GN8: Additional Guidance on valuation of long-term insurance business

Classification
Practice Standard

MEMBERS ARE REMINDED THAT THEY MUST ALWAYS COMPLY WITH THE PROFESSIONAL CONDUCT STANDARDS (PCS) AND THAT GUIDANCE NOTES IMPOSE ADDITIONAL REQUIREMENTS UNDER SPECIFIC CIRCUMSTANCES

Legislation or Authority
The Financial Services and Markets Act 2000 ("the Act")
The FSA Handbook

Application
Part I - Appointed Actuaries of UK-supervised insurance companies in respect of valuations at dates prior to but not including 31 December 2004.
Part II – Appointed Actuaries (but only in respect of investigations at dates prior to but not including 31 December 2004), those actuaries appointed to the *Actuarial Function* under rule 4.3.1 R of the FSA Supervision Manual in respect of a friendly society which is a *non-directive friendly society* and Appropriate Actuaries of friendly societies which carry on long-term business. The terms in italics in this paragraph shall have the same meanings as those in the FSA Handbook of Rules and Guidance.
Part III – Syndicate Actuaries of Lloyd's long-term insurance business syndicates.

Author
Life Board

Status
Approved under Due Process (technical amendment)

Version	***Effective from***
1.0	01.10.83
1.1	[1984-85]
1.2	[1985-86]
2.0	01.12.88
2.1	01.09.90
3.0	01.07.92
4.0	30.12.94
5.0	01.09.96
6.0	12.03.01
6.1	01.12.01
7.0	30.12.02
7.1	31.12.04

Adopted by BAS on 19.05.06
Ceased to apply from 01.10.11

PART I: APPOINTED ACTUARIES OF INSURANCE COMPANIES

1 Introduction

1.1 The primary references in this part of the Guidance Note are to Chapter 5 (Determination of Liabilities) of the Prudential Sourcebook for Insurers (IPRU(INS)). Although paragraphs 5.3 and 5.3A are not the prime responsibility of the Appointed Actuary that individual should be satisfied as to the reasonableness of the approach adopted so far as they relate to liabilities of the long-term business fund.

1.2 IPRU (INS) 5 includes rules governing the valuation of liabilities of life insurance companies for various purposes. In particular these rules govern the valuations of long-term liabilities for the purposes of an investigation to which IPRU(INS) 9.4 applies. Such an investigation would normally be for determining:

(a) whether the certificate in respect of long-term business required by Part II of Appendix 9.6 of IPRU(INS) could be given;

(b) the extent to which assets could be transferred out of the fund in accordance with IPRU(INS) 3.2(2), having regard to IPRU(INS) 3.2(3) and IPRU(INS) 3.3;

(c) whether a dividend may be declared by the company, having regard to IPRU(INS) 3.2 (6).

Such valuations are the responsibility of the Appointed Actuary and this guidance, which is supplementary to that set out in Guidance Note GN1, has been prepared to draw the attention of Appointed Actuaries to certain aspects of their professional responsibilities relevant to these valuations.

1.3 IPRU(INS) 2.4 is also relevant to the determination of the margins of solvency required by IPRU(INS) 2 . IPRU(INS) 2.5-2.8 prescribe margins of solvency for life insurance companies. The amounts of mathematical reserves and of capital at risk to be used in the calculations are required to be assessed by the Appointed Actuary.

1.4 If for some exceptional reason the Appointed Actuary is unable to comply fully with this guidance the Appointed Actuary has a professional duty to make timely written and reasoned disclosure, both to the company and to the FSA. In this event the certificate must be qualified accordingly.

2 IPRU(INS) 5.6 - The Actuarial Valuation

2.1 IPRU(INS) 5.6 is paramount. The Appointed Actuary must use prudent bases determined according to actuarial principles, and which have regard to the professional considerations set out in GN1. The rules also refer explicitly to the need to have due regard to the reasonable expectations of policyholders and to the inclusion of appropriate margins for adverse deviations of the relevant factors. This means that the valuation basis used should include appropriate margins for adverse deviations of each of the relevant factors having regard to materiality. In deriving the valuation basis it is permissible to group policies by category of contract. The term ‘category of contract’ is used to mean contracts with similar types of benefit, including options and guarantees, that are considered to be sufficiently homogenous by the Appointed Actuary. A valuation method which is not in general use in the profession (whether to value a normal type of contract or in other circumstances) is not precluded, but an Appointed Actuary who uses such a method needs to be prepared to justify it by reference to actuarial principles. In relation to an insurance company, the Appointed Actuary should also bear in mind that any excess of assets over liabilities disclosed by the valuation can legally be transferred out of the fund, subject to satisfying, inter alia, the requirements of IPRU(INS) 3.3.

2.2 This rule also requires that the valuation liability must be determined in accordance with requirements which are set out in IPRU(INS) 5.7 to 5.17 These minimum valuation requirements are subject to professional interpretation in their application, and guidance on them is therefore given in Section 3. However, they should not be regarded as necessarily satisfying the more general actuarial principles referred to in IPRU(INS) 5.6(1)). They are the basis of a minimum statutory valuation, and the Appointed Actuary should carry out such investigations as considered necessary to be satisfied (and, where required, to satisfy the FSA) that the valuation meets these requirements. The requirements apply for each separate category of contract.

2.3 IPRU(INS) 5.6 refers to the valuation having due regard to the reasonable expectations of policyholders. When carrying out the valuation of with-profits business in compliance with IPRU(INS) 5.7 to 5.17, this should be interpreted as requiring the valuation basis to be sufficiently strong to enable an appropriate level of reversionary bonus to be declared (and similar bonuses which are added periodically over the term of the contract) but not as requiring implicit or explicit provision for terminal bonus or any final payment of additional bonus. The Appointed Actuary would, however, be expected to make other investigations in order to be satisfied that the long-term fund is able to support a proper level of future terminal bonus having regard to the bonus smoothing policy followed by the company.

2.4 IPRU(INS) 5.6 refers to the need to provide appropriate margins for adverse deviations of the relevant factors. The Appointed Actuary must consider the resilience of the valuation to changes in circumstances, with special reference to more extreme changes to which the company may be vulnerable, and provide appropriate margins in the valuation basis.

2.5 The Appointed Actuary should take account of any relationship which the company has with another company which is relevant for the purposes of the valuation. For example, where there are service agreements with other companies (whether or not within a group structure) the Appointed Actuary should consider whether any additional provision is appropriate for the contingency that such agreements might cease. This would be particularly relevant where a subsidised or beneficial agreement exists.

3 IPRU(INS) 5.7 to 5.17 - The Minimum Valuation Requirements

3.1 General

3.1.1 As explained in paragraph 2.2, IPRU(INS) 5.7 to 5.17 set out minimum requirements which apply to the determination of the valuation liability for each separate category of contract. However, there are several respects in which these requirements are not precise and the Appointed Actuary has to interpret them in a prudent way, with regard to both the individual requirements and the requirements as a whole. If the Appointed Actuary considers that one of the required provisions or margins for any element of the basis is excessive, then it is not permissible for this purpose to offset part of it against another provision or margin required by the rules except as set out in paragraph 3.7.1 below.

3.1.2 The rules apply equally to both linked and non-linked business, except where they state otherwise.

3.2 IPRU(INS) 5.7

3.2.1 IPRU(INS) 5.7 requires that the determination of liabilities in respect of with-profits policies shall recognise the distribution of profits in an appropriate way over the duration of each policy and have regard to the custom and practice of the company in the manner and timing of the distribution of profits. The Appointed Actuary should ensure that the valuation basis for with-profits business is sufficiently strong to enable an appropriate level of reversionary bonus (or similar bonus which is added periodically over the term of the contract) to be declared in future years, taking account of the cost, including tax where appropriate, of any shareholders' share of surplus associated with the declaration of such bonus, on the assumption of anticipated investment returns which themselves are reasonably prudent.

3.2.2 For with-profits business not subject to a net premium valuation the Appointed Actuary must ensure that the reserve is sufficient to provide for future reversionary bonus including the cost, including tax where appropriate, of any shareholders' share of surplus associated with the declaration of such bonus. The rates of future bonus assumed for this purpose should be selected having regard to the current rate of bonus and to changes in the rates of future bonus which would be consistent with the reasonable expectations of policyholders in the event that experience were to follow the valuation basis.

3.2.3 IPRU(INS) 5.7 also refers to the method of calculation and assumptions used in the valuation not being subject to discontinuities from year to year arising from arbitrary changes. This requirement should not be interpreted to preclude changes to valuation interest rates or assumed future bonus rates which arise from changes in market yields, or changes to valuation expense, mortality or other assumptions which arise from changes in the company's actual or anticipated experience.

