

INTERNATIONAL ASSOCIATION OF INSURANCE SUPERVISORS



SUPERVISORY STANDARD ON DERIVATIVES

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Supervisory Standard on Derivatives Report from the Derivatives Sub-Committee of the IAIS Technical Committee

The IAIS recognises that the supervisory approaches in member jurisdictions are evolving in response to developments in derivatives markets. This standard sets out risk management controls for insurers active in derivatives and a reporting framework that are applicable across the full range of potential activities. The IAIS encourages members to strive towards ensuring that the appropriate controls and reporting are in place for the insurers that they supervise taking into account the size, extent and complexity of the derivatives activity in their jurisdiction.

This standard provides guidance to supervisors in assessing how insurers control risks in derivatives. The approach chosen by individual supervisors will depend on the extent to which insurers are permitted to engage in derivatives activities, as well as on other factors such as the supervisor's legal authority, use of on-site and off-site supervisory techniques and the role of the external auditors. The supervisory approach will also be influenced by the extent to which the insurer uses derivatives and the purpose of their use.

Table of Contents

Background	4
Risk Management Practices	5
Written Policies and Procedures	5
Board of Directors	5
Senior Management	7
Risk Management	8
Internal Controls	9
Internal Audits	10
Supervision	11
Public Disclosure of Information	12
Glossary	13

Background

1. A derivative is a financial asset or liability whose value depends on (or is derived from) other assets, liabilities or indexes (the "underlying asset"). Derivatives are financial contracts and include a wide assortment of instruments, such as forwards, futures, options, warrants, swaps and composites. This standard also applies to structured products that have the effect of derivatives and could apply to commodity derivatives, where insurers are permitted to engage in these transactions.

2. Insurers in a number of IAIS countries are permitted to use derivatives and these products can play a useful role in investment management. Insurers choosing to engage in derivative activities should clearly define their objectives, ensuring that these are consistent with any legislative restrictions.

3. The role of the insurer and the use of derivatives may be restricted for prudential reasons by legislation. For example, in many countries insurers may only be end users of derivatives and may not trade in derivatives on behalf of their clients. In a few jurisdictions, insurers are permitted to deal in derivatives, quoting bids and offers and committing capital to satisfy customer demands for derivatives.

4. Some jurisdictions may restrict the use of derivatives to the reduction of investment risk or efficient portfolio management, or may restrict the use of derivatives by the general investment rules relating to assets covering the technical provisions. Other jurisdictions allow a full range of use.

5. Derivative products have inherent risks that must be managed properly. As with traditional investment activities, insurance companies must address credit, market, liquidity, cashflow, operational and legal risks in their derivatives activities. The nature and the degree of these risks will depend on how derivatives are used. The growing complexity, diversity and volume of derivatives products, made possible by academic research and rapid advances in technology and communications, pose increasing challenges in managing these risks.

6. Supervisors in jurisdictions that permit insurers to engage in the full range of derivatives activities, including dealing and market making, should also refer to the guidance provided by the Basle Committee and IOSCO.¹

¹ Risk Management Guidelines for Derivatives, Basle Committee on Banking Supervision, July 1994.

Framework for supervisory information about the derivatives activities of banks and securities firms, Joint Report by the Basle Committee on Banking Supervision and the Technical Committee of the International Organisations of Securities Commissions, May 1995.

Risk Management Practices

Written Policies and Procedures

7. The primary components of a sound risk management process for derivatives include written policies and procedures that:

- clearly delineate lines of responsibility for managing risk;
- set in place adequate systems for measuring risk;
- create appropriately structured limits on risk taking;
- prescribe comprehensive and timely risk monitoring and reporting;
- establish effective independent internal controls; and
- are made known to all staff dealing with derivatives.

The process of risk management for derivatives activities should be integrated into the insurance company's overall risk management framework to the fullest extent possible.

Board of Directors

8. The Board of Directors should set the company's overall risk management strategy, including the purposes for which derivatives may be used. The Board should establish and approve an appropriate policy for the use of derivatives that is consistent with the objectives, strategy, and overall risk appetite of the insurance company. This should include lines of responsibility and a framework of accountability for derivatives functions. The policy should be communicated to all staff dealing with derivatives.

