

INTERNATIONAL ASSOCIATION OF INSURANCE SUPERVISORS



GUIDANCE PAPER ON THE STRUCTURE OF CAPITAL RESOURCES FOR SOLVENCY PURPOSES

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1. Introduction

1. Since its inception in 1994, the IAIS has developed a number of principles, standards and guidance papers to help promote the development, globally, of well-regulated insurance markets. Central to this objective is the development of a common framework for insurance supervision that establishes a common structure within which standards and guidance on insurance solvency assessment may be developed. Insurer solvency takes a central position in risk management by insurers and in insurance supervision. Consideration of the standards and guidance that should apply in relation to capital resources for solvency purposes, therefore, contributes towards the development of the IAIS framework for insurance supervision.

2. A sound solvency regime is essential to the supervision of insurance companies; regulatory capital requirements are a fundamental part of a solvency regime. Insurers face uncertainty both as underwriters of risk and as business enterprises. In addressing this uncertainty, both insurers and supervisors recognise that an insurer's capital functions as a shock absorber against losses. Having sufficient capital is critical to an insurer's ability to meet its obligations to policyholders¹ and creditors and to finance future growth in its business. Issues related to the structure of regulatory capital requirements in a supervisory regime for solvency assessment are covered in the *Standard and guidance paper on the structure of regulatory capital requirements* (Oct 2008).

3. A solvency regime should also establish requirements for the adequacy and appropriateness of the capital resources used to meet the regulatory capital requirements. This includes the determination of the amount of capital available for solvency purposes and criteria for assessing the suitability and quality of elements of capital for inclusion in capital resources for solvency purposes.

4. The *IAIS Insurance core principles and methodology* (Oct 2003) provide a globally-accepted framework for the regulation and supervision of the insurance sector. Insurance core principle (ICP) 23 states that:

“the supervisory authority requires insurers to comply with the prescribed solvency regime. This regime includes capital adequacy requirements

¹ In this document the term policyholder includes beneficiaries.

and requires suitable forms of capital that enable the insurer to absorb significant unforeseen losses.”²

5. The IAIS Framework paper³ identifies some of the main elements in a regulatory and supervisory regime, comprising financial, governance and market conduct components and emphasises the interdependence of these aspects in the assessment of insurer solvency.

6. This guidance paper provides guidance on principles-based requirements for a solvency regime in relation to capital resources. It outlines 4 requirements of a solvency regime relevant to the determination of capital resources for solvency purposes which should be encouraged for all insurers. The aim of the guidance paper is to support the enhancement, improved transparency and comparability and convergence of the assessment of insurer solvency internationally. The pre-conditions in a particular supervisory regime, among other factors, will determine the specifics of effective supervision within that regime, including the specific requirements of the solvency regime in relation to capital resources for solvency purposes.

7. The IAIS acknowledges that determination of the amount of capital resources available for solvency purposes is dependent on the requirements for the valuation of assets and liabilities for that purpose. This paper does not focus on issues relating to matters of valuation, rather it outlines the purpose and importance of capital resources and sets out a number of approaches to how a supervisor could structure the requirements for capital resources within their jurisdiction.

8. This guidance paper focuses on the insurer as a single entity. The issues of group-wide supervision are not within the scope of this paper and are the subject of separate IAIS work.⁴

9. To the extent possible, in establishing requirements for the adequacy and appropriateness of capital resources for insurers, efforts should be made to harmonise with the relevant requirements in other financial sectors in order to ensure a level playing field in capital markets and to prevent or minimise regulatory arbitrage opportunities between financial institutions. However, such considerations should ensure that adequate account is taken of the differences in risk profiles and risk management between sectors and that the insurance sector requirements are appropriate in themselves.

2. Purpose and role of capital resources

Requirement 1

The solvency regime should require insurers to maintain capital resources to meet the regulatory capital requirements.

10. The primary purpose of capital resources from a regulatory perspective is to act as a shock absorber against adverse losses and hence ensure that the insurer is able to meet its obligations to policyholders when they are due. From a macro-economic perspective, requiring insurers to maintain adequate capital in terms of both quantity and quality enhances the safety and soundness of the insurance sector and the financial system as a whole.

² ICP 23: Capital adequacy and solvency.

³ IAIS *Framework for insurance supervision* (Oct 2005)

⁴ The IAIS has developed principles on group-wide supervision and an issues paper on group-wide solvency assessment and supervision as a precursor to IAIS standards and guidance on group issues.

11. The level of capital resources that insurers need to maintain for regulatory purposes is determined by the regulatory capital requirements specified by the solvency regime. A deficit of capital resources relative to capital requirements determines the additional amount of capital that is required for regulatory purposes.

12. The purpose of capital resources from a regulatory perspective is supported by supervisory review and intervention according to the structure of the regulatory capital requirements, including the established control levels of the Prescribed Capital Requirement (PCR)⁵ and the Minimum Capital Requirement (MCR)⁶, implemented by particular jurisdictions.

13. Capital resources protect the interests of policyholders by meeting the following two objectives. They:

- reduce the probability of insolvency by absorbing losses on a going-concern basis or in run-off⁷; and/or
- reduce the loss to policyholders in the event of insolvency or winding-up.

