for previously incurred claims, if such data is available.

4.3.5.3 Acquisition of further rights or obligations under an existing contract

This category of disclosure is relevant for asset accumulation products or traditional insurance contracts with savings components, including the receipt of renewal premiums in the case of universal life insurance or flexible premium annuities. Two types of additional premiums can be distinguished: (1) those previously considered in the measurement of the insurance liability or insurance asset and (2) those not so considered. The amount of additional premiums of the second type could be aggregated into the amount reported for new contracts. In this case, all other amounts would be disclosed as renewal premiums under existing contracts.

If all premiums received are categorised into those that are reflected in revenue (e.g., insurance contracts) and those directly incorporated into insurance assets or liabilities (e.g., through deposit accounting), the total amount of premiums can be used as the amount disclosed.

The disclosure might also include that part of the premium that was included in the movement of the insurance asset or liability over the reporting period. In some existing accounting policies, the premium or part thereof is treated as a net amount that increases the insurance asset or liability at the end of the reporting period, with charges for expenses of the reporting period (for risk and cost) deducted from the premium; while in other existing accounting policies the entire premium is added to the insurance asset or liability, with the charges (for risk and cost) released directly from the liability immediately or at a later time. The portion of the premiums used to amortise intangible assets would not be included in the amount reported as the change in the liability but rather would relate to the movements of the intangible asset.

4.3.5.4 Deferred acquisition costs (DAC)

A reconciliation of the movement of any outstanding DAC balance is usually required. In most cases, it is useful to provide a basic movement schedule that would include beginning balance, new capitalised expenses, interest earned on the balance where relevant, amortisation, any retrospective adjustments, closing balance, and other effects such as mortality considerations.

4.3.5.5 Other possible disclosure items

Further detailed information may enhance the understanding of reported amounts regarding the amounts reported in profit or loss, amounts related to transferred or acquired portfolios, and currency effects.

Although presentation of the sources of earnings may be desirable, in many cases the values for certain contract types are not amenable to such a calculation or sources of needed data are not currently available from an entity's valuation system. Nevertheless, for disclosure purposes estimates of such information may be acceptable. When such a presentation is provided, it can take several forms. Note that certain embedded value analyses provide similar information. A presentation of the source of earnings would typically include information regarding the level of emerged margins, margins released, variances due to differences in actual versus expected experience in the current period, new business (or current exposure year, in the case of general insurance) profitability, and the effect of assumption changes. Practitioners may consider presenting the sources of earnings separately for liabilities measured on different bases, for example distinguishing between liabilities valued prospectively versus those valued retrospectively.

Movement in liabilities for insurance contracts would typically include the movement of each type of liability in, where relevant:

1. additions to the item by premiums;
2. additions to the item by deferral of any acquisition cost;
3. additions to the item as a result of INSURED EVENTS;
4. deductions from item as a result of insured events;
5. increases of item by unwinding of discount;
6. deductions from item by withdrawal of deposits;
7. deductions from item for risk release;
8. deductions from item for release of administrative needs;
9. decreases of item by amortisation;
10. movements caused by regular changes in assumptions; and
11. movements caused by an extraordinary change in assumptions, e.g., through the application of a liability adequacy test.

The determination of which additional details to disclose will be a function of the major risk drivers needed to evaluate the financial statements, with a focus on those actually used by the reporting entity's management.

4.4. Nature and extent of risks arising from insurance contracts (IFRS 4.38–4.39A, IG41–71, BC215–223)

The disclosure with respect to the nature and extent of risks arising from insurance contracts can be broadly distinguished by information concerning the following:

1. explanation of objectives, policies, processes for managing risks and methods used for risk management;
2. drivers of risks from insurance contracts;
3. specific information about insurance risk regarding sensitivity, risk concentrations, and claims development;
4. credit risk, liquidity risk and market risk inherent in insurance contracts; and
5. market risk inherent in embedded derivatives not reported at fair value through profit or loss.

Care is usually needed so that the insurer selects an appropriate level of aggregation when disclosing risk. For example, the risks of an annuity product and a term life product may offset when looking at a sensitivity result due to a change in mortality across all ages; however, it might be more useful to users of the financial statements to disclose these sensitivity results separately.

4.4.1 Explanation of objectives, policies, processes and methods for managing risks and methods used for risk management (IFRS 4.39(a), IG48)

Risk management techniques used by insurers can take many forms. They include approaches to equalise or spread risk over time and over a portfolio (e.g., through pooling), risk selection, contract wording and features including definition and limitations of coverage, ceded reinsurance, deductibles and co-pays, and retransfer of risk to policyholders through the use of performance linkage such as through participating contract PROVISIONS including discretionary participation features or other non-GUARANTEED ELEMENTS, such as premium adjustment clauses. FINANCIAL RISKS can be mitigated through hedging in capital markets, excess interest provisions, partial retransfer, or asset-liability matching strategies. In some cases, risk-reducing methods such as conservative pricing combined with participation or premium adjustment clauses are used. Another possible part of the risk management process is risk funding, which can include contingent debt offerings and surplus notes. In addition, insurers can apply risk management approaches to normal financial and operational risks in a manner similar to another entity.

The techniques applied by the insurer and any limitations to their effectiveness are described. Limitations can include the lack of independence of risks, the size of the risk pools involved or the amounts of risk retained, and the level of GUARANTEES provided. For this purpose, portfolios of different subsidiaries within a consolidated group can be viewed together if the legal and regulatory structure allows effective risk equalisation within the group where exposures in different subsidiaries are pooled such that the risk is shared. In some cases, such factors as participation rules limit the effect of equalisation to the legal entity if not overcome by intra-group reinsurance or other transfer techniques. Such effects are also described if they are material in order to avoid improper impressions being taken by intended users.

Risk selection strategy or approaches used might be disclosed, particularly those used to manage concentration risks, cumulative risks, and customer basis selection. In less diversified entities, information about specific coverages provided might be appropriate. In the case of large diversified entities, the approaches used to monitor and organise risk management and measure performance might be disclosed. Also, this might be linked to the entity's overall business and product strategy.

The overall reinsurance strategy might be described if material. This may include disclosure of retention limits, and any material individual reinsurance treaty, including inherent potential ceded reinsurance counterparty risks and the approach used to monitor these risks. In the case of extreme cumulative risks, especially risks of changes in risk exposure under contracts with significant long-term guarantees, approaches to cope with those risks by retransfer features like premium adjustment or participation clauses may be described if material.

If market risks are hedged, the approach, affected amounts and hedge effectiveness might be disclosed, e.g., in the case of a unit-linked business where the insurer holds the related units, liabilities and related assets might be disclosed separately, as might hedged minimum guarantees provided.

