



## LIFE INSURANCE AND WEALTH MANAGEMENT PRACTICE COMMITTEE

### Information Note: Target Surplus

September 2009

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#### 1 Information Note status

- 1.1 This Information Note was prepared by the Life Financial Reporting Sub-committee (LFRSC) of the Life Insurance and Wealth Management Practice Committee (LIWMPC) of the Institute of Actuaries of Australia ("Institute"). This Information Note does not represent a Professional Standard or a Practice Guideline of the Institute. It has been prepared for the purposes of providing information and generating discussion on aspects of target surplus that may lead to divergent practices within the Institute's membership.
- 1.2 This Information Note applies to life insurance companies only.
- 1.3 Feedback from Institute Members is encouraged and should be forwarded to the Sub-committee (care of Richard Weatherhead).
- 1.4 This Information Note was originally issued in February 2007. The current version was issued in September 2009.

#### 2 Background

- 2.1 Target surplus is an amount of capital additional to a capital benchmark that a life insurance company chooses to hold, given its risk tolerance levels, to allow for adverse future experience.
- 2.2 A company may choose to manage its capital against a number of different capital benchmarks in its target surplus policy and may have different risk tolerance levels for each benchmark.
- 2.3 The Australian Prudential Regulation Authority (APRA) has made clear its expectations that company Boards will set a framework for managing target surplus and free assets so as to avoid breaching their prudential obligations.
- 2.4 This Information Note aims to provide additional information to actuaries involved in target surplus policy development and calculation for life insurance companies.
- 2.5 The Board is responsible for defining the risk tolerance of the company and how this interacts with the desired level of shareholder returns. As such, the Board is ultimately responsible for setting the capital management policy of the company.



The target surplus policy forms an important part of the capital management policy or plan, and is likely to be used to inform dividend policy and to trigger capital raising or distributions.

- 2.6 There are also other key stakeholders including senior management, the regulator, customers and shareholders who have interests in the appropriate approach to adopt.
- 2.7 Target surplus can, in some circumstances, be similar to economic capital and then the principles set out in this Information Note apply to the determination and management of economic capital. However there are many definitions and uses of economic capital and where these are not consistent with the definition of target surplus, then these principles may not be relevant.

### **3 Definition of "target surplus"**

- 3.1 "Target surplus" can be defined as:

*"the target range of assets that a life insurer chooses to hold in excess of its selected capital benchmark(s)".*

There are a number of capital benchmarks that a company may choose to measure its assets against:

- (a) regulatory requirements (solvency, capital adequacy, management capital);
- (b) an internal model of capital required;
- (c) the capital required to maintain a particular rating from a ratings agency;
- (d) working capital requirements and need to finance new business strain and any capitalised expenses; or
- (e) any other measure as determined by the Board of the company.

- 3.2 "Target surplus policy" can be defined as:

*"the basis on which a life insurer determines its target surplus(es) and the process it uses for determining whether and how to adjust the level of additional capital held to meet its target(s)".*

### **4 Target surplus and the regulator**

- 4.1 APRA, in its role as regulator of Australian life insurance companies, has raised the profile of target surplus in recent years. Prudential Standard LPS 220 requires a company to have a Risk Management Strategy that identifies its approach to



capital management. Prudential Practice Guide LPG 200 suggests that a company will ordinarily have a capital management plan that will include a target surplus policy.

- 4.2 APRA has noted that the level of target surplus of a life insurer is a decision for the company themselves and should not be construed as an additional layer of statutory capital. However APRA will take into account a number of factors when assessing the level of regulatory supervision to apply to an entity, including the actual surplus position and the target surplus policy.
- 4.3 Therefore, when determining a target surplus policy against a regulatory capital benchmark the costs of potentially increased regulatory focus or intervention need to be assessed against the risk and return targets for the entity, the costs of holding additional capital and the probability and costs of raising additional capital.
- 4.4 The regulatory capital benchmark could be either the Solvency requirement or the Capital Adequacy requirement in respect of the statutory funds and the Management Capital requirement in respect of the shareholders fund.

## **5 Determining the range of target surplus**

- 5.1 Determining the acceptable range of target surplus for a particular capital benchmark may be approached by specifying an acceptable risk of breaching the benchmark capital requirements. The items requiring specification are interdependent and include:
  - (a) benchmark against which target surplus is to be measured (see paragraph 3.1);
  - (b) time horizon over which target surplus is to be measured. This requires an evaluation of the elapsed time likely to occur between the occurrence of adverse experience and management becoming aware of the issue, making decisions, obtaining required approvals and, finally, implementing the agreed actions;
  - (c) degree of tolerance for breaches of the selected benchmark with reference to the corporate structure of the entity under consideration and the extent to which this provides access to capital outside of the entity if required. It is likely that the actuary will consider there to be less tolerance for a breach of a regulatory benchmark than a breach of other internally imposed benchmarks. It will be necessary to express the tolerance profile of the organisation to breaches in ways that can be practically utilised;
  - (d) consideration of the various stakeholders and how their requirements are embedded in the definition of the target surplus approach;



