



**Preliminary Exposure Draft of  
International Actuarial Standard of Practice  
A Practice Guideline\***

**Disclosure of Information about Insurance Risk under  
International Financial Reporting Standards  
[IFRS 2005]**

**A Preliminary Exposure Draft of the  
Subcommittee on Actuarial Standards of the Committee on Insurance Accounting  
International Actuarial Association / Association Actuarielle Internationale**

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*\*Practice Guidelines are educational and non-binding in nature. They represent a statement of appropriate practices, although not necessarily defining uniquely practices that would be adopted by all actuaries. They are intended to familiarise the actuary with approaches that might appropriately be taken in the area in question. They also serve to demonstrate to clients and other stakeholders and to non-actuaries who carry out similar work how the actuarial profession expects to approach the subject matter.*

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This Practice Guideline applies to an actuary only under one or more of the following circumstances:

- If the Practice Guideline has been endorsed by one or more IAA Full Member associations of which the actuary is a member for use in connection with relevant International Financial Reporting Standards (IFRSs);
- If the Practice Guideline has been formally adopted by one or more IAA Full Member associations of which the actuary is a member for use in connection with local accounting standards or other financial reporting requirements;
- If the actuary is required by statute, regulation, or other binding legal authority to consider the Practice Guideline for use in connection with IFRS or other relevant financial reporting requirements;
- If the actuary represents to a principal or other interested party that the actuary will consider the Practice Guideline for use in connection with IFRS or other relevant financial reporting requirements; or
- If the actuary's principal or other relevant party requires the actuary to consider the Practice Guideline for use in connection with IFRS or other relevant financial reporting requirements



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**1. Scope**

The purpose of this PRACTICE GUIDELINE (PG) is to provide advisory, non-binding guidance to ACTUARIES or other PRACTITIONERS that they may wish to take into account when providing PROFESSIONAL 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 PG does not establish disclosure requirements, but rather it provides further 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. It is a class 4 INTERNATIONAL ACTUARIAL STANDARD OF PRACTICE (IASP).

This PG is limited to providing guidance regarding how to perform a WORK PRODUCT in conjunction with the development of or provision of needed disclosures according to IFRS 4.36–39 (also see Appendix A). The application guidance provided is also relevant, at least in part, to disclosures made regarding interest rate, credit, and market risks of FINANCIAL INSTRUMENTS subject to INTERNATIONAL ACCOUNTING STANDARD (IAS) 32, especially if they are contracts or parts of contracts subject to IFRS 4. References to INSURANCE CONTRACTS, INSURANCE ASSETS, or INSURANCE LIABILITIES also include the equivalent items from INVESTMENT CONTRACTS subject to IAS 32 and IAS 39 and SERVICE CONTRACTS described in IAS 18.

The guidance provided in this PG is generally limited to disclosure regarding contracts within the scope of IFRS 4. Guidance for such contracts' COMPONENTS, if outside the scope of IFRS 4, is limited to general remarks. To some extent, this guidance might also apply to contracts subject to the scope of IAS 18 and IAS 32. In accordance with IFRS 4, this PG focuses on disclosures regarding INSURANCE RISK 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;

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7. Risk management applied;
8. Information about interest rate risk and credit risk inherent in insurance contracts; and
9. Information about interest rate risk and market risk inherent in EMBEDDED DERIVATIVES not reported at FAIR VALUE.

This PG does not establish any requirement with respect to the abovementioned disclosures. In addition, disclosure is subject both to the principle of materiality and relevance to the reporting entity, to be determined by the preparer with the intended users in mind and in the context of the entire financial statements.

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

Reliance on information in this PG 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 PG refers to IFRSs that are effective as of 16 June 2005, as well as amended IFRSs not yet effective as of xx XXXXXX 2006 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. In particular, this PG does not address any changes in disclosure requirements that may result from the application of IFRS 7, *Financial Instruments: Disclosure*.

**2. Publication Date**

This PG was published on [date approved by the Council of the INTERNATIONAL ACTUARIAL ASSOCIATION (IAA)].

**3. Background**

Practitioners can be involved in developing or modifying an entity's financial statements, e.g., requirements regarding disclosure policies for insurance contracts. Actuarial guidance and support may be required to determine certain disclosure items from the provisions of IFRS 4. It is important to note that accounting policy with respect to disclosure is the responsibility of the board, a designated committee of the board, or the entity's senior management of an insurer, depending on the applicable jurisdiction; the practitioner typically provides advice to those responsible with this in mind and prepares drafts of the associated disclosures.

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

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**4. Practice Guideline****4.1 General considerations**

The accounting principles and practices applied by the reporting entity form the basis for the accounting policies 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 or IAS 39, 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 4.36–39 is not exhaustive and 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 refers to some extent to the disclosure requirements of IAS 32. Investment contracts with a DISCRETIONARY PARTICIPATION FEATURE (DPF) are fully subject to the disclosure requirements of IAS 32. In addition, any legal or regulatory requirement to which the IFRS financial statement might be subject would also have to be considered.