In some cases, the potential effect of policyholders' OPTIONS is limited by contract features that allow the insurer to protect itself against adverse selection. These can include adjustment clauses for surrender values or rights to adjust participating bonuses. Such measures are explained if they can have a material effect upon the risks borne.

In any case, disclosures can provide information relating to how the insurer monitors the retained risk after all mitigating effects, such as risk monitoring, product design, and underwriting. For example, the insurer could disclose information about the models, valuation techniques and metrics used for risk

monitoring and reporting, the sensitivity analyses that are monitored, and/or any use of stress testing or scenario testing.

Further sources of capital that may be available when necessary might be described where appropriate and relevant, including special regulatory rules that can be used to reduce the chance of insolvency without materially affecting the equity of the insurer. The protection of policyholder rights by external sources, such as government or other guarantee fund, are described if relevant.

The major relevant contractual features used to reduce risk exposure by retransferring risks, such as premium adjustment or participation clauses, are explained. In addition, instances where the insurer decides to pay discretionary benefits due to competitive market reasons or reduce non-guaranteed element payments would be discussed.

If the insurer does not have in place any risk management techniques to manage a specific risk that has been identified, it would be useful to disclose this fact.

4.4.2 Specific information about insurance risk regarding sensitivity, risk concentrations, and claims development (IFRS 4.39(c), 4.39A, IG51–61, BC217–222)

The information disclosures discussed below are required to be made both before and after risk mitigation by reinsurance. The non-binding guidance in IFRS 4, IG51 also suggests possible discussion of “other risk mitigating elements, such as catastrophe bonds issued or policyholder participation features”. IFRS 4, IG51b suggests that such disclosures both gross and net of reinsurance, or other risk mitigating elements, may be particularly useful “if the insurer expects a significant change in the nature or extent of its reinsurance programme or if an analysis before reinsurance is relevant for an analysis of the credit risk arising from reinsurance held.”

For insurance contracts, IFRS 4 requires disclosure of either: the sensitivity of profit or loss and equity to insurance risk variables that have a material effect on them, or qualitative information about sensitivity including the timing and uncertainty of the insurer’s future cash flows.

IFRS 4 also requires disclosures about insurance risk concentration and claims development.

IFRS 4.39(d) requires disclosure of credit risk, liquidity risk and market risk based on the guidance in IFRS 7.31-42. While these risks are not considered

part of insurance risk, it may be desirable to incorporate these risks into the insurance risk disclosures where significant overlap in the disclosures might otherwise exist. However, care would be applied to ensure that the insurance risk is adequately disclosed, rather than only the financial risks.

Information in general may be provided on a portfolio level, reflecting portfolio effects. Attention may be given to the effect of rapidly growing entities or those in run-off.

Regarding the consistency of internal risk monitoring and external disclosure, the starting point might be risk monitoring approaches as described in IFRS 4.4.1, and the outcome of these approaches might be used to comply with IFRS 4.39(c) requirements, seeing the business through management's viewpoint. In particular, the remaining risk after all mitigation approaches are used may be described. To the extent that quantitative information is provided, similar information regarding the effect of risk mitigation techniques may be provided.

This insurance risk description is categorised according to the major forms of insurance risk. Two-dimensional matrix explanations might be considered. A multi-national entity might accumulate information based on the nature of insurance risk for each of its major countries, while entities providing specialised coverages might be segmented for more effective disclosure. Any expected significant changes in the amount, type, or extent of these risks would normally be disclosed.

4.4.2.1 Sensitivity analysis

(IFRS 4.39(c) (i), 4.39A, IG52–54A, and IFRS 7.41, BC218-219)

As mentioned earlier, IFRS 4 requires disclosure of either the sensitivity of profit or loss and equity to insurance risk variables that have a material effect on them, or qualitative information about sensitivity including the timing and uncertainty of the insurer's future cash flows. IFRS 4 requires this disclosure, even if reported amounts are consistent with observed market data.

Sensitivity analyses are of most use when they can provide relevant information to the intended users of financial information regarding which key indicators or drivers are used to monitor the risks incurred. For example, if a liability is disclosed as being highly sensitive to longevity risks, then users of that information can understand better the effect of, and monitor, relevant population longevity to anticipate future liability values that, in turn, would affect income. Sensitivity analyses are least useful when the relationships shown are not reliable or when the variable is not likely to vary in the near future.

A potential lack of reliability can have many causes, such as an inability to project or monitor the key drivers reliably, a lack of understanding of the interaction of the drivers with other relevant variables, or unstable relationships or correlations. Sensitivity analyses are also more valuable when a limited number of key drivers can be easily monitored. They are least valuable when the number of key drivers is so diverse and broad that the effect of any one driver is either immaterial or unknown. The practitioner may want first to determine the reliability and information content of a sensitivity analysis before determining how, or whether, to develop a sensitivity disclosure.

In summary, considerations in the decision of whether to use a quantitative or qualitative sensitivity disclosure may include:

- the number of assumptions or key drivers affecting the insurance risk;
- the reliability and quantifiability of the relationships between these key drivers and earnings/equity; and
- the extent to which these key drivers may be observable by those outside the reporting entity.

For example, disclosure of profit/loss sensitivity to longevity or to market interest rates may be very valuable where such sensitivity is material and reliably measurable. However, if the sensitivity was not reliably measurable, or if the sensitivity was not observable by those outside the reporting entity, such quantitative disclosure would likely be less useful (and hence a qualitative disclosure may be more useful). Similarly, if the insurance risk is driven by a small number of factors or assumptions, then a quantitative sensitivity analysis may be more useful than if the insurance risk is driven by dozens of assumptions, with no single assumption or group of assumptions predominating.

4.4.2.1.1 Types of quantitative sensitivity analysis

The quantitative sensitivity analysis option of IFRS 4.39A would show how profit or loss and equity would have been affected had reasonably possible changes in relevant risk variables occurred at the balance sheet date.

There are several possible ways of implementing this required disclosure. In some cases, practitioners may choose to value the in force data at the previous balance sheet date to determine the difference in the cash flows that arise over the reporting period. In some other cases, practitioners may

project a base case profit or loss over the coming reporting period and disclose how that base case profit or loss changes with changes in the relevant risk variables.

