

- In the **US**, operating profit includes a significant contribution from new business value and the benefit of improvements in the mortality experience assumption. Actual mortality and persistency experience was also favorable during 2006. Economic variance reflects a change in the shape and level of the risk free yield curve offset by actual investment returns on shareholders' net assets.
- In the **UK**, operating profit includes a significant contribution from new business value. The operating profit was reduced by expenses incurred in the development of a new administration system, variations in charges and benefits on policies and an increase in expense assumptions. This was partly offset by favorable mortality experience. The economic variance reflects the impact of changes in legislation and regulation and the increase in the risk free yield curve over the year partly offset by the impact of strong unit growth.
- In **Germany**, operating profit includes a significant contribution from new business value. In addition the corporate restructuring of the German entities increased shareholder value partly offset by an increase in expense assumptions. Economic variance reflects the strong increase in the risk free yield curve and a reduction in the Euro interest rate volatilities over 2006.
- In **Switzerland**, operating profit includes a significant contribution from new business value. Positive effects include the clarification of the Bonus Fund requirements, the allowance for asset management fees, and the implementation of an interest rate hedge. The economic variance reflects the impact of the increase in the risk free yield curve at short to medium durations as well as a strong increase in unrealized gains on equity and property.
- In **Rest of Europe**, principally the Isle of Man, Ireland, Italy and Spain, operating profits include a significant contribution from new business value. A review of mortality assumptions in Ireland, and a reduction in the lapse assumption for the Isle of Man, increased the operating profit. This has been offset by expense increases in Italy and an update of the persistency assumptions for Ireland. Economic variance reflects the reduction in the corporate tax rate for Spain and the increase of the risk free yield curve for the Euro zone. This was partly offset by exchange rate movement in the Isle of Man.
- In **International Businesses**, operating profit includes a significant contribution from new business value in particular from Hong Kong. The revision of the persistency assumptions for Chile and Australia in line with improved experience also enhanced the operating profit. Economic variance reflects the reduction in the risk free yield curve in Chile from 2005.

4. Embedded Value methodology

EV represents the shareholders' interests in the entities included in Global Life as set out in the Group's consolidated IFRS financial statements. EV excludes any value from future new business. Zurich has adopted the methodology for its EV based on the European Embedded Value Principles issued by the CFO Forum in May 2004, selecting a "bottom-up" market consistent approach. The following sets out the principles adopted and definitions used in that approach.

a) Covered business

Covered business includes all business written by companies that are included in Global Life, in particular:

- life and critical illness insurance;
- savings business (with profit, non-profit and unit-linked);
- pensions and annuity business; and,
- long-term health and accident insurance.

For certain smaller companies, no EV has been calculated but these companies have been included in the EV at their shareholders' equity value, as calculated in accordance with IFRS. The contribution from these companies to the EV is approximately 2%.

b) Calculation of Embedded Value

EV presented in this document is derived through calculations which are performed separately for each business unit. Enhanced models to produce market consistent valuations have been developed by each of our life businesses.

c) Reporting of Embedded Value

In line with the European Embedded Value Principles, the EV is broken down into the following components:

- shareholders' net assets, including free surplus and required capital; and,
- the value of business in-force.

The results are disclosed in a format Zurich considers to be appropriate for the market consistent methodology that has been adopted.

d) Shareholders' net assets

Shareholders' net assets represent the market value of net assets held in respect of the covered business, and consist of the required capital and free surplus. The level of required capital reflects the amount of capital considered by the Directors to be appropriate to manage the business. The free surplus comprises the market value of shareholders' net assets allocated to the covered business in excess of the assets backing the required capital.

The shareholders' net assets are based on local statutory and regulatory accounting. Adjustments are made to shareholders' net assets where appropriate, for example in respect of any unrealized gains attributable to shareholders. Any such adjustments are made consistently with the calculation of the value of business in-force.

e) Value of business in-force

The value of business in-force is the present value of future projected profits from the covered business, and it is defined as the certainty equivalent value of business in-force less frictional costs, time value of options and guarantees, and cost of non market risk. These components are explained below.

Certainty equivalent value is the value calculated using discount rates consistent with those applied to the underlying cash flows in the capital markets. It includes the intrinsic value but excludes the time value of options and guarantees which is allowed for separately, as described below.

Frictional costs reflect a deduction for the cost of holding shareholder capital. Under Zurich's market consistent framework, these frictional costs represent tax in respect of future investment income on total available capital plus investment management costs. In Germany, they also include the policyholders' share of investment income on the capital.