- (e) consideration of impact of target surplus approach with other measures that may be used by the company, such as cost of capital or return on capital.
- 5.2 Other alternative approaches also exist to determine the level of target surplus. For example, one can specify the costs of holding additional capital or de-risking the portfolio, and compare these directly with the costs of potential regulatory intervention were the benchmark capital levels breached.
- 5.3 The establishment of a target surplus policy represents one of a number of possible strategies for managing a company's capital. There may be other alternatives that can either be implemented in conjunction with the target surplus policy, or in the event that the target surplus proves inadequate, to deal with a severe deterioration in experience. These measures might include:
  - (a) retain additional profits emerging from in force business;
  - (b) accumulate capital margins emerging from in force business;
  - (c) manage the rate at which new business is acquired;
  - (d) change the company's reinsurance arrangements;
  - (e) adjust the level of asset/liability matching to achieve a change in the company's risk profile;
  - (f) transfer assets between statutory funds and into (and potentially back from) shareholder funds, if available;
  - (g) capital injections from the company's parent.

Not all of these alternatives can be arranged quickly, or necessarily as required, and may become impaired or even unavailable in an environment where capital is scarce.

- 5.4 The target surplus policy outlines the company's intentions regarding a range of surplus levels. It is reasonable for the policy to contemplate scenarios where the actual surplus is at different levels both within and outside a target range. It is often appropriate for some capital to be used to absorb fluctuations in profit over time. The target surplus policy will normally specify what actions will be triggered at different levels of actual surplus. The actions would cover internal reporting requirements, as well as steps that might be taken to increase or reduce surplus levels and who is responsible for the steps.

## **6 Modelling target surplus levels**

- 6.1 A range of models can assist in the assessment of the amount of target surplus.



- 6.2 Regardless of the modelling approach adopted, the target surplus policy will assess all risks that are currently faced by the entity, including for example strategic and political risks. In this regard the company's risk management framework should provide a guide as to the range of risks being faced and the measures in place to manage those risks. The capital standards issued by APRA are intended to consider all material risks for a well diversified life insurer and therefore in most circumstances it would not be expected that additional risks would be identified for this purpose.
- 6.3 It is necessary to develop a method for quantification of the risks, taking account of the materiality of their contribution. A further factor for consideration is the extent (explicit or implicit) to which correlation between risks is reflected and how the approach adopted can be supported. In considering the appropriate allowance to make for diversification between risks it is important to consider whether this may break down in extreme scenarios.
- 6.4 A key issue in the development of the models is the approach to the development of the underlying distribution of each risk to be incorporated in the target surplus assessment. It is noted that there are a variety of means of performing this modelling and the appropriate approach will depend on the entity's specific risk situation and materiality of each risk. Examples of the possible approaches include deterministic modelling supported by stress testing, use of scenario testing based on management estimates of loss events or stochastic modelling of each distribution.
- 6.5 Particular care should be taken in modelling the tail probabilities, asymmetric outcomes and volatilities in investment markets that are relevant to the capital calculations. Such modelling may be highly sensitive to assumptions that are subject to substantial uncertainty. The same applies to implicit and explicit assumptions of mean reversion. The results should be considered in light of the level of credibility attaching to them.
- 6.6 The modelling process should include an assessment of the plans in place for dealing with adverse scenarios (including situations where actual capital levels fall to specific points in the target surplus range), together with consideration of the discretions available to management and the Board. Typically this would include ongoing management actions such as changes in bonus and crediting rates, and regular pricing updates. These management actions themselves need to be stress tested (for example, for changes in client behaviour). In particular, it may not be considered desirable to raise capital by selling shares to offset losses that have arisen from a general fall in share prices.
- 6.7 Risk outcomes can emerge either as a shock (for example, from catastrophic claim events, recognition of a substantial deterioration in projected claim costs or a sudden loss of asset values) or in a more gradual fashion (for example, substantial though short term adverse departure in claims experience from long



term trends). These lead to clear differences in the requirement for additional capital.

- 6.8 It may be necessary to reconcile the results on different bases, in particular between the accounting position, regulatory position and economic position where these differ.

## **7 Reporting and communication**

- 7.1 While the Board is responsible for target surplus policy, it will normally do so on the advice of the appointed actuary. Actuaries might consider a regular separate report, or including the information in the financial condition report. Various provisions in the Institute's Professional Standard 200 are relevant to these reports.
- 7.2 The actuary is encouraged to discuss with the Board the implications of making information regarding surplus levels public. Companies have differing policies on whether to publish target surplus or ranges. Information may not be published in order to prevent unnecessary concern. For example, if investors are accustomed to interpreting announcements of capital shortage as being a cause for concern, they may misinterpret such reporting. On the other hand, investors and other stakeholders may be comforted if they are kept more informed on company intentions.

**END OF INFORMATION NOTE**