This option also requires disclosure of the methods and assumptions used in preparing the sensitivity analysis. For example, this could include whether:

1. each relevant risk variable was stressed in isolation or whether any interdependencies between variables were considered;
2. any management action (e.g. changes to crediting rates; participations) was considered in the sensitivity scenarios;
3. any offsetting effects within the levels of aggregation were included (e.g. if life insurance and annuities were presented together or if the measurement combines offsetting effects of policyholders' behaviour);
4. the change in the risk variable affected the projected experience in the period only or resulted in a change to the projected liability measurement basis; and
5. the sensitivity analysis results reflect any accounting mismatch inherent in the IFRS measurement, for example, that arising from treasury shares that cannot be recognised as an asset held in funds backing unit-linked liabilities.

It might be helpful to disclose whether any correlations exist between the risk variables, even if these were not relevant to the sensitivity analysis methods used, because they may be relevant to understanding the results.

Any changes in the methods and assumptions used from the previous period might be suitable to be disclosed considering the requirements in IFRS 4.39A (a).

To develop the required sensitivity analysis disclosure, the practitioner might consider pre-existing standardised analyses that may be relevant to the reporting context. Such a standardised analysis might come from such sources as insurance supervisors or securities regulators. Where such standardised analysis might produce misleading results in the case of the reporting entity, due to either overestimating or underestimating the perceived extent of risk and reliability of reported results, this would be disclosed.

IFRS 4.39A allows the use of an alternative sensitivity analysis to be disclosed (instead of a sensitivity to profit or loss and equity) if this method is used to manage sensitivity to market conditions. Examples of alternative methods include embedded value analysis or economic capital models.

However, care should be taken, since some alternative methods might not reflect the sensitivity to insurance risk, if they have been designed to manage sensitivity to market conditions. In such case, they would not be suitable for compliance with the requirements of IFRS 4.39A (a). If an alternative sensitivity analysis disclosure is used to meet the disclosure requirement in IFRS, the following disclosures from IFRS 7.41 are also required:

- an explanation of the method used in preparing such a sensitivity analysis, and of the main parameters and assumptions underlying the data provided; and
- an explanation of the objective of the method used and of its limitations that may result in the information not fully reflecting the fair value of the assets and liabilities involved.

If an alternative sensitivity analysis was used, it would be helpful if the relationship between the alternative measure and IFRS profit or loss and equity were explained or reconciled.

4.4.2.1.2 Sensitivity to assumptions for insurance risk

Possible aspects of disclosure of exposure to risk via quantitative sensitivity analysis include sensitivity to the risk of random deviation (especially when the existing portfolio of homogeneous contracts is small relative to the risk per contract), to extreme events (to the extent not covered by concentration disclosures — see 4.4.3.2), to cyclical external environment risks, to the risk that inappropriate models and/or improper parameters have been used, and to volatility resulting from changes in circumstances.

The sensitivities disclosed generally would be those most material and meaningful for those trying to understand the risk inherent in future cash flows. Examples of these may include sensitivities to mortality, morbidity, persistency, expense, and inflation. For these disclosures to be meaningful, care should be taken that the relationship disclosed is reliable and the key drivers of the sensitivity are subject to monitoring and regular updated when appropriate. If the list of material risk drivers for sensitivity disclosure is too large, or no single risk driver is material by itself, then another form of risk disclosure may be more appropriate than a sensitivity disclosure on a single assumption level.

Sensitivity information can identify other major risks included in another disclosure section in order to avoid misleading the user of the information. The financial statements may also provide a context for the disclosure, so

the reader will know which risks the reporting entity believes to be most important for the business segment being addressed. Otherwise, the user may misinterpret the disclosure, placing too great an emphasis on a significant sensitivity to an unlikely event and missing a material sensitivity to an event with much higher probability.

4.4.2.1.3 Representation of non-linearities

There are two types of non-linearities, the continuous type and the threshold type. For continuous-type non-linearities, disclosure might convey the change in sensitivity as the independent variable changes. For threshold-type non-linearities (discontinuities), the disclosure might convey the point at which the threshold is reached such that there is a significant impact upon the performance metrics and the extent of judgment used. These disclosures should be designed with the intended users in mind. Disclosures that are too technical or complex may limit their own usefulness, while those that are too broad may convey insufficient information. The degree of summarisation required for aggregate-level disclosures may also affect the amount of disclosure detail that is desirable.

4.4.2.1.4 Correlation between key variables

Disclosure may include discussion of correlations between the variables involved in the sensitivity testing. For example, in the case of deferred annuities with guaranteed annuitisation rates, it may be misleading to disclose the sensitivity to a sharp increase in longevity when discussing insurance risk and the sensitivity to a sharp increase in lapse rates when discussing policyholder behaviour risk, without pointing out that the two scenarios are unlikely to coexist. Similarly, if a movement in one variable were likely to lead to a certain movement in another key variable, then the disclosure would reflect some allowance for such correlation.

4.4.2.1.5 Qualitative information about sensitivity

As an alternative to the quantitative sensitivity disclosure discussed in sections 4.4.2.1.1 to 4.4.2.1.4 above, IFRS 4.39A allows the insurer to disclose “qualitative information about sensitivity, and information about those terms and conditions of insurance contracts that have a material effect on the amount, timing and uncertainty of the insurer’s future cash flows.”

A primary objective of this disclosure is to explain the types of material insurance risks that are inherent in the entity’s portfolios. These may

include, but are not restricted to, underwriting risks (mortality, morbidity, longevity, persistency), various types of catastrophe risks (e.g., potential risk associated with a non-cyclical extreme event of very small probability such as a pandemic event), risk of a significant change in risk exposure such as coverages based on human longevity, judicial interpretations or societal changes that may affect items such as claim liabilities for non-life liability coverages, or societal changes in behaviour such as a decreased societal tolerance for drunk driving leading to a change in both frequency and severity of losses. Even normal volatility and random deviations could be described if relevant. Discontinuities of risk may be of interest to users. For instance if up to a certain level risks were to be borne by policyholders, while larger risks were to be transferred to the insurer. Desirable qualitative sensitivity disclosure might include a description of the type and nature of risks covered, with a focus on the uncertain nature of those risks, and the major drivers of the insurance risk/uncertainty faced by the reporting entity.

A brief summary description of the major characteristics of the insurance liabilities and insurance risk in the portfolio may also be helpful. For non-life insurance, this may include a description of the coverages and contracts generating the claim liabilities that are subject to material uncertainty. For life insurance, this may include discussion of the benefits payable on death or surrender, significant contract guarantees (such as a guaranteed crediting rate or minimum death or withdrawal benefits), guaranteed insurability options and a description of any significant optionality on the part of the policyholder, or management actions that can be taken by the insurer.

If the entity's ceded reinsurance contracts are also affected by the same risk variables, it would be useful to disclose their effect on the insurer's cash flows in conjunction with the effect of the direct or assumed insurance contracts.

