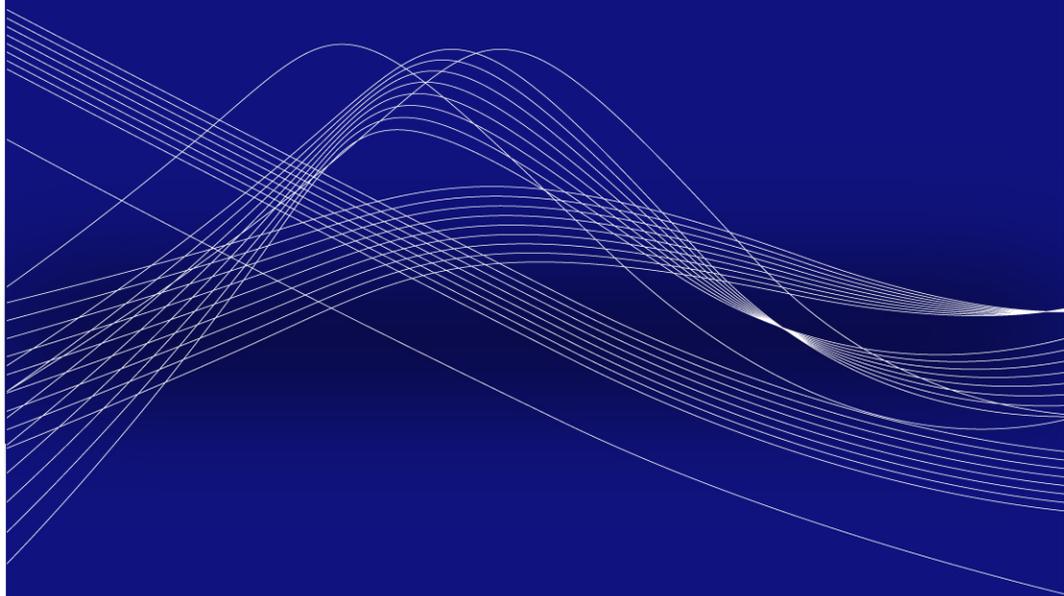


# Basis for Conclusions European Embedded Value Principles



**CFO Forum**

# This Basis for Conclusions accompanies the proposed Principles for Supplementary Reporting on Embedded Value prepared by the CFO Forum.

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## Introduction

- 1** This Basis for Conclusions summarises the forum of European Insurers' (the Forum) considerations in producing the European Embedded Value (EV) Principles and Guidance (the "Principles").
- 2** The Forum recognised a need for international guidance on the implementation of public EV reporting as:
  - 2.1 There is no international guidance in place for EV-based reporting;
  - 2.2 EV as a financial reporting method is published and used as an internal management tool by most of the large European-based financial services companies writing long-term insurance business;
  - 2.3 Analysts of companies focus on EV reporting;
  - 2.4 Practices for calculation and disclosure of EV reporting are diverse between companies and countries; and
  - 2.5 Existing EV reporting has been the subject of criticisms by analysts and valid criticism needs to be addressed.
- 3** In acknowledgement that there was a common interest in developing guidance for consistent supplementary EV disclosure and a realistic possibility of establishing guidance that could be considered useful to the investment community and appropriate by the management of the major European insurance groups, the Forum's internally stated goals in producing the Principles were summarised in its Terms of Reference as follows:
  - 3.1 Primarily, to develop guidance to be applied by European insurance groups preparing supplementary financial information on an EV basis.
  - 3.2 In developing this guidance, to consider the following key attributes of the guidance:
    - 3.2.1 Address the current reservations/criticisms of existing EV reporting by ensuring that the guidance:
      - 3.2.1.1 Is sufficiently credible and robust to address key concerns relating to consistent application between peer group companies;
      - 3.2.1.2 Explicitly includes the valuation of guarantees and options, addressing the criticism that within the current methodology, the time value of options and guarantees is not adequately dealt with; and
      - 3.2.1.3 Prescribes a minimum level of disclosure, including sensitivity analysis, to address analysts' concerns about comparability of the results of companies adopting different assumptions.
    - 3.3 Ensure that the methodology reflects the economic value of long-term insurance business.
    - 3.4 Consider the process of implementation.
    - 3.5 Consider the timing and robustness of implementation including valuation implications such as systems and data issues.

## General Approach and Philosophy

- 4 EV reporting focuses primarily on relevant information to all users on the expected value and drivers of change in value of companies' existing business, as well as risks associated with the realisation of that value. Its prime measure is of the value of expected future cash flows distributable to shareholders from that business. The points described below were recognised as important attributes to improve existing EV reporting.
- 5 Users of existing EV reporting criticise both the diversity of approaches and lack of disclosures to understand how those approaches affect results. Both are valid criticisms that should be addressed.
- 6 The Principles should be applicable to a wide range of business managed globally in different ways by different companies. It is not practical for rules to be written to cover all eventualities. The Principles should accommodate different measurement approaches appropriate to the nature of the business, but at the same time achieve a consistency across businesses and restrict the scope for arbitrage by changing between measurement approaches.
- 7 Companies have made significant investment in expertise, systems and understanding of existing EV reporting. As far as possible, and subject to the goals described above, the Principles should build on existing best practice in EV reporting.
- 8 EV reporting should allow users to understand management's views of the value, and changes in value, of the shareholders' interest in a specified part of the company's business, together with the main events influencing them during the reporting period.
- 9 The application of the Principles should, in practice, consider investors' interest in the contract as a whole, rather than necessarily isolating different types of cash flow or different types of risk.

## Principles, Guidance and Disclosures

- 10 For sufficient consistency of approach and credibility of the reporting, a certain amount of common ground is necessary to which all adopters must adhere. Compliance with the 12 high level principles is compulsory.
- 11 To be applicable to a wide variety of business circumstances, these principles could be open to different detailed interpretations. The room for interpretation should be limited and different interpretations should be well understood by users. The Principles therefore incorporate the following items.
  - 11.1 Guidance at a more detailed level for implementation of the principles. This covers areas that should be common ground for most companies, non-compliance with which should be explicitly disclosed.
  - 11.2 Extensive disclosure requirements in order that different interpretations and their impact on results can be well understood by users.
- 12 Whilst some companies have already made significant steps towards the changes envisaged in the Principles, implementation for reporting on the 2005 financial year is seen as an appropriate balance of urgency and time for adequate preparation.