3.2.4 For permanent health insurance business the Appointed Actuary should generally assess the adequacy of the reserve against a method which makes specific allowance for claim inception rates and the duration of sickness. Alternative techniques may be acceptable in some circumstances, for example for sickness contracts with very short deferred periods. Where the Manchester Unity method is used the Appointed Actuary should bear in mind that observed experience as measured by this method is highly sensitive to the maturity of the business, except for short deferred periods. If the valuation basis is being set by reference to observed experience it will be appropriate to consider how this is likely to change as the business matures. For immature business and in some other circumstances significant margins over current experience may be appropriate. If the Manchester Unity method is used, the Appointed Actuary should consider whether additional reserves need to be established in respect of claims in payment.

3.3 IPRU(INS) 5.8

3.3.1 In Section 3.3 of this Guidance Note, references to linked business should be understood to include accumulating with-profits business where appropriate.

3.3.2 Although IPRU(INS) 5.8 is of general application, the principle of the avoidance of future valuation strain is likely to be of particular importance in the assessment of the non-unit reserves for linked business. This rule, in conjunction with IPRU(INS) 5.7 and 5.14, requires the Appointed Actuary to adopt a method which gives rise to reserves at least as strong as those produced by a policy by policy discounted cash flow test when calculating these non-unit reserves.

3.3.3 In the calculation of non-unit reserves the Appointed Actuary must make assumptions about future experience which are prudent. There should be a consistent relationship between the gross unit growth rate (i.e. the rate before any allowance for taxation and management charges), the rate of inflation of maintenance expenses and the discount rate as prescribed by IPRU(INS) 5.11. If it is the case that the use of a realistic discount rate higher than that permitted by IPRU(INS) 5.11 together with consistent unit growth and maintenance expense inflation rates would give rise to a higher level of reserves, then the Appointed Actuary should include an appropriate allowance for the additional liability, i.e. the assumptions should be prudent when taken together. Any excess of the assumed gross unit growth rate over the assumed rate of expense inflation should be assessed prudently, in the light of the valuation assumptions, market conditions and future expectations over the remaining term of the relevant contracts.

3.3.4 Where the company has discretion to increase charges for linked contracts the Appointed Actuary may take this into account when calculating the non-unit reserves, but only to the extent that the assumed future increases in charges are consistent with the reasonable expectations of policyholders in the context of the assumptions made for the valuation. In making the calculation the Appointed Actuary should allow for any delay before increases could be implemented, and for any administration costs associated with such increases.

3.3.5 For regular premium linked policies the Appointed Actuary should consider and make prudent allowance for the effect on the non-unit reserves calculated on an ongoing premium payment basis if conversion to paid-up policy status were to be assumed. To carry out calculations at every future duration in order to determine the reserve required if conversion to paid-up policy occurs may be inappropriately onerous. It is acceptable to assess any additional reserves based on specimen calculations, provided that the Appointed Actuary is satisfied that the overall non-unit reserves are prudent and in accordance with the rules, including IPRU(INS) 5.8.

3.4 IPRU(INS) 5.9

3.4.1 IPRU(INS) 5.9 (1) requires the use of a net premium method for certain categories of with-profits business. It does not apply to non-profit business, which may be valued by a gross premium or a net premium method.

3.5 IPRU(INS) 5.11

3.5.1 IPRU(INS) 5.11(7)(a) requires an adjustment (where relevant) to the yield on assets other than equity shares or land to recognise the possibility of default. This is in addition to the 2.5% margin required by IPRU(INS)5.11(2). This rule refers to the need to have regard to the yields available on risk-free investments of a similar term in the same currency when assessing this adjustment. It is appropriate to have regard to any differences in yield which arise from differences in marketability of the asset in question as compared with the risk-free alternative when assessing the deduction for the default risk.

3.5.2 IPRU(INS) 5.11(7)(b) requires an adjustment (where relevant) to the yield on equity shares and land to recognise the possibility of a future reduction in aggregate yield on each category of asset. When assessing this adjustment, it is appropriate to allow for market knowledge, degree of marketability and, for land, the covenant of the tenant.

3.5.3 IPRU(INS) 5.11 (7A) requires an adjustment (where relevant) to the yield on equity shares within 5.11 (5A) to recognise the risk that aggregate profits might not be maintained. When assessing this adjustment, it is appropriate to allow for market knowledge both of individual companies and of the market generally.

3.5.4 IPRU(INS) 5.11 (9) specifies an upper limit for the yield on sterling investments made after the valuation date and IPRU(INS) 5.11 (10) requires a correspondingly prudent approach to be followed where liabilities are denominated in currencies other than sterling. When assessing the maximum reinvestment rate for currencies other than sterling, the Appointed Actuary should seek wherever possible to follow an approach similar to the formula laid down in IPRU(INS) 5.11 (9)), with a suitable choice of interest parameters (corresponding to those specified for sterling) and a benchmark long-term rate of interest appropriate to the currency concerned. For many currencies the sterling interest parameters included in IPRU(INS) 5.11 (9) will not be appropriate, and these rates should be increased or reduced where recent yields on risk free securities and/or inflation prospects for the currency concerned are materially different from those for sterling.

3.5.5 IPRU(INS) 5.11 (12) allows assets to be notionally apportioned, where appropriate, between different categories of contracts for the purpose of determining the rates of interest to be used in valuing a particular category of contract. Any such apportionment shall have regard to the prudence concept. It would not, for example, be prudent to allocate overseas branch assets to cover United Kingdom policyholders' liabilities where, in practice, local rules in the territory concerned made such an allocation impractical to achieve. Where derivative contracts are held in connection with particular assets or liabilities in the long-term fund, then it will generally be appropriate to apportion these derivatives together with the corresponding assets and liabilities.

3.6 IPRU(INS) 5.12

3.6.1 IPRU(INS) 5.12 requires prudent rates of mortality and disability to be assumed. Account should be taken of relevant trends in experience within the company or the industry. This includes appropriate prudent allowance for the continuation of any experienced change which, if continued, would increase the insurer's liabilities, unless the Appointed Actuary has good reason for believing that this will not occur. For example, appropriate allowance for future improvements in mortality should be made for contracts such as annuities where the assumption of lighter mortality increases the required reserve. For assurance and sickness business allowance should be made for the incidence of mortality and morbidity arising from known diseases whose impact may not yet be reflected fully in current mortality or morbidity experience. The Appointed Actuary should be aware of any relevant guidance, including that set out in volume 3 of IPRU(INS).

3.7 IPRU(INS) 5.13

3.7.1 IPRU(INS) 5.13 clearly requires the Appointed Actuary to make provision for the future increases considered likely in expenses for existing business, based, inter alia, on prudent assumptions as to the future rates of increase in prices and earnings. In considering such provision, it would be reasonable for the Appointed Actuary to take into account margins arising from, and restrictions on, interest rate assumptions, e.g. increases in income from existing holdings of index-linked stocks, equities and property or the restriction on income created by the limitations of IPRU(INS) 5.11 (9)), (10) and (11).

3.7.2 In requiring provision to be made for meeting the expenses likely to be incurred in future in fulfilling the existing contracts, where a net premium method is used it is permissible to take credit to the extent appropriate for the difference between the gross premium and the valuation net premium.

3.7.3 Where a gross premium method is used in the valuation of non-profit business, the Appointed Actuary should take particular care when assessing the allowance made for future maintenance and claims expenses. The Appointed Actuary should also have regard to the impact of selective withdrawals on this allowance particularly where the allowance is not assessed on a per policy or aggregate expense basis; for example if allowance for expenses is expressed as a percentage of premiums the possibility of higher withdrawals among high premium policies should be considered. The Appointed Actuary should also pay careful attention to this aspect when calculating non-unit reserves for linked business.

3.7.4 Explicit allowance for future expenses is required for all contracts under which no future premiums are receivable where these are not provided by disclosed margins in the valuation rate of interest.

3.7.5 The Appointed Actuary must make proper provision for claims handling expenses. This is particularly relevant to classes of business such as permanent health insurance where these expenses are likely to be significant.

3.7.6 Whether or not the Appointed Actuary performs the valuation under IPRU(INS) 5.6 on the assumption that the company will continue to transact new business, IPRU(INS) 5.13 (1) requires an assessment of the provision for future expenses against the total (net of tax) cost that would be likely to be incurred in fulfilling contracts if the company were to cease to transact new business twelve months after the valuation date. The provision should be sufficient, on the valuation assumptions, to meet these expenses in these circumstances. In assessing the provision required to meet additional expenses that are likely to occur in the event of closure to new business, the Appointed Actuary may take account on a prudent basis of outstanding margins on the existing business projected to emerge on the valuation assumptions over the period that the additional expenses are incurred.