14. The extent to which elements of capital achieve the above outcomes will vary depending on their characteristics or 'quality'. For example, ordinary share capital may be viewed as achieving both of the above, whereas subordinated debt may be viewed largely as only protecting policyholders in insolvency. Capital which achieves both of the above is sometimes termed 'going-concern capital' and capital which only reduces the loss to policyholders in insolvency is sometimes termed 'wind-up capital' or 'gone concern' capital⁸. It would be expected that high quality capital instruments should form the substantial part of capital resources.

15. For an insurer, the management and allocation of capital resources is a fundamental part of its business planning and strategies. In this context, capital resources typically serve a broader range of objectives than those in paragraph 13. For example, an insurer may use capital resources over and above the regulatory capital requirements in the regime to support future growth or to achieve a targeted credit rating.

16. It is noted that an insurer's capital management (in relation to regulatory requirements and own capital needs) should be supported and underpinned by establishing and maintaining a sound enterprise risk management framework including appropriate risk and capital management policies, practices and procedures which are applied consistently across its organisation and are embedded in its processes. Maintaining sufficient capital resources alone is not sufficient protection for policyholders in the absence of disciplined and effective risk management policies and procedures.⁹

3. Determination and assessment of capital resources

Requirement 2

The solvency regime should define the approach to determining the capital resources eligible to meet regulatory capital requirements and their value, consistent with a

⁵ For a definition of the PCR, refer to requirement 5 in the *Standard on the structure of regulatory capital requirements* (Oct 2008).

⁶ For a definition of the MCR, refer to requirement 7 in the *Standard on the structure of regulatory capital requirements* (Oct 2008).

⁷ 'run-off' refers to insurers that are still solvent but have closed to new business and are expected to remain closed to new business.

⁸ For the purposes of this paper capital which only absorbs losses in insolvency will be referred to as 'wind-up' capital.

⁹ Refer to the IAIS *Guidance paper on enterprise risk management for capital adequacy and solvency purposes* (Oct 2008)

total balance sheet approach for solvency assessment and having regard to the quality and suitability of capital elements.

17. The following outlines a number of approaches a supervisor could use for the determination of capital resources in line with this requirement. The determination of capital resources would generally require the following steps:

1. the amount of capital resources potentially available for solvency purposes is identified (cf. subsection 3.1);
2. an assessment of the quality and suitability of the capital instruments comprising the total amount of capital resources identified is then carried out (cf. subsection 3.2);
3. on the basis of this assessment, the final capital resources eligible to meet regulatory capital requirements and their value are determined (cf. subsection 3.3).

18. In addition, the insurer is required to carry out its own assessment of its capital resources to meet regulatory capital requirements and any additional capital needs (cf. subsection 3.4).

3.1 Identification of capital resources potentially available for solvency purposes

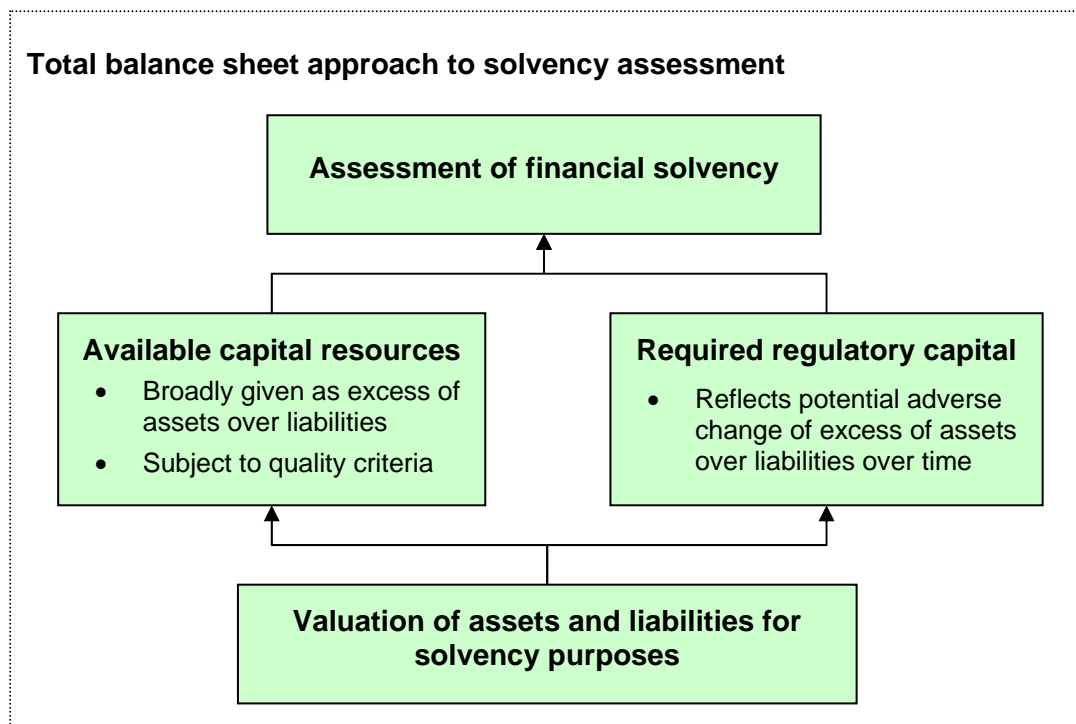
19. The IAIS supports the use of a total balance sheet approach in the assessment of solvency to recognise the interdependence between assets, liabilities, regulatory capital requirements and capital resources and to ensure that risks are appropriately recognised.