## Principle 1 – EV as a Measure

- 13 The Principles continue the focus of existing EV reporting on investors and potential investors, in companies and the analysts advising them.
- 14 **G1.1** – EV Principles can be applied to a wide range of business, for example the entire business of a standalone life insurance company or one part of a diverse financial services company offering banking, services and non-life insurance products. It should be clear to users of accounts to what business the Principles have been applied (the 'covered business', considered in more detail under Principle 2).
- 15 **G1.2** – Companies currently publish EV results in three ways:
  - i) as the measure consolidated in primary financial statements (for some bancassurers);
  - ii) as supplementary reporting to the primary financial statements or
  - iii) in separate presentations or reports.

The Principles set out requirements for supplementary reporting to the primary financial statements. Incorporation of EV reporting within the companies' financial statements encourages the attention of senior management and reviewers and therefore enhances credibility to users of financial reporting. Currently, EV has not been universally acceptable to standard-setters of the primary reporting basis.
- 16 **G1.3** – Currently, practice varies as to the inclusion of internal group agreements such as financial reinsurance or loan arrangements. Common uses of such arrangements are to transfer risk and/or optimise capital requirements between legal entities. Consistency in their treatment is required by relating the inclusion of such instruments directly to their relevance to cash flows from the 'covered business'. This reduces the scope for arbitrage between different accounting principles being applied according to the legal status of contracts rather than the economic reality of the covered business.
- 17 **G1.4** – Detailed consideration and application of the Principles and Guidance to the global operations of large companies would require a great deal of time, effort and expertise. Against this cost, the benefit of consistent and reliable value-based reporting must be balanced. Judgment of 'materiality' is at the centre of this balance and should be made in the context of users of information reported publicly under the EV method. Judgment over the necessity to disclose an issue should be driven by its likely relevance to a user's decisions.

## Principle 2 – Covered Business

- 18 G2.1, 2.2 & 2.3** – Companies currently apply EV methods to a wide variety of businesses of different legal forms and risk. Normally, it is applied to long-term business or particular legal entities writing such business. The Principles can be applied to a wider range of business.
- 19 G2.4** – Primary reporting bases commonly apply different accounting methods to contracts (or other units of account) depending on their legal form, the type of entity into which they are written, or the underlying type of risk exposure. To allow flexibility and encourage application according to the nature rather than the legal form of business, the Principles are applied to business independent of its insurance risk content and irrespective of the type or identity of the legal entity within which it is written.
- 20** Whilst companies should be reasonably free to determine the kind of business to which EV methods are applied, it should be clear to users what types of business are covered by the Principles and how the value of the covered business can be reconciled to the consolidated results under primary reporting. This reconciliation is made to either ‘free surplus’ or ‘required capital’ as described below.

## Principle 3 – Components of EV

- 21 G3.1** – The EV measure is applied to business types rather than, say, legal entities. The value of assets allocated to the covered business (from within the wider business) needs to be identified. These assets can be divided into a) those required to meet a liability measure for the business, b) additional capital considered by management to be encumbered in supporting the in-force business and c) additional ‘free surplus’ allocated to the business. Different companies present these components in different ways. However, this distinction is convenient when addressing methods by which to value their contribution to shareholders’ interests in the business.
- 22 G3.2** – Similar techniques could be applied to valuing future new business, and indeed have been used when estimating ‘appraisal values’. However the value added by new business is considered to be most closely related to events in the year in which it is written. The Principles are therefore directed at valuing business already written to the end of the period and not at an “appraisal value”.

## Allowance for Risk and G3.3

- 23** One of the key technical debates over methodologies for value-based financial reporting of insurance contracts is in the approach used to value risks. Uncertainty is the essence of insurance contracts and much long-term insurance business is inherently complex, incorporating a variety of different risks many of which cannot be valued from observations of markets. Reflecting the wide variety of risks associated with the future cash flows expected to emerge from the business is a challenge to any reporting basis.
- 24** Within an insurance contract the risks to the writer typically include:
- 24.1 changes in economic factors in general and financial markets in particular including credit, liquidity and market risks;
  - 24.2 insurance risks including longevity, mortality, morbidity, persistency, policyholders’ behaviour, claims frequency and severity;
  - 24.3 operational risks including expense levels; and
  - 24.4 external risks including regulatory and legal risks.
- 25** Some risks (such as most asset values and financial options) are directly linked to movements in financial markets, whilst others (such as renewals, lapses and expenses) are loosely correlated with financial markets and a third group (such as some insurance risks, including mortality) could be considered as largely independent of such markets. As there is not an active market for many of these risks, valuation techniques are required based on statistical tools. Such techniques need to take into account the actions and behaviour of management, policyholders and external parties (such as supervisory or taxation bodies) that can influence the cost and nature of these risks.

- 26 G3.3** expresses the underlying approach of the Principles that, when valuing the business, all these forms of risk should be allowed for, not just those directly related to investment markets, and that the aggregate allowance for risk should be consistent with shareholders' attitudes to risk. The allowance for risks may exclude operational and external risks if such an approach is consistent with shareholders' attitudes to risk.
- 27** In considering the impact of risk on shareholder cash flows G3.3 is wide-ranging, bringing together considerations of the different mechanisms by which different risks can be incorporated in the valuation. Each mechanism is covered in more detail elsewhere in the Guidance. A key challenge for companies will be to communicate the ways in which these mechanisms reflect shareholders' appetite for various types of risk in their business. Under the Principles, risk is allowed for in a combination of the following ways:
- 27.1 The prudence in the value ascribed to liabilities;
- 27.2 The required capital projected to be at risk in the business and the projected timing of release of that required capital (see Principles 5 & 6);
- 27.3 The difference between the return assumed to be required by shareholders (the risk discount rate) on capital required to support the in-force business to compensate for risks being run on their behalf, and the return expected to be earned on the backing assets (see Principles 9 & 10);
- 27.4 Specific allowance for the value of certain risks not readily reflected in a deterministic projection such as the value of financial options and guarantees within the business (see Principle 7).

