



Prudential Practice Guide

LPG 250 – Asset and Liability Management Risk

March 2007

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About this guide

Prudential Standard LPS 220 Risk Management (LPS 220) sets out APRA's requirements for life companies in relation to asset and liability management (ALM) risk. This prudential practice guide aims to assist life companies in complying with those requirements and, more generally, to outline prudent practices in relation to management of ALM risk.

Subject to the requirements of LPS 220 and the resilience reserve requirements of the actuarial standards, life companies have the flexibility to configure their ALM risk management framework in the way most suited to achieving their business objectives.

Not all of the practices outlined in this prudential practice guide will be relevant for every life company and some aspects may vary depending upon the size, complexity and risk profile of the life company.

Asset and liability management risk

1. Asset and liability management (ALM) risk includes, but is not limited to:
 - (a) asset-liability mismatch risk;
 - (b) investment risk;
 - (c) the risks associated with liquidity management;
 - (d) risks arising from the use of derivatives;
 - (e) credit risk; and
 - (f) asset concentration risk.
2. A life company would ordinarily set out the level at which the ALM approach (or each ALM approach) applies. For example, statutory fund level or product level.

Investment risk and asset-liability mismatch risk

3. Investment risk refers to the possibility of an adverse movement in the value of a life company's assets. Investment risk derives from a number of sources, including market risk, credit risk and investment concentration risk. Related to this is asset-liability mismatch risk.
4. Asset-liability mismatch risk is the risk of adverse movements in the relative value of assets and liabilities. Assets and liabilities are considered to be well matched if their changes in value in response to market movements are highly correlated. If assets and liabilities are not well matched, the possibility of a reduction in asset value, that is not offset by a reduction in liability value, or an increase in liability value, that is not offset by an increase in asset value, increases.
5. Due to the nature of a life company's business, there is a close relationship between ALM risk, product development and capital management. The approach to ALM by a life company would typically include an analysis of the optimal level of risk versus return in respect of different investment strategies, having regard to the risk tolerances of all the relevant stakeholders, including both policy owners and shareholders. The requirements of section 48 of the *Life Insurance Act 1995* (the Act), giving priority to the interests of policy owners, will normally be relevant in this assessment. In making this assessment, consideration would typically be given to:
 - (a) the expected return to, and risk appetite of, policy owners and shareholders, including what has been disclosed to policy owners and shareholders;
 - (b) the extent of asset-liability mismatch risk to be borne by policy owners and by shareholders;
 - (c) hedging and derivative strategies intended to minimise or offset the asset-liability mismatch risk and the impact of those strategies on expected returns;
 - (d) the quantum of regulatory capital required as a result of any asset-liability mismatch;
 - (e) the quantum of additional capital required to satisfy the company's internal capital management assessment in relation to any asset-liability mismatch risk; and
 - (f) the cost of capital including the extent to which the cost of capital is borne by policy owners and shareholders.
6. In considering investment risk, the risk management framework would normally take into account:
 - (a) the investment objective for each product type or fund where relevant (including the expectations of policy owners);
 - (b) the formulation of investment strategies/ mandates, including allowable asset classes, use of derivatives, strategic asset allocation, asset allocation ranges, benchmarks, risk limits and allowable currency exposures and ranges. The investment strategy would typically be formulated taking account of the investment objective, the life company's capital position, the term and currency

- profile of its expected liabilities, liquidity requirements and the expected returns, volatilities and correlations of asset classes;
- (c) a process for how individual asset classes will be managed, including which of these tasks are done internally and which are outsourced to investment managers;
 - (d) responsibilities of individuals and committees (e.g. investment committee, asset and liability management committee) for deciding and implementing the investment strategy and for monitoring and controlling investment risk, including reporting lines, decision-making powers and delegations;
 - (e) a process for selection of investment managers, direct investments (including direct lending) and pooled investment vehicles;
 - (f) a process for dealing with breaches of limits, including a process to ensure excesses are brought within the pre-approved limits within a set timeframe;
 - (g) a process for identifying and reviewing, and if necessary, reducing or cancelling, exposures to a counterparty exhibiting unduly high risk;
 - (h) limits and other restrictions on the actions of investment managers, whether internal or outsourced, and the means by which compliance with those investment mandates is monitored;
 - (i) modelling and stress-testing the impact of the current and alternative investment strategies on financial outcomes and asset-liability mismatch in addition to the stress tests implicit in the resilience reserves;
 - (j) processes for:
 - (i) ensuring the continuing appropriateness of the investment strategy, including timing and nature of strategy reviews;
 - (ii) ensuring the continuing appropriateness of the investment implementation process, including timing and nature of reviews of investment managers and manager configuration; and
 - (iii) monitoring compliance with the investment strategy;
 - (k) segregation of duties (which may also be covered by the operational risk management framework); and
 - (j) performance monitoring and its role in the oversight and control of the investment process.

