Supervisory Standard No. 9

INTERNATIONAL ASSOCIATION OF INSURANCE SUPERVISORS

STANDARD ON DISCLOSURES CONCERNING TECHNICAL PERFORMANCE AND RISKS FOR NON-LIFE INSURERS AND REINSURERS

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This document was prepared by the Enhanced Disclosure Subcommittee,
in consultation with members and observers.

Standard on disclosures concerning technical performance and risks for non-life insurers and reinsurers

The purpose of this standard is to describe best practice of public disclosure requirements about technical performance and risks that should apply to non-life insurers and reinsurers.[1] Whereas international accounting standards (IFRS/IAS) draw up general accounting principles, which are appropriate to undertakings of all sectors, this standard is only concerned with insurers and consequently describes best practice for insurers in greater detail. This is necessary as market participants[2] are better able to assess the performance of and risks taken by insurers when adequate information is provided. Public disclosure can assist them in responding in an appropriate manner, providing an element of market discipline that can support the supervisory process.

This standard should be seen together with:

- the IAIS *Insurance core principles and methodology* (October 2003) (ICPs), in particular ICP 26 - Information, disclosure and transparency towards the market - and the related criteria
- the IAIS *Guidance paper on public disclosure by insurers* (January 2002) that contains general guidance on public disclosure.

As described in the guidance paper, disclosures must be relevant, timely, accessible, comprehensive, reliable, comparable and consistent. At the same time, the costs of increased disclosure and competitive disadvantage must be weighed against its potential benefits in setting disclosure requirements.

This standard sets out specific requirements on what to disclose to facilitate the assessment of technical performance and risks of insurers and how to disclose it. Both retrospective disclosures and prospective disclosures should be given.

The standard also describes the role of the supervisor in enhancing disclosure by insurers. It does not, however, require supervisors to disclose information obtained when carrying out their duties.

This standard does not address disclosures in other areas such as market risk, liquidity risk and operational risk, which will be covered in future papers. However the standard will be

1 This standard applies to captives if they are considered insurers or reinsurers in the legislation of the jurisdiction. Supervisors can decide not to apply this standard to "captives" that are considered non-life insurers or reinsurers in the legislation in the jurisdiction, provided there is no potential threat to the financial system, no public interest need for disclosure and no legitimately interested party is prevented from receiving information. For the purpose of this standard, "captive" shall mean an insurance or reinsurance entity created and owned by one or several industrial, commercial or financial entities, other than an insurance or reinsurance group entity, the purpose of which is to provide insurance or reinsurance cover for risks of the entity or entities to which it belongs, and only a small part, if any, of its risk exposure is related to providing insurance or reinsurance to other parties.

2 Market participants include policyholders, direct insurers, shareholders, equity analysts, insurance agents and brokers, rating agencies, and the news media.

reviewed and revised as required, to reflect evolving best practices.[3] Taking into account priorities identified by the IAIS Technical Committee and the Multi-disciplinary Working Group on Enhanced Disclosure, this standard is to be complemented by a future IAIS standard on disclosures concerning investment performance for non-life and life insurers. Later, a standard on technical performance and risks for life insurers is envisaged.

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1. General requirements

1. Insurers should provide qualitative and quantitative information on technical performance and risks.

2. Insurers should publicly disclose information on technical performance and risks that is:

- relevant to decisions taken by market participants (policyholders, cedents, investors etc.)
- timely so as to be available and up-to-date at the time those decisions are made
- accessible without undue expense or delay by the market participants
- comprehensive and meaningful
- reliable as a basis upon which to make decisions
- comparable between different insurers
- consistent over time so as to enable relevant trends to be discerned.

3. These attributes are expanded upon in the *Guidance paper on public disclosure by insurers* (January 2002). In addition, the Guidance Paper explains that meaningful comparisons can only be made where there is adequate disclosure of how information is prepared.

3 In developing this standard, the IAIS has taken account of the work of the International Accounting Standards Board (IASB). The standard is not intended to contradict the IASB requirements and in light of this, will be reviewed once the IASB's work in this area is completed.