In general, disclosure is not made on a fixed-format basis (emphasised in IFRS 4, BC201(b) and BC217). Rather, disclosure is designed to meet the needs of the users of the financial statement, reflecting the individual circumstances of the reporting entity and, in fact, BC201(b) encourages experimentation to develop a more effective means of disclosure. In addition, in providing PROFESSIONAL SERVICES in connection with financial statements, the practitioner recommends disclosures needed to comply with IFRS principles and specific requirements, even if the reporting entity's accounting policy does not explicitly require such disclosures.

In assessing the need to recommend to the management of the reporting entity the appropriateness of a particular disclosure, the practitioner can refer to the INTERNATIONAL ACCOUNTING STANDARDS BOARD (IASB) *Framework* to help judge whether that information would be useful in the context of the qualitative characteristics of a financial statement 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), which requires “disclosure that identifies and explains the amounts in an insurer's financial statements arising from insurance contracts and helps users of

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those financial statements understand the amount, timing and uncertainty of future cash flows from insurance contracts.”

In addition, IAS 1.15(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 refer to technical details of methodology or assumptions used that are quite complicated for the user not familiar with insurance. Nevertheless, complexity 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. This does not imply that effort to simplify the language used is not worthwhile.

Note that Implementation Guidance in an IFRS is usually not binding in detail (IAS 8.9). Nevertheless, IFRS 4, IG11–71, may be useful in providing guidance for specific application of the principles included in IFRS 4.36–39 (IFRS 4, IG12).

#### **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 channels and target markets, and different generations of products within a single in-force portfolio, 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. As a result, guidance provided for such forms of business may not be suitable for insurance business. However, IAS 32.4 indicates the following:

Determining the level of detail to be disclosed about particular financial instruments requires the exercise of judgment taking into account the relative significance of those instruments. 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, when an entity is party to a large number of financial instruments with similar characteristics and no single contract is individually material, a summary by classes of instruments is appropriate. On the other hand, information about an individual instrument may be

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important when it is, for example, a material component of an entity's capital structure.

In the case of a large diversified multinational insurance group, information concerning a specific product, contract, assumption, or measurement approach will normally 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 and assumptions, and identification of extraordinary or material risks. Only risks associated with significant uncertainty as to future cash flows are usually described in detail and provided in quantitative terms. In contrast, specialised insurers, especially those operating in only one country with a limited range of products, are normally expected to provide detailed information about their risk exposures, since the relevant detail is not likely to exceed its usefulness to the user and no significant diversification effects reduce the relevance of individual information.

Therefore, setting forth a specific set of rules regarding the proper level of aggregation is quite difficult. This results in the need to express disclosure standards in terms of a limited number of principles, together with a set of relevant examples that might not be appropriate in all cases. Judgement is required regarding what level of information is needed to best serve 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 and 39 of the IFRS, an insurer would decide 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 in ways that are 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 by class that potentially misleading information would result, qualitative information can be more suitable.

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In addition, IAS 14, *Segment Reporting*, 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 IAS 14 Segment Reporting, the identification of reportable segments reflects differences in the risks and returns of an entity's products and services. IAS 14 takes the position that the segments identified in an organisational and management structure and internal FINANCIAL REPORTING system normally provide an appropriate segmentation for financial reporting. 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 IAS 14, it might be appropriate to report separate information about, say, life insurance, annuities in the accumulation phase and annuities in the payout phase.

Detailed information is not always appropriate to be reported 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. Geographical (national) criteria often are based on risk differences, reflecting the fact that most insurance business is local, with differences due to local regulation, products, and nation-specific POLICYHOLDER behaviour. Nevertheless, broad classes of insured risks will often 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 may be sales and in-force data, although certain balance sheet items also might 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 individual issues can be described in detail, because there are few non-homogeneous categories of business or where size or relevance can justify separate disclosure treatment.

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 thought to be included in each category. If a particular level of detail is not useful or potentially misleading, the cost of assembling the underlying detailed information would not be appropriate. In addition, too much technical information can lead to

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information overload. In that case, qualitative information is typically provided and unimportant detail eliminated.

Materiality is also an important consideration in designing disclosure. Details that do not contribute useful information to the decision-making needs of the intended users of financial statements would typically not be provided. If the inclusion of such detail distracts from essential information, such detail usually would not be provided. Decisions regarding materiality generally are made by the preparer of the financial statements, 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.

### **4.3 Explanation of recognised amounts**

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

An adequate explanation of the reporting entity's ACCOUNTING POLICIES for insurance contracts is disclosed. This relates both to continuation of existing accounting policies, as well as to changes in accounting policy that occurred during the reporting period.