Information about the nature of participation features, premium adjustment clauses, experience refunds, any non-guaranteed features or any discretion on the part of the insurer may also be disclosed, as well as information about the terms of any obligation or contingent obligation to contribute to government or other guarantee funds.

The effect of regulatory constraints or likely actions affecting the risk position of an insurer's equity can be described. This refers to regulatory or industry insolvency protection measures, as well as to regulatory limitations on using a reporting entity's resources, such as restricted access to investments covering insurance contracts.

4.4.2.1.6 Information about changes in expected exposure to risks existing at the end of the reporting period

IFRS 4, IG 51(e), states, “If an insurer’s risk exposures at the reporting period are unrepresentative of its exposures during the period, it might be useful to disclose that fact.” Information on the exposure to those risks that resulted in the cash flows reported and knowledge about those risks is useful to the understanding of the financial statements. Such disclosure may also include a discussion of the cause of such change, and whether such a difference in risk exposure at the end of a reporting period versus during the reporting period is typical.

4.4.2.2 Concentration of insurance risk (IFRS 4.39(c) (ii), IG55–58)

There are several possible approaches to disclosing material concentrations of insurance risk. These include

1. historical results from extreme events;
2. concentrations with regard to income statement or balance sheet accounts by such factors as product, jurisdiction, and market; and
3. scenario analysis.

Each of these approaches has advantages and disadvantages in different situations. The use of more than one of these approaches might provide more useful information than a single approach. In addition, diverse approaches may be more appropriate for use for different risks due to factors such as information availability or the newness or uniqueness of an exposure. While difficult in some circumstances, the objective would be to provide clear, relevant, and consistent information as disclosure in the financial statements.

4.4.2.2.1 Historical results of extreme events (IFRS 4, IG57)

One approach for disclosing the risk due to concentration of insurance risk is to disclose historical experience arising from such concentrations. An example might be the disclosure of historic losses due to large catastrophes. An advantage of such a disclosure is that it is generally factual, with minimal reliance on judgment, and may be capable of being transparent to the users of the information. A disadvantage is that such historical results may prove to be misleading if the underlying exposure to the extreme event has changed since the past occurrence, or the environment has changed such that the same event would have a much different financial impact, such as a change in the legal environment that would materially alter the company's losses given a similar event in a current period.

The method of reporting historical results from extreme events might not be advisable if the preparer of the financial statements believes that it would be misleading. Nevertheless, if a regulatory authority, supervisory authority, or statute requires such disclosure, then the disclosure might include discussion of its potentially misleading nature.

4.4.2.2.2 Distribution of income statement or balance sheet accounts

In some cases, a simple breakdown of the distribution of relevant balance sheet or income statement items by coverage, market, jurisdiction, or similar measure may suffice. This type of disclosure is especially valuable in respect of potential future extreme events that are not yet reflected in either historical results or modelled scenarios. As such, it is potentially more open-ended than the other approaches.

Examples of such disclosures that might be used include the breakdown of insurance premiums by product, geographic region or the distribution of liabilities by market (such as commercial versus personal non-life customers).

4.4.2.2.3 Scenario analysis — deterministic approach and stochastic approach

The two major approaches to derive the maximum exposure under the scenario analysis method are the deterministic approach and the stochastic approach.

The deterministic approach estimates the amount of aggregated losses under one or more alternative event scenarios, sometimes representing

extreme events to permit stress-testing of the liabilities. These deterministic scenarios can be based on actual historic events or on hypothetical worst-case scenarios developed by either the practitioner or an outside body (such as an insurance supervisor). The focus of the resulting sensitivity disclosure is the ability to withstand the given scenario or scenarios, and not necessarily the probability of the occurrence of the given scenario(s).

The stochastic approach uses a probability distribution, or a set of multiple scenarios with probabilities assigned to each scenario by risk category (e.g., earthquake, hurricane, terrorism, or market crash) to simulate the range of losses from such events.

1. Estimation of the Probability Distribution — Two major methods for estimating the probability distribution are the engineering method and analytical method. The engineering method is commonly based on a Monte Carlo simulation approach using, for example, seismological or meteorological assumptions, while the analytical method is based on technical fitting of historical event data to an *a priori* distribution, such as Log Normal, Pareto, etc. Historical occurrence data would be adjusted to the current price level.
2. Probable Maximum Loss (PML) — The Probable Maximum Loss approach attempts to convey the sensitivity to the worst “probable” event over some time period, rather than the worst “possible” event. This concept recognises that the worst possible loss event may be so unlikely as to be irrelevant to the users of the financial statements. The worst probable event, or PML, may be based on some “return time” expectation. For example, the PML may be set based on a “1 in 100 year” return period. Alternatively, the PML may be set as that occurring from a specific scenario labelled as a PML event. Such a specific scenario may be based on an actual historic event, or based on a hypothetical scenario. Where based on an actual historic event, the assumption is that the probable maximum loss is included in the identified history. Such an approach may not be relevant for new markets or new products.
3. Alternatives to PML — There are several alternatives to the use of PML incorporating a stochastic approach. These risk measures include those generated from Value at Risk and Conditional Tail Expectation approaches. Before using and describing such alternative risk or sensitivity measures, the knowledge of the users of the financial statements regarding such alternative measures would usually be considered.

4. Risk aggregation (including geographical or sectoral concentration) — When multiple risk categories are aggregated, it might be prudent to give particular consideration to correlation or dependency among them. An approach that in many cases is relatively simple to apply is the use of a correlation matrix. However, estimates included in the correlation matrix may be dominated by observations around the middle rather than the tails of the distributions. Some techniques, including copulas, may be necessary for modelling the tail dependency of such distributions.

When dealing with multiple extreme event categories or locations, the expected return time for an extreme event is less than the minimum expected return time for the extreme events individually. For example, if two events were modelled (such as a hurricane and an earthquake), each with a hundred-year return time, the return time for experiencing any one of the two would be expected to be less than one hundred years.

4.4.2.3 Claims development (IFRS 4.39(c) (iii), IG59–60)

Claims development for non-life insurance, or other contracts with usual settlement durations longer than a year, is typically shown in the form of a “claims development triangle” for users of financial statements. These triangles separately show claims grouped by cohort, i.e., by period of time of loss, usually in annual groupings. The estimated amount for the cohort of claims is then reported at regular subsequent valuation dates, typically in annual intervals.

Various grouping approaches may be relevant and useful to the users of the financial statements. Some common groupings include:

1. accident year — year the event triggering the claim occurred;
2. report year — year the claim was first reported to the insurer;
3. policy year — year the policy became effective that the claim was made against, with regard to assumed reinsurance or a Lloyds syndicate; and
4. underwriting year — year the underwriting action was taken to write the policy that the claim was made against.