## Different Approaches Considered

- 28** In any approach, the relationships between and diversification of different types of risk must be considered. Different valuation approaches can be taken to different risks. For example, different risks and their associated cash flows could be valued in isolation or contracts could be valued in isolation but with all risks combined. As the cash flows from various risks interact, it is often impractical to extricate them and value them independently.
- 29** Economic theory and market observation indicate that investors are 'risk averse' in that, when assessing investments, they place greater weight on downside risk than upside potential. Practical application of valuation theories to long-term insurance contracts is developing to address such weightings directly.
- 30** Some interpretations consider that risk is not relevant to investors where it is 'diversifiable', in that it is not correlated with investment markets. Risks could be valued in different ways according to their 'diversifiability'.
- 31** In setting out these Principles it was recognised that there is a variety of tools available for calculating and reporting the value to shareholders of cash flows from long-term insurance contracts, each designed for a different purpose and each with its technical and practical strengths and weaknesses. In the absence of a universally accepted approach to incorporating all risks, several approaches were considered.
- 32** Differences in approach lie primarily in the valuation of different types of risk. Two in particular were considered in some detail:
- 32.1 A combination of the 'traditional' form of EV, in which cash flows are projected using an expected future return on each asset class and discounted at a risk discount rate, together with a time value of financial options and guarantees, where these are separately valued using finance theory ("alternative approach 1").
- 32.2 A 'certainty equivalent' form of EV in which projections of investment returns and discounting are all at risk-free rates, together with the finance theory approach to financial guarantee/option valuation ("alternative approach 2").
- 33** These were compared with the approach eventually adopted, in which the traditional form of EV incorporates a time value of financial options and guarantees by taking the expected value from a range of possible stochastic, 'real world' outcomes for investment markets ("alternative approach 3").
- 34** The main strengths and weaknesses of the three approaches considered in detail are set out below. On balance the alternative approach 3 was adopted as it was considered the best according to a balance of the following criteria:
- 34.1 Usefulness to users, including ease of understanding and comparability over a period in which primary financial reporting is undergoing rapid and fundamental change;
- 34.2 Consistency with (management interpretation of) shareholders' views of value and risk including treatment of renewals, values of new business and management discretion;
- 34.3 Acceptability to companies, including consistency with internal management tools and efficiency of implementation;
- 34.4 Ability to address the criticisms of existing value-based reporting that:
- 34.4.1 the time value of financial options and guarantees is not adequately dealt with;
- 34.4.2 the variety of methodologies and disclosures does not allow valid comparison between companies; and
- 34.4.3 the use of different projected investment returns for different asset classes may result in changes in value inconsistent with financial markets.
- 35** The issues of comparability and discretion in valuation assumptions are addressed directly through the application of a coherent, commonly applied set of valuation and reporting Principles, Guidance and Disclosures acceptable to a broad range of companies and analysts.

## The Approach Adopted (alternative approach 3)

- 36** The approach adopted was considered to be the most readily implemented by companies and most readily understood by management and users. It is most consistent with the way in which companies are managed internally, including existing pricing methods, and builds on existing EV methods in which companies have already made a major investment, which management uses internally and, which are well understood by users.
- 37** Some favour the following features:
- 37.1 Focus on valuing earnings distributable to shareholders and the return on capital required to compensate for all of the risks associated with their emergence according to management's expectations;
  - 37.2 Its ability to incorporate complex long-term interactions between assets, liabilities, management actions and shareholder cash flows;
  - 37.3 The consistent inclusion of expectations for future investment returns when valuing financial options and guarantees;
  - 37.4 The fact that the technique of applying a discount rate can be used to capture the same information as the alternative approaches considered. In most practical cases, it could be calibrated to provide similar results to the alternative approaches considered.

## Alternative 1 (see 32.1)

- 38** Some saw this approach as improving on the approach taken by incorporating a valuation of financial options/guarantees more consistent with finance theory. However this was seen as introducing an inconsistency between the allowance for financial options/guarantees and the rest of the valuation, which would create problems with projecting interactions between the cash flows from the financial options/guarantees and the remainder of a contract. The aspects of a contract that are not replicable by instruments in the financial markets (for example, insurance risk) cannot, by nature, be valued by reference to the financial markets. Further, the lengths of contracts often offered by insurance entities are so thinly traded that huge price variance exists. Market consistency is not appropriate when no such market exists.
- 39** It would also cause problems with communication of results and their use in managing the business; it is not a common approach for internal management purposes.

## Alternative 2 (see 32.2)

- 40** This approach was seen to enable valuation approaches for financial options and guarantees to be more consistent with those used in financial theory. The advantage over alternative 1 was that it retained internal consistency between the value of options and the remainder of the valuation. Some saw its indirect approach to valuing investment risk (via risk-free projection/discount rates) as dealing well with the issue of different projected returns on different types of asset.
- 41** However it is not seen as a common tool for internal management purposes. There were concerns that:
- 41.1 This approach to asset valuation would create difficulty in projecting the interactions between asset-related cash flows, other contract cash flows and future management decisions. It assumes that asset liability management is irrelevant to the value of an insurance entity.
  - 41.2 Any allowance for risks not directly associated with financial markets would be removed.
  - 41.3 It does not directly address the distributability of cash flows to shareholders.
  - 41.4 It requires approximate valuation techniques to be adopted for frictional costs.
  - 41.5 It is a fundamental departure from existing valuation methods in isolating different elements of the contract and dealing with the cost of capital. Greater investment would be required to gain understanding and communication of results for management and users.

## Reinsurance and Debt

- 42 G3.4** – In considering reinsurance there is no need to directly consider ‘gross’ and ‘reinsurance’ cash flows separately as cash flows to shareholders will be net of the impact of outward reinsurance. Nevertheless risks such as credit risks associated with claims from reinsurers form part of aggregate risk in the business and should therefore be considered.
- 43 G3.5** – Under some forms of loan or reinsurance shareholder access to cash flows emerging from the covered business is subordinate to the creditor. This effectively leverages the future cash flows to shareholders, increasing the risk associated with their earnings. This is one kind of risk to be allowed for in valuing cash flows.
- 44** Practice has varied as to how such instruments are treated under EV reporting. In some instances such debt is deducted at ‘face value’ (the nominal amount to be repaid) from the EV. Alternatively, it is valued at the same discount rate as the (higher risk) residual cash flows. As markets and the underlying business change, the value of that debt to its holder will move out of line with its ‘face value’ and the extent of leverage and hence the risk associated with the residual cash flows will change. As the entire portfolio must normally be modelled to assess the residual cash flows, this is usually addressed by valuing the entire portfolio and deducting a market-related, rather than ‘face’, value of such debt-like instruments.