For existing accounting policies that are unchanged, pre-first-time adoption disclosures may have been consistent with the disclosure requirements as outlined in IFRS 4 and IAS 32. Unusual in the context of IFRSs, a large variety of approaches are permitted. An example is the case of contracts with DPFs, in which limited measurement guidance is provided in IFRS 4—as a result, adequate disclosure is usually provided regarding how these are accounted for.

Any law or regulation that affects the development of the accounting policies, possibly narrowing the choices under IFRSs or extending the requirements of the IFRSs by providing guidance for further information, 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 accounting policies for insurance contracts involve such areas as classification issues, recognition, measurement, presentation, disclosure, consolidation of subsidiaries, and changes of accounting policies and accounting estimates.

##### **4.3.1.1 Classification issues**

Classification issues refer to approaches followed in categorising the reporting entity's insurance contracts, investment contracts, DPFs,

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embedded derivatives, and other contracts (including service contracts). Such approaches usually refer 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 new forms of contracts issued after first-time adoption. Additional disclosure concerning accounting policies 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.”

**4.3.1.2 Recognition**

Disclosures regarding recognition policy include information about such practices as unbundling under IFRS 4. In this case, if recognition rules reflect the possibility that DEPOSIT COMPONENTS are not unbundled, that fact is to be disclosed, along with discussion of the effect of the lack of recognition. Another example relates to deferral of ACQUISITION COST for which the definition, approach taken, and expense allocation used are to be included.

**4.3.1.3 Measurement and presentation (IFRS 4, IG17–18)**

According to IFRS 4.36, 4.38, and usually the entity’s accounting policy, the amount, methods, and assumptions used in the measurement of the significant financial statement elements resulting from insurance contracts and financial instruments with discretionary participation features as well as related intangible assets are to be disclosed. Presentation of the treatment of issues affecting the reporting entity are described, e.g., statements regarding presentation of premiums, any significant off-setting of positive and negative liabilities, etc. Appendix A includes a list of applicable measurement-related items that might be considered for separate disclosure.

One aspect often addressed in a reporting entity’s accounting policies is the choice of measurement approaches and objectives in choosing assumptions for measurement. These policies determine the minimum amount of disclosure provided.

Supplementary information, e.g., embedded values, might be provided that reflects measurement approaches not used to measure related balance sheet items. In such cases, it would be useful to the user to describe the significant differences between the measurement approach used in the balance sheet and that of the supplementary information.

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**4.3.1.4 Consolidation**

A practitioner will usually not consider all aspects of disclosure policy; for example, actuaries typically do not get involved in reviewing accounting policies regarding corporate consolidation. Regarding consolidations, the entity's accounting policy for business combinations will normally be disclosed, particularly addressing the approach taken between 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.

**4.3.1.5 Changes in accounting policy and changes of accounting estimates (IAS 8.28–31, 39–40)**

Changes in accounting policy, including those made at first-time application of IFRS 4, including changes of accounting estimates, are subject to the general disclosure requirements of IAS 8. The practitioner highlights and brings to the attention of the intended users any changes in approaches to assumptions and changes in measurement approaches from those used in the prior periods, e.g., if discounting is introduced into the measurement of claims liability, including the basis for the changes.

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.

Deviations made from a set of comprehensive accounting standards, such as IFRS or U.S. GAAP, as the basis of the entity's accounting policies, are disclosed not only in the year of change but also to the extent that the accounting policies applied conform with that basis in other years as well.

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 IASP 8, *Changes in Accounting Policies under IFRS*).

It is inappropriate to make such changes or to avoid making warranted changes, if the intent is to manage earnings or commit fraud.

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

To comply with IFRS 4.37(b), the insurer discloses all items resulting from insurance contracts separately from other business. This can be made 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, IFRS 4, B25, third sentence, 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 can be considered to consist of only insurance contracts.

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 either on the face of the balance sheet or in the notes classified in a manner appropriate to the entity’s operations, “but might include items such as (a) unearned premiums. (b) claims reported by policyholders. (c) claims incurred but not reported. (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 DPF. ... (g) receivables and payables related to insurance contracts). (h) non-insurance assets acquired by exercising rights to recoveries.” See Appendix A for possible further disclosure items.

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

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of the business, these amounts can 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.

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

#### **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.

While in the case of large diversified international insurance groups, many individual assumptions will have limited or no material effect on the amounts reported, group-wide approaches to determine these assumptions might have such an effect, in which case information about these approaches would normally be disclosed.

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. In many cases, assumptions are based on widely used industry experience data, which are publicly available, in which case reference to such data is appropriate.