Liquidity

7. A life company should have sufficient liquidity to meet all cash outflow commitments to policy owners (and other creditors) as and when they fall due.
8. In relation to liquidity, the risk management framework would normally consider:
 - (a) the level of mismatch between expected asset and liability cash flows under normal and stressed operating conditions;
 - (b) the basis for liquidity and realisability of assets;
 - (c) sources of available funding;
 - (d) the uncertainty of incidence, timing and magnitude of liability cash flows; and
 - (e) the level of liquid assets needed to be held by the life company.

Derivatives

9. Derivatives are financial contracts, such as forwards, futures, swaps, options and other similar transactions, that are derived from an underlying asset.

10. When considering derivatives, a life company's risk management framework would typically take into account the following elements:
 - (a) the life company's objectives in using derivatives;
 - (b) the derivative risk tolerances of the life company and a derivative limit framework consistent with those risk tolerances;
 - (c) appropriate lines of authority, segregation of duties and responsibility for transacting derivatives, including trading limits; and
 - (d) where relevant, consideration of worst case scenarios and sensitivity analysis associated with the impact of derivatives and reporting of that analysis.
11. The use of derivatives for reasons other than hedging purposes is likely to give rise to unique risks. The life company's risk policies would typically take these risks into account with appropriate risk controls and procedures.

Credit risk

12. Credit risk is the risk of default by borrowers and transactional counterparties as well as the loss of value of assets due to deterioration in credit quality. When assessing credit risk, a life company would ordinarily consider the impact on the value of the asset portfolio of:
 - (a) potential defaults (i.e. the failure to repay principal and/or interest as contractually required);
 - (b) the potential migration of assets held from one credit rating category to another (lower) credit rating category. This typically results in an increase in the market discount rate applied to the security and therefore a reduction in the current realisation value; and
 - (c) the potential adverse variation in the overall level of market credit spreads. This can result in a reduction of asset realisation values relative to the liability values and may indicate changed market perceptions of future default and migration risks.
13. In relation to credit risk, the risk management framework would normally consider the following elements:
 - (a) mandates setting out the acceptable credit quality rating of investment assets including reinsurance. This may be integrated with a more general investment mandate;
 - (b) a process for approving changes in credit mandates and changes (including temporary increases) in the allowable credit rating;
 - (c) a process for identifying and reviewing and, if necessary, reducing or cancelling investments in a particular counterparty where it is experiencing problems;
 - (d) a process to monitor and control investments against pre-approved credit quality limits;
 - (e) a process to regularly review and report the credit quality of investment (at an individual and aggregated level); and
 - (f) a process of reporting to the Board and senior management any breaches of limits.
14. Credit exposures can increase the risk profile of a life company and adversely affect financial viability. APRA envisages that actual and potential credit exposures to reinsurers, arising from current or possible future claims and other exposures, would be managed as part of the process of credit risk management.
15. If a life company is investing in instruments other than senior debt, there may be unique risks associated with these instruments. The life company's risk policies would typically require analysis of new securities to identify unusual features giving rise to risk (e.g. embedded options) and manage these using appropriate risk controls and procedures.

Asset concentration risk

16. Diversification is an important principle of prudent investment. A life company would typically consider the extent that the asset exposure (at least at a statutory fund level and in aggregate) is excessively concentrated in a particular asset, or with a particular obligor.¹
17. In relation to exposures to individual assets, APRA envisages that the risk management framework would incorporate the following elements:
 - (a) mandates setting out the acceptable range, quality and diversification of exposures primarily in relation to investment assets (at least at a statutory fund level). This may be integrated with a more general investment mandate;
 - (b) limits for exposures at both an individual and aggregated level to:
 - (i) single counterparties and groups of related counterparties;
 - (ii) intra-group asset exposures (to subsidiaries and related entities);
 - (iii) counterparties (e.g. by credit quality rating);
 - (iv) single industries; and
 - (v) single geographical locations;
 - (c) a process for approving changes in the limit structures;
 - (d) a process for dealing with breaches of limits, including a process to ensure excesses are brought within the pre-approved limits within a set timeframe;
 - (e) a process to monitor and control exposures against pre-approved limits;
 - (f) a process to review exposures (at least annually, but more frequently in cases where there is evidence of a deterioration in quality);
 - (g) a management information system that is capable of aggregating exposures to any one counterparty (or group of related counterparties), asset class, industry or region in a timely manner; and
 - (h) a process of reporting to the Board and senior management:
 - (i) any breaches of limits; and
 - (ii) large exposures and other asset concentrations.

¹ The actuarial standards also refer to diversification and concentration of assets.



Telephone
1300 13 10 60

Email
contactapra@apra.gov.au

Web site
www.apra.gov.au

Mail
GPO Box 9836
in all capital cities
(except Hobart and Darwin)