The choice of which of the above groupings to use in the disclosure may be dictated, or strongly influenced, by the requirements of a regulatory or supervisory authority. In such a case, data provided under additional groupings may be desirable, provided that this voluntary information is

considered against the increased risk of confusion from multiple categorisations and presentations of what are likely the same underlying data. The choice may also reflect the type of coverage provided, e.g., underwriting year is usually used for assumed reinsurance.

Disclosure may help to reduce confusion that might arise with regard to certain types of claim situations and their treatment in the grouping. For example, for products where there is a material risk of claims being reopened with a potentially material effect, the treatment of reopened claims in the information displayed might be discussed. Other possible examples include claims that could access multiple dates, such as latent injury situations where a single allegation can trigger coverage from multiple policies.

The values to be reported in the claim development disclosure are described by IFRS 4 as "estimated claim value[s]." This is presumed to include any incurred but not reported (IBNR) amount to the extent relevant to the grouping used. Note that IBNR is not relevant to certain groupings such as "report year." These amounts usually include at least some of the related claim expenses. If so, it may be helpful to users of the disclosure that this be clearly identified, be consistently handled throughout the disclosure, and be reconciled with other claim amounts reported in the financial statements.

Additional amounts other than just historic claim estimate development may be disclosed similarly. For example, it is often useful to include information on paid amounts by cohort or grouping at successive valuation dates in a format identical to the disclosure of claim estimate development. Other items lending themselves to such presentation may include items such as reported claim counts and counts of policies with claims reported against them.

Such claim development reporting can be displayed at various levels of detail. Regulatory or supervisory authorities may require a specified level of detail by reporting segment, product line, or REPORTING JURISDICTION (or some other level of detail). The reporting entity may decide voluntarily to add disclosures providing different levels of detail (or further breakdown of the regulator/supervisor required levels of detail). Whenever multiple levels of detail are shown, the disclosure may address possible confusion by the user over the different levels of detail, or different formats where applicable. For example, for some product lines the development may appropriately be limited to a smaller number of valuation dates. If so, the differences in their nature and the treatment applied would normally be discussed. In some cases, particularly for multi-national insurers because of widely diverse product lines, claim development reporting might be conducted at a relatively aggregated level of risk exposure.

Multiple currency effects

Where the claim data includes payments or liabilities in multiple currencies, additional disclosure may be desirable to differentiate the separate effects of insurance risk and market risk. This could take the form of identifying the effect of exchange rate fluctuation in the paid loss or incurred loss development trends. Alternatively, it could be reflected by restating the history to reflect exchange rates as of the report date (although this could add difficulties in reconciling the data to prior reports). In either case, it may be desirable for the disclosure to inform the user that multiple currencies are reflected in the data and to identify the extent of their effect.

Mergers, acquisitions and divestitures

Where available historic data reflects a different business operation than the current liabilities, as a result of mergers, acquisitions or divestitures of insurance operations, the usefulness of the historic claim development data is frequently impaired.

Two ways of addressing this issue in the presentation of claim development information are:

1. Restate the historical claim development data on a pro forma basis, as if the current business operation has always existed. For example, if a new operation was just acquired, include the acquired operation's history in the acquirer's claim development history, or if a previously owned operation was sold during the claim experience period being displayed, remove the sold operation's contribution from the historical data.
2. Only show historic development data for those operations that had been owned or operated during the entire experience period being displayed. For example, if a new operation was acquired two years ago, development data for claims arising more than two years ago would not include the experience from the new operation.

Which of these (or possible other) approaches to apply may depend on the availability and limitations of data. In particular, it is sometimes extremely difficult to obtain the necessary historical data to apply option (1) above. In contrast, in applying option (2), it is sometimes very difficult (if not problematic) to isolate the acquired operation's claim data from the previously existing operation's claim data after the acquisition. This is due to joint settlements that arise from exposures from both operations, where the portion allocable to the acquired versus previously existing operation may not be apparent or separable, as well as the merging of the management information (and claim liability estimation process) subsequent to the acquisition.

Regardless of the option chosen, it is generally critical that the cohort of claims remains constant for the entire range of development periods for the cohort shown. For example, if accident year claim history is shown at 12 month valuation intervals, and the claim valuation shown at 12 months is before the impact of an acquisition, then the valuation shown at 24 months (and later valuations) should also be before the impact of the acquisition.

4.4.3 Credit risk, liquidity risk and market risk inherent in insurance contracts

IFRS 4.39(d) requires disclosure of information about credit risk, liquidity risk and market risk of insurance contracts in line with the requirements of IFRS 7.31-42 for financial instruments. These risks can be significant for some insurance contracts, and immaterial or non-existent for other insurance contracts. While this disclosure may be the most extensive for those contracts where these risks are the most material, some disclosure would be required for all insurance contracts (even if the only disclosure is a statement that such risks are non-existent for the contracts being discussed, such as for some non-life insurance contracts).

4.4.3.1 Qualitative disclosures

For credit risk, liquidity risk and market risk, IFRS 7 requires qualitative disclosure of the exposures to risk and how they arise, objectives, policies and processes for managing the risk and the methods used to measure the risk, and any changes in the risk exposures and risk management from the previous period. The insurer should discuss these exposures with respect to any reinsurance contracts held as well.

As mentioned earlier, this disclosure could be integrated with the disclosure on insurance risk for insurance contract portfolios where both risk categories are material. For example, for each class of contracts discussed, the exposures to insurance, credit, liquidity and market risks could be disclosed, along with a discussion of how these exposures arise from the terms and conditions of the contracts.

A common source of credit risk is ceded reinsurance and these may be mitigated by funds withheld, a letter of credit or assets in trust. Credit risk may also arise from deductibles on liability policies, from retrospectively rated policies and amounts due from agents.

Liquidity risk may arise from policyholder put and surrender options within insurance contracts and these may be mitigated by non-guaranteed surrender values, surrender penalties or surrender-free periods. Liquidity risk may also arise in situations where an insurance contract could result in an asset or a

negative liability. In the event of a claim the company is exposed to illiquidity of the other insurance contract assets supporting this liability.

Also, these options could lead to disintermediation if lapses increase when interest rates increase, while the value of the assets backing the insurance liabilities decreases, and such matters may merit discussion as well. Market risk may arise from crediting rates or benefit amounts that are linked to market variables like interest rates and equity indices or linked to the performance of a pool of assets.

4.4.3.2 Quantitative disclosures

For these risks, IFRS 7 requires disclosure of summary quantitative data about risk exposures at the reporting date. Unless the risk is not material, IFRS 7.36-42 also requires the detailed quantitative disclosures discussed below. If the quantitative data disclosed at the reporting date is not representative of the risk exposure during the period, further representative information should be disclosed.