20. Such an approach ensures that the determination of available and required capital is based on consistent assumptions for the recognition and valuation of assets and liabilities for solvency purposes. These issues will be addressed in a separate standard and guidance paper which the IAIS is currently developing.

21. From a regulatory perspective, the purpose of regulatory capital requirements is to ensure that, in adversity, an insurer's obligations to policyholders will continue to be met as they fall due. This aim will be achieved if technical provisions and other liabilities are expected to remain covered by assets over a defined period, to a specified level of safety¹⁰.

22. To achieve consistency with this economic approach to setting capital requirements in the context of a total balance sheet approach, capital resources should broadly be regarded as the difference between assets and liabilities on the basis of their recognition and valuation for solvency purposes.

¹⁰ Refer to the IAIS *Guidance paper on the structure of regulatory capital requirements* (October 2008).



23. When regarding available capital resources as the difference between assets and liabilities, the following issues should be considered:

- the extent to which certain liabilities other than technical provisions may be treated as capital for solvency purposes (paragraphs 24-26);
- whether contingent assets could be included (paragraph 27) ;
- the treatment of assets which may not be fully realisable in the normal course of business or under a wind-up scenario (paragraphs 28-35); and
- reconciliation of such a “top down” approach to determining capital resources with a “bottom up” approach which sums up individual items of capital to derive the overall amount of capital resources (paragraph 36).

Treatment of liabilities

24. Liabilities include technical provisions and other liabilities. Certain items such as other liabilities in the balance sheet may be treated as capital resources for solvency purposes.

25. For example, perpetual subordinated debt, although usually classified as a liability under the relevant accounting standards, could be classified as a capital resource under the solvency regime. This is because of its availability to act as a buffer to reduce the loss to policyholders and senior creditors through subordination in the event of insolvency. More generally, subordinated debt instruments (whether perpetual or not) may be treated as capital resources for solvency purposes if they satisfy the criteria established in the solvency regime. Other liabilities that are not subordinated would not be considered as part of the capital resources; examples include liabilities such as deferred tax liabilities and pension liabilities.

26. It may, therefore, be appropriate to exclude some elements of funding from liabilities and so include them in capital to the extent appropriate. This would be appropriate if these

elements have characteristics which protect policyholders by meeting one or both of the objectives set out in paragraph 13, above.

Contingent assets

27. It may be appropriate to include contingent elements which are not considered as assets under the relevant accounting standards, where the likelihood of payment if needed is sufficiently high according to criteria specified by the supervisor. Such contingent capital may include, for example, letters of credit, members' calls by a mutual insurer or the unpaid element of partly paid capital and may be subject to prior approval by the supervisor.

Treatment of assets which may not be fully realisable on a going-concern or wind-up basis

28. Supervisors should consider that, for certain assets in the balance sheet, the realisable value under a wind-up scenario would become significantly lower than the economic value which is attributable under going-concern conditions. Similarly, even under normal business conditions some assets may not be realisable at full economic value, or at any value, at the time they are needed. This may render such assets unsuitable for inclusion at their full economic value for the purpose of meeting required capital¹¹.

29. Examples of such assets include:

- own shares directly held by the insurer: the insurer has bought and is holding its own shares thereby reducing the amount of capital available to absorb losses under going concern or in a wind-up scenario;
- intangible assets: their realisable value may be uncertain even during normal business conditions and may have no significant marketable value in run-off or winding-up; Goodwill is a common example;
- future income tax credits: such credits may only be realisable if there are future taxable profits, which is improbable in the event of insolvency or winding-up;
- implicit accounting assets: under some accounting models, certain items regarding future income are included, implicitly or explicitly, as asset values. In the event of run-off or winding-up, such future income may be reduced;
- investments¹² in other insurers or financial institutions: such investments may have uncertain realisable value because of contagion risk between entities; also there is the risk of "double counting" where such investments lead to a recognition of the same amount of available capital resources in several financial entities; and
- company-related assets: certain assets carried in the accounting statements of the insurer could lose some of their value in the event of run-off or winding-up, for example physical assets used by the insurer in conducting its business which may reduce in value if there is a need for the forced sale of such assets. Also, certain assets may not be fully accessible to the insurer e.g. surplus in a corporate pension arrangement.

30. The treatment of such assets for solvency purposes may need to reflect an adjustment to its economic value. Generally, such an adjustment may be effected either:

¹¹ In particular, supervisors should consider the value of contingent assets for solvency purposes taking into account the criteria set out in paragraph 58.

¹² These investments include investment in the equity of, loans granted to, deposits with and bonds issued by the related parties.

- directly, by not admitting a portion of the economic value of the asset for solvency purposes (deduction approach); or
- indirectly, through an addition to regulatory capital requirements (capital charge approach).

These two approaches are explained in more detail below.

Deduction approach

31. Under the deduction approach, the economic value of the asset is reduced for solvency purposes. This results in capital resources being reduced by the same amount. The partial (or full) exclusion of such an asset may occur for a variety of reasons, for example, to reflect an expectation that it would have only limited value in the event of insolvency or winding-up to absorb losses. No further adjustment would normally be needed in the determination of regulatory capital requirements for the risk of holding such assets.