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In describing such processes, the following types of information would typically be provided:

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 for which the assumptions are used;
2. The characteristics of the assumptions, such as whether the practitioner's 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, 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;
5. The approaches used to validate the assumption, e.g., with observed market data, published industry studies, or entity-specific historical experience;
6. Reasons for deviating from relevant data, with indications of the effect of these deviations;
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 background of choosing such assumptions;
9. Approaches to continue the use of assumptions chosen at the outset of existing contracts, either based on contractual assumptions or on otherwise chosen assumptions, to be distinguished between assumptions affecting just the allocation of amounts to periods and those affecting the measurement of the initial net asset or liability;
10. A description of the level of uncertainty involved in estimating the assumptions and methods of risk management available to manage the associated uncertainty and risk; and
11. Foreseeable needs to adjust assumptions in the next financial year and whether there exist any indications regarding the expected effect.

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

IFRS 4.37(d) requires that the effect of changes of assumptions be disclosed if the changes are material to the financial statements. Such changes in assumptions include those 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. The process used to estimate assumptions underlying an accounting estimate complies 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.

Changes made in assumptions (not relevant for those assumptions that are locked in according to the entity's accounting policy except to the extent of the effect of a liability adequacy test) are usually monitored to determine if and when their effect becomes significant. This significance is judged 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, changes in certain assumptions, especially when various amounts are matched, can significantly affect future financial statements.

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.

The effects of such changes are normally disclosed separately, even if they primarily offset each other, e.g., a simultaneous change in expense and mortality assumptions, and gross and ceded reinsurance. If a locked-in approach is used, in unusual circumstances several assumptions are changed simultaneously with limited net effect; in such cases, the effect is normally 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 an analysis of the effect of the changes is also made. If the interdependence of assumptions in measuring the item does not permit the individual effects to be determined precisely, that would also be disclosed. Materiality in many cases would be determined based on the effect of the change of an individual assumption.

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**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 ASSETS and INSURANCE LIABILITIES and related intangible assets are often aggregated, including the effect of recent new business. Certain users may be most interested in information regarding the amount of new insurance written or their assets or liabilities recorded during the reporting period. A basic movement schedule for the period reported may be useful. The following cases may need to be distinguished, depending on the products subject to disclosure:

1. Establishing a new contract, causing potentially new future cash flows;  
or
2. Acquiring further rights or obligations in exercising rights under an existing contract.

**4.3.5.1 New contracts**

The disclosure of the effect on the balance sheet and income statement of new business 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 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 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

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distinguished: (1) those previously considered in the measurement of the insurance liability or insurance asset and (2) those not considered. The amount of additional premiums of the second type could be aggregated into the amount reported for new contracts. All other amounts are disclosed as current or renewal premiums under existing contracts.

If all premiums received are segmented 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 the valuation premiums can be used as the amount disclosed. The disclosure might also include that part of the valuation premium that was released from the insurance asset or liability. In some existing accounting policies, the valuation premium 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) deducted at a later time. The portion of the premiums used to amortise intangible assets would not be included in the amount reported.

**4.3.5.3 Deferred acquisition costs (DAC)**

A reconciliation of the movement of any DAC is 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, amortisation, any retrospective adjustments, and closing balance.

**4.3.5.4 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.

A presentation of the sources of earnings may be ideal, but 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. When such a presentation is performed, it can take several forms; certain embedded value analyses are similar. A presentation of the source of earnings would typically include information regarding level of emerged margins, margins released, new business profitability, and effect of assumption changes.

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

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. Increases of item by unwinding of discount;
5. Deductions from item as a result of insured events;
6. Deductions from item by withdrawal of deposits;
7. Deductions from item for risk coverage;
8. Deductions from item for administrative costs;
9. Decreases of item by amortisation;
10. Movements caused by regular changes in assumptions; and
11. Movements caused by 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. Amount, timing, and uncertainty of cash flows (IFRS 4.38–39, IG41–71, BC215–223)**

The disclosure with respect to the amount, timing, and uncertainty of cash flows can be broadly distinguished by information concerning the following:

1. Explanation of applied risk management;
2. Drivers of risks from insurance contracts;
3. Specific information about insurance risk regarding sensitivity, risk concentrations, and claims development;
4. Interest rate and credit risk inherent in insurance contracts; and
5. Interest rate and market risk inherent in embedded derivatives not reported at fair value through profit or loss.

##### **4.4.1 Explanation of applied risk management (IFRS 4.39(a), IG48)**

Risk management techniques used by insurers can take many forms. They include approaches to equalise risk over time and over a portfolio (e.g., through pooling), risk selection, contract language, and features including definition and limitations of coverage, ceded reinsurance, deductibles/

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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 non-GUARANTEED ELEMENTS, e.g., premium adjustments or participation clauses. FINANCIAL RISKS can be mitigated through 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. In addition, insurers can apply risk management approaches to normal financial and operational risks as any entity would.