4.4.3.2.1 Credit risk

For insurance and reinsurance contracts, the insurer should disclose the maximum exposure to credit risk of the entity's counter-party at the reporting date without taking account any collateral held or other credit enhancements, a description of any collateral held and other credit enhancements, information about the credit quality of insurance and reinsurance assets that are neither past due nor impaired, and the carrying amount of insurance and reinsurance assets that would otherwise be past due or impaired whose terms have been renegotiated.

Unless impracticable, for impaired insurance or reinsurance assets, the insurer might disclose an analysis of assets determined to be impaired, the factors considered in determining impairment, a description of collateral held where material and other credit enhancements, and an estimate of their fair value. The disclosure of any amount considered uncollectible from a particular reinsurer may hinder collection efforts. This needs to be considered when preparing the disclosure. The information disclosed might be at a sufficiently high level of aggregation such that information about individual impaired assets is not disclosed.

Also, if the insurer obtains assets during the period by taking possession of collateral held or by calling on other credit enhancements,

the nature and carrying amount of the assets might be disclosed if material.

In the case of some direct insurance contracts, credit risk could be relevant, for instance where premiums are overdue or policy loans are granted in excess of funds available under the contract.

4.4.3.2.2 Liquidity risk

For liquidity risk, an insurer may provide a maturity analysis for insurance liabilities that shows the remaining contractual maturities, and a description of how the insurer's liquidity risk is managed. This disclosure would only show undiscounted benefit amounts, without offset from cash inflows.

Alternatively, IFRS 4.39(d) (i) allows the insurer to disclose information about the estimated timing of the expected net cash outflows resulting from recognised insurance liabilities, instead of the maturity analysis in IFRS 7.39(a). The cash flows in this disclosure might show undiscounted expected benefit and expense cash flows, with an offset from expected premium inflows, based on current estimates. It would be useful to disclose the basis for these cash flow projections, for example whether the cash flows are based on current estimates as of the balance sheet date, whether the same assumptions underlie the liability valuation, whether any policyholder options have been allowed in the analysis, and whether any prudential margins have been included.

The cash flows in either analysis could be split into reasonable time buckets, for example “<1 year”, “1 to 5 years”, “5 to 10 years” and “> 10 years” for long-term business.

4.4.3.2.3 Market risk

IFRS 7.40 requires disclosure of a sensitivity analysis for each type of market risk, showing how profit or loss and equity would have been affected by reasonably possible changes in the relevant risk variable at that time. It also requires disclosure of the methods and assumptions used in preparing the sensitivity analysis, any changes in these from those used in previous periods, and reasons for such changes. Relevant market risk variables could include (but are not limited to) interest rates, currency exchange rates, and equity returns.

Similar to the sensitivity requirement for insurance risk in IFRS 4.39A, IFRS 7 also allows disclosure of an alternative sensitivity analysis (such as value-at-risk, embedded values or economic capital models) that reflects interdependencies between risk variables (e.g., interest rates and exchange rates) if the insurer prepares and uses that sensitivity to manage its financial risks. An explanation of the method and assumptions used as well as the objective and limitations of the method is required.

When the disclosed sensitivity analysis is unrepresentative of a financial risk inherent in an insurance contract, this fact should be identified.

It might also be useful to disclose the approach used by the insurer to mitigate asset liability mismatch and the effect of this mitigation in the sensitivity analysis results. It might also be useful to explain the sensitivity results in terms of the impacts from policyholder behaviour, investment results, asset liability management results, valuation methodology impacts and any risk mitigation techniques. For example, the insurer could disclose that in a period of increasing interest rates, it might expect higher surrenders, the sale of assets at lower prices, the accelerated amortisation of deferred policy acquisition costs, and/or any other impacts. Similarly, it could disclose the anticipated impacts of decreasing interest rates, or changes in other market risk variables.

4.4.3.2.4 Other market related risks

The market interest sensitivity of lapse risk might be considered when the correlation is based on historical experience or soundly based judgment and when it would have a significant effect on future net cash flows. Other interest rate risks might be viewed in the overall context of risks undertaken. For example, a right to continue an interest guarantee previously provided to the whole portfolio subject to surrender rights (this might consist of annuitisation rights at a guaranteed interest rate, which is the same as that provided in the deferral period with a surrender option) may not be so sufficiently unusual that it requires disclosure in addition to the disclosure which might be required for the inherent financial risk.

Participation features, especially limitations of participation rules such as minimum premium refunds independent of earnings or other forms of minimum guarantees, can increase the uncertainty in some cases. In other cases, participation features, especially performance-linkage features, or linkage to a specified pool of investment held by the insurer,

can significantly reduce the market risk of such contracts to the insurer. Such information may be useful to be included in the required information about market risk exposure of assets.

4.4.3.3 Sensitivity to discount rates

IFRS 4, IG 65E refers to cases where discount rates used in valuing insurance liabilities are imposed by regulation. Regarding this disclosure, the following items may be provided as supplementary information:

1. “the effect on profit or loss or equity of a reasonably possible change in the assumption set by the regulator” and
2. “the fact that the assumption set by the regulator would not necessarily change at the same time, by the same amount, or in the same direction, as changes in market prices, or market rates, would imply.”

4.4.4 Contractual and/or constructive links between assets and liabilities

The extent of any contractual or constructive links between an insurer’s assets and liabilities may be discussed as part of the disclosures. This does not include correlations that are not due to contractual or constructive links.

4.4.4.1 Performance linkage

If the effects of any linkage between assets and liabilities in performance-linked contracts or other types of participation features are disclosed, such disclosure would usually include the expected ultimate share of policyholders in all assets, liabilities, income, and expenses reported in the financial statements. Measurement would follow the guidance in IAN 7, *Recognition and Measurement of Contracts with Discretionary Participation Features under IFRS*. In cases where obligations are completely linked, any inconsistent measurement of items and related linked items in the financial statements can be misleading; adequate disclosure of such inconsistent measurement would be considered to the extent appropriate. If the linkage is incomplete, for example because the insurer has some discretion regarding the amounts credited to policyholders or because there are floors or caps, disclosure of the effect of such features could be appropriate.

4.4.4.2 Linkage equivalent to hedging

In some cases, portfolios of liabilities are linked to the market price of specified investments and the insurer actually holds such assets having an effect equivalent to hedging on a portfolio basis, i.e., the cash flows or fair values are hedged if the insurance and possibly the lapse risks have been limited to a certain value). The form of disclosure of the linkage might include both the fair value of the assets and the fair value of the liabilities (or the difference between the carrying amounts, if different) of the portfolios, based on expected or mean values, ignoring any adjustment for risk. This approach can also be used when insurance benefits are triggered by both financial risk and insurance risk.