## Principle 4 – Free Surplus

- 45** Many companies write business other than that covered by EV reporting. Whilst practice varies as to the management and internal allocation of capital, some form of capital allocation to different types of business takes place in every company.
- 46 G4.1** – The starting point for EV measures is the market value of assets allocated to the covered business. Under the Principles, the way in which these assets are used in managing the business drives their valuation. In some companies, not all capital allocated to covered business is needed to support the in-force business. This ‘free surplus’, unlike ‘required capital’, could be released from the covered business immediately, and is therefore held at market value.
- 47** The Principles are based on valuation mechanisms in which earnings emerge under contracts for distribution to shareholders. In certain jurisdictions it is common, particularly for participating business, for business to be managed based on (non-market) book values of assets and realisations of losses/gains, alongside a consistent liability measure. Typically in such cases, the realisation of gains/losses is a driver of bonus decisions and hence the emergence of cash flows to shareholders. Free surplus would normally be the market value of any excess assets remaining after attribution of assets at book values to support liabilities and attribution to the required capital.
- 48 G4.2** – In order for users to analyse the combination of the covered business and other business it is useful to distinguish between the capital allocated to different types of business and to reconcile between elements of EV and the primary financial statements. The level of ‘free surplus’ is the focal point for this reconciliation. If assets over the level of ‘required capital’ are not allocated internally to the covered business, then the required capital is used for reconciliation purposes.

## Principle 5 – Required Capital

- 49** The distribution to shareholders of assets allocated to the covered business is commonly restricted at the valuation date but is expected to occur over time as the in-force business runs off. However that capital is at risk during this period. Economic theory and market reality imply that investors would prefer cash in hand rather than capital at risk under the management of a third party. From the investors' viewpoint there is a cost due to restrictions on the distribution of capital.
- 50** It is convenient to distinguish between those assets allocated to back the liabilities and those whose distribution is restricted in other ways: the 'required capital'. In practice this distinction can be rather arbitrary. For example a combination of a 'strong' liability measure with relatively low required capital is equivalent to a 'weaker' liability measure plus relatively high additional required capital.
- 51 G5.1** – It has been common for EV methods to include in the required capital any restrictions on distributions placed by local regulators, for example to maintain minimum levels of solvency capital or to avoid the regulator imposing restrictions on management of the business.
- 52 G5.2** – It is becoming increasingly common for the required capital to be based on internal management objectives or external rating agencies' views. The management of such additional restrictions is of interest to investors. Examples include:
- 52.1 Holding capital at a level higher than the regulatory minimum may be necessary to avoid closer attention from regulators;
  - 52.2 A certain level of financial strength may be sought for marketing purposes or to meet internal risk-based capital goals;
  - 52.3 Some companies publicly express goals to maintain a given credit or financial strength rating.
- 53 G5.3** – A variety of methods is available to value the cost to shareholders of capital being restricted within the covered business. Investors require a return on capital which is assessed by management as being the risk discount rate to recognise that it is at risk in the covered business. The assets in which that capital is invested are normally expected to earn an investment return lower than that required return. The cost of capital is the result of projecting the returns on capital as the business runs off and discounting net cash flows from that capital at the risk discount rate.
- 54** Some consider that there should be a trade-off between the level of capital held and the return required on that capital. For example, a high level of capital implies that capital is on average exposed to lower risk and therefore requires a lower return and hence a lower discount rate. Conversely an over-capitalised operation could be a sign of poor capital management and therefore higher risk. In all cases, management's views would be reflected in the assumptions used and disclosures made.
- 55 G5.4** – Some consider that certain local regulatory requirements demand that an excessively high level of capital be held in respect of specific financial options and guarantees, possibly in recognition that their time value is not otherwise allowed for. As the time value of such options and guarantees is calculated elsewhere in the EV (see Principle 7), to the extent that regulators require more capital to be held for these features than is considered economically necessary, removal of this 'double-counting' should be allowed.

## Principle 6 – PVIF

- 56** The assets held to back liabilities are required to meet future liability cash flows, with any margins emerging for the benefit of shareholders.
- 57 G6.1** – As noted above, there is normally no clear or unique line to be drawn between required capital and assets backing liabilities and it would be common for companies to manage both together for a given block of business. Wherever such a distinction is made, care is necessary to avoid double-counting or missing part of the assets.
- 58** Historically the level required by local regulators has been the norm for the liability measure. This usually, although not always, contains margins from which cash flows to shareholders would be expected to emerge over time.
- 59 G6.2** – Where shareholders expect, and the business is managed in anticipation of, renewal of in-force business (for example the receipt of future premiums even where this may not be contractual, see discussion below in principle 8) this should be reflected in the EV. The extent to which such renewals actually occur can be a key factor in the performance of the business.
- 60 G6.3** – One of the main criticisms of EV that the Principles aim to address is the allowance for financial options and guarantees. The intrinsic value of such features is captured within most liability measures envisaged under Principle 6. To the extent that the option or guarantee feature is ‘in the money’ at the valuation date on the regulatory basis, it is measured as a liability under most local regulatory regimes and the cash flows to meet expected benefits under the feature would be deducted before shareholder cash flows emerge. Where liability measures do not capture the intrinsic value, the assets required to meet it should be considered ‘encumbered’ as the obligation to meet the option/guarantee will restrict their distribution to shareholders.

## Principle 7 – Time Value of Financial Options and Guarantees

- 61** The criticisms of the treatment given to financial options and guarantees under historic EV methods have been directly addressed within the Principles, particularly in relation to the time value of such features.
- 62** Consideration was given as to what kind of feature should be explicitly covered as ‘financial option or guarantee’. These should include those features whose value is driven mainly by changes in financial markets. The Glossary definition covers a wide variety of such features. The key elements are that the feature allows the policyholder the more valuable of two (or more) benefits<sup>1</sup> and that the value of the feature to the policyholder varies as economic indicators or financial markets vary. (It therefore includes most guaranteed annuity options, guarantees underlying participating contracts and guarantees underlying unit-linked contracts but does not include some common insurance-based options such as those to increase insurance cover.)
- 63** Principle 7 directly addresses the need for the recognition of the time value of such features. Historically, they might have been addressed adequately in deterministic EV calculations via indirect additional allowance for risk in the discount rate. However, the relative importance of large volumes and values of such features has been increased by recent reductions in interest rates and declining equity market performance. The Forum felt it appropriate to consider whether a more direct method should be applied.
- 64** The Forum debated a range of methods with the aim of incorporating the time value of a wide variety of such features whilst maintaining consistency with the rest of the EV, the ways in which they are managed by companies and the market values of similar instruments. No single method was judged to cover all of these desirable properties well, though certain aspects are prioritised in the Guidance.
- 65** Stochastic variation or future volatility in economic variables is a key determinant of time value for such features. For example the time value of guarantees underlying unit-linked or participating contracts invested in non-fixed assets is closely correlated to the expected future volatility of those assets. Shareholders often earn a share in the upside of movements in financial markets but meet the full cost of the downside below a certain level. In this way the Principles recognise the asymmetric impact of financial options and guarantees on cash flows to shareholders as market conditions change.
- 66** Consideration was given to imposing a requirement that option features should be valued in isolation to be more in line with those seen in financial markets. However financial option/guarantee features are usually not written in isolation, but are closely linked to other contract features and managed as part of the whole contract. For example the likelihood of a benefit guarantee biting in future on a participating contract can be managed using decisions over bonus allocations and investment mix.