Capital charge approach

32. Under the capital charge approach, an economic value is placed on the asset for the purpose of determining available capital resources. The risk associated with the asset – i.e. a potential deterioration of the economic value of the asset due to an adverse event which may occur during the defined solvency time horizon - would then need to be reflected in the determination of regulatory capital requirements. This should take into account the estimation uncertainty¹³ inherent in the determination of the economic value.

Choice and combination of approaches

33. As outlined above, an application of the deduction approach would lead to a reduction in the amount of available capital resources, whereas an application of the capital charge approach would result in an increase in regulatory capital requirements. Provided the two approaches are based on a consistent economic assessment of the risk associated with the relevant assets, they would be expected to produce broadly similar results regarding the overall assessment of the solvency position of the insurer.

34. For some asset classes, it may be difficult to determine a sufficiently reliable economic value or to assess the associated risks. Such difficulties may also arise where there is a high concentration of exposure to a particular asset or type of assets or to a particular counterparty or group of counterparties.

35. A supervisor should choose the approach which is best suited to the organisation and sophistication of the insurance market and the nature of the asset class and asset exposure considered. It may also combine different approaches for different classes of assets. Whatever approach is chosen, it should be transparent and consistently applied. It is also important to ensure that any material double counting or omission of risks under the calculations for determining the amounts of required and available regulatory capital is avoided.

¹³ This refers to the degree of inaccuracy and imprecision in the determination of the economic value where current market prices are not available, and hence market-consistent principles, methodologies and parameters have to be applied. Sources for this estimation uncertainty are for example the possibility that the assumptions and parameters used in the valuation are incorrect, or that the valuation methodology itself is deficient.

Reconciliation of approaches

36. The approach to determining available capital resources as broadly the amount of assets over liabilities (with the potential adjustments as discussed above) may be described as a "top-down" approach - i.e. starting with the high level capital as reported in the balance sheet and adjusting it in the context of the relevant solvency control level. An alternative approach which is also applied in practice is to sum up the amounts of particular items of capital which are specified as being acceptable. Such a "bottom-up" approach should be reconcilable to the "top-down" approach on the basis that the allowable capital items under the "bottom-up approach" should ordinarily include all items which contribute to the excess of assets over liabilities in the balance sheet, with the addition or exclusion of items as per the discussion in paragraphs 24-36.

Other considerations

37. There are a number of factors that may be considered by the supervisor in identifying what may be regarded as capital resources for solvency purposes, including the following:

- the way in which the quality of capital resources is addressed in the solvency regime, including whether or not quantitative requirements are applied to the composition of capital resources and/or whether or not a categorisation or continuum based approach¹⁴ is used;
- the coverage of risks in the determination of technical provisions and regulatory capital requirements;
- the assumptions in the valuation of assets and liabilities (including technical provisions) and the determination of regulatory capital requirements, e.g. going-concern basis or wind-up basis, before tax or after tax, etc;
- policyholder priority and status under the legal framework relative to other creditors in the jurisdiction;
- overall quality of risk management and governance frameworks in the insurance industry in the jurisdiction;
- the comprehensiveness and transparency of disclosure frameworks in the jurisdiction, and the ability for markets to exercise sufficient scrutiny and impose market discipline;
- the development of the capital market in the jurisdiction and its impact on the ability of insurers to raise capital;
- the balance to be struck between protecting policyholders and the impact on the effective operation of the insurance industry and considerations around unduly onerous levels and costs of regulatory capital requirements;
- systemic risks which could affect the amount and/or quality of capital resources; and
- the relationship between risks faced by insurers and those faced by other financial services entities, including banks.

¹⁴

A continuum based approach involves the setting of characteristics against which individual capital elements can be assessed as to their quality; instruments are ranked against other instruments to determine whether they are included as capital resources. Where a categorisation approach is used, the criteria will be used to determine the category of capital resources in which a capital element is included. This is discussed further in subsection 3.3.

3.2 Criteria for the assessment of the quality and suitability of capital resources

Requirement 3

The solvency regime should establish criteria for assessing the quality and suitability of capital resources, having regard to their ability to absorb losses on both a going-concern and wind-up basis.

38. In view of the two objectives of capital resources set out in paragraph 13, the following questions need to be considered when establishing criteria to determine the suitability of capital resources for regulatory purposes:

- To what extent can the capital element be used to absorb losses on a going-concern basis or in run-off?
- To what extent can the capital element be used to reduce the loss to policyholders in the event of insolvency or winding-up?

39. Some capital elements are available to absorb losses in all circumstances i.e. on a going concern basis, in run-off, in winding-up and insolvency. For example, common shareholders' funds (ordinary shares and reserves) allow an insurer to absorb losses on an ongoing basis, are permanently available and rank as the most subordinate instruments in a winding-up. Further, this element of capital best allows insurers to conserve resources when they are under stress because it provides an insurer with full discretion as to the amount and timing of distributions. Consequently, common shareholders' funds are a core element of capital resources for the purpose of solvency assessment.

40. The extent of loss absorbency of other capital elements can vary considerably. Hence a solvency regime should take a holistic approach to evaluating the extent of loss absorbency overall, and should establish criteria that should be applied to evaluate capital elements in this regard, taking into account empirical evidence that capital elements have absorbed losses in practice, where available.