4.4.5 Exposures to market risk inherent in embedded derivatives not reported at fair value through profit or loss

Similar to the need for disclosure of relevant credit risk, liquidity risk and market risk in insurance contracts, IFRS 4.39(e) requires disclosure of information about market risk associated with embedded derivatives not reported at fair value through profit or loss. Initially, that might imply disclosure of such embedded derivatives, their kind and connection to other risks, e.g. double triggers with insurance risk or close relation to financial risks in host contracts.

Information about embedded derivatives that are closely related to host contracts might be considered explicitly in the information about the risks of the host contract rather than being noted separately. Where the cash flows from a contract feature are subject to both MARKET FACTORS and insurance risk such that the feature is not classified as a derivative embedded in the insurance contract, the market risk and insurance risk would be disclosed separately.

Appendix A – Financial statement elements of an insurer whose amounts and methods may be disclosed

Practitioners have found it useful to consider some of the items in this appendix when determining what items should be disclosed.

The accounting policy of a reporting entity may provide guidance regarding the elements of financial statements to be disclosed, as well as their level of detail shown. These accounting policies will normally be based on the typical needs of users of the financial statements, the nature and mix of business involved, the coverages provided, and risks undertaken. This appendix discusses what might be considered to be relevant disclosure in certain circumstances.

Some of the elements that might be important for an understanding of the reporting entity, and hence might be considered to be disclosed include:

1. unearned premiums or deferred premiums, i.e., the portion of premiums for which recognition has been deferred. For example, this occurs in accounting paradigms that recognise premiums over time in proportion to coverage provided (e.g., for non-life insurance, usually with no reflection of the time value of money, and frequently pro-rata over time);
2. policy benefit liabilities, reflecting expected future net (of future premiums, if any, for the contract) cash flows, depending on future events on an aggregate basis (e.g., for life insurance, usually discounted considering occurrence probabilities) on both a direct and ceded reinsurance basis;
3. claims liabilities on both a gross and ceded reinsurance basis, including provisions for (a) known incurred claims, (b) incurred but not reported (IBNR) claims, and (c) the costs of servicing and adjusting those claims, including applicable legal defence costs;
4. insurance assets, if the accounting policy reflecting net expected policy benefits allows for the recognition of an insurance asset (applicable, for example, if a prospective approach that reflects an excess of the present value of future premiums over the present value of future benefits is reported as an asset as in Zillmer, fair value, or embedded value approaches) or reinsurance assets for ceded reinsurance business;
5. deferred acquisition costs or a deferred revenue asset, deferred transaction costs, future servicing rights and a value of business acquired (VOBA) asset, especially when applying the expanded presentation under IFRS 4.31;
6. inherent guarantees, i.e., the expected costs associated with an insurer's contractual obligations, reflecting future changes in circumstances not protected by rights of the insurer to adjust its obligations, e.g., minimum guaranteed interest rates, particularly when close to being in-the-money;
7. policyholders' options, particularly those regarding guarantees provided where the preparer's accounting policies permit the use of assumptions concerning policyholders' behaviour in exercising such options; these typically are recognised where the objective of the accounting

policy is to reflect the expected use of the options and guarantees that are available to policyholders and disadvantageous to the reporting entity relative to the use originally expected and include approaches reflecting the intrinsic value of the options, the time value of the options, or the observed fair value of the options; and

8. contractual features directly relating to obligations with net earnings or experience of the specific case (e.g., a large group life insurance) or pool of experience of the insurer — these can include discretionary participation features, as well as other forms of contractual participation or performance-linkage rights.

Further disclosure can be provided regarding:

1. the required assessment of liability adequacy and how the minimum requirement of IFRS 4 with respect to liability adequacy testing is satisfied or how the corresponding testing according to IAS 37 is applied, possibly in addition to existing tests when the IFRS 4 minimum requirements are not complied with;
2. a description of the impairment test (IAS 36, possibly in addition to other tests) applied to insurance and reinsurance assets;
3. the objective and measurement approaches used to determine intangible assets, such as deferred acquisition cost, deferred transaction costs, or fair value of intangibles in the case of a business combination;
4. the approaches used if net liabilities proved to be inadequate, i.e., how balance sheet items are modified if such a case arises;
5. fees and charges;
6. discounting approaches used in the reporting entity's accounting policies, including the choice of discount rates, and the basis for establishment of MARGINS FOR RISK AND UNCERTAINTY;
7. use of shadow accounting;
8. accounting policy with respect to hedging practices of the insurer in case of index-linked benefits, especially for unit-linked business;
9. accounting policy for salvage, subrogation, or other recoveries from third parties, including rights to recover commissions paid in case of surrenders;
10. the approach taken regarding recognition of profits from ceded reinsurance and their amortisation, if any;
11. the basis for determining any reduction in credit for ceded reinsurance due to credit risk of a reinsurer; and
12. special arrangements for risk sharing or residual risk transfer other than reinsurance, such as coinsurance, underwriting pools, or guarantee funds.

A description of the measurement approaches used is provided. It may be useful to the users of the financial statements to determine whether the approaches taken are commonly accepted approaches in the insurance industry. Because a description of such approaches often includes industry-specific jargon, further explanations in layman's language will normally be needed. Even commonly applied approaches like the net level premium or the Zillmer method as used in certain European countries might have alternative meanings to different persons in some other countries. It is especially important to explain basic features of such approaches, including:

1. any limitations of initial values to zero profit at outset, including whether these consider acquisition cost, or fully prospective approaches allow recognition of initial profits or recognition of profits when assumptions are changed;
2. any lock-in of assumptions, any circumstances allowing or requiring unlocking, or whether current estimates are used;
3. consideration of past experience of policyholders' behaviour or whether worst-case scenarios are used (e.g., through use of a minimum deposit floor);
4. explicit (by considering cash flows from investments, discounted with a rate independent of expected investment returns) or implicit (using a discount rate based on expected investment returns) consideration of future investment earnings or whether they were not considered;
5. explicit or implicit consideration of future administration cost; and
6. approaches taken to match and manage the entity's assets and liabilities (Asset/Liability Management or ALM) to match reported income and expenses from insurance and investment contracts.