<sup>1</sup> A guarantee is considered to be a form of option in that the holder will receive the higher of a) the guaranteed amount and b) the benefit payable had the guarantee not been in place.

- 67** Consistency with the valuation of the whole contract was considered a high priority. This avoids discontinuities in results as an option moves from “out of the money” and “into the money” and vice versa. Valuing the expected cost of option-like features using stochastic techniques is considered a suitable measure.
- 68 G7.1** – The value placed on options and guarantees using stochastic techniques can be sensitive to the assumptions used, especially the model of future investment variations. There is a variety of models and theoretical approaches available for modelling long-term stochastic economic and investment scenarios, of which several are in practical use. In order to accommodate different views as to the most appropriate model and the wide variety of existing option-type features and their management by companies, the Principles leave some choice in the models and assumptions used providing there is adequate disclosure as described in G7.4. Both open and closed form models are permissible. However this choice is limited by the requirement for internal consistency in the valuation, in particular:
- 68.1 Consistency with economic assumptions that are themselves consistent with past or expected future experience, including by reference to market data. This would include the volatility parameters used in stochastic techniques;
- 68.2 Assumptions are updated at each valuation so that the value reflects the latest economic position. In addition, the assets held at the valuation date are used as the starting point for the valuation.
- 69 G7.2** – Management may have some discretion in managing exposure to guarantees/ options, particularly within participating business. For example decisions over investment mix can influence asset volatility and in scenarios of adverse economic conditions, management may choose an asset mix where guarantees are more closely matched. Where economic/financial scenarios would lead to such discretion being exercised, this can be reflected in the valuation of financial options/guarantees providing that such discretion has been formally approved.
- 70 G7.3** – The time value of financial options and guarantees forms part of the in-force business.
- 71 G7.4** – Disclosure of the models and valuation techniques used, the resulting values and their sensitivities where appropriate or material, will serve to enable users to understand how the risks associated with these features are valued.

## Principle 8 – New Business and Renewals

- 72** The distinction between new business and renewals is an area in which practice has been found to vary between companies and markets and in which there is no common definition. It is also a sensitive area as the contribution from new business is a key indicator for users analysing the future prospects for the company. Both new business volumes and margins are closely monitored and multiples applied to estimate ‘goodwill’ values for companies.
- 73 G8.1** – An expectation of renewals, including non-contractual renewals, is inherent in management of the business being measured under the Principles and in the expectations of investors in that business. Long-term profitability is often sensitive to the continuation of renewals, which may be at the option of the policyholder. The Principles therefore aim to capture the value to shareholders of business already written, including expected future renewals of that business, to separately identify the value of new business written during the period and to analyse the actual variation in renewals against those anticipated by the previous valuation.
- 74** Several alternatives have been considered for capturing appropriate measures, including using company pricing assumptions and local regulatory or local accounting approaches. Any requirement will have to cope with a wide variety of contract types, local reporting and management practices, and adapt to moves towards flexibility over contributions to some long-term contracts.
- 75** Current practice varies as to the extent to which renewals are included in reported values of new business, though they are usually based on management judgment rather than an externally dictated rule. The most suitable approach is considered to be not to overly restrict this discretion but to give practical guidance as to typical treatments of new business and renewals.
- 76 G8.2, 8.3 and 8.5** – The cash flows associated with each premium, and each variation against previous assumptions, should be counted once and only once. Guidance sets out typical indications as to the categorisation of premium and the value of its associated cash flows between those representing new business and those representing renewal of existing business.
- 77 G8.4** – Disclosure will be used to clarify how each company has made this categorisation.
- 78 G8.7** – Practice also varies as to whether new business is valued at opening or closing assumptions. This should not affect the overall result. However it would affect elements of experience/change being recorded in different lines of analysis of the change in EV. Again, disclosure will clarify the approach taken in each case.
- 79** New business margins have been defined to be the ratio of the value of new business to the present value of new business premiums. The use of the present value of new business premiums has been chosen as it is conceptually closely aligned with the numerator. Some companies use different measures such as the use of annualised new business premium (annual premium and one-tenth of single premium) as the denominator in new business margins. Such measures could also be disclosed as further information.