3.7.7 Experience has shown that the transition to a closed fund is likely to be costly and that more than twelve months may elapse from such closure before the lower level of expense appropriate to a closed fund is achieved. In addition, the future tax position of the fund may be affected.

3.7.8 IPRU(INS) 5.13 (1) should be interpreted to mean that the Appointed Actuary should provide for any expense overrun in respect of new business to be issued in the following year. The Appointed Actuary should make a prudent assessment of such expense overrun having regard to the amount of new business likely to be written in the twelve months after the valuation date, the terms on which it is to be written and the level of acquisition expenses that will be incurred.

3.7.9 In general, no explicit provision would need to be established in respect of an acquisition expense overrun if:

(a) the new business is expected, on a prudent basis, to be self-supporting allowing for the repayment of any valuation strain (together with an appropriate rate of interest); or

(b) any valuation strain associated with the new business to be issued in the forthcoming twelve months is covered by the surplus expected to arise during this period from existing business, using prudent estimates for all relevant assumptions. The surplus anticipated from existing business should exclude any element required to meet the minimum solvency margin by means of an implicit item relating to future profits.

3.7.10 Where neither of the above two conditions is met, then an additional provision equal to the lesser of the shortfalls arising, after discounting to the valuation date, would be required. For the purpose of calculating mathematical reserves and estimating cash flow arising from existing business, the estimated expenses in the year following the valuation date should reflect a going concern basis.

3.8 **IPRU(INS) 5.14**

3.8.1 IPRU(INS) 5.6 (3)(c) requires account to be taken of all options available to the policyholder under the terms of the contract. IPRU(INS) 5.14 (1) further requires that provision shall be made on prudent assumptions to cover any increase in liabilities caused by policyholders exercising options under their contracts. The Appointed Actuary should be aware of any relevant guidance, including that set out in volume 3 of IPRU(INS).

3.8.2 Where an optional benefit is of greater value than the basic benefit under the valuation assumptions, then a prudent allowance should be made in the valuation for the proportion of policyholders likely to exercise the option. Where the optional benefit is likely to be the most attractive alternative to the policyholder and the most costly option to the company, then it will normally be appropriate to assume that all policyholders exercise the option. However, where there are advantages to policyholders in not exercising the option, for example tax treatment, or a preference for a cash sum alternative to an annuity, then it may be appropriate to make allowance for a proportion failing to exercise the option. In making such an allowance past experience may only be taken into account to the extent that it is deemed likely to remain relevant under the other valuation assumptions. In addition, any such allowance must be sufficiently prudent to allow for possible future changes in circumstances.

3.8.3 The likelihood that options will be exercised, and liabilities increased as a result, may be linked to the interest rate prevailing from time to time. The assumption of a single fixed interest rate for the purposes of determining whether such liabilities are likely to arise may in some circumstances produce an unreasonably low or nil reserve, whereas the recognition of a potential range of interest rates may give rise to a significantly higher reserve. The difference could be particularly large if a single fixed interest is assumed which is relatively close to the interest rate at which options would be likely to be exercised. The Appointed Actuary should therefore take account of the possibility that the selection of a single fixed interest rate may understate the potential liability, and if appropriate make additional allowance in the valuation of the relevant liability.

3.8.4 Where a contract permits periodic withdrawals the Appointed Actuary should take into account the effects of these, for example in the calculation of the non-unit reserve, if to do so would increase the reserves held. Allowance should be made for all contracts where withdrawals are currently taking place, and an allowance should be made for contracts where withdrawals may reasonably be expected to arise in future, for example where the relevant policies have been marketed on that basis. In assessing the allowance to be made the Appointed Actuary should bear in mind the requirement under IPRU(INS) 5.6 (1) to use prudent assumptions with appropriate margins for adverse deviations.

3.8.5 An option to surrender a policy immediately in return for a non-guaranteed discontinuance (or surrender) value is included among the options to be considered under IPRU(INS) 5.14 (3). This rule requires provision for options, including discontinuance values, to be at all times sufficient on the valuation assumptions to meet payments as they fall due, i.e. that there be no future valuation strain. In assessing the level of discontinuance value that might be payable in the future on the valuation assumptions, future rates of reversionary bonus should be assumed consistent with the reasonable expectations of policyholders in the event that experience were to follow the valuation basis (as for paragraph 3.2.2). In the circumstances that the rates of bonus that would be likely to be declared in the short term exceed those supported by the investment returns assumed in the valuation, account may be taken of the effect of any market value adjustment that would be consistent with the reasonable expectations of policyholders in these circumstances.

3.8.6 IPRU(INS) 5.14 (4) refers to an amount which would reasonably be expected to be paid if the option were exercised, having regard to the representations of the company. This may be interpreted as referring to the level of that amount in the event of a significant level of policy discontinuances. IPRU(INS) 5.14 (4)(a)(ii) refers to an amount obtained by disregarding all discretionary adjustments. This means disregarding all such adjustments, both positive (such as terminal bonus) and negative (such as market value adjustment factors), but does not mean that it is necessary to disregard automatic adjustments (such as surrender penalties) that are applied to discontinuance values in any financial conditions.

3.8.7 When considering reasonable expectations with regard to discontinuance values, the Appointed Actuary must take account of representations made by the company to policyholders, including those in marketing literature and the company's With-Profits Guide, and also the practice of the company in determining discontinuance values, with particular regard to:

(a) the relationship between the discontinuance values and the value of the underlying assets, and

(b) any circumstances of which the policyholder can reasonably be expected to be aware in which discontinuance values might be reduced due to losses not directly related to the investment return earned by the company on those assets.

3.9 **IPRU(INS) 5.17**

3.9.1 Professional judgement is particularly necessary in applying the requirement in IPRU(INS) 5.17, which applies to the aggregate liability, that the determination of the amount of long-term liabilities shall include prudent provision against the effects of possible future changes in the value of the assets on their adequacy to meet liabilities. IPRU(INS) 5.17 (a) requires actuaries to consider mismatching provisions from the viewpoint of emerging cash flows whilst IPRU(INS) 5.17 (b) requires a test of the resilience of the overall reserves to satisfy IPRU(INS) 5. 7 to 5.16 in changed investment conditions. The overall provision established should be at least the greater of the amounts required under these two calculations.

3.9.2 IPRU(INS) 5.17 gives no indication of the range of possible future changes in the value of the assets which is to be allowed for. In determining an appropriate range, the Appointed Actuary must use professional judgement as an experienced financial practitioner. The essential point is that if changes, for example in market yield or currency values, would result in a change in the aggregate liability that is not matched by a change in the market value of the corresponding assets, then IPRU(INS) 5.17 requires the Appointed Actuary to consider what provision is required as a contingency margin, having regard to the consequences should the provision prove to be insufficient. In particular the Appointed Actuary needs to exercise special care with regard to any investments presenting novel or unorthodox features, derivatives (whether assets or liabilities) and any contracts containing substantial options. The Appointed Actuary should be aware of any relevant guidance, including that set out in volume 3 of IPRU(INS).

3.9.3 To calculate any provision required under IPRU(INS) 5.17 (a) the Appointed Actuary should look at cash flows emerging from assets and in force policies and where the incidence of these is not identical make a reasonable but prudent assumption that investment markets move against the company. In performing this calculation the Appointed Actuary should comply with the valuation principles set out in IPRU(INS) 5.6 (excluding the reference to IPRU(INS) 5.7 to 5.16) and have regard to the reinvestment restrictions set out in IPRU(INS) 5.11 (8), (9) and (10).

3.9.4 To calculate any provision required under IPRU(INS) 5.17 (b) the company's reserves (including any additional reserves required under IPRU(INS) 5.17) should be sufficient to absorb the effect of changes in interest rates and asset values, on a suitably prudent basis, without prejudicing the company's ability to hold reserves which satisfy IPRU(INS) 5.6 to 5.16 in the changed conditions. Where the long-term fund has liabilities under derivative contracts, these should be revalued on an estimated market value basis in the changed conditions when assessing any additional reserves required under IPRU(INS) 5.17; there is no requirement to assess a provision for adverse change under IPRU(INS) 5.3 for this purpose.

3.9.5 As referred to in paragraph 3.5.5 above, IPRU(INS) 5.11 (12) allows a notional apportionment of assets for the purposes of determining the rates of interest to be used when valuing a particular category of contract. IPRU(INS) 5.17 can, if desired, be applied separately to each differentiated category having regard to the assets notionally apportioned to it. Any assets which are entirely free after such an apportionment do not have to be brought into account in determining the matching position. Furthermore, when applying the valuation rules to the changed investment conditions postulated, it is appropriate to allow for the revised yields on the relevant assets at their new value and to review any margins in the valuation basis that are not strictly required by the rules. The Appointed Actuary must ensure that the revised valuation basis still satisfies IPRU(INS) 5.6 (excluding the reference to IPRU(INS) 5.17).