41. To complement the structure of regulatory capital requirements, the solvency regime may choose to vary the criteria for capital resources suitable for covering the different solvency control levels established by the solvency regime. Where such an approach is chosen, the criteria relating to capital resources suitable for covering an individual control level should have regard to the supervisory intervention that may arise if the level is breached and the objective of policyholder protection.

42. For example, considering that the main aim of the MCR is to provide the ultimate safety net for the protection of the interests of policyholders, the solvency regime may decide to establish more stringent quality criteria for capital resources suitable to cover the MCR (regarding such resources as a "last line of defence" for the insurer both during normal times and in wind-up) than for capital resources to cover the PCR.

43. Alternatively, a common set of regulatory criteria for capital resources could be applied at all solvency control levels, with the solvency regime reflecting the different nature of the various solvency control levels in the determination of regulatory capital requirements only.

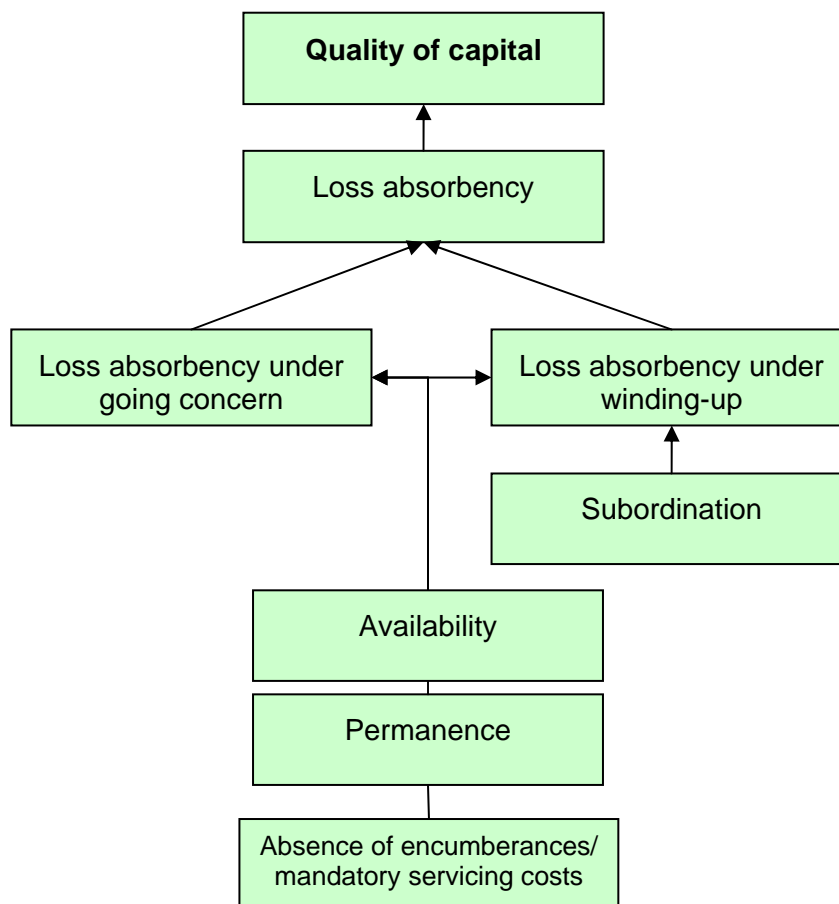
44. In assessing the ability of elements of capital to absorb losses, the following characteristics are usually considered:

- the extent to which and in what circumstances the capital element is subordinated to the rights of policyholders in an insolvency or winding-up (subordination);

- The extent to which the capital element is fully paid and available to absorb losses (availability);
- the period for which the capital element is available (permanence);
- the extent to which the capital element is free from mandatory payments or encumbrances (absence of encumbrances and mandatory servicing costs).

45. The first characteristic is inherently linked to the ability of the capital item to absorb losses in the event of insolvency or winding-up. The characteristics of permanence and availability are relevant for loss absorbency under both going-concern and winding-up; taken together, they could be described as being able to absorb losses when needed. The fourth characteristic is related to the degree to which the capital is conserved until needed, and in the case of absence of mandatory serving costs is primarily relevant for ensuring loss absorbency on a going-concern basis.

46. The relationship between these characteristics is illustrated below:



47. In the following paragraphs, we examine how the characteristics of capital resources described above may be used to establish criteria for an assessment of the quality of capital elements for regulatory purposes. It is recognised that views about the specific characteristics that are acceptable may differ from jurisdiction to jurisdiction and will reflect, amongst other things, the extent to which the pre-conditions for effective supervision exist within the jurisdiction and the risk tolerance of the particular solvency regime.

Subordination

48. To ensure that a capital element is available to protect policyholders, it must be legally subordinated to the rights of policyholders and senior creditors of the insurer in an insolvency or winding-up. This means that the holder of a capital instrument is not entitled to repayment, dividends or interest once insolvency or winding-up proceedings have been started until all obligations to the insurer's policyholders have been satisfied.

49. In addition, there should be no encumbrances that undermine the subordination or render it ineffective. One example of this would be applying rights of offset where creditors are able to set off amounts they owe the insurer against the subordinated capital instrument¹⁵. Further, the instrument should not be guaranteed by either the insurer or another related entity unless it is clear that the guarantee is available subject to the policyholder priority. In some jurisdictions subordination to other creditors may also need to be taken into account.