The techniques applied by the insurer and 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 structure allows effective risk equalisation within the group. In some cases, such factors as participation rules limit the effect of equalisation to the legal entity if not overcome by inter-group reinsurance or other transfer techniques. Such effects are also described if material in order to avoid improper impressions by intended users of potential fluctuation risks.

Effective risk selection approaches used are usually 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 adequate. In the case of large diversified entities, the approaches used to monitor and organise product development, to control profitability and deviation risks, and to steer directions would usually be disclosed.

The general reinsurance strategy is described and any material individual reinsurance treaty disclosed, including inherent potential credit 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 are described if material.

If interest rate or market risks are hedged effectively, the approach and affected amounts are disclosed, e.g., in the case of a unit-linked business where the insurer holds the related units, liabilities and related assets are disclosed separately. A similar approach can be used in cases of less effective connections. If relevant, the effectiveness of the hedge used would be described.

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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.

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. Further sources of capital that may be available in the case of emergency can be described, 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 funds, are usually described.

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 would be discussed.

**4.4.2 Significant areas of risk from insurance contracts (IFRS 4.39(b), IG49–50)**

A main objective of disclosure is to explain the types of material risks that are inherent in the portfolio. These include forms of catastrophe risks, i.e., potential risk associated with a non-cyclical extreme event of very small probability such as a nuclear event, to cyclical cumulative risks where an extreme accumulation of claims is to be expected such as a storm, or an extreme exposure to a risk of a significant change in risk exposure such as coverages based on human longevity. That objective can be achieved by describing the type of risks covered, with a focus on the stochastic nature of those risks. In addition, all significant guarantees, not only those involving interest guarantees, would be described.

Cash flow projections may be relevant if the cash flows are expected to have a material effect on the outcome of the business over the short-term, e.g., due to liquidity constraints, also referring to effects of policyholders' behaviour, with a comparison with the reporting entity's liquidity provided if relevant. For these cash flows, discount rates used in the measurement of the applicable liabilities are also disclosed.

The effect of regulation affecting the risk position of an insurer's equity can be described. That refers to regulatory or industry insolvency protection measures, as well as to regulatory limitations on using a reporting entity's

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resources, like restricted access to investments covering insurance contracts.

**4.4.2.1 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.

**4.4.2.1.1 Performance linkage**

If the effects of linkage between assets and liabilities are disclosed due to performance-linked contracts or discretionary participation features, such effects would be disclosed by reporting the expected ultimate share of policyholders in all assets, liabilities, income, and expenses reported in the financial statement. Measurement follows the guidance in IASP 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 statement can be inherently misleading; adequate disclosure of such inconsistent measurement would be considered to the extent appropriate.

**4.4.2.1.2 Linkage equivalent to hedging**

In some cases, portfolios of liabilities are linked to portfolios of assets in a manner equivalent to hedging on a portfolio basis, i.e., the cash flows or fair values are hedged if the insurance and possibly the lapse risk 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.

**4.4.2.1.3 Close linkage between the assumptions underlying pricing and those underlying financial reporting**

For the parts of business where the effect of a close linkage is so strong that the amounts reported in the income statement might be misleading as a consequence of temporary measurement differences between assets and related liabilities, the following possible disclosures might be considered:

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1. Disclose the assets measured consistently with the related liabilities (i.e., at AMORTISED COST if the liability approach uses fixed discount rates as set at outset and at fair value if the liability approach uses current interest rates as discount rate);
2. Adjust the measurement of liabilities to be consistent with the measurement of assets (i.e., use fixed discount rates reflecting the expected discount rate at outset in the case of the amortised cost approach for assets, current expected interest rates discount rates in case of fair valued assets, and report the unrealised gains and losses in case of available-for-sale assets in earnings); and
3. Report fair values of the financial risk of both liabilities and assets.

To apply (1), it may be necessary to use the long-term discount rates used in related liabilities that are below risk-free market interest rates. Otherwise that fact would be appropriately disclosed.

To apply (2), it is necessary to ensure that the expectations regarding future reinvestments are consistent with current risk-free market interest rates of comparable durations.

Fair values of financial risks of insurance assets and insurance liabilities would be determined in this context, ignoring a PROVISION for insurance risk and uncertainty, i.e., using expected values. In doing so, the fact that it represents the fair value of the contract would usually be disclosed. Instead, disclosure might indicate that the calculation is made only for demonstrating the correspondence between the development of assets and the financial risk inherent in insurance contracts. An appropriate discount rate could be the current risk-free market interest rates for relevant durations.

In all cases, the approach and significant assumptions used are explicitly described. The approach is used only for those parts of the business where the effect of linkage can be clearly demonstrated and where they are not covered by performance-linkage and hedge-equivalents.