3.9.6 For with-profits business, the Appointed Actuary must ensure that the liability in the changed investment conditions adequately covers policyholders' (revised) reasonable expectations (including any liability in accordance with IPRU(INS) 5.14(4) in respect of an entitlement to an immediate surrender value).

3.9.7 In calculating the non-unit reserve for linked business the Appointed Actuary should allow for the impact on future management charges of an immediate change in asset values broadly consistent with the change in asset values which would be assumed if the unit funds were backing non-linked business. Allowance should also be made for the effect of the changed investment conditions on the valuation interest rate and other assumptions used in the calculation of non-unit reserves.

4 Solvency Margins etc.

4.1 Although it is not a requirement of IPRU(INS) 5, the Appointed Actuary will need to advise the company as to the action required:

(a) to maintain the margins of solvency as prescribed by IPRU(INS) 2 as the existing business becomes more mature, or

(b) in view of the requirement under IPRU(INS) 9.34 (b) for the Appointed Actuary to continue to give statutory certificates, to protect its position in certain circumstances, if in the Appointed Actuary's opinion there are reasonably foreseeable circumstances in which the company would be unable to meet its obligations.

4.2 The prudent assumptions on which the reserves under IPRU(INS) 5 must be calculated will naturally allow for stochastic variations as well as other contingencies. In determining the extent to which the Appointed Actuary would consider it prudent to make provision for the more extreme stochastic variations in valuing particular categories of contract (for example, in relation to mortality and morbidity fluctuations, and variations in benefits resulting from the inclusion in a unit-linked contract of a maturity guarantee) the Appointed Actuary may reasonably take into account the basis of the solvency margin that the company is required to hold on account of the liabilities under those contracts (net of the permitted deduction for reinsurance cessions). However, this should only be done if the Appointed Actuary is satisfied that:

(a) the company's available assets can provide explicit cover for the amount of required solvency margin that the Appointed Actuary is taking into account, and

(b) the balance of the solvency margin required in respect of the company's long-term business can be covered by the balance of the available assets and by any allowable implicit items, and that the former are sufficient to satisfy IPRU(INS) 2.9 (4).

4.3 In exercising professional judgement in the circumstances envisaged under paragraph 4.2 the Appointed Actuary will need to assess the security for the required margin of solvency for the long-term business as a whole, particular caution being required where it is in part covered by assets held outside the long-term fund. Furthermore, the Appointed Actuary will have to certify that the resulting reserves, standing on their own, constitute a proper provision for the long-term liability on actuarial principles and reliance on the margin of solvency must not result in the margins in the valuation basis falling below the level where the Appointed Actuary can give this certificate.

PART II: APPOINTED ACTUARIES AND APPROPRIATE ACTUARIES OF FRIENDLY SOCIETIES WHICH CARRY ON LONG-TERM BUSINESS

1 Introduction

1.1 The primary references in this part of the Guidance Note are to Appendix 5 (Liability Valuation Rules) of the Interim Prudential Sourcebook for Friendly Societies (IPRU(FSOC)). Rule 3 of this Appendix is not the prime responsibility of the Appointed or Appropriate Actuary but that individual should be satisfied as to the reasonableness of the approach adopted.

1.2 IPRU(FSOC) Appendix 5 includes rules governing the valuation of liabilities of friendly societies for various purposes. In particular these rules govern the valuations of long-term liabilities for the purposes of an investigation to which IPRU(FSOC) 5.1 or 5.2 applies. Such an investigation would normally be for determining whether the statutory certificate in respect of long-term business required by the FSA could be given.

Such valuations are the responsibility of the Appointed or Appropriate Actuary and this guidance, which is supplementary to that set out in Guidance Note GN1, has been prepared to draw the attention of Appointed and Appropriate Actuaries to certain aspects of their professional responsibilities relevant to these valuations.

1.3 IPRU(FSOC) Appendix 5 is also relevant to the determination of the margins of solvency required by IPRU(FSOC) 4.2. Appendix 1 prescribes margins of solvency for friendly societies. The amounts of mathematical reserves and of capital at risk to be used in the calculations are required to be assessed by the Appointed or Appropriate Actuary.

1.4 If for some exceptional reason the Appointed or Appropriate Actuary is unable to comply fully with this guidance the Appointed or Appropriate Actuary has a professional duty to make timely written and reasoned disclosure, both to the society and to the FSA. In this event the certificate must be qualified accordingly.

2 IPRU(FSOC) Appendix 5, 5 - The Actuarial Valuation

2.1 Appendix 5, 5 (Long-term insurance business liabilities) is paramount. The Appointed or Appropriate Actuary must use prudent bases determined according to actuarial principles, and which have regard to the professional considerations set out in GN1. The rule also refers explicitly to the need to have due regard to policyholders' reasonable expectations and to the inclusion of appropriate margins for adverse deviations of the relevant factors. This means that the valuation basis used should include appropriate margins for adverse deviations of each of the relevant factors having regard to materiality. In deriving the valuation basis it is permissible to group policies by category of contract. The term 'category of contract' is used to mean contracts with similar types of benefit, including options and guarantees, that are considered to be sufficiently homogeneous by the Appointed or Appropriate Actuary. A valuation method which is not in general use in the profession (whether to value a normal type of contract or in other circumstances) is not precluded, but an Appointed or Appropriate Actuary who uses such a method needs to be prepared to justify it by reference to actuarial principles.

2.2 This rule also requires that the valuation of long-term liabilities must be determined in accordance with requirements which are set out in Appendix 5, 6 to 16. These minimum valuation requirements are subject to professional interpretation in their application, and guidance on them is therefore given in Section 3 of these notes. However, they should not be regarded as necessarily satisfying the more general actuarial principles referred to in Appendix 5, 5(1). They are the basis of a minimum statutory valuation, and the Appointed or Appropriate Actuary should carry out such investigations as considered necessary to be satisfied (and, where required, to satisfy the FSA) that the valuation meets these requirements. The requirements apply for each separate category of contract.

2.3 Appendix 5, 5 refers to the valuation having due regard to the reasonable expectations of policyholders. When carrying out the valuation of with-profits business in compliance with Appendix 5, 6 to 16, this should be interpreted as requiring the valuation basis to be sufficiently strong to enable an appropriate level of reversionary bonus to be declared (and similar bonuses which are added periodically over the term of the contract) but not as requiring implicit or explicit provision for any element of terminal bonus or any final payment of additional bonus. The Appropriate Actuary would, however, be expected to make other investigations in order to be satisfied that the long-term fund is able to support a proper level of future terminal bonus having regard to the bonus smoothing policy followed by the society.

2.4 Appendix 5, 5 refers to the need to provide appropriate margins for adverse deviations of the relevant factors. The Appointed or Appropriate Actuary should consider the resilience of the valuation to changes in circumstances, with special reference to more extreme changes to which the society may be vulnerable, and provide appropriate margins in the valuation basis.

2.5 The Appointed or Appropriate Actuary should take account of any relationship which the society has with another company or society which is relevant for the purposes of the valuation. For example, where there are service agreements with other companies (whether or not within a group structure) the Appointed or Appropriate Actuary should consider whether any additional provision is appropriate for the contingency that such agreements might cease. This would be particularly relevant where a subsidised or beneficial agreement exists.

3 IPRU(FSOC)) Appendix 5, 6 to 16 - The Minimum Valuation Requirements

3.1 General

3.1.1 As explained in paragraph 2.2, Appendix 5, 6 to 16 set out minimum requirements against which the valuation basis of a Friendly Society should be determined for each separate category of contract. However, there are several respects in which these requirements are not precise and the Appointed or Appropriate Actuary has to interpret them in a prudent way, in regard to both the individual requirements and the requirements as a whole. If the Appointed or Appropriate Actuary considers that one of the required provisions or margins for any element of the basis is excessive, then it is not permissible for this purpose to offset part of it against another provision or margin required by the regulations except as set out in Paragraph 3.7.1 below.

3.1.2 The rules apply equally to both linked and non-linked business, except where they state otherwise.

3.2 Appendix 5, 6

3.2.1 Appendix 5, 6 requires that the determination of liabilities in respect of with-profits policies shall recognise the distribution of profits in an appropriate way over the duration of each policy and have regard to the custom and practice of the society in the manner and timing of the distribution of profits. The Appointed or Appropriate Actuary should ensure that the valuation basis for with-profits business is sufficiently strong to enable an appropriate level of reversionary bonus (or similar bonus which is added periodically over the term of the contract) to be declared in future years on the assumption of anticipated investment returns which themselves are reasonably prudent.