2. Role of supervisors

4. Market discipline is an adjunct to supervision. However, in order to exercise this discipline effectively, market participants need relevant information on the technical performance and risks of insurers.

5. The supervisory authority should, therefore, assure that effective disclosure requirements are in place.

6. Where supervisors are standard setters, they should set disclosure requirements consistent with this standard.[4] Where this is not the case, supervisors should encourage standard setters to set disclosure requirements about technical performance and risks consistent with this standard.

3. Disclosures by classes

7. Disclosures in paragraphs 11-18 and 20-32 should be provided by business classes. This helps market participants understand the contribution of individual classes to the technical performance and risks of the insurer.

8. For entities in which non-life insurance business makes up a significant part of the total business, disclosures should at least be provided for the following classes if they are significant:[5]

i) Motor insurance
ii) Marine, aviation and transport insurance (including freight)
iii) Fire and other property damage
iv) Credit insurance and suretyship
v) Liability insurance
vi) Accident and health insurance
vii) Other non-life insurance[6]
viii) Non-proportional reinsurance treaties.

9. Classes i) to vii) should include proportional treaties and facultative reinsurance.

10. Policies combining different risks should be classified according to the most important risk.

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4 The supervisor should determine whether transitional arrangements are necessary in a jurisdiction, but should encourage full compliance with this standard by all insurers.

5 Supervisors may wish to provide guidance as to what constitutes significant, for example, a minimum 5% of earned premiums or claims incurred.

6 Insignificant classes should be merged with this class.

4. Analysis of technical performance

11. Insurers should provide information on their objectives and policies for underwriting insurance risks that is consistent with how the risks are managed (including information on the models and techniques that management uses to manage those risks).

12. An insurer should provide qualitative and quantitative information on technical performance in the areas of pricing adequacy, provision adequacy, claims statistics, risk concentrations, reinsurance and capital. Note that the analysis of performance is inherently backward looking, but it is the experiences of the past – the historical data – that are the major foundation on which the assessment of future risks are based.

Pricing adequacy

13. In order to judge how well insurance premiums cover the underlying risk of the insurance contracts and the administration expenses of the insurer (pricing adequacy), an insurer should disclose data on:

- loss ratio
- expense ratio
- combined ratio
- operating ratio.

14. These ratios should be calculated from the profit and loss account of the reporting year and should be gross of reinsurance in order to neutralize the effect of mitigation tools on the technical performance of the direct business. Gains on reinsurance cannot be expected to continue indefinitely without price adjustments from reinsurers. Disclosure on reinsurance is described below. If the net ratios are materially different from the gross ratios, then both ratios should be disclosed. The ratios should be measured either on an accident year or an underwriting year basis.

15. The **loss (or claims) ratio**[7] - the ratio of claims incurred to premiums earned - gives an indication of how well the pricing of an insurer matches the risks taken in the insurance contracts.

16. The **expense ratio** is the ratio of expenses to premiums earned, where expenses are the sum of commissions, administrative expenses and other technical charges.[8] It can be used to assess how well premiums cover expenses incurred.

17. The **combined ratio** - the sum of the loss ratio (claims ratio) and the expense ratio - gives a rough indication of the profitability of an insurer's underwriting operations. It does not, however, take into account the allocated investment return except to the extent that discounting takes into account future interest rates. Since income from invested premiums also contributes to technical performance, the business can be profitable even if the combined ratio exceeds 100%. The combined ratio is, amongst other factors, a function of

7 The figure stated in the profit and loss account includes the adjustment for claims incurred in previous years. In order to give a more complete view on pricing adequacy it is necessary to also consider the information requested in paragraphs 24-25.

8 This ratio could vary depending on the way an insurer allocates its general costs.

the period of time premiums are invested and the return on investments. Furthermore, the characteristics of the class of business in question, that is, the uncertainties concerning a particular class of business (volatility of losses, legal framework, the time to re-establish surplus etc.) can influence the combined ratio.

18. The **operating ratio**[9] is the combined ratio adjusted by the addition of allocated investment return in relation to premium income. This ratio enables the assessment of business performance after inclusion of allocated investment return.