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

IFRS 4, IG 40(e), states, "If an insurer's risk exposures at the reporting date are unrepresentative of its exposures during the period, it indicates that fact." 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.

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

For insurance contracts, IFRS 4 requires disclosure of the sensitivity of profit or loss with respect to insurance risk variables that have a material effect on them. Financial risks are disclosed applying the guidance of IAS 32. The specific disclosure requirements refer to sensitivity, risk concentration, and claims development. IFRS 4.39(c) requires an indication regarding the effect of reinsurance and similar methods (e.g., alternative risk transfer or re-transfer of risk, such as participation or premium adjustment features) in the entity's disclosures. However, the implementation guidance in IFRS 4, IG51(b) limits the extent of that differentiation. Major emphasis is on information regarding the net and gross risk exposure, including regarding the credit risk related to the use of reinsurance contracts.

Information is to be provided on a portfolio level, reflecting portfolio effects. Attention is 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 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 is described. To the extent that quantitative information is provided, the effect of risk mitigation techniques is described.

This description is categorised according to the major forms of insurance risk. Two-dimensional matrix explanations might be considered. Multinational entities need to accumulate information based on the nature of insurance risk, for major countries, while entities involving specialised coverages might be segmented for more effective disclosure. Expected changes in the amount, type, or extent of this risk are usually disclosed.

**4.4.3.1 Sensitivity analysis (IFRS 4.39(c)(i), IG52–54, and IAS 32.75, BC218-219)**

For insurance contracts, IFRS 4 requires disclosure regarding the sensitivity of profit or loss and equity to changes in variables that are expected to have a material effect. If practical, this disclosure would be both qualitative and quantitative in nature. These variables would typically be few in number

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and will vary by entity. In a highly diversified multi-national entity, it may be difficult to obtain complete information regarding all of its subsidiaries. Even if reported amounts are consistent with observed market data, e.g., claims liability reported at market prices, IFRS 4 requires sensitivity disclosure.

**4.4.3.1.1 Appropriateness**

Sensitivity analyses are of most use when they can provide guidance to the intended users of financial information as to which key indicators or drivers to monitor with respect to the risk incurred. For example, if a liability is disclosed as being highly sensitive to longevity risks, then users of that information can better understand the effect of and monitor the 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 lack of potential reliability can have many causes, such as an inability to project or monitor the key drivers reliably in the future, a lack of understanding of the interaction of the driver with other relevant variables, or unstable relationships or correlations. Sensitivity analyses are also most 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 impact of any one driver is either immaterial or unknown. The practitioner may want to first determine the reliability and information content of a sensitivity analysis before determining how or whether to develop a sensitivity disclosure.

**4.4.3.1.2 Standardised analysis**

To develop the required sensitivity analysis disclosure, the practitioner might consider pre-existing standardised analysis that may be relevant to the reporting context. Such standardised analysis may 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 in reported results, this would be disclosed.

**4.4.3.1.3 Sensitivity to assumptions for insurance risk**

Possible aspects of disclosure of exposure to risk via sensitivity analysis include sensitivity to process risk (especially when the existing portfolio of homogeneous contracts is small relative to the risk per

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contract); to extreme events (to the extent not covered by concentration disclosures — see 4.4.3.2); to cyclical external environment risks; to MODEL and/or parameter risk; and to volatility resulting from changes in circumstances. However, these distinctions are typically technical in nature and may not provide useful information to the typical user of financial statement information. The entity is exposed to this underlying insurance risk and not the sensitivity of estimations made by the insurer. Sensitivity typically relates to the effect of the risk of random deviations.

The sensitivities disclosed generally would be those most material and meaningful for those trying to understand the risk inherent in future cash flows. For these disclosures to be meaningful, the relationship disclosed needs to be reliable and the key driver of the sensitivity subject to monitoring. If the list of material risk drivers for sensitivity disclosure is too large, or no single risk driver is material by itself, then some other form of risk disclosure may be more appropriate than a sensitivity disclosure.

Sensitivity information can identify other major risks included in another disclosure section in order to prevent misleading the user of the information. The financial statement may also provide a context for the disclosure, so the reader will know which risks the reporting entity believes are most important for the business segment being addressed. Otherwise, the user may misinterpret the disclosure, placing too great an emphasis on a major sensitivity to an unlikely event and missing a material sensitivity to a much higher probability event.

**4.4.3.1.4 Sensitivity to discount rates**

Considering IAS 32.75, disclosure of the average discount rate embedded in the insurance liabilities and the sensitivity to the change in discount rates can provide useful information for users. Regarding this disclosure, the following items may be provided as supplementary information:

1. The average discount rate for insurance liabilities (by segment, if relevant);
2. The amount of the effect of a change in insurance assets and insurance liabilities in the reporting period if the assumptions used were those at the end of the reporting period, e.g., one hundred basis points; note that this amount could vary depending on the overall level of interest rates in the jurisdictions (e.g., if interest rates are at 15%); and

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3. Any offsetting effect in other balance sheet or income statement values from the same percentage sensitivity.