3.2.2 For with-profits business not subject to a net premium valuation, the Appointed or Appropriate Actuary must ensure that the reserve is sufficient to provide for future reversionary bonus. The rates of future bonus assumed for this purpose should be selected having regard to the current rate of bonus and to changes in the rates of future bonus which would be consistent with the reasonable expectations of policyholders in the event that experience were to follow the valuation basis.

3.2.3 Appendix 5, 6 also refers to the method of calculation and assumptions used in the valuation not being subject to discontinuities from year to year arising from arbitrary changes. This requirement should not be interpreted to preclude changes to valuation interest rates or assumed future bonus rates which arise from changes in market yields, or changes to valuation expense mortality or other assumptions which arise from changes in the society's actual or anticipated experience.

3.2.4 For permanent health insurance business the Appointed or Appropriate Actuary should generally assess the adequacy of the reserve against a method which makes specific allowance for claim inception rates and the duration of sickness. Alternative techniques may be acceptable in some circumstances, for example for sickness contracts with very short deferred periods. Where the Manchester Unity method is used the Appointed or Appropriate Actuary should bear in mind that observed experience as measured by this method is highly sensitive to the maturity of the business, except for short deferred periods. If the valuation basis is being set by reference to observed experience it will be appropriate to consider how this is likely to change as the business matures. For immature business and in some other circumstances significant margins over current experience may be appropriate. If the Manchester Unity method is used, the Appointed or Appropriate Actuary should consider whether additional reserves need to be established in respect of claims in payment.

3.3 Appendix 5, 7

3.3.1 In Section 3.3 of this Guidance Note, references to linked business should be understood to include accumulating with-profits business where appropriate.

3.3.2 Although Appendix 5, 7 is of general application, the principle of the avoidance of future valuation strain is likely to be of particular importance in the assessment of the non-unit reserves for linked business. This rule, in conjunction with Appendix 5, 6 and 13, requires the Appointed or Appropriate Actuary to adopt a method which gives rise to reserves at least as strong as those produced by a policy by policy discounted cash flow test when calculating these non-unit reserves.

3.3.3 In the calculation of non-unit reserves the Appointed or Appropriate Actuary must make assumptions about future experience which are prudent. There should be a consistent relationship between the gross unit growth rate (i.e. the rate before any allowance for taxation and management charges), the rate of inflation of maintenance expenses and the discount rate as prescribed by Appendix 5, 10. If it is the case that the use of a realistic discount rate higher than that permitted by Appendix 5, 10 together with consistent unit growth and maintenance expense inflation rate would give a higher level of reserves, then the Appointed or Appropriate Actuary should include an appropriate allowance for the additional liability, i.e. the assumptions should be prudent when taken together. Any excess of the assumed gross unit growth rate over the assumed rate of expense inflation should be assessed prudently, in the light of the valuation assumption, market conditions and future expectations over the remaining term of the relevant contracts.

3.3.4 Where the society has discretion to increase charges for linked contracts the Appointed or Appropriate Actuary may take this into account when calculating the non-unit reserves, but only to the extent that the assumed future increases in charges are consistent with the reasonable expectations of policyholders in the context of the assumptions made for the valuation. In making the calculation the Appointed or Appropriate Actuary should allow for any delay before increases could be implemented, and for any administration costs associated with such increases.

3.3.5 For regular premium linked policies the Appointed or Appropriate Actuary should consider and make prudent allowance for the effect on the non-unit reserves calculated on an ongoing premium payment basis if conversion to paid-up policy status were to be assumed. To carry out calculations at every future duration in order to determine the reserve required if conversion to paid-up policy occurs may be inappropriately onerous. It is acceptable to assess any additional reserves based on specimen calculations, provided that the Appointed or Appropriate Actuary is satisfied that the overall non-unit reserves are prudent and in accordance with the rules, including Appendix 5, 7.

3.4 **Appendix 5, 8**

3.4.1 Appendix 5, 8(1) requires the use of a net premium method for certain categories of with-profits business. It does not apply to non-profit business, which may be valued by a gross premium or a net premium method.

3.5 **Appendix 5, 10**

3.5.1 Appendix 5, 10(7)(a) requires an adjustment (where relevant) to the yield on assets other than equity shares or land to recognise the possibility of default. This is in addition to the 2.5% margin required by Appendix 5, 10(2). This rule refers to the need to have regard to the yields available on risk-free investments of a similar term in the same currency when assessing this adjustment. It is appropriate to have regard to any differences in yield which arise from differences in marketability of the asset in question as compared with the risk-free alternative when assessing the deduction for the default risk.

3.5.2 Appendix 5, 10(7)(b) requires an adjustment (where relevant) to the yield on equity shares and land to recognise the possibility of a future reduction in aggregate yield on each category of asset. When assessing this adjustment, it is appropriate to allow for market knowledge, degree of marketability and, for land, the covenant of the tenant.

3.5.3 Appendix 5,10 (7A) requires an adjustment (where relevant) to the yield on equity shares within 5,10 (5A) to recognise the risk that aggregate profits might not be maintained. When assessing this adjustment, it is appropriate to allow for market knowledge both of individual societies and of the market generally.

3.5.4 Appendix 5, 10(9) specifies an upper limit for the yield on sterling investments made after the valuation date and Appendix 5, 10(10) requires a correspondingly prudent approach to be followed where liabilities are denominated in currencies other than sterling. When assessing the maximum reinvestment rate for currencies other than sterling, the Appointed or

Appropriate Actuary should seek wherever possible to follow an approach similar to the formula laid down in Appendix 5, 10(9), with a suitable choice of interest parameters (corresponding to those specified for sterling) and a benchmark long term rate of interest appropriate to the currency concerned. For many currencies the sterling interest parameters included in Appendix 5, 10(9) will not be appropriate, and these rates should be increased or reduced where recent yields on risk free securities and/or inflation prospects for the currency concerned are materially different from those for sterling.

3.5.5 Appendix 5, 10(12) allows assets to be notionally apportioned, where appropriate, between different categories of contracts for the purpose of determining the rates of interest to be used in valuing a particular category of contract. Any such apportionment shall have regard to the prudence concept. It would not, for example, be prudent to allocate overseas branch assets to cover United Kingdom policyholders' liabilities where, in practice, local regulations in the territory concerned made such an allocation impractical to achieve. Where derivative contracts are held in connection with particular assets or liabilities in the long-term benefit funds, then it will generally be appropriate to apportion these derivatives together with the corresponding assets and liabilities.

3.6 **Appendix 5, 11**

3.6.1 Appendix 5, 11 requires prudent rates of mortality and disability to be assumed. Account should be taken of relevant trends in experience within the society or the industry. This includes appropriate prudent allowance for the continuation of any experienced change which, if continued, would increase the insurer's liabilities, unless the Appointed or Appropriate Actuary has good reason for believing that this will not occur. For example, appropriate allowance for future improvements in mortality should be made for contracts such as annuities where the assumption of lighter mortality increases the required reserve. For assurance and sickness business allowance should be made for the incidence of mortality and morbidity arising from known diseases whose impact may not yet be reflected fully in current mortality or morbidity experience.

3.7 Appendix 5, 12

3.7.1 Appendix 5, 12 clearly requires the Appointed or Appropriate Actuary to make provision for the future increases considered likely in expenses for existing business, based, inter alia, on prudent assumptions as to the future rates of increase in prices and earnings. In considering such provision, it would be reasonable for the Appointed or Appropriate Actuary to take into account margins arising from, and restrictions on, interest rate assumptions e.g. increases in income from existing holdings of index-linked stocks or the restriction on income created by the limitations of Appendix 5, 10(9), (10) and (11).

3.7.2 In requiring provision to be made for meeting the expenses likely to be incurred in future in fulfilling the existing contracts, where a net premium method is used it is permissible to take credit to the extent appropriate for the difference between the gross premium and the valuation net premium.

3.7.3 Where a gross premium method is used in the valuation of non-profit business, the Appointed or Appropriate Actuary should take particular care when assessing the allowance made for future maintenance and claims expenses. The Appointed or Appropriate Actuary should also have regard to the impact of selective withdrawals on this allowance particularly where the allowance is not assessed on a per policy or aggregate expense basis; for example if allowance for expenses is expressed as a percentage of premiums the possibility of higher withdrawals among high premium policies should be considered. The Appointed or Appropriate Actuary should also pay careful attention to this aspect when calculating non-unit reserves for linked business.