50. Each jurisdiction is governed by its own laws regarding insolvency and winding-up. Common equity shareholders normally have the lowest priority in any liquidating distribution of assets, immediately following preferred shareholders. In some jurisdictions, insurers can issue subordinated debt that provides protection to policyholders and creditors in insolvency. While policyholders are often given a legal priority above other creditors such as bondholders, this is not always the case; some jurisdictions treat policyholders and other creditors equally. Some jurisdictions rank obligations to the government (e.g. taxes) and obligations to employees, ahead of policyholders and other creditors. Where creditors have secured claims, they may rank before policyholders. The determination of suitable capital elements within a solvency regime is critically dependent upon the legal environment of the relevant jurisdiction.

51. The solvency regime should evaluate each potential capital element in the context that its value and suitability, and hence an insurer's solvency position may change significantly in a wind-up or insolvency scenario. In most jurisdictions the payment priority in a wind-up situation is clearly stated in law.

Availability

52. In order to satisfy the primary requirement that capital resources are available to absorb unforeseen losses, it is important that capital elements are fully paid.

53. However, in some circumstances, a capital element may be paid for "in kind" i.e. issued for non-cash. The solvency regime should define the extent to which payment other than cash is acceptable for a capital element to be treated as fully paid without prior approval by the supervisor and the circumstances where payment for non-cash consideration may be considered as suitable subject to approval by the supervisor. There may, for example, be issues about the valuation of the non-cash components or the interests of parties other than the insurer.

54. It may also be appropriate to treat certain contingent elements of capital as available capital resources in cases where the probability of payment is expected to be sufficiently high (for example the unpaid part of partly paid capital, contributions from members of a mutual insurer or letters of credit, cf. para. 27).

55. Where a solvency regime allows contingent elements of capital to be included in the determination of capital resources, such inclusion would be expected to be subject to meeting specific supervisory requirements or prior supervisory approval. When assessing the appropriateness of inclusion of a contingent element of capital, regard should be had to:

¹⁵ Rights of offset will vary according to the legal environment in a jurisdiction.

- the ability and willingness of the counterparty concerned to pay the relevant amount;
- the recoverability of the funds, taking into account any conditions which would prevent the item from being successfully paid in or called up; and
- any information on the outcome of past calls which have been made in comparable circumstances by other insurers, which may be used as an indication of future availability.

56. The availability of capital instruments may also be impaired when capital is not fully fungible within an insurer to cover losses arising from the insurer's business. Whereas the fungibility of capital and transferability of assets is primarily an issue in the context of group solvency assessment, it may also be relevant for the supervision of an insurer as a solo entity.

57. For example, this is the case where – as applies to certain forms of with-profit business in life insurance – part of the assets or surplus of the insurer is segregated from the rest of its operations in a ring-fenced fund. In such cases, assets in the fund may only be able to be used to meet obligations to policyholders with respect to which the fund has been established. In these circumstances, the insurer's available capital resources relating to the ring-fenced fund can only be used to cover losses stemming from risks associated with the fund (until transferred out of that fund), and cannot be transferred to meet the insurer's other obligations.

Permanence

58. To provide suitable protection for policyholders for solvency purposes, a capital element must be available to protect against losses for a sufficiently long period to ensure that it is available to the insurer when needed. Supervisors may want to determine a minimum period that capital should be outstanding to be regarded as capital resources for solvency purposes.

59. When assessing the extent of permanence of a capital element, regard should be had to:

- the duration of the insurer's obligations to policyholders¹⁶;
- contractual features of the capital instrument which have an effect on the period for which the capital is available, e.g. lock-in clauses, step-up options or call options;
- any supervisory powers to restrict the redemption of capital resources; and
- the time it might take to replace the capital element on suitable terms as it approaches maturity.

60. Similarly, if a capital element has no fixed maturity date, the notice required for repayment should be assessed against the same criteria.

61. In addition, it is important to take into account incentives to redeem a capital element prior to its maturity date which may exist in a capital element and may effectively reduce the period for which the capital is available. For example, a capital instrument which features a coupon rate which increases from its initial level at a specified date after issue, may give rise to an expectation that the instrument will be paid back at that future specified date.

¹⁶ The duration of the insurer's obligations to policyholders should be assessed on an economic basis rather than strict contractual basis.

Absence from mandatory servicing requirements or encumbrances

62. The extent to which capital elements require servicing in the form of interest payments, shareholder dividend payments and principal repayments should be considered, as it will affect the insurer's ability to absorb losses on a going-concern basis.

63. Capital elements that have a fixed maturity date may have fixed servicing costs that cannot be waived or deferred before maturity; the presence of such features also affects the insurer's ability to absorb losses on a going-concern basis and may accelerate insolvency if the payment of a servicing cost results in the insurer breaching its regulatory capital requirements.

64. A further consideration is the extent to which payments to capital providers or redemption of capital elements should be restricted or subject to supervisory approval. For example, the supervisor may have the ability to restrict the payment of dividends or interest and any redemption of capital resources where considered appropriate to preserve the solvency position of the insurer. Insurers may also issue capital instruments for which payments and redemptions are fully discretionary or subject to supervisory approval according to the contractual terms.