19. When discounting is used, information on the discount rates used and method of discounting should be provided. The discount rates should be disclosed at an appropriate level of aggregation by duration as follows:

- for each of the next five years
- average rate for claims expected to be paid after five years.

20. Insurers should disclose the ratios, accompanied by supporting narrative, over several years to enable market participants to better evaluate long term trends. Ratios relating to previous years should not be recalculated to take into account present information. The length of the time period should reflect the historical volatility of the particular class of insurance business.

Provision adequacy

21. In order to enable market participants to evaluate trends, insurers should disclose historical data about earned premiums compared to technical provisions by class of business. To assess the adequacy of technical provisions, insurers should disclose historical data on:

- the run off result
- claims development.

22. To facilitate the evaluation of an insurer's ability to assess the size of the commitments to indemnify losses covered by the insurance contracts issued, insurers should disclose historical data on the results of the run off of technical provisions set aside in previous accounts.

23. Technical provisions can be divided in two: one part that covers claims from insurance events which have already taken place at the date of reporting (claims provisions including IBNR provisions[10] and IBNER provisions[11]) and another part that should cover losses from insurance events which will take place in the future (the sum of provision for unearned premiums and provision for unexpired risks also termed premium deficiency reserve). Insurers should provide information on the run off results defined below for each part of the technical provisions.

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9 If the operating ratio exceeds 100%, losses (claims incurred) and expenses exceed premium income and allocated investment return, thereby contributing negatively to the overall return on invested capital.

10 Provisions for claims incurred but not reported by the balance-sheet date.

11 Additional provisions for claims incurred but for which not enough has been reserved.

24. The **run off result** in relation to **provisions for incurred losses** is the difference between:

- the claims provisions made at the beginning of the financial year, and
- the sum of the payments made during the year on account of claims incurred in previous years and the claims provisions shown at the end of the year for such outstanding claims.

25. The **run off result** in relation to **provisions for future losses** is the difference between:

- the sum of provision for unearned premiums and provision for unexpired risks made at the beginning of the year, and
- an evaluation of the payments made during the year and provisions made at the end of the year, in both cases relating to insurance events covered by the unearned premiums at the beginning of the year.

26. The run off results should also be disclosed as a ratio of the initial provisions for the losses in question. When discounting is used, the effect of discounting should be shown separately.

27. Insurers should disclose the run off results over several years to enable market participants to evaluate long-term patterns; for example, how well the insurer estimates the technical provisions. The length of the time period should reflect how long-tailed the distribution of losses is for the insurance classes in question.

28. Except for short-tail business,[12] insurers should disclose information on the development of claims in a claims development triangle. The **claims development triangle** shows the insurer's estimate of the cost of claims (claims provisions and claims paid) as of the end of each year and how this estimate develops over time. This information should be reported consistently on an accident year or underwriting year basis and should reconcile to amounts reported in the balance sheet.

12 Short-tail business is defined as: when all claims are expected to be settled no later than one year after the accident year.

Example: Claims development triangle

This example illustrates a possible format for a claims development triangle.

Accident year	1997	1998	1999	2000	2001	Total
Claims provisions and claims paid at the end of the accident year	680	790	823	920	968	
One year later	673	785	840	903		
Two years later	692	776	845			
Three years later	697	771				
Four years later	702					
Estimate of cumulative claims	702	771	845	903	968	
Cumulative payments	(650)	(689)	(570)	(350)	(217)	
Claims provisions (undiscounted)	52	82	275	553	751	1,713
Earned premiums	822	933	1,052	1,123	1,215	
When discounting is used:						
Effect of discounting	(5)	(14)	(68)	(175)	(285)	(547)
Present value recognised in the balance sheet	47	68	207	378	466	1,166

29. As with the pricing adequacy ratios, provision adequacy should be calculated gross of reinsurance and be supported by an accompanying narrative.

Claims statistics

30. For high volume, homogeneous classes, direct insurers should disclose statistical information on claims. For instance, they should describe the trend in the number of claims and the average size of claims. To be relevant, this information needs to be linked to the level of business: number of policies, earned premiums, etc.