3.7.4 Explicit allowance for future expenses is required for all contracts under which no future premiums are receivable where these are not provided by disclosed margins in the valuation rate of interest.

3.7.5 The Appointed or Appropriate Actuary must make proper provision for claims handling expenses. This is particularly relevant to classes of business such as permanent health insurance where these expenses are likely to be significant.

3.7.6 Whether or not the Appointed or Appropriate Actuary performs the valuation under Appendix 5, 5 on the assumption that the society will continue to transact new business, Appendix 5, 12(1) requires an assessment of the provision for future expenses against the total (net of tax) cost that would be likely to be incurred fulfilling existing contracts if the society were to cease to transact new business twelve months after the valuation date. The provision should be sufficient, on the valuation assumptions, to meet these expenses in these circumstances. In assessing the provision required to meet additional expenses that are likely to occur in the event of closure to new business, the Appointed or Appropriate Actuary may take account on a prudent basis of outstanding margins on the existing business projected to emerge on the valuation assumptions over the period that the additional expenses are incurred.

3.7.7 Experience has shown that the transition to a closed fund is likely to be costly and that more than twelve months may elapse from such closure before the lower level of expense appropriate to a closed fund is achieved. In addition, the future tax position of the fund may be affected.

3.7.8 Appendix 5, 12(1) should be interpreted to mean that the Appropriate Actuary should provide for any expense overrun in respect of new business to be issued in the following year. The Appointed or Appropriate Actuary should make a prudent assessment of such expense overrun having regard to the amount of new business likely to be written in the twelve months after the valuation date, the terms on which it is to be written and the level of acquisition expenses that will be incurred.

3.7.9 In general, no explicit provision would need to be established in respect of an acquisition expense overrun if:

(a) the new business is expected, on a prudent basis, to be self-supporting allowing for the repayment of any valuation strain (together with an appropriate rate of interest); or

(b) any valuation strain associated with the new business to be issued in the forthcoming twelve months is covered by the surplus expected to arise during this period from existing business, using prudent estimates for all relevant assumptions. The surplus anticipated from existing business should exclude any element required to meet the minimum solvency margin by means of an implicit item relating to future profits.

3.7.10 Where neither of the above two conditions is met, then an additional provision equal to the lesser of the shortfalls arising, after discounting to the valuation date, would be required. For the purpose of calculating mathematical reserves and estimating the cash flow arising from existing business, the estimated expenses in the year following the valuation date should reflect a going concern basis.

3.8 Appendix 5, 13

3.8.1 Appendix 5, 5(3)(c) requires account to be taken of all options available to the policyholder under the terms of the contract. Appendix 5, 13(1) further requires that provision shall be made on prudent assumptions to cover any increase in liabilities caused by policyholders exercising options under their contracts.

3.8.2 Where an optional benefit is of greater value than the basic benefit under the valuation assumptions, then a prudent allowance should be made in the valuation for the proportion of policyholders likely to exercise the option. Where the optional benefit is likely to be the most attractive alternative to the policyholder and the most costly option to the company, then it will normally be appropriate to assume that all policyholders exercise the option. However, where there are advantages to policyholders in not exercising the option, for example tax treatment, or a preference for a cash sum alternative to an annuity, then it may be appropriate to make allowance for a proportion failing to exercise the option. In making such an allowance past experience may only be taken into account to the extent that it is deemed likely to remain relevant under the other valuation assumptions. In addition, any such allowance must be sufficiently prudent to allow for possible future changes in circumstances.

3.8.3 The likelihood that options will be exercised, and liabilities increased as a result, may be linked to the interest rate prevailing from time to time. The assumption of a single fixed interest rate for the purposes of determining whether such liabilities are likely to arise may in some circumstances produce an unreasonably low or nil reserve, whereas the recognition of a potential range of interest rates may give rise to a significantly higher reserve. The difference could be particularly large if a single fixed interest is assumed which is relatively close to the interest rate at which options would be likely to be exercised. The Appropriate Actuary should therefore take account of the possibility that the selection of a single fixed interest rate may understate the potential liability, and if appropriate make additional allowance in the valuation of the relevant liability.

3.8.4 Where a contract permits periodic withdrawals the Appointed or Appropriate Actuary should take into account the effects of these for example in the calculation of the non-unit reserve, if to do so would increase the reserves held. Allowance should be made for all contracts where withdrawals are currently taking place, and an allowance should be made for contracts where withdrawals may reasonably be expected to arise in future, for example, where the relevant policies have been marketed on that basis. In assessing the allowance to be made the Appointed or Appropriate Actuary should bear in mind the requirement under Appendix 5, 5(1) to use prudent assumptions with appropriate margins for adverse deviations.

3.8.5 An option to surrender a policy immediately in return for a non-guaranteed discontinuance (or surrender) value is included among the options to be considered under Appendix 5, 13(3). This rule requires provision for options, including discontinuance values, to be at all times sufficient on the valuation assumptions to meet payments as they fall due, i.e. that there be no future valuation strain. In assessing the level of discontinuance value that might be payable in the future on the valuation assumptions, future rates of reversionary bonus should be assumed consistent with the reasonable expectations of policyholders in the event that experience were to follow the valuation basis (as for paragraph 3.2.2). In the circumstances that the rates of bonus that would be likely to be declared in the short term exceed those supported by the investment returns assumed in the valuation, account may be taken of the effect of any market value adjustment that would be consistent with the reasonable expectations of policyholders in these circumstances.

3.8.6 Appendix 5, 13(4) refers to an amount which would reasonably be expected to be paid if the option were exercised, having regard to the representations of the society. This may be interpreted as referring to the level of that amount in the event of a significant level of policy discontinuances. Appendix 5, 13(4)(a)(ii) refers to an amount obtained by disregarding all discretionary adjustments. This means disregarding all such adjustments, both positive (such as terminal bonus) and negative (such as market value adjustment factors), but does not mean that it is necessary to disregard automatic adjustments (such as surrender penalties) that are applied to discontinuance values in any financial conditions.

3.8.7 When considering reasonable expectations with regard to discontinuance values, the Appointed or Appropriate Actuary must take account of representations made by the society to policyholders, including those in marketing literature and the society’s With-Profits Guide, and also the practice of the society in determining discontinuance values, with particular regard to:

(a) the relationship between discontinuance values and the value of the underlying assets, and

(b) any circumstances of which the policyholder can reasonably be expected to be aware in which discontinuance values might be reduced due to losses not directly related to the investment return earned by the society on those assets.

3.9 **Appendix 5, 16**

3.9.1 Professional judgement is particularly necessary in applying the requirement in Appendix 5,16, which applies to the aggregate liability, that the determination of the amount of long-term liabilities shall include prudent provision against the effects of possible future changes in the value of the assets on their adequacy to meet the liabilities. Appendix 5, 16(a) requires actuaries to consider mismatching provisions from the viewpoint of emerging cash flows whilst Appendix 5, 16(b) requires a test of the resilience of the overall reserves to satisfy Appendix 5, 6 to 15 in changed investment conditions. The overall provision established should be at least the greater of the amounts required under these two calculations.

3.9.2 Appendix 5, 16 gives no indication of the range of possible future changes in the value of the assets which is to be allowed for. In determining an appropriate range, the Appointed or Appropriate Actuary must use professional judgement as an experienced financial practitioner. The essential point is that if changes, for example in market yield or currency values, would result in a change in the aggregate liability that is not matched by a change in the market value of the corresponding assets, then Appendix 5, 16 requires the Appointed or Appropriate Actuary to consider what provision is required as a contingency margin, having regard to the consequences should the provision prove to be insufficient. In particular the Appointed or Appropriate Actuary needs to exercise special care with regard to any investments presenting novel or unorthodox features, derivatives (whether assets or liabilities) and any contracts containing substantial options.

3.9.3 To calculate any provision required under Appendix 5, 16(a) the Appointed or Appropriate Actuary should look at cash flows emerging from assets and in force policies and where the incidence of these is not identical make a reasonable but prudent assumption that investment markets move against the society. In performing this calculation the Appointed or Appropriate Actuary should comply with the valuation principles set out in Appendix 5, 5 (excluding the reference to 6 to 15) and have regard to the reinvestment restrictions set out in Appendix 5, 10(8), (9) and (10).

3.9.4 To calculate any provision required under Appendix 5, 16(b) the society's reserves (including any additional reserves required under 16) should be sufficient to absorb the effect of changes in interest rates and asset values, on a suitably prudent basis, without prejudicing the society's ability to hold reserves which satisfy Appendix 5, 5 to 15 in the changed conditions. Where the long-term fund has liabilities under derivative contracts, these should be revalued on an estimated market value basis in the changed conditions when assessing any additional reserves required under Appendix 5,16; there is no requirement to assess a provision for adverse change under Appendix 5, 3 for this purpose.