65. Some capital instruments are structured so as to restrict the payment of dividends or interest and any redemption of capital resources where an insurer is breaching or near to breaching its regulatory capital requirements and/or is incurring loss. The payment of dividends or interest may also be subordinated to policyholder interests in case of winding-up or insolvency. Such features will contribute to the ability of the capital instrument to absorb losses on a wind-up basis provided that any claims to unpaid dividends or interest are similarly subordinated.

66. It should also be considered whether the capital elements contain encumbrances which may restrict their ability to absorb losses, such as guarantees of payment to the capital provider or other third parties, hypothecation or any other restrictions or charges which may prevent the insurer from using the capital resource when needed. Where the capital element includes guarantees of payment to the capital provider or other third parties, the priority of that guarantee in relation to policyholders' rights should be assessed. Encumbrances may also undermine other characteristics such as permanence or availability of capital.

3.3 Determination of capital resources to meet regulatory capital requirements

67. Based on the assessment of the quality of the capital elements comprising the total capital resources potentially available to the insurer, the final capital resources suitable to meet the regulatory capital requirements can be determined.

68. Capital elements that are fully loss absorbent under both a going-concern and a wind-up perspective would generally be allowed to cover any of the different levels of regulatory capital requirements. However, the supervisor may choose to restrict the extent to which the stronger solvency control levels (i.e. control levels which trigger more severe supervisory interventions) may be covered by lower quality capital resources or to establish minimum levels for the extent to which these stronger requirements should be covered by the highest quality capital resources. In particular, this applies to amounts of capital resources which are intended to cover the MCR.

69. To determine the amount of an insurer's capital resources, supervisors may choose a variety of approaches

- approaches which categorise capital resources into different quality classes (“tiers”) and apply certain limits/restrictions with respect to these tiers (tiering approaches);
- approaches which rank capital elements on the basis of the identified quality characteristics (continuum approaches)
- approaches which do not attempt to categorise or rank capital elements, but apply individual restrictions or charges where necessary.

To accommodate the quality of assets and quality of capital elements, combinations of the above approaches have been widely used in various jurisdictions’ solvency regimes and other sectors’ prudential regulations.

Tiering approach

70. To take into account the quality of capital instruments, a tiering approach is commonly used in many jurisdictions and in other financial sectors. Under a tiering approach, the composition of capital resources is based on the categorisation of elements of capital according to the quality criteria set by the regime.

71. In many jurisdictions, capital elements are categorised into two or three distinct levels of quality when considering criteria for, and limits on, those capital elements for solvency purposes. For example, one broad categorisation may be as follows¹⁷:

- Highest quality capital - permanent capital that is fully available to cover losses of the insurer at all times on a going-concern and a wind-up basis;
- Medium quality capital - capital that lacks some of the characteristics of highest quality capital, but which provides a degree of loss absorbency during ongoing operations and is subordinated to the rights (and reasonable expectations) of policyholders; and
- Lowest quality capital - capital that provides loss absorbency in insolvency/winding-up only.

72. Under a tiering approach, the solvency regime would set minimum or upper levels for the extent to which required capital should comprise the various categories or tiers (for example, high, medium, low) of capital elements. Where established, the level may be expressed as a percentage of required capital¹⁸ (for example, a minimum level of 50%¹⁹ of required capital for high quality capital elements and/or an upper limit for lowest quality capital might be 25% of required regulatory capital). There may also be limits set on the extent to which required capital may be comprised of certain specific types of capital elements (for example, perpetual subordinated loan capital and perpetual cumulative preference share capital may be limited to 50% of required capital.)

73. What constitutes an adequate minimum or upper level may depend on the nature of the insurance business and how the requirement interacts with the various solvency control levels in the regime. A separation into tiers as set out above assumes that all elements of capital can clearly be identified as belonging to one of the specified tiers and that elements falling into an individual tier will all be of the same quality. In reality, such distinctions

¹⁷ Capital elements categorised as being of highest quality are often referred to as core capital and lower levels as supplementary capital, or similar.

¹⁸ Alternative approaches may also be used in practice, for example, where the levels are expressed as a percentage of available capital.

¹⁹ This reflects the approach taken in Australia. The percentages used may vary for supervisory regimes in different jurisdictions.

between elements of capital may not be clear cut and different elements of capital will exhibit the above quality characteristics in varying degrees.

74. There are two potential policy responses to this fact. One is to set minimum quality thresholds on the characteristics the capital must have to be included in the relevant tier - as long as these thresholds are met for a given element then it can be included in the relevant tier of capital without limit. The other approach is to set minimum quality thresholds for limited inclusion in the relevant tier, but to set additional higher quality thresholds for elements to be permitted to be included in that tier without limit. This approach effectively sub-divides the tiers. It permits greater recognition within a given tier for elements of capital which are more likely to fulfil the quality targets specified for that tier²⁰.

75. Where a tiering approach is applied, this should ideally follow the distinction between going-concern capital and wind-up capital. Dividing capital into these tiers is an approach that is also used in the context of regulatory capital requirements for the banking sector.

Continuum Approach

76. In other jurisdictions a continuum approach may be used in recognising the differential quality of capital elements. Under this approach, elements of capital are not categorised, but rather ranked, relative to other elements of capital on the basis of identified quality characteristics set by the supervisor. The solvency regime also defines the minimum acceptable level of quality of capital for solvency purposes, and perhaps for different solvency control levels. In this way the capital elements are classified from highest to lowest quality on a continuous basis; only capital elements sitting above this defined minimum level on the continuum, would be accepted as capital resources for solvency purposes. Due consideration should again be given to the quality of capital elements to ensure that there is an appropriate balance of going-concern and wind-up capital.