## Principle 9 – Projection Assumptions

- 80** A wide variety of assumptions regarding future experience is necessary in order to project cash flows associated with covered business and extract (and value) those available for distribution to shareholders. The selection of projection assumptions has often been criticised as allowing manipulation of results by management.
- 81** A value-based measurement of long-term business will be sensitive to the assumptions chosen, as a small change can have a relatively large effect on present values. Whilst the starting point of the valuation (assets held and their market/book values) is fixed and some assumptions will be observable (e.g. interest rates) or inferable (e.g. price inflation) from markets, others will rely on a combination of analysis of past experience, interpretation of market prices to the particular circumstances of the business and judgment of future trends. In each case they represent the judgment of, and should be justifiable by, management.
- 82 G9.1** – Whilst recognising that there can be different valid views of future expectations, the Principles seek to limit the extent of variation in those views by basing projection assumptions on current expectations, requiring objective justification for changes in assumptions and requiring changes where objective justification exists for them.
- 83** Some companies use margins in one element of the measurement or contract type to implicitly offset weakness or uncertainty in another. Such practices can cause misunderstanding, particularly where they are not documented or disclosed. The requirement to set assumptions for ‘each component of future cash flow for each policy group’ is intended to remove such practices.
- 84** Experience will inevitably vary from projection assumptions and this variation is one element of risk to be incorporated under G3.3.
- 85 G9.2** – Some companies incorporate margins in assumptions, particularly where there is little reliable evidence on which to base expectations for future experience. Such uncertainty is a risk to shareholders that can be reflected in the factors listed in G3.3. Introducing such implicit or explicit margins in some assumptions and not in others is potentially confusing. The requirement that assumptions should be ‘best estimate’ removes this possibility and reduces scope for arbitrary changes in assumptions. On average, experience should be ‘better’ than projected as much as it is ‘worse’ than expected.
- 86** Assumptions should be considered as a coherent projection of cash flows from the business and not be varied in isolation. The Principles require consistency of projection assumptions within the EV and with other measurement bases. This will also serve to reduce scope for arbitrary changes in assumptions. Examples of where this consistency is expected to be followed are:
- 86.1 Expense inflation, interest rates, lapse rates, bonus participation rates and investment returns for different asset classes tend to be correlated.
- 86.2 Assumptions used under other measurement reporting bases will be considered ‘best estimate’, ‘prudent’ or with margins for adverse deviation. The expectation is that assumptions so described would respectively be similar to, or stronger than, corresponding EV assumptions. It is noted that ‘stronger than’ can work in both directions for different contracts, for example lighter mortality for annuitants but heavier for term assurance.
- 86.3 Variations in economic or financial circumstances impact on policyholder behaviour and management actions. Where stochastic variation in financial markets forms a part of the valuation, its impact on lapses, option take-up and bonus participation should be consistent.
- 87 G9.3** – Some companies have adopted a set of relatively passive assumptions despite actual experience indicating otherwise, giving smoothed EV results. The requirement to ‘actively review’ assumptions is intended to disallow this practice where it does not reflect the reality of the impact of changes in experience on expected shareholder cash flows.
- 88 G9.4** – Practice has varied regarding the treatment of future changes in experience. Current experience can be a good guide but trends can be observed and current events might be expected to cause changes in future. For example, future mortality improvements are often allowed for in annuity but not protection business; investment in new systems incurs cost today in return for which efficiency improvements might be hoped for in future.
- 89** Whilst this is an area for judgment, particular constraints are seen as necessary to ensure improvements are not assumed before they can realistically be demonstrated. Specific guidance and disclosure is considered necessary for start-up operations as these are often the subject of significant investment with potentially several years before their long-term operating performance can be judged with confidence.
- 90 G9.5** – Experience can vary widely depending on the type of product being considered, how it is sold and the extent of underwriting. For example some types of contract are more expensive to administer, others experience relatively high or low persistency. Assumptions should be considered separately where these characteristics are significantly different.

## Expenses

**91** The treatment of expenses is an area in which practice varies between companies. To some extent this reflects different ways of managing business and operations in different stages of development. The Principles seek to ensure that assumptions recognise all those future costs necessary to manage the covered business as a going concern within the group. The expense assumptions should consider for example the following:

- 91.1 **G9.7** – Continuing investment necessary, especially in systems, to maintain productivity levels and ensure service levels meet customer expectations in line with assumed persistency and renewal levels.
- 91.2 Expense inflation consistent with the types of expenditure (such as office space, different types of staff, IT systems) expected to be made, recognising that this could be quite different from general price inflation.
- 91.3 **G9.8** – Future overhead expenses for functions such as finance, human resources and senior management that will have to be met by a combination of new and in-force business. The expense analyses should allocate costs between those for acquiring new business and those to manage in-force business.
- 91.4 **G9.9** – Recharge of holding company functions that will have to be met by subsidiaries. The allocation of holding companies' operating expenses should be allocated in an appropriate way consistent with past allocation, current business plans and future expectations.
- 91.5 **G9.10** – Expenses currently in excess of previous assumptions (overruns), recognising that without action/investment the overrun situation may prevail in future. Only maintenance expense overruns should be anticipated in the in-force value.
- 91.6 Expenses currently in excess of long-term assumptions where an operation is in a start-up/development phase, recognising that this situation may take several years to reach expected long-term expense levels.
- 91.7 Investments in the cost of setting up new operations carrying out covered business, noting that any value added from new business in these operations will be recognised only when it is written.
- 91.8 Investments in unit cost productivity improvements that are at risk of not being realised.

**92 G9.11** – Significant proportions of the costs for services to the covered business are commonly incurred as charges from service companies. These services can be operationally located outside the group, as part of the covered business or within the group but in a profit centre separate from the covered business. Typical examples include investment management services and some administration functions where outsourcing or centralisation is considered by management to be more effective than multiple local operations. In all such cases the Principles require measurement of the cost to the group of operating the covered business, i.e. including any profit or loss elsewhere in the group.

## Taxation and Legislation

- 93** Future cash flows are subject to the impact of tax and other legislation in each jurisdiction. Local interpretation of regulations can be important factors affecting the timing and amount of shareholder cash flows. All aspects of tax and regulation should be considered and a 'best estimate' interpretation made and followed. As the Principles are applied to valuing cash flows to shareholders, 'allowance for tax' means deducting those taxes that would be incurred on the covered business before distributions to shareholders.
- 94** There can be uncertainty over future legislation, for example where changes are announced but have not been ratified. Disclosure may be necessary to explain the 'best estimate' future situation assumed.

## Principle 10 – Economic Assumptions

### Expected Investment Returns

- 95** The future investment return assumptions are normally a key driver of reported value. A criticism of EV-type reporting has been that it is inappropriate to value different levels of expected return on different types of asset. In particular it is thought by some that a higher EV could be produced by moving investments out of less risky assets into more risky assets with a higher expected return. Such a move would bring higher positive future cash flows despite the expected return on, say, an equity portfolio being equivalent on a risk-adjusted basis to a risk-free rate.<sup>2</sup>
- 96** Some object to this, characterising it as 'reflecting future investment margins in the measurement of insurance liabilities'. Under the Principles, projections are made of future profit margins and any expected return higher than risk-free is built into these margins, rather than a liability measure.
- 97** The concept of higher expected returns on risky assets, including equities, is supported by historical evidence and economic theory. Volatility of future prices and income and risk of default are, however, key areas of risk. Investors are inherently risk-averse and a higher expected return is recognised as compensation for the greater risk associated with volatile returns and the possibility of low returns even over long periods. Indeed certain regulators such as in the UK recognise the existence of equity market risk premium when prescribing returns to be used, for example, for policy illustrations. Nevertheless such criticisms are taken seriously and several steps are taken in the Principles to address them, as described below.

### Role of Investment Risk and Return in Valuing Long-Term Insurance Contracts

- 98** It might be feasible to isolate assets and liabilities and value them in a way that allows for their interaction. Indeed, the Principles require the use of market values for assets as a starting point in determining the distributable surplus at the valuation date. However, shareholders have invested in the performance of the business as a whole and the value to shareholders is driven by combined asset and liability cash flows under the business. For example, the level of charges made under unit-linked contracts is commonly driven by the size of funds under management. This relationship is particularly close for participating businesses, where shareholder cash flows are typically driven by future bonus allocations, which in turn are driven by a combination of investment returns, profitability of the business as a whole and discretionary management decisions.
- 99** Within the wide variety of business envisaged to be covered by the Principles, those asset and liability cash flows are commonly very closely linked both to each other and to future actions to be taken by management to address future movements in their relationship. It is considered appropriate to value expected shareholder cash flows due to the contract as a whole rather than artificially extracting each contract feature. The impact on future shareholder distributions from the business as a whole is often more readily calculated, analysed and explained/understood by the projection of assets alongside liability cash flows. Indeed it would be poor management to consider assets and liabilities separately.