9. The Board of Directors should approve written internal guidelines relating to the types of derivatives to be used, the purposes and conditions of their use and the counterparties admissible. Approval should be based on:

- compliance with legal and regulatory restrictions;
- a full analysis of the risks, the objective of which is to ensure that the Board is fully aware of any adverse effects which could result from the use of derivatives. On a regular basis, the Board should receive reports on and evaluate the risk exposure of the organisation and should re-evaluate the risk management procedures and policies; and
- confirmation that remuneration policies are structured to avoid potential incentives for excessive risk taking and that remuneration for the back office and risk management functions is fully independent of investment results.

The Board of Directors should ensure that approved policies and procedures are in place before derivatives activities commence.

10. Derivative exposure should be considered in the context of the insurance company's overall asset/liability management strategy. In particular, derivative exposures combined with exposure to other financial instruments should not result in a net exposure which is inconsistent with the insurance company's investment strategy.

11. The variation in derivatives products is enormous. The Board of Directors should consider whether it is appropriate for the company to be involved in some types of derivatives. It may be appropriate to rule out or restrict the use of some types of derivatives where, for example:

- the potential exposure cannot be reliably measured;
- closing out of a derivative is difficult considering the illiquidity of the market;
- the derivative is not readily marketable as may be the case with over-the-counter instruments;
- independent (i.e. external) verification of pricing is not available; or
- the counterparty is not suitably creditworthy.

12. The Board should consider setting exposure limits for derivatives taking account of the purpose of their use and the uncertainty caused by credit, market, liquidity, cashflow, operations and legal risk. Serious consideration should be given to having quantitative limits for the exposure to any one counterparty (taking account of the credit risk of the counterparty) particularly in relation to "over-the-counter" transactions.

13. Exposure limits for derivatives must be integrated into the overall limits set out in the insurance company's investment strategy. Risk exposures should be calculated on the company's total on and off balance sheet position. For example, in evaluating credit risk the Board of Directors should take into account all accumulated credit risks to which the insurer is exposed, whether they originate from derivatives, securities, reinsurance or other transactions.

14. The Board should ensure that the company has an appropriate capability to independently verify pricing when "over-the-counter" derivatives are used.

15. The Board must ensure that the reporting and internal control systems of the insurer are designed to monitor that derivatives are being used in accordance with the stated objectives and strategy and legal and regulatory requirements. The Board must ensure that:

- they receive regular information on risk exposure and derivatives usage in a form which is understood by them and which permits them to make an informed judgement as to the level of risk on a mark-to-market basis;
- the systems provide accurate and timely information on risk exposure and derivatives positions and are capable of responding to ad hoc requests;
- they approve the internal control procedures relating to derivatives activities; and
- the internal controls include an adequate segregation of the functions responsible for measuring, monitoring and controlling derivatives activities from those conducting day to day derivatives transactions.

16. The Board of Directors should ensure that collectively they have sufficient expertise to understand the important issues related to derivatives and that all individuals conducting and monitoring derivatives activities have sufficient levels of knowledge and experience.

Senior Management

17. Senior management should establish clear written operational policies and procedures for implementing the derivatives policy set by the Board. Their responsibility includes specifying lines of responsibility for managing risk, adequate systems for measuring risk, appropriately structured limits on risk taking, effective internal controls and a comprehensive risk-reporting process.

18. The content of operational policies and procedures will be different for each insurance company but the level of detail should be consistent with the complexity and volume of derivative usage and the strategy and objectives of the insurer. They should include, as appropriate:

- the purpose for which particular derivatives are to be used, including the circumstances in which derivatives transactions can be used and acceptable rationales for undertaking transactions;
- procedures for seeking approval for the usage of new types of derivatives: these should include addressing the extent to which there will be any trading activity and who should take decisions in this regard;
- procedures for the approval of counterparties and brokers;
- details of who is authorised to enter into derivatives transactions;
- procedures by which senior management exercises control over derivatives activities;
- the quantitative limits to the use of each type of derivative;
- the quantitative limits to credit, market and other risks;
- procedures for monitoring liquidity risk;
- internal procedures covering front office, back office, measurement of compliance with counterparty credit lines and limits, control and reporting;
- valuation procedures for risk management purposes on a mark-to-market basis or equivalent for over the counter transactions; and
- the identification of who should be responsible for the valuation. Valuations should be carried out by individuals independent of those responsible for trade execution or, if this is not possible, valuations should be independently checked or audited on a timely basis.

Accounting and taxation rules should also be taken into consideration in developing operational policies and procedures for the use of derivatives.

19. Senior management should allocate sufficient resources to establish and maintain sound and effective risk management systems. These systems should be integrated with the front office, back office, accounting and reporting systems.