**4.4.3.1.5 Representation of non-linearities**

There are two types of non-linearities: the continuous type and 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 on the performance metrics and the extent of judgement used. These disclosures need to be designed with the intended users in mind. Disclosures that are too technical or complex may limit their usefulness, while those that are too broad may convey insufficient information. The degree of summarisation required for aggregate-level disclosure may also impact the amount of detail desirable as disclosure.

**4.4.3.1.6 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 in one area and the sensitivity to a sharp increase in lapse rates in another area, 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.

**4.4.3.2 Concentration of insurance risk (IFRS 4, 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

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factors such as information availability or the newness or uniqueness of an exposure. While unavoidable in some circumstances, the objective would be to provide clear, relevant, and consistent information as disclosure in financial statements.

**4.4.3.2.1 Historical results of extreme events (IFRS4, IG57)**

One approach for disclosing the risk due to concentration of insurance risk is to disclose historical experience due to such concentrations. An example might include the disclosure of historic losses due to large catastrophes. An advantage of such disclosure is that it is generally factual, with minimal reliance on judgement, and may be capable of being transparent to the users of the information. A disadvantage is that such historical results may 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 now.

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

**4.4.3.2.2 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 relating to 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 or geographic region or the distribution of liabilities by market (such as commercial versus personal non-life customers).

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**4.4.3.2.3 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 the liabilities. These deterministic scenarios can be based on actual historic events or on hypothetical worst-case scenarios developed either by 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, not necessarily the probability 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 a financial statement. 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

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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 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 statement 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. 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 and not the tails of the distributions. Some techniques, including copulas, may be necessary for modelling the tail dependency of such distributions.

Note that when dealing with multiple extreme event categories or locations, the expected return time for any 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.

**4.4.3.3 Claims development (IFRS 4, IG59–60)**

Claims development for non-life insurance 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 value 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 are as follows:

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; and

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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 by the requirements of a regulatory or supervisory authority. In such a case, data provided under additional groupings may be desirable, provided that the increased information that such voluntary disclosure provides is balanced against the increased risk of confusion from multiple categorisations and presentations of what are likely the same underlying data. In other cases, the type of coverage might dictate the grouping, such as claims-made coverage. The choice may also reflect the type of coverage provided, e.g., report year is usually used for claims-made coverage.

Disclosure may help to reduce confusion that might arise with regard to the treatment of certain claim situations and their handling 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 disclosed. 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 disclosed, be consistently handled throughout the disclosure, and be reconciled with other claim amounts reported in the financial statement.

Additional amounts other than just historic claim estimate development can be similarly disclosed. For example, it is frequently 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 susceptible 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 segmentation by type of risk exposure, product, or REPORTING JURISDICTION. Additional levels of detail (such as reporting segment or product line) may be useful. Whenever multiple levels of detail are shown, the disclosure may address possible confusion by the user over the different

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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 treatment would normally be discussed. In some cases, particularly for multinational insurers, particularly due to widely diverse product lines, claim development reporting might be conducted at a relatively aggregated level of risk exposure.

**4.4.4 Interest rate and credit risk inherent in insurance contracts**

According to IAS 32.75, disclosure of the average discount rate embedded in financial instruments and the sensitivity to changes in discount rate can provide valuable information for users. Regarding discount rate disclosure, the following items may be provided as supplementary information:

1. The average discount rate for insurance liabilities (by segment, if relevant);
2. The effect on a change in insurance assets and insurance liabilities in the reporting period if the assumptions used were at the end of the reporting period one percentage point<sup>1</sup> higher or lower than those used; and
3. Any offsetting effect in other balance sheet or income statement accounts from the same percentage point change.

The interest sensitivity of lapse risk might be considered when the correlation is based on historical experience or soundly based judgement 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, e.g., annuitisation rights at a guaranteed interest rate, which is the same as that provided in the deferral period with a surrender option, is not so unusual that it requires additional disclosure in addition to any disclosure which might be required for the financial risk inherent in any case.

Participation features, especially limitations of participation rules such as minimum premium refunds independent from earnings or other forms of minimum guarantees, can increase the variance 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 interest risk of such contracts to the insurer. Such information would accompany any required information about interest risk exposure of assets.

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<sup>1</sup> In some jurisdictions where interest rates are extremely high, a larger shift in interest rates may need to be modeled.

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Information about embedded derivatives that are closely related to host contracts might be included in the information about the risks of the host contract and not noted as a special item. 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 an embedded derivative, the market risk and insurance risk would be separately disclosed.

