SUPERANNUATION PRACTICE COMMITTEE

Information Note: Shortfall Limit in Superannuation Prudential Standard 160

June 2013

A. Purpose and status of Information Note

1. Superannuation Prudential Standard 160 (Defined Benefit Matters) ("SPS 160") (proposed final version dated July 2013) deals with a range of matters affecting defined benefit funds. It is expected that any actuary providing advice in respect to a defined benefit fund, or sub-fund, will have a detailed understanding of SPS 160 (and the related Prudential Practice Guide SPG 160 (Defined Benefit Matters) ("SPG 160")).

2. Guidance on the interpretation of aspects of SPS 160 will be provided in SPG 160 which, at the date of issuing this Information Note, is in draft for industry comment. Upon finalisation of SPG 160, certain aspects of this Information Note may need to change.

3. SPS 160 requires a Registered Superannuation Entity ("RSE") licensee (that is, a trustee) of a defined benefit fund to set a shortfall limit, and to determine and implement a monitoring process to detect when the fund has, or may have, breached the shortfall limit and/or moved into an unsatisfactory financial position. If the shortfall limit is, or may be, breached, SPS 160 outlines a range of actions that will need to be performed, which may include conducting an actuarial investigation.

4. This Information Note was prepared by the Superannuation Practice Committee ("SPC") of the Actuaries Institute ("Institute") and is intended to assist actuaries providing advice to RSE licensees in relation to determining an appropriate shortfall limit. It does not cover the broader requirements placed on actuaries by SPS 160.

5. This Information Note does not represent a Professional Standard or Practice Guideline of the Institute.

6. Feedback from Institute Members is encouraged and should be forwarded to Brad Jeffrey of the SPC, (Brad.Jeffrey@towerswatson.com).

7. This is the first version of this Information Note.

B. The shortfall limit

8. The shortfall limit is defined in paragraph 10 of SPS 160 as:

> "… the extent to which an RSE licensee considers that a fund can be in an unsatisfactory financial position with the RSE licensee still being able to reasonably expect that, because of corrections to temporary negative market fluctuations in the value of fund assets, the fund can be restored to a satisfactory financial position within one year."

9. An unsatisfactory financial position is defined in paragraph 8 of SPS 160 as the situation where the assets of the defined benefit fund, or sub-fund, excluding the Operational Risk Financial Requirement ("ORFR"), is "not adequate to cover the liabilities of the fund or sub-fund in respect of the benefits vested in members of the fund or sub-fund".

10. The shortfall limit should be determined in respect of the defined benefit component of a defined benefit member's benefit entitlement (that is, the defined benefit interest, excluding any purely accumulation add-on benefits). This is consistent with the reporting requirements of Reporting Standard SRS 160.0 (Defined Benefit Matters) ("SRS 160.0").

11. While it is mentioned in SPS 160 that the shortfall limit could be nil, this should be interpreted as meaning the deviation from a Vested Benefit Index ("VBI") position of 100% may be nil, as SRS 160.0 confirms that the shortfall limit should be expressed in the same format as the VBI.

12. Draft SPG 160 suggests that a shortfall limit may be set above 100%, to provide a funding buffer in excess of vested benefits. It is suggested that, in view of the consequences of breaching a shortfall limit, the shortfall limit recommended by actuaries not exceed 100%. This does not, though, prevent a trustee establishing, or actuary advising a trustee on the establishment of, a funding target that exceeds a VBI of 100%.

C. Interpretation

13. There are a number of aspects of this definition of shortfall limit that are open to interpretation – for example, the meaning of phrases such as "reasonably expect" and "temporary negative market fluctuations".

14. In particular, when SPS 160 was issued, the SPC was concerned about how to interpret the combination of "reasonably expect" with the need to restore the fund to a satisfactory financial position "within one year". Most actuarial investment models are not designed to produce a higher probability of excess returns after a fall in asset values. For example, using such a model, if a fund had a VBI position of 100% at the

start of the year and needed to earn the 'expected return' in order to maintain the VBI at 100%, then after a fall in asset values, based on the probability distribution for expected returns for this model's benchmark asset allocation over a one year period, there would be less than a 50% chance of achieving the required return to get back to a VBI of 100% (that is, the actual return achieved over the subsequent year would need to be higher than the expected return in order to restore a fund to a satisfactory financial position in one year's time). As APRA does not expect the shortfall limit to necessarily be equal to a VBI of 100%, except where there are special circumstances (for example, where vested benefits are only marginally higher than minimum requisite benefits), the SPC concluded that "reasonably expect" in the context of shortfall limits under this actuarial model must be associated with a probability of less than 50%.

15. Further guidance from APRA has now been provided in the draft SPG 160 and, in relation to the issue of temporary market fluctuations, paragraph 16 states:

> "The effect of market volatility on asset values may cause a fund to move in and out of an unsatisfactory financial position on a short term basis. The requirement for a shortfall limit in allows for some fluctuation in the value of fund assets without automatically triggering the need for a restoration plan in the period between regular investigations. The intent of the requirement is to avoid the need for additional and perhaps unnecessary remedial action between regular investigations when a shortfall is not material in the fund circumstances. In APRA's view such fluctuations would be temporary and short term."