Other approaches not based on classifying or ranking of capital instruments

77. The solvency regime may also apply approaches that are not based on an explicit categorisation of capital instruments, but more on an assessment of the quality of individual capital instruments and their specific features. For example, the terms of a hybrid capital instrument may not provide enough certainty that coupon payments will be deferred in times of stress. In such a case, the requirements in the solvency regime may limit (possibly taking into account further quality criteria) the ability of that instrument to cover the regulatory capital requirements.

Choice and Combination of approaches

78. Each approach has advantages and disadvantages. Jurisdictions should consider the organisation and sophistication of the insurance market and choose the best approach appropriate to the circumstances. Whatever approach is used overall, it should be transparent and be consistently applied in order to ensure that capital resources are of sufficient quality on a going-concern and a wind-up basis.

79. It is recognised that in some markets, only a limited range of instruments (for example, pure equity) may meet the quality criteria set out above. Accordingly, supervisors in such markets may wish to restrict the range of instruments that may be included in capital resources for solvency purposes or to apply procedures for prior approval as appropriate.

80. It is also important to ensure that the approach to the determination of capital resources in the solvency regime is consistent with the framework and principles underlying the

²⁰ An example is the existence of upper and lower tier 2 capital in the UK.

determination of regulatory capital requirements. This includes not only the implemented range of solvency control levels but is also relevant with regard to the target criteria underlying the regulatory capital requirements. In particular, the target criteria for regulatory capital requirements, and hence the approach to determining capital resources, should be consistent with the way in which the solvency regime addresses the two broad aims of capital from a regulatory perspective as described in paragraph 13.

81. To illustrate this, suppose that in setting regulatory capital requirements the solvency regime would consider the maximum probability over a specified time period with which they are willing to let unforeseen losses cause the insolvency of an insurer. In such a case, insurers would need to maintain sufficient capital resources to absorb losses before insolvency or winding-up occurs. Hence the determination of capital resources would need to lay sufficient emphasis on the first objective stated in paragraph 13 (loss absorbency under going concern), and could not entirely rely on the second objective (loss absorbency solely under insolvency or winding-up).

3.4 Insurer's own assessment

Requirement 4

The solvency regime should require the insurer to assess the quality and adequacy of its capital resources to meet regulatory capital requirements and any additional capital needs.

82. The insurer should assess the quality and adequacy of capital resources both in the context of determining its economic capital and in demonstrating that regulatory capital requirements are met having regard to the quality criteria established in the solvency regime and other factors which the insurer considers relevant. The scope of this assessment should be proportionate to the nature, scale and complexity of the insurer's risks.

83. The insurer should also assess the appropriateness of its capital resources in supporting its business strategy and enabling it to continue its operations, with due regard for its longer term business strategy and in particular new business plans.

84. In the context of its overall enterprise risk management framework, this assessment should form part of the insurer's own risk and solvency assessment (ORSA) which should demonstrate that the insurer has risk and capital management processes in place to monitor and manage the overall adequacy of its financial resources²¹.

Re-capitalisation

85. If an insurer suffers losses that are absorbed by its available capital resources, it may need to raise new capital to meet ongoing regulatory capital requirements and to maintain its business strategies. It cannot be assumed that capital will be readily available at the time it is needed. Therefore, an insurer's own assessment of the quality of capital should also consider the issue of re-capitalisation, especially the ability of capital to absorb losses on a going-concern basis and the extent to which the capital instruments or structures that the insurer uses may facilitate or hinder future re-capitalisation. For example, if an insurer enters

²¹ Refer to the IAIS *Guidance paper on enterprise risk management for capital adequacy and solvency purposes* (Oct 2008), which requires that an insurer should establish, and operate within, a sound enterprise risk management (ERM) framework which is appropriate to the nature, scale and complexity of its business and risks

into a funding arrangement where future profits are cashed immediately, the reduced future earnings potential of the insurer may make it more difficult to raise capital resources in the future.

86. For an insurer to be able to recapitalise in times of financial stress, it is critical to maintain market confidence at all times, through its solvency and capital management, investor relationships, robust governance structure/practices and fair market conduct practices. For example, where an insurer issues preferred stock without voting rights, this may affect the robustness of the governance structure and practice of that insurer. The voting rights attached to common stock can provide an important source of market discipline over an insurer's management. Other insurers may issue capital instruments with lower coupons and fees, sacrificing the economic value of the existing shareholders and bondholders.

87. When market conditions are good, many insurers should be readily able to issue sufficient volumes of high quality capital instruments at reasonable levels of cost. However, when market conditions are stressed, it is likely that only well capitalised insurers, in terms of both the quality and quantity of capital resources held, will be able to issue high quality capital instruments. Other insurers may only be able to issue limited amounts of lower quality capital and at higher cost. Therefore, supervisors should make sure that insurers have regard for such variations in market conditions and manage the quality and quantity of their capital resources in a forward looking manner. In this regard, it is expected that high quality capital instruments, such as common shares, should form the substantial part of capital resources in normal market conditions as that would enable insurers to issue capital instruments even in stressed situations. Such capital management approaches also help to address the procyclicality issues that may arise, particularly in risk-based solvency regimes.