3.9.5 As referred to in paragraph 3.5.5 above, Appendix 5, 10(12) allows a notional apportionment of assets for the purposes of determining the rates of interest to be used when valuing a particular category of contract. Appendix 5, 16 can, if desired, be applied separately to each differentiated category having regard to the assets notionally apportioned to it. Any assets which are entirely free after such an apportionment do not have to be brought into account in determining the matching position. Furthermore, when applying the valuation rules to the changed investment conditions postulated, it is appropriate to allow for the revised yields on the relevant assets at their new value and to review any margins in the valuation basis that are not strictly required by the rules. The Appointed or Appropriate Actuary must ensure that the revised valuation basis still satisfies Appendix 5, 5(excluding the reference to 16).

3.9.6 For with-profits business, the Appointed or Appropriate Actuary must ensure that the liability in the changed investment conditions adequately covers policyholders' (revised) reasonable expectations (including any liability in accordance with Appendix 5, 13(4) in respect of an entitlement to an immediate surrender value).

3.9.7 In calculating the non-unit reserve for linked business the Appointed or Appropriate Actuary should allow for the impact on future management charges of an immediate change in asset values broadly consistent with the change in asset values which would be assumed if the unit funds were backing non-linked business. Allowance should also be made for the effect of the changed investment conditions on the valuation interest rate and other assumptions used in the calculations of non-unit reserves.

4 Solvency Margins etc.

4.1 Although it is not a requirement of IPRU(FSOC) Appendix 5, the Appointed or Appropriate Actuary will need to advise the society as to the action required:

(a) to maintain the margins of solvency as prescribed by IPRU(FSOC) 4.2 as the existing business becomes more mature, or

(b) to protect its position in certain circumstances, if in the Appointed or Appropriate Actuary's opinion there are reasonably foreseeable circumstances in which the society would be unable to meet its obligations.

4.2 The prudent assumptions on which the reserves under IPRU(FSOC) Appendix 5 must be calculated will naturally allow for stochastic variations as well as other contingencies. In determining the extent to which the Appointed or Appropriate Actuary would consider it prudent to make provision for the more extreme stochastic variations in valuing particular categories of contract (for example, in relation to mortality and morbidity fluctuations, and variations in benefits resulting from the inclusion in a unit-linked contract of a maturity guarantee) the Appointed or Appropriate Actuary may reasonably take into account the basis of the solvency margin that the society is required to hold on account of the liabilities under those contracts (net of the permitted deduction for reinsurance cessions). However, this should only be done if the Appointed or Appropriate Actuary is satisfied that:

(a) the society's available assets can provide explicit cover for the amount of required solvency margin that the Appointed or Appropriate Actuary is taking into account, and

(b) the balance of the solvency margin required in respect of the society's long-term business can be covered by the balance of the available assets and by any allowable implicit items, and that the former are sufficient to satisfy IPRU(FSOC) 4.4(3)

4.3 In exercising professional judgement in the circumstances envisaged under paragraph 4.2 the Appointed or Appropriate Actuary will need to assess the security for the required margin of solvency for the long-term business as a whole. Furthermore, the Appointed or Appropriate Actuary will have to certify that the resulting reserves, standing on their own, constitute a proper provision for the long-term liability on actuarial principles and reliance on the margin of solvency must not result in the margins in the valuation basis falling below the level where the Appointed or Appropriate Actuary can give his certificate.

PART III: SYNDICATE ACTUARIES OF LLOYD'S LONG-TERM INSURANCE BUSINESS SYNDICATES

1 Introduction

1.1 The primary references in this part of the Guidance Note are to Chapter 12 (Determination of Liabilities) of the Lloyd's Sourcebook (LLD).

1.2 LLD12.5 includes rules governing the valuation of long-term insurance business liabilities of Lloyd's ("the Society") to identify and attribute a value to its liabilities. In particular these rules govern the valuations of long-term liabilities for the purposes of an investigation to which LLD 10.9.4 applies. Such an investigation would normally be for determining whether the certificate in respect of long-term business required by LLD 15.9.1R(3) could be given.

1.3 This valuation is the responsibility of the Syndicate Actuary and this guidance, which is supplementary to that set out in Guidance Note GN1, has been prepared to draw the attention of Syndicate Actuaries to certain aspects of their professional responsibilities relevant to these valuations.

1.4 If for some exceptional reason the Syndicate Actuary is unable to comply fully with this guidance the Syndicate Actuary has a professional duty to make timely written and reasoned disclosure to the Society. In this event the certificate must be qualified accordingly.

2 LLD 12.5 – The Actuarial Valuation

2.1 LLD 12.5.4-12.5.6 are paramount. The Syndicate Actuary must use prudent bases determined according to actuarial principles, and which have regard to the professional considerations set out in GN1. The rules also refer explicitly to the need to have due regard to the reasonable expectations of policyholders and to the inclusion of appropriate margins for adverse deviations of the relevant factors. This means that the valuation basis used should include appropriate margins for adverse deviations of each of the relevant factors having regard to materiality. In deriving the valuation basis it is permissible to group policies by category of contract. The term ‘category of contract’ is used to mean contracts with similar types of benefit, including options and guarantees, that are considered to be sufficiently homogenous by the Syndicate Actuary. A valuation method which is not in general use in the profession (whether to value a normal type of contract or in other circumstances) is not precluded, but a Syndicate Actuary who uses such a method needs to be prepared to justify it by reference to actuarial principles.

2.2 The valuation liability must be determined in accordance with requirements which are set out in LLD 12.5.8 to 12.5.35. These minimum valuation requirements are subject to professional interpretation in their application, and guidance on them is therefore given in Section 3. However, they should not be regarded as necessarily satisfying the more general actuarial principles referred to in LLD 12.5.4-12.5.6. They are the basis of a minimum statutory valuation, and the Syndicate Actuary should carry out such investigations as considered necessary to be satisfied (and, where required, to satisfy Lloyd’s) that the valuation meets these requirements. The requirements apply for each separate category of contract.

2.3 LLD 12.5.4 refers to the need to provide appropriate margins for adverse deviations of the relevant factors. The Syndicate Actuary must consider the resilience of the valuation to changes in circumstances, with special reference to more extreme changes to which the syndicate may be vulnerable, and provide appropriate margins in the valuation basis.

2.4 The Syndicate Actuary should take account of any relationship which the syndicate has with another organisation which is relevant for the purposes of the valuation. For example, where there are service agreements with other organisations the Syndicate Actuary should consider whether any additional provision is appropriate for the contingency that such agreements might cease. This would be particularly relevant where a subsidised or beneficial agreement exists.

3 LLD 12.5.8 to 12.5.35 – The Minimum Valuation Requirements

3.1 General

3.1.1 As explained in paragraph 2.2, LLD 12.5.8 to 12.5.35 set out minimum requirements which apply to the determination of the valuation liability for each separate category of contract. However, there are several respects in which these requirements are not precise and the Syndicate Actuary has to interpret them in a prudent way, with regard to both the individual requirements and the requirements as a whole. If the Syndicate Actuary considers that one of the required provisions or margins for any element of the basis is excessive, then it is not permissible for this purpose to offset part of it against another provision or margin required by the rules except as set out in paragraph 3.5.1 below.

3.2 LLD 12.5.8 to 12.5.12

3.2.1 LLD 12.5.12 refers to the method of calculation and assumptions used in the valuation not being subject to discontinuities from year to year arising from arbitrary changes. This requirement should not be interpreted to preclude changes to valuation interest rates which arise from changes in market yields, or changes to valuation expense, mortality or other assumptions which arise from changes in the syndicate's actual or anticipated experience.

3.3 LLD 12.5.15-12.5.27

3.3.1 LLD 12.5.22(1) requires an adjustment (where relevant) to the yield on assets other than equity shares or land to recognise the possibility of default. This is in addition to the 2.5% margin required by LLD 12.5.17. This rule refers to the need to have regard to the yields available on risk-free investments of a similar term in the same currency when assessing this adjustment. It is appropriate to have regard to any differences in yield which arise from differences in marketability of the asset in question as compared with the risk-free alternative when assessing the deduction for the default risk.

3.3.2 LLD 12.5.22(2) requires an adjustment (where relevant) to the yield on equity shares and land to recognise the possibility of a future reduction in aggregate yield on each category of asset. When assessing this adjustment, it is appropriate to allow for market knowledge, degree of marketability and, for land, the covenant of the tenant.