16. The purpose of the shortfall limit is to avoid the need for additional and perhaps unnecessary remedial actions between regular investigations, and key phrases in the above paragraph of draft SPG 160 are "when the shortfall is not material in the fund circumstances" and that the fluctuations would be "temporary and short term", which it seems reasonable to interpret as being in respect of periods of less than one year.

17. Both SPS 160 and draft SPG 160, as well as FAQs issued by APRA, indicate that the shortfall limit is to be established principally by reference to volatility of investment returns. Whether or not the shortfall limit is breached, of course, will also be affected by factors other than investment returns (for example, the level and adequacy of contributions, salary increases and (potentially) aspects of the fund's benefit design such as where members become entitled to salary-related defined benefits only on reaching a certain age and/or service threshold etc).

18. The final sentence in paragraph 18 of draft SPG 160 suggests that a trustee should also, when setting a shortfall limit, assess the financial strength of an employer sponsor and their willingness and capability to pay contributions in accordance with the actuary's recommendations to meet the shortfall. The SPC's view is that the shortfall limit recommendation made by the actuary should reflect investment return volatility alone,

and not the assessment mentioned in this paragraph. However, the actuary should point out to the trustee the guidance in this paragraph, as the trustee may wish to adjust the shortfall limit recommended by the actuary to reflect the assessment suggested in this paragraph of draft SPG 160.

19. The SPC's view is that there is no single or obvious methodology that must be applied to determine a shortfall limit. Key factors for actuaries to take into account in advising trustees on shortfall limits include:

- the investment strategy:

  The expected volatility of investment returns is typically a function of the proportion of the fund's defined benefit assets invested in growth-oriented investments (for example, shares and property). In general, the higher the allocation to growth-oriented assets, the greater the expected volatility of investment returns.

  Hence, all other things being equal, a fund with a higher allocation to growth-oriented assets would be expected to have a lower shortfall limit (for example, say, a VBI of 95%) than the shortfall limit of an "equivalent" fund with a lower allocation to growth-oriented assets (being, say, a VBI of 98%).

- the defined benefit component of the vested benefit design:

  Defined benefit funds may have benefit designs that are purely defined benefit in nature (where the vested benefits are not influenced by investment returns) or benefit designs where vested benefits may be either the greater of a defined benefit and an accumulation benefit, or accumulation in nature up to a certain age or service threshold. A fund with a pure defined benefit vested benefit design would be expected to experience greater volatility in its VBI position compared to a defined benefit fund that has accumulation elements (the value of which is linked to the fund's actual investment returns) in its vested benefit design.

  Hence, all other things being equal, a fund with a pure defined benefit design would be expected to have a lower shortfall limit (for example, say, a VBI of 95%) than the shortfall limit of an "equivalent" fund with a benefit design that has both defined benefit and accumulation components (being, say, a VBI of 98%).

- the relationship between the vested benefit and minimum requisite benefit:

  A defined benefit fund's solvency is measured by the coverage of its minimum requisite benefits by its net assets. The shortfall limit must not be such that a fund could become technically insolvent before the shortfall limit is breached. Hence

the nature of the minimum requisite benefit, and its relationship to the vested benefit, needs to be taken into account in setting the shortfall limit.

20. Draft SPG 160, in paragraph 18, identifies some other factors that may be considered when setting the shortfall limit.

D. Potential shortfall limits

21. Potential methodologies for determining the shortfall limit may include:

- using the expected return and volatility characteristics of the investment strategy to make an assessment of the probability of achieving a required return over a time period. That time period, though, cannot be more than one year (based on SPS 160) and is likely to require acceptance of a probability of achieving the required return in the range of 30% to 50%;

- examining the volatility of investment returns for a relevant investment strategy over short time periods, to make an assessment of the likelihood of the recovery of any negative returns over a reasonable time period (up to 12 months).

22. Modelling work undertaken by several actuaries involved in the SPC's committee looking into the matter indicates that, for a defined benefit fund with purely defined benefit vested benefits, shortfall limits of the following order may be reasonable:

Growth oriented investments*	Shortfall Limit
85% or more	96%
65% to 84%	97%
35% to 64%	98%
10% to 34%	99%
9% or less	100%

* Typically equities, property and return seeking alternative investments.

23. These limits, though, must not result in a fund not covering its minimum requisite benefits.

24. These results are provided for members' information, not as recommendations. Members may use these results in advising on shortfall limits, as long as they have considered the specific circumstances of the fund, and have made adjustments

required for each fund's circumstances (for example, the extent to which vested benefits are linked to investment returns, having regard to minimum requisite benefits etc) but are not compelled to do so. It is quite possible that different shortfall limits may reasonably be produced depending upon the circumstances of the fund and the methodologies employed.

END OF INFORMATION NOTE