20. At least annually, senior management should review the adequacy of its written operational policies and procedures in light of the insurance company's activities and market conditions. The Board of Directors must approve changes to derivatives policies and procedures or reaffirm the existing policies.

Risk Management

21. A formal organisational structure should be established to monitor and manage the risks inherent in any investment activity undertaken by the insurance company. Risks arising from derivatives activities (market, credit, liquidity, cashflow, operational and legal risk) should be monitored and managed in an integrated manner with the similar risks arising from non-derivatives activities so that senior management can regularly assess risk exposures on a consolidated basis.

22. The overall risk management function should allocate resources to measuring risks specific to derivatives activities, comparing them against pre-determined risk limits and reporting to senior management. Therefore the responsibilities of the risk management function should include:

- setting detailed limits for each major type of risk involved in the insurer's derivatives activities, as appropriate. These limits should be consistent with the company's overall risk management process and with the adequacy of its capital position;
- formally noting and promptly reporting breaches;
- reviewing risk management activity over the past period; and
- monitoring compliance with the approved overall risk management strategy, counterparty credit lines, and limits.

23. Systems for measuring the various risks arising from derivatives activities should be comprehensive and accurate, such that risk can be measured and aggregated across trading and non-trading activities on an organisation-wide basis and, as appropriate, on a group-wide basis, at any given time. These systems will vary from company to company, however they should be:

- sufficiently robust to reflect the scale of the risks and the activity undertaken;
- capable of accurately capturing and measuring all significant risks in a timely manner; and
- understood by all relevant personnel at all levels of the insurer.

24. Once risk management policies and limits have been put in place, adequate procedures should be established for monitoring compliance with those policies and limits. These procedures should assist prevention and enable the early detection of non-compliance with the risk management policies. In many cases this will involve some form of daily monitoring.

25. The risk management function should assess the robustness of the risk policies and limits. To do this, regular stress testing should be undertaken for a wide range of market scenarios and changing investment and operating conditions. Once an insurer has identified those situations to which it is most at risk, it should ensure that it puts in place appropriate policies and procedures to manage them effectively.

26. The risk management function should regularly report to appropriate levels of senior management and to the Board of Directors. The frequency of reporting should provide these individuals with adequate information to judge the changing nature of the insurer's risk profile. The reports should indicate how the derivatives activities are meeting the stated objectives and complying with approved policies and procedures.

Internal Controls

27. All individuals conducting, monitoring, controlling and auditing derivatives business should be suitably qualified and should have appropriate levels of knowledge and experience.

28. Adequate systems of internal control must be present to ensure that derivatives activities are properly supervised and that transactions have been entered into only in accordance with the insurer's authorised policies and procedures. The extent and nature of internal controls adopted by each insurer will be different, but procedures to be considered should include:

- reconciliations between the front office, back office and accounting systems, to be carried out at an appropriate level depending on the extent of derivatives activity (as a guide, insurers which actively use derivatives should carry out reconciliations daily);
- procedures to ensure that any restrictions on the power of all parties to enter into any particular derivatives transaction are observed. This will require close and regular communication with those responsible for compliance, legal and documentation issues in the insurer;
- procedures to ensure all parties to the transaction agree with the terms of the deal. Procedures for promptly sending, receiving and matching confirmations should be independent of the front office function;
- procedures to ensure that formal documentation is completed promptly;
- procedures to ensure reconciliation of positions reported by brokers;
- procedures to ensure that positions are properly settled and reported, and that late payments or late receipts are identified;
- procedures to ensure that all authority and dealing limits are not exceeded and all breaches can be immediately identified;
- procedures to ensure the independent checking of rates or prices; and
- procedures to monitor any derivative transaction which requires specific action (such as exercise of an option) or which contemplates delivery of an underlying asset so as to ensure that the transaction will either be closed out or that the insurer will be in a position to make or take delivery.

29. Regular and timely reports of derivatives activity should be produced which describe the company's exposure in clearly understandable terms and include quantitative and qualitative information. The reports should, in principle, be produced on a daily basis for senior management purposes; less frequent reporting may be acceptable depending on the nature and extent of derivatives activities. Upward reporting to the Board of Directors is recommended on at least a monthly basis. Reports should cover the following areas:

- commentary on derivative activity in the period and the relevant period end position;
- details of positions by type of product;
- an analysis of credit exposures by counterparty;
- details of any regulatory or internal limits breached in the period and the actions taken thereto; and
- planned future activity.

30. The functions responsible for measuring, monitoring, settling and controlling derivatives transactions should be distinct from the front office functions. These functions should be adequately resourced.