3.3.3 LLD 12.5.24 specifies an upper limit for the yield on sterling investments made after the valuation date and LLD 12.5.25 requires a correspondingly prudent approach to be followed where liabilities are denominated in currencies other than sterling. When assessing the maximum reinvestment rate for currencies other than sterling, the Syndicate Actuary should seek wherever possible to follow an approach similar to the formula laid down in LLD 12.5.24, with a suitable choice of interest parameters (corresponding to those specified for sterling) and a benchmark long-term rate of interest appropriate to the currency concerned. For many currencies the sterling interest parameters included in

LLD 12.5.24 will not be appropriate, and these rates should be increased or reduced where recent yields on risk free securities and/or inflation prospects for the currency concerned are materially different from those for sterling.

3.3.4 LLD 12.5.27 allows assets to be notionally apportioned, where appropriate, between different categories of contracts for the purpose of determining the rates of interest to be used in valuing a particular category of contract. Any such apportionment shall have regard to the prudence concept.

3.4 **LLD 12.5.28**

3.4.1 LLD 12.5.28 requires prudent rates of mortality and disability to be assumed. Account should be taken of relevant trends in experience within the syndicate and the industry. This includes appropriate prudent allowance for the continuation of any experienced change which, if continued, would increase the syndicate's liabilities, unless the Syndicate Actuary has good business reason for believing that this will not occur. For assurance and sickness business allowance should be made for the incidence of mortality and morbidity arising from known diseases whose impact may not yet be reflected fully in current mortality or morbidity experience. The Syndicate Actuary should be aware of any relevant guidance.

3.5 **LLD 12.5.29–12.5.30**

3.5.1 LLD 12.5.29 clearly requires the Syndicate Actuary to make provision for the future increases considered likely in expenses for existing business, based, inter alia, on prudent assumptions as to the future rates of increase in prices and earnings. In considering such provision, it would be reasonable for the Syndicate Actuary to take into account margins arising from, and restrictions on, interest rate assumptions, e.g. increases in income from existing holdings of index-linked stocks, equities and property or the restriction on income created by the limitations of LLD 12.5.24 to 12.5.26.

3.5.2 In requiring provision to be made for meeting the expenses likely to be incurred in future in fulfilling the existing contracts, where a net premium method is used it is permissible to take credit to the extent appropriate for the difference between the gross premium and the valuation net premium.

3.5.3 Where a gross premium method is used in the valuation of non-profit business, the Syndicate Actuary should take particular care when assessing the allowance made for future maintenance and claims expenses. The Syndicate Actuary should also have regard to the impact of selective withdrawals on this allowance particularly where the allowance is not assessed on a per policy or aggregate expense basis; for example if allowance for expenses is expressed as a percentage of premiums the possibility of higher withdrawals among high premium policies should be considered.

3.5.4 Explicit allowance for future expenses is required for all contracts under which no future premiums are receivable where these are not provided by disclosed margins in the valuation rate of interest.

3.5.5 The Syndicate Actuary must make proper provision for claims handling expenses. This is particularly relevant to classes of business where these expenses are likely to be significant.

3.5.6 Whether or not the Syndicate Actuary performs the valuation under LLD 12.5 on the assumption that the syndicate will continue to transact new business, LLD 12.5.29 requires an assessment of the provision for future expenses against the total (net of tax) cost that would be likely to be incurred in fulfilling contracts if the syndicate were to cease to transact new business twelve months after the valuation date. The provision should be sufficient, on the valuation assumptions, to meet these expenses in these circumstances. In assessing the provision required to meet additional expenses that are likely to occur in the event of closure to new business, the Syndicate Actuary may take account on a prudent basis of outstanding margins on existing business projected to emerge on the valuation assumptions over the period that the additional expenses are incurred.

3.5.7 Experience has shown that the transition to a closed fund is likely to be costly and that more than twelve months may elapse from such closure before the lower level of expense appropriate to a closed fund is achieved.

3.5.8 LLD 12.5.29 should be interpreted to mean that the Syndicate Actuary should provide for any expense overrun in respect of new business to be issued in the following year. The Syndicate Actuary should make a prudent assessment of such expense overrun having regard to the amount of new business likely to be written in the twelve months after the valuation date, the terms on which it is to be written and the level of acquisition expenses that will be incurred.

3.5.9 In general, no explicit provision would need to be established in respect of an acquisition expense overrun if:

(a) the new business is expected, on a prudent basis, to be self-supporting allowing for the repayment of any valuation strain (together with an appropriate rate of interest); or

(b) any valuation strain associated with the new business to be issued in the forthcoming twelve months is covered by the surplus expected to arise during this period from existing business, using prudent estimates for all relevant assumptions.

3.5.10 Where neither of the above two conditions is met, then an additional provision equal to the lesser of the shortfalls arising, after discounting to the valuation date, would be required. For the purpose of calculating mathematical reserves and estimating cash flow arising from existing business, the estimated expenses in the year following the valuation date should reflect a going concern basis.

3.6 LLD 12.5.31-12.5.32

3.6.1 LLD 12.5.6(2) requires account to be taken of all options available to the policyholder under the terms of the contract. LLD 12.5.31 further requires that provision shall be made on prudent assumptions to cover any increase in liabilities caused by policyholders exercising options under their contracts. The Syndicate Actuary should be aware of any relevant guidance.

3.6.2 Where an optional benefit is of greater value than the basic benefit under the valuation assumptions then a prudent allowance should be made in the valuation for the proportion of policyholders likely to exercise the option. Where the optional benefit is likely to be the most attractive alternative to the policyholder and the most costly option to the syndicate, then it will normally be appropriate to assume that all policyholders exercise the option. However, where there are advantages to policyholders in not exercising the option, for example tax treatment, then it may be appropriate to make allowance for a proportion failing to exercise the option. In making such an allowance past experience may only be taken into account to the extent that it is deemed likely to remain relevant under the other valuation assumptions. In addition, any such allowance must be sufficiently prudent to allow for possible future changes in circumstances.

3.7 LLD 12.5.35

3.7.1 Professional judgement is particularly necessary in applying the requirement in LLD 12.5.35, which applies to the aggregate liability, that the determination of the amount of long-term liabilities shall include prudent provision against the effects of possible future changes in the value of the assets on their adequacy to meet liabilities. LLD 12.5.35(1) requires actuaries to consider mismatching provisions from the viewpoint of emerging cash flows whilst LLD 12.5.35(2) requires a test of the resilience of the overall reserves to satisfy LLD 12.5.8 to 12.5.34 in changed investment conditions. The overall provision established should be at least the greater of the amounts required under these two calculations.

3.7.2 LLD 12.5.35 gives no indication of the range of possible future changes in the value of the assets which is to be allowed for. In determining an appropriate range, the Syndicate Actuary must use professional judgement as an experienced financial practitioner. The essential point is that if changes, for example in market yield or currency values, would result in a change in the aggregate liability that is not matched by a change in the market value of the corresponding assets, then LLD 12.5.35 requires the Syndicate Actuary to consider what provision is required as a contingency margin, having regard to the consequences should the provision prove to be insufficient. In particular the Syndicate Actuary needs to exercise special care with regard to any investments presenting novel or unorthodox features, derivatives (whether assets or liabilities) and any contracts containing substantial options. The Syndicate Actuary should be aware of any relevant guidance.

3.7.3 To calculate any provision required under LLD 12.5.35(1) the Syndicate Actuary should look at cash flows emerging from assets and in force polices and where the incidence of these is not identical make a reasonable but prudent assumption that investment markets move against the syndicate. In performing this calculation the Syndicate Actuary should comply with the valuation principles set out in LLD 12.5.4 to 12.5.6 and have regard to the reinvestment restrictions set out in LLD 12.5.23 to 12.5.26.

3.7.4 To calculate any provision required under LLD 12.5.35 (2)the syndicate's reserves (including any additional reserves required under LLD 12.5.35) should be sufficient to absorb the effect of changes in interest rates and asset values, on a suitable prudent basis, without prejudicing the syndicate's ability to hold reserves which satisfy LLD 12.5.4 to 12.5.34 in the changed conditions.

3.7.5 As referred to in paragraph 3.5.4 above, LLD 12.5.27 allows a notional apportionment of assets for the purposes of determining the rates of interest to be used when valuing a particular category of contract. LLD 12.5.35 can, if desired, be applied separately to each differentiated category having regard to the assets notionally apportioned to it. Any assets which are entirely free after such an apportionment do not have to be brought into account in determining the matching position. Furthermore, when applying the valuation rules to the changed investment conditions postulated, it is appropriate to allow for the revised yields on the relevant assets at their new value and to review any margins in the valuation basis that are not strictly required by the rules. The Syndicate Actuary must ensure that the revised valuation basis still satisfies LLD 12.5.4-12.5.6 (excluding any amount under LLD 12.5.35).