31. Ideally, the trend in claims should reflect the development in insurance risks. As it is difficult to point to one good measurement method of insurance risk, several can be considered but, at a minimum, insurers should disclose historical data accompanied by supporting narrative on:

- the mean cost of claims incurred – i.e., the ratio of the total cost of claims incurred to the number of claims – in the accounting period by class of business (classes are described in paragraph 8)
- claims frequency - for example, the ratio of the number of claims incurred in the reporting period to the average number of insurance contracts in existence during the period

32. For non-homogeneous classes, qualitative information will suffice.

Risk concentrations

33. Insurers should disclose information on risk concentrations.[13] A risk concentration refers to an exposure with the potential to produce losses large enough to threaten an insurer's economic health or ability to maintain core operations.

34. Insurers should disclose information on risk concentrations that includes:

- a qualitative and quantitative description of the kinds of risk concentrations to which the insurer is exposed and how high these are (including a description of the methods used and assumptions made in arriving at the quantitative data). If it is not possible to provide quantitative data, it should be explained why it is not possible
- a description of the extent to which the risk is reduced by reinsurance and other risk mitigating elements.

35. The description of the insurer's risk concentrations should, as a minimum, include information on the geographical concentration of insurance risk, the economic sectoral concentration of insurance risk, and if relevant, the risk concentration inherent in the reinsurance cover (see also paragraphs 43-44).

36. As a minimum, the geographical concentration of premiums[14] should be disclosed. The geographical concentration should be based on where the insured risk geographically is located, rather than where the business is written. Insurers should disclose premiums based on the geographical location of the insured risk. If this is not possible, the geographical concentration could be based on where the business is written.

37. As a minimum, the sectoral concentration of premiums should be disclosed. Insurers could additionally disclose the economic sectoral concentration based on other indicators of risk, such as sum of insured's or the coverage amount provided.

38. Insurers should disclose information on the risk concentration inherent in the reinsurance cover. As a minimum, insurers should disclose the number of reinsurers that it engages, as well as top-five concentration ratios. As a minimum, insurers should disclose the top-five-premium concentration ratio, which shows the premiums ceded to an insurer's five largest reinsurers in aggregate, as a ratio of the total reinsurance premium ceded.

39. Insurers should consider which other concentrations, in addition to those mentioned in the minimum requirements above, should also be disclosed.

Reinsurance and other risk mitigation

40. Insurers should provide information on their objectives, policies and practices for retaining and mitigating insurance risks.

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13 Risk concentrations can arise, for example, from: exposure to extreme events (i.e., low-frequency, high-severity risks such as earthquakes, concentrated exposure from a single contract, or class of related contracts, or concentrated exposure from different classes of insurance contracts); concentration of policyholders based on geographical location or industry; exposure to significant litigation risks (e.g., concentrated exposure from a large single insurance contract, or from a pervasive effect on many insurance contracts)

14 The disclosure should be based on earned premiums, or written premiums, whichever is used for revenue recognition purposes in the financial reporting of the jurisdiction.

41. Insurers should provide information about reinsurance and other risk mitigation tools.

42. Insurers should provide information on the adequacy of their reinsurance cover, how reinsurance is obtained,[15] information on their reinsurers and on the credit risk of the reinsurance cover.

43. Since reinsurance programs are often very complex and highly individual, quantitative data should be supplemented by qualitative information. A description of the insurer's overall reinsurance cover should be disclosed explaining the net risk retained and the types of reinsurance arrangements made (treaty, facultative, proportional or non-proportional) as well as any risk mitigating devices that reduce the risks arising out of the reinsurance cover. The reinsurance result – the cost of reinsurance less recovery from reinsurance of incurred claims – should be disclosed. The cost of reinsurance should include reinsurance premiums as well as foregone investment return from these reinsurance premiums.

44. The insurer should disclose the total amount of reinsurance assets included in the balance sheet,[16] showing separately the reinsurers' share of technical provisions and receivables from reinsurers on settled claims. Further quantitative information on reinsurance should be given including:

- the credit quality of the reinsurers, for example, by grouping reinsurance assets by credit rating
- credit risk concentration of reinsurance assets
- the proportion of the reinsurers that are supervised
- the nature and amount of collateral held against reinsurance assets
- the development of reinsurance assets over time
- the ageing of receivables from reinsurers on settled claims.