- 100** Under the Principles, cash flows from the business as a whole, which include those assets used to back liabilities and capital supporting in-force business and corresponding liability cash flows, rather than particular assets or liabilities in isolation, are projected. The projections incorporate both expected levels of return and stochastic variation in those returns in order to determine expected future distributable earnings. These earnings are discounted to give the EV.
- 101** Even though the market value of assets themselves does not alter as a result of a change in the mix of assets, there are some circumstances under which the risk-adjusted returns to shareholders are impacted. For example, the mix of income and capital gains on investments commonly impacts both the timing and amounts of tax payable and the timing and mix of bonuses on participating business. Some argue that the assets held by insurers are worth less to shareholders in the insurance entities than their market value as they are not readily realisable but are subject to the 'agency costs' and additional tax burden of indirect investment. Each of these impacts might be estimated independently, but are more practically determined as an element of the projection and discount of cash flows from the business as a whole as envisaged by the Principles.
- 102** Although riskier assets are expected to deliver higher future returns commensurate with the risk undertaken, concern remains as to:
- 102.1 How the risk of, for example, volatility of future investment returns has been dealt with when valuing shareholder cash flows from the contract as a whole.
- 102.2 Whether there is scope to hedge a contract feature in the market at a price different from the change in value of the contract if that feature were to be removed (i.e. to arbitrage between valuation under the Principles and valuations in the market).
- 103** The Principles should be applied so that shifting investments between asset classes does not create undue impact on the overall EV. Discount rates, the cost of capital and the impact on the value of option and guarantees are the primary tools within the Principles for making allowance for such risk. They are applied to the risks associated with a combination of future cash flows, rather than cash flows from a particular type of asset in isolation. The Principles place certain requirements on economic assumptions and their application to limit the possibilities for spurious changes in value.

<sup>2</sup> This can be characterised in a simple example – suppose a company assumes that expected returns are 5% p.a. on risk free bonds and 7% p.a. on equities and applies a discount rate of 7%. If the company is to pay out all of its assets to shareholders in 1 year, ignoring tax a company investing 100 in bonds would show an EV of  $98 = 100 \cdot 1.05 / 1.07$ . Switching to equities would give a value of  $100 = 100 \cdot 1.07 / 1.07$ .

## Application of Economic Assumptions in Valuing Risk

- 104 G10.1, 10.10 & 10.11** – Assumptions, including economic assumptions, are actively set and not passive or ‘smoothed’ and are internally consistent. Where changes in investment or financial markets impact shareholders’ expected cash flows the impact should be reflected in the reported EV in the period in which they occur.
- 105 G10.2, 10.4, 10.6 & 10.5** – Individual assumptions should reflect relevant observable market values where available and expectations of their behaviour in future. This includes:
- 105.1 Their stochastic behaviour when considering financial options and guarantees.
  - 105.2 The treatment of credit risk on investments such as ‘corporate bonds’, since the published yields on such bonds are generally viewed as containing margins for both credit and liquidity risks. Defaults on such investments form part of their investment return and the impact of expected defaults should be incorporated in expected investment returns. Liquidity risk, on the other hand, would be met on forced sale of the investment (for example at a time of unexpectedly high claims) and is considered more appropriately dealt with through the overall allowance for risk on a contract.
- 106 G10.3** – The assets actually held at the valuation date should form the starting point for projection and valuation. However it is a normal part of managing long-term business that the investment mix varies over time, both strategically as liabilities change and temporarily as tactical positions are taken. Treatment of such changes varies between companies and over time. Such changes in investment mix should be reflected in the value reported where they impact cash flows to shareholders. The Principles seek to avoid arbitrary assumptions for the future, but allow those in line with formal management plans.

## Risk Discount Rates

- 107** Traditional EV methods use a single item – the ‘risk discount rate’ – to reflect all areas of risk. Whilst this has the benefit of simplicity it has been criticised for being a rather blunt instrument with which to address the value of all risks. This criticism is addressed under the Principles in several ways.
- 108 G10.7** – The selection of risk discount rates in EV reporting has historically left significant room for judgment, which appears to have led in practice to a ‘herding’ tendency (i.e. the use of similar risk margins between companies) rather than active differentiation on the basis of risks being run. In setting discount rates the requirements to consider ‘any risk associated with the emergence of distributable earnings that is not allowed for elsewhere in the valuation’ and actively to review assumptions at each valuation encourage a more rigorous and active approach to linking risk with discount rates. Whilst the guidance below describes a theoretical approach to setting assumptions, these may not be appropriate for all companies. Sufficient disclosure about assumption setting should be provided to enable users to understand the methods employed.
- 109** As an example, investment in riskier assets would normally lead to a higher level of risk associated with shareholder cash flows from the business as a whole, all other things being equal. This change in risk should be reflected alongside the change in expected return under an active approach to setting valuation assumptions. Where greater risk is being taken within the covered business and/or management is moving away from a matched asset-liability position, both the level of required capital and the discount rate applied to shareholder cash flows should increase, countering the impact of higher expected investment returns.<sup>3</sup>
- 110** Companies have historically used a single risk-free rate from which other rates of return or discount are often built. Whilst the single rate might be a convenient and sufficiently accurate approximation in some circumstances, there is in fact a ‘curve’ of returns whereby risk-free returns depend on the term being considered. The Principles allow consideration of the whole yield curve in setting assumed returns and discount rates.
- 111 G10.8** – In relation to paragraphs 40 and 41 above, when assessing the risks associated with shareholder cash flows leveraged by different forms of debt, the Principles require that this risk be reflected in discount rates.
- 112 G10.9** – Companies have historically used a single discount rate for all business, or perhaps varying rates by country. The nature and extent of risks to shareholder cash flows, and the expected return required to justify taking that risk, can vary significantly from one type of contract to another. It could be appropriate to manage and measure risk by setting discount rates at the product or even contract level. The Principles allow where appropriate the setting of discount rates at a more detailed level than for the business as a whole.
- 113** Where risk is allowed for elsewhere in the valuation, it should not be reflected in the discount rate to avoid double-counting. For example, on introduction of an explicit value for financial options and guarantees under Principle 7, a reduction in discount rates might be expected compared with an implicit allowance via the discount rate.