31. Where external asset managers are used, the Board of Directors must ensure that senior management is in a position to monitor the performance of those managers against Board approved policies and procedures. The insurer must retain appropriate expertise and ensure that, under the terms of the contract, it receives sufficient information to evaluate the compliance of the asset manager with the investment mandate.

Internal Audits

32. Insurance companies should have an internal audit program that includes coverage of their derivatives activities and ensures timely identification of internal control weaknesses and operating system deficiencies. The internal audit function must be independent of the functions and controls it inspects. Concerns with regard to derivatives activities should be reported to senior management and the Board.

33. Internal audit coverage should be provided by competent professionals who are knowledgeable of the risks inherent in derivatives.

34. Internal auditors should be expected to evaluate the independence and overall effectiveness of the institution's risk management functions. In this regard, they should thoroughly evaluate the effectiveness of the internal controls relevant to measuring, reporting and limiting risks. Internal auditors should evaluate compliance with risk limits and the reliability and timeliness of information reported to senior management and the Board of Directors.

35. Internal auditors should also periodically review derivatives operations to ensure compliance with the insurance company's regulatory obligations.

Supervision

36. In monitoring the activities of insurance companies involved in derivatives, supervisors must satisfy themselves that companies have the ability to measure, analyse and manage the associated risks. In order to achieve this objective supervisors should see to it that companies have appropriate quantitative and qualitative information on their derivatives activities. Information required by supervisors should reflect the extent of derivatives activities.

37. Supervisors should obtain sufficient information on the company's written policies and procedures on derivatives and may wish to request the following information:

- the purpose for which particular derivatives are to be used and acceptable rationales for undertaking transactions;
- procedures for the approval of counterparties and brokers;
- procedures for seeking approval to use new types of derivatives;
- the limits to credit, market, and other risks;
- procedures for monitoring liquidity risk;
- internal procedures covering front and back office functions, measurement of compliance with counterparty credit lines and limits, oversight, control and reporting;
- the professional qualifications of those entrusted with derivatives activities;
- the valuation methodology; and
- compliance reports.

38. Periodically supervisors should monitor the extent of an insurer's exposure in derivatives. Supervisors may wish to obtain some or all of the following quantitative information:

- notional amounts of derivatives by broad risk category, instrument type and trading type (over-the-counter or exchange-traded) in order to understand the scope and nature of the insurance company's involvement in derivatives activities;
- market values of derivatives, or equivalent for over the counter instruments, by broad risk category, instrument type and trading type in order to gauge the insurer's exposure to financial risk;
- for derivatives used in relation to the management of invested assets or liabilities, the net value of the related positions; and
- where derivatives are held for purposes other than the management of the portfolio of assets, additional information, as appropriate, using the common minimum reporting framework developed by the Basle Committee and IOSCO as an example.

Information may include the end-of-period position, the average position and the maximum position over the analysis period.

39. This information should be accessible to supervisors through on-site examinations, external audits, discussions with companies, special surveys, as well as regular reporting procedures. Supervisors may wish to make use of internal management information on derivatives. Information should be timely and comprehensive (i.e., it should include all types of derivative transactions and cover the entire reporting entity). In cases where insurers outsource certain functions, they are still responsible for ensuring that information is available for supervisory purposes.

Public Disclosure of Information

40. Supervisors should consider requiring that insurers provide qualitative and quantitative information on derivative activities to the public. Some jurisdictions encourage public disclosure and increased transparency as a form of market discipline.

Glossary

Cashflow risk:	the risk that the entity will not be able to finance its derivatives activities (for example, meeting margin calls on futures contracts.)
Composite:	a combination of two or more standard derivatives to achieve a specified objective.
Counterparty:	the other party with whom a derivatives contract is made.
Credit risk:	the risk that a counterparty will not pay an amount due as called for in the original agreement, and may eventually default on an obligation.
Liquidity risk:	the risk that the entity may not be able to, or cannot easily, unwind or offset a particular position at or near the previous market price because of inadequate market depth or because of disruptions in the market place.
Market risk:	is the risk to an institution's financial condition resulting from adverse movements in stocks, bonds, interest rates, exchanges rates, commodity prices and so on.
Operational risk:	the risk that deficiencies in information systems or internal controls will result in unexpected loss. This risk is associated with human error, system failures and inadequate procedures and controls. This risk can be exacerbated in the case of certain derivatives because of the complex nature of their payment structures and calculation of their values.