Capital

45. Information on capital adequacy in relation to solvency requirements should be disclosed; in particular, the generic solvency requirements of the jurisdiction and how insurers comply with the requirements. Insurers should also disclose the components of regulatory capital according to its quality; for example, by showing the amount of common shares, preferred shares, subordinated debt, etc.

46. Since there is currently no international capital standard for insurers, this disclosure does not lend itself to cross-border comparisons. It is mainly relevant to analysing trends within an individual insurer.

47. Insurers should at least disclose historical data on a company level on:

- the ratio of regulatory capital to premium income
- the ratio of regulatory capital to losses
- the ratio of regulatory capital to technical provisions.

15 For instance, whether reinsurance is obtained through brokers or directly.

16 Reinsurance assets include receivables from reinsurers on settled claims and the reinsurer's share of the technical provisions.

5. Key assumptions and sources of measurement uncertainty

48. To enhance transparency and comparability, insurers should disclose key assumptions and methodologies used in measuring insurance assets and liabilities and in the development of financial information required by this standard. An insurer should indicate the level of uncertainty association with the reported amounts, to allow the users to judge whether estimates are likely to fall within a wider or a narrower range. Where relevant, this information should include:

- key assumptions about market variables, such as the rates of inflation
- key assumptions on entity-specific variables, such as claim rates, claim severity etc.
- the main sources of data used and the chief elements of methodologies applied in measuring insurance assets and insurance liabilities
- significant correlations between different assumptions
- the main factors considered when calculating adjustments to the value of insurance assets and insurance liabilities to reflect risk and uncertainty
- significant pending matters that may cause a reassessment of the value of the insurance assets and liabilities reported (for example changes in legislation or court rulings)
- other significant assumptions considered in measuring insurance assets and liabilities.

6. Sensitivity, stress testing and scenario analysis[17]

49. Stress testing and scenario analysis performed by the insurer should reflect the insurer's unique risk profile. A broad outline of the nature of the tests that have been undertaken and how the results are used should be disclosed.

50. Public disclosure of the actual financial results of the stress test scenarios might assist users to assess an insurer's ability to withstand adversity. On the other hand, stress testing is a key management tool to help insurers understand the consequences of adverse situations. Stress testing might not achieve this key objective if insurers were required to publicly disclose the actual stress test results. For this reason, this standard does not require such disclosure.

51. Insurers should disclose sensitivity tests in order to enable market participants to evaluate and compare the uncertainties inherent in the accounts, the exposure to risk, and their impact on the financial position and economic performance.

52. Disclosure of sensitivity analysis on technical performance and risks is meant to provide the impact of a minor change in one of the underlying assumptions or variables.

53. Insurers should disclose quantitative and qualitative information about the sensitivity of their reported financial information to changes in variables that have a material effect on them. Insurers should describe the analysis performed and explain the results of the sensitivity analysis and any other aspects that may enhance the understanding of the results,

17 Refer to the IAIS Guidance paper on stress testing by insurers (October 2003) for a description of sensitivity, stress testing and scenario analysis.

including non-linearities (such as stop-loss or excess of loss features). As a minimum, insurers should disclose the results of the following standardised sensitivity analyses:

- the effects on profit or loss and equity of a change[18] in average claim size of 1 percent
- the effects on insurance liabilities of a 10% change in the rate of inflation
- the effects on assets of a 10% change in the rate of interest[19]
- if discounting is used, the effects on insurance liabilities of a 10% change in the rate of interest used for discounting.

54. This does not preclude supervisors from requiring more sophisticated sensitivity analysis.

55. If the sensitivity tests in paragraph 53 are inappropriate or misleading given particular market conditions in a market, the supervisory authority of insurers conducting business in that market could consent to another selection of standardised sensitivity tests.

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18 A change refers to a relative change, both an increase and a decrease, for example, if the rate is 4% (.04), a 10% change would be 0.4 % (.004).

19 The sensitivity analysis related to the investment performance will be further addressed in the forthcoming standard on investment performance and risks.