<sup>3</sup> In the above example the higher risk of investing in equities would imply a higher discount rate of, say, 9%, leading to an EV of  $98 = 100 \cdot 1.07 / 1.09$ .

## Principle 11 – Participating Business

- 114** This is a type of business that is core to many of the largest European financial services groups, but that other accounting measures struggle to accommodate in a meaningful way. EV approaches are helpful in focussing on the shareholders' viewpoint – the expected future cash flows to the shareholder from that business and risks associated with those cash flows – rather than separate measures of asset and liability.
- 115** It is impractical to lay down detailed rules covering the various types of contract in operation as the drivers of profit participation and shareholders' interests therein:
- 115.1 are complex, in that they are formed from the interaction of a wide variety of factors including historic and future premiums, investment returns, expenses, demographic experience, policyholder behaviour, participation practice, guarantees and options; and
  - 115.2 vary greatly depending on contract design, local regulation and local market practice, and individual company or fund participation philosophy or rules.
- 116** Judgment as to future bonus participation and management action in different scenarios will remain an important driver of reported EV for this business and the nature of shareholders' interest will vary by market, company and fund. The Principles seek to restrict the scope of this judgment by requiring valuation in line with the main types of limitation common to most contracts:
- 116.1 **G11.1** – Consistency with local regulation and contractual obligations, including schemes governing management of a participating fund, for example those that have been formed on demutualisation, merger or acquisition of companies.
  - 116.2 **G11.2** – Consistency with other projection assumptions, especially future investment returns.
  - 116.3 **G11.3** – Influence of past company practice on future discretion (e.g. in realisation of gains, awarding bonuses or smoothing changes in benefit levels).
  - 116.4 **G11.4** – Influence of market practice so that, for example, where projections diverge from expected market norms this is reflected in policyholder behaviour.
- 117** In common with other types of business the valuation of participating business typically projects cash flows from the run-off over time of in-force business, including renewals of that business. Future new business is ignored except to the extent that a certain level is implicit in maintaining projected expense levels.
- 118** Where current benefit levels are higher than can be supported by existing fund assets together with projected investment returns, it will be necessary to project a downward 'glide path' in benefit levels so that the fund would be exhausted on payment of the last benefit.
- 119** **G11.5** – Some funds are in the situation of having historically built up 'orphan' assets not considered to belong to current or future generations of policyholders or shareholders.

Others, as an element of their management, maintain surplus assets that, on realisation of the projection assumptions, would not be paid out to existing policyholders or shareholders. Whilst it may be unrealistic to assume their distribution in the short term, within the boundaries set out above, such assets can be considered to have a value to shareholders. For example they might be distributed over time between policyholders and shareholders, be available to meet adverse experience which would otherwise have to be met by shareholders or allow greater freedom of operation of the fund that could attract profitable business. The guidance sets out one feasible valuation method for such 'residual' assets.

## Principle 12 – Disclosures

- 120** Principles 1 to 11 and associated Guidance set out the approach to be used in calculating an EV. The calculation exercise would be of little worth without disclosure and communication of the valuation results, the factors affecting them and how they interact with changes in the business and its management.
- 121** The volume, style and quality of historic public reporting on EV results vary widely between companies. Commonality of content and layout would benefit users both in understanding disclosures from individual companies and in making comparisons between companies. In each area covered the Principles aim to bring disclosures to at least the level of the current good practice, balanced by the cost of producing that information.
- 122** Disclosures should enable users to:
- Understand the impact of different events, experiences and decisions during the period on the expected value of the business.
  - Understand the main risks to and drivers of the realisation of that value, including its main sensitivities.
  - Understand management's view of the business and its interpretation of the Principles, with particular attention to areas in which these leave room for different approaches, to enable the credibility of the valuation to be judged.
  - Make valid comparisons with other companies.
  - Reconcile the covered business to values in primary financial statements in order that covered business can be put in the context of a broader group.
- 123 G12.1** – Companies may choose not to adopt some elements of Guidance. Users will want to understand both the existence and reasons for such non-compliance.
- 124 G12.2** – Changes in one experience factor can have a series of knock-on effects through correlations or changes in behaviour. Practice has varied as to the extent to which these knock-on effects are allowed for. The Principles require the direct cash flow implications of a changed assumption to be reflected in sensitivity disclosures. For example the direct implications of a shift to higher long-term interest rates could include:
- An immediate reduction in the value of fixed interest assets.
  - Higher expected future returns on such assets.
  - Possible knock-on effects for other types of asset and discount rates.
  - Changes in future bonus rates.
  - Change in value of guarantees/options.
  - Possible changes in policyholder behaviour, for example in persistency or take-up of guarantees/options.

- 125 G12.3** – Regular calculation and disclosure is necessary for a reporting tool to fulfil credibly the needs of both internal management and external reporting. Annual calculation and disclosure are a minimum requirement under the Principles.
- 126** Users pay particular attention to volume and expected margin on new business as a signal of future performance prospects. 'New business contribution', or the change in EV due to writing new business during the year, is a commonly used measure in this respect. As noted under Principle 8, different interpretations of the definition of new business and its contribution are possible. Particular attention should be paid in disclosures to the definition of new business used and calculation of new business contribution. Separate technical guidance sets out expectations for definitions of new business volumes and margins reported under the Principles. The disclosure requirements necessitate new business margins to be calculated using a common approach.
- 127** The credibility of financial reporting is significantly enhanced by its explicit sign-off by management and review or audit by an independent third party.

the 1990s, the number of people in the world who are under 15 years of age is expected to increase from 1.1 billion to 1.5 billion.

As a result of the demographic changes, the number of people in the world who are aged 65 and over is expected to increase from 300 million in 1990 to 600 million in 2020. This increase is expected to be particularly rapid in the developed countries, where the number of people aged 65 and over is expected to increase from 100 million in 1990 to 200 million in 2020.

The demographic changes are expected to have a significant impact on the world's economy and society. The following are some of the expected impacts:

1. The number of people in the world who are aged 65 and over is expected to increase from 300 million in 1990 to 600 million in 2020. This increase is expected to be particularly rapid in the developed countries, where the number of people aged 65 and over is expected to increase from 100 million in 1990 to 200 million in 2020.

2. The number of people in the world who are aged 15 and under is expected to increase from 1.1 billion in 1990 to 1.5 billion in 2020.

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