The following items might be considered for separate reporting. Historically, a wide range of practice has existed with regards to the extent and detail of the following disclosures. The judgment of the ACTUARY and management can be applied to determine whether such items can provide useful information to certain or all intended users. Examples, in addition to the first list given in this appendix, including:

1. intangible assets, such as deferred acquisition costs, including its roll-forward or sources of change during the period that reflect new amounts deferred, amounts amortised, any interested credited, and any retrospective adjustments;
2. in the case of business combinations and portfolio transfers, the outstanding amount of intangible assets representing the value of the business purchased or transferred, usually on a fair value basis (in the year purchased or transferred, the initial amount associated with purchase or transfer) that reflect the roll-forward items indicated in (1) immediately above;
3. other intangible assets or liabilities resulting from deferral of earnings under insurance contracts;
4. amounts reported as equity that do not qualify as liabilities under IFRSs but are restricted according to IAS 1.76(a)(v), resulting from insurance contracts, e.g., statutory catastrophe and

equalisation reserves (practitioners might consider as well whether corresponding statutory capital requirements might also fall under that guidance);

5. provisions arising from assessing an inadequacy of liabilities or impairment of assets resulting from or related to insurance contracts;
6. receivables and payables due from or to policyholders under insurance contracts;
7. non-insurance assets or liabilities due from, or to, other parties such as agents, brokers, prior owners of business, or third parties for recoveries if related to insurance contracts and considered in the measurement of insurance assets or insurance liabilities or related intangible assets on a direct and reinsurance ceded basis;
8. recognised revenue from policyholders under insurance contracts;
9. amounts received from policyholders under insurance contracts, but reported as increases in liabilities rather than revenue, and recognised revenues resulting from charges to such liabilities;
10. changes in unearned or deferred premiums;
11. changes in policy benefit liabilities, net of changes in insurance assets;
12. recognised expenses for claim payments;
13. changes in claims and IBNR liabilities on a direct and reinsurance ceded basis;
14. acquisition costs incurred, as defined by the entity's accounting policies to be deferrable, as well as those actually deferred and those immediately expensed;
15. the income effect of changes in estimates and assumptions by applying the new and old estimates and assumptions to the balance sheet items at the reporting date;
16. expenses caused by assessing an inadequacy of liabilities as a result of liability adequacy testing or an impairment of assets resulting from or related to insurance contracts as a result of impairment testing;
17. accretion of interest to reflect the passage of time in the case of discounted insurance assets, insurance liabilities, and related intangible assets;
18. the income effect of any changes in discount rates applied; and
19. amounts distributed to participating policyholders, separately for those amounts (a) associated with distributions already considered in the policy benefit liability, (b) in a special liability, (c) directly charged to income as expense, or (d) allocated by a charge to equity without affecting profit or loss.

Appendix B – Relevant IFRSs and other sources

The most relevant International Financial Reporting Standards and INTERNATIONAL ACCOUNTING STANDARDS for this International Actuarial Standard of Practice are listed below.

- IAS 1 (2007 September) Presentation of Financial Statements
- IAS 8 (2004 March) Accounting Policies, Changes in Accounting Estimates and Errors
- IAS 18 (2004 March) Revenue
- IAS 32 (2008 February) Financial Instruments: Presentation
- IAS 36 (2004 March) Impairment of Assets
- IAS 37 (2004 March) Provisions, Contingent Liabilities and Contingent Assets
- IAS 38 (2004 March) Intangible Assets
- IAS 39 (2005 August) Financial Instruments: Recognition and Measurement
- IFRS 1 (2006 November) First-Time Adoption of International Financial Reporting Standards
- IFRS 3 (2008 January) Business Combinations
- IFRS 4 (2006 November) Insurance Contracts
- IFRS 7 (2005 August) Financial Instruments: Disclosures
- IFRS 8 (2006 December) Operating Segments

In addition, the IASB *Conceptual Framework* is relevant.

Other sources of relevant information include the following:

- Guidance Note CGN 110.5, *Concentration Risk Capital Charge* (Australian Prudential Regulation Authority)
- Actuarial Standard of Practice (ASOP) No. 38, *Using Models Outside The Actuary's Area of Expertise (Property and Casualty)* (Doc. No. 071) (Actuarial Standards Board: June 2000) (Available at <http://actuarialstandardsboard.org/asops.htm>; currently under revision.)

ASOP No. 39, *Treatment of Catastrophe Losses in Property/Casualty Insurance Ratemaking* (Doc. No. 072) (ASB: June 2000) (Available at <http://actuarialstandardsboard.org/asops.htm>.)

ASOP No. 43, *Unpaid Claim Estimates* (Doc. No. 106) (ASB: June 2007) (Available at <http://actuarialstandardsboard.org/asops.htm>.)

- Educational Notes, *Dynamic Capital Adequacy Testing – Life and Property and Casualty* (Canadian Institute of Actuaries)
- *A Global Framework for Insurer Solvency Assessment* (International Actuarial Association's Insurer Solvency Assessment Working Party: 2003)

- *Standards on Disclosures Concerning Technical Performance and Risks for Non-life Insurers and Reinsurers* (International Association of Insurance Supervisors (IAIS): 2003) (Draft)
- *Standards on Disclosures Concerning Investment Performance and Risks for Insurers and Reinsurers* (IAIS: 2004) (Draft)
- *Stress Testing by Insurers Guidance Paper* (IAIS: 2003)
- *Statements of Statutory Accounting Principles (SSAP) No. 1, Disclosure of Accounting Policies, Risks & Uncertainties, and Other Disclosures* (National Association of Insurance Commissioners (NAIC): 2001)
- *SSAP No. 55, Unpaid Claims, Losses and Loss Adjustment Expenses* (NAIC: 2001)

Appendix C – Terms defined in the List of Definitions for IANs 3-12

The first time that these terms are used in this IAN, they are shown in small capital letters. The definitions of these terms are included in the IAA List of Definitions for IANs 3-12.

Accounting policy	Policyholder
Acquisition cost	Practitioner
Actuarial services	Provision
Actuary	Reinsurer
Benefit	Reporting entity
Component	Reporting jurisdiction
Contract	Service contract
Cost	Work
Current estimate	
Deposit component	
Derivative	
Discretionary participation feature (DPF)	
Embedded derivative	
Fair value	
Financial instrument	
Financial reporting	
Financial risk	
Financial statements	
Guaranteed element	
Guarantee	
IAA	
Insurance asset	
Insurance contract	
Insurance liability	
Insurance risk	
Insured event	
Insurer	
Intangible asset	
Intended user	
International Accounting Standard (IAS)	
International Accounting Standards Board (IASB)	
International Financial Reporting Standard (IFRS)	
International Financial Reporting Standards (IFRSs)	
Investment contract	
Liability adequacy test	
Margin for risk and uncertainty	
Market factor	
Model	
Option	