**4.4.5 Interest rate and market risk inherent in embedded derivatives not reported at fair value through profit or loss**

Similar to the need for disclosure of relevant interest rate and credit risk in insurance contracts, interest rate and market risk associated with embedded derivatives not reported at fair value through profit or loss would also usually be considered for disclosure.

**4.4.6 Other risks and interdependent risks**  
*[none at the present time]*

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

The accounting policies 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 intended users of the financial statement, 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 more important elements that might be considered to be disclosed include:

1. Unearned premiums or deferred premiums, i.e., allocations of multi-period premiums to periods in proportion to coverage provided according to revenue recognition accounting policy (e.g., for non-life insurance, usually undiscounted without consideration of occurrence probabilities);
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 direct and ceded reinsurance basis, including (a) provisions for future claims payments as result of a past event where an individual assessment of amounts expected to be payable in the future is possible or an expected average cost for similar claims can be determined; (b) incurred but not reported (IBNR) liabilities, an aggregate measure of claims payable in the future as the result of already incurred claims that are not included in (a), and (c) provisions for related settlement expense;
4. Insurance assets, if the accounting policy reflecting net expected policy benefits allows the recognition of an insurance asset (applicable 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 for ceded reinsurance business;
5. Deferred acquisition costs or a deferred revenue asset;
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 issuer's accounting policies allow the use of assumptions concerning policyholders' behaviour in executing such options. These typically are recognised where it is the objective of the accounting policy to reflect the expected use of the options and guarantees that are available to policyholders and disadvantageous to the issuer relative to the use originally expected. These include approaches reflecting the intrinsic value of the options, the time value of the options, or the observed fair value of the options; and

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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 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. The objective and measurement approaches used to determine intangible assets, such as deferred acquisition cost, deferred transaction costs, or fair value in the case of a business combination;
3. The approach used if net liabilities proved to be inadequate, i.e., how balance sheet items are modified if such a case has arisen;
4. Fees and charges;
5. Discounting approaches used in the reporting entity's accounting policies, including the choice of discount rates and basis for establishment of MARGINS FOR RISK AND UNCERTAINTY;
6. Accounting policy with respect to hedging practices of the insurer in case of index-linked benefits, especially for unit-linked business;
7. Accounting policy for salvage, subrogation, or other recoveries from third parties, including rights to recover commissions paid in case of surrenders;
8. A description of the impairment test (IAS 36, possibly in addition to other tests) applied to insurance and reinsurance assets;
9. The approach taken regarding recognition of profits from ceded reinsurance and their amortisation, if any;
10. The basis for determining any reduction in credit for ceded reinsurance due to credit risk of a reinsurer; and
11. 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, if commonly accepted approaches in the insurance industry applied may not be sufficiently clear to the intended users. Because a description of such an approach often uses industry-specific jargon, further guidance will normally be needed. Even commonly applied approaches like the net level premium or Zillmer method might have alternative meanings to different persons. It is especially important to explain basic features of such approaches, including:

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1. Any limitations of initial values to zero profit at outset, including whether these consider acquisition cost, or fully prospective approaches allowing recognition of initial profits or recognition of profits when assumptions are changed;
2. Any lock-in of assumptions 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 to be reported separately. Historically, a wide range of practice has existed regarding the extent and detail of the following disclosures. The judgement 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 include:

1. Intangible assets, such as deferred acquisition costs, including its roll-forward or sources of change during the period, including new amounts deferred, amounts amortised, any interest credited, and any retrospective adjustments;
2. In case of business combinations and portfolio transfers, the outstanding amount of the intangible asset 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), including 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;
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;

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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 liabilities and IBNR 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.

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**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 (2005 August) Presentation of Financial Statements
- IAS 8 (2004 March) Accounting Policies, Changes in Accounting Estimates and Errors
- IAS 14 (1998 July) Segment Reporting
- IAS 18 (2004 March) Revenue
- IAS 32 (2003 December) Financial Instruments: Disclosure and Presentation
- IAS 36 (2004 March) Impairment of Assets
- IAS 37 (1999 July) Provisions, Contingent Liabilities and Contingent Assets
- IAS 38 (2004 March) Intangible Assets
- IAS 39 (2005 August) Financial Instruments: Recognition and Measurement
- IFRS 1 (2005 June) First-Time Adoption of International Financial Reporting Standards
- IFRS 3 (2004 March) Business Combinations
- IFRS 4 (2005 August) Insurance Contracts
- IFRS 7 (2005 August) Financial Instruments: Disclosures

In addition, the IASB *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>.)
- *Statement of Principles Regarding Property and Casualty Loss and Loss Adjustment Expense Reserves* (Casualty Actuarial Society: 1998)
- 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)

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- *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)

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**Appendix C – List of terms defined in the Glossary**

The first time that these terms are used in this IASP, they are shown in small capital letters. The definitions of these terms are included in the IAA Glossary.

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