The application of frictional costs to the total capital of each life business is in line with Zurich's holistic approach to the EV. The tax and costs in respect of total capital will in practice have to be met, and it is appropriate therefore that this is allowed for in the EV. For the purpose of these calculations, required capital is assumed to run down in line with existing business. Free surplus is also assumed to run down in line with existing business except where there are specific plans for the earlier distribution of the free surplus.

For any life business where part of the capital requirements can be met by free assets other than shareholders' net assets, the frictional costs allow only for the amount of capital supported by shareholders.

The allowance for frictional costs is included both in the value of business in-force, and in the new business value. For new business, frictional costs are applied to the minimum solvency margin required to be held in respect of that business.

No allowance is made for "agency costs" as these are considered to be subjective and depend on the view of each shareholder.

Time value of options and guarantees represents additional costs in excess of the intrinsic value of options and guarantees which are already allowed for in the certainty equivalent value. These are based on the variability of investment returns which need to be allowed for explicitly under the European Embedded Value Principles. The time value has been calculated on a market consistent basis using stochastic modeling techniques, and making allowance for expected management and policyholder behavior.

For products with significant guarantees, the time value has been calculated on a market consistent basis by deducting the average present value of shareholder cash flows using 1,000 stochastic economic simulations from the certainty equivalent value (both for the value of business in-force and for new business value). For most products, the average value has been calculated using Monte Carlo simulations. For a small number of products, the time value of options and guarantees has been derived using closed form solutions.

Where appropriate, the calculation of the time value of options and guarantees makes allowance for:

- dynamic actions that would be taken by Management under different economic simulations, for example to implement a life business' investment strategy; and
- dynamic policyholder behavior, for example changes in surrender behavior as interest rates rise or fall, or take-up rates of guaranteed annuity options.

Cost of non market risk is an explicit additional deduction from the value of in-force business, over and above the frictional costs, reflecting an allowance for the impact on shareholder value of variability in insurance, business and operational risks.

Zurich's approach to the cost of non market risk is based on a valuation of the potential impacts on shareholder value of variance in certain best estimate assumptions to allow explicitly, at product level, for insurance (mortality, longevity and morbidity), business and operational risk.

The mortality, morbidity and expense assumptions used to calculate the value of business in-force and new business value are best estimates based on recent past experience. To the extent that the impact on shareholder value of variations in experience around the best estimate is symmetrical (for example, where the loss on a 10% increase in expenses is equal and opposite to the profit on a 10% reduction), and not correlated with investment markets, no further allowance for non market risk would be required. In such circumstances, the risk is considered to be diversifiable, and financial markets do not charge a risk premium for diversifiable risks.

However, in certain cases this symmetry does not hold, and Zurich considers that it is appropriate to make explicit allowance for this within the EV. Examples where this occurs are given in section 3.a "Cost of non market risk" above.

Currently, no consensus exists in the market as to the best way to allow for non market risk, and this issue will be kept under review as best practice begins to emerge. In the meantime, the allowance made in the EV represents Management's view on an appropriate adjustment for the costs of non market risk taking into account the different risk profiles in its life businesses.

f) New business

New business covers new contracts sold during the reporting period.

New business also includes new premiums written during the period on existing contracts and variations to premiums on existing contracts where these premiums and variations have not previously been assumed as part of business in-force. In this respect, the definition of new business has been chosen consistently with the definition of renewals for business in-force so that new business values are counted once and only once.

The new business is valued as at point of sale. Explicit allowance is made for frictional costs, time value of options and guarantees and cost of non market risk.

The value generated by new business written during the period is the present value of the projected stream of after tax distributable profits from that business. It has been calculated on the same market consistent approach as used for in-force business, using the same economic and operating assumptions as used to determine the EV as of the end of the year.

In certain profit sharing funds, the new business written can affect the time value of options and guarantees for business written in prior years, and this effect is taken into account in the new business value.

g) Asset and liability data used

For 2006, Zurich has adopted a combination of approaches for obtaining the asset and liability data and for performing the EV calculations.

- The main part of Zurich's EV, including our US, UK and Ireland operations, has been calculated using a "hard close" approach. This means that all asset as well as liability data reflect the actual position as of the valuation date.
- Switzerland, Italy, Spain and Hong Kong have used asset and liability data as of November 30 with adjustments made to asset data to reflect the change in swap curves between November 30 and December 31. New business value allows for all business written to December 31.

- Germany has used initial asset and liability data as of September 30, which have been projected to December 31 allowing for expected investment performance, new business, and policy movements. Adjustments have been made to the projected data to reflect actual positions such as policyholder bonus reserves as of December 31. New business value has been adjusted to allow for all business written to December 31.

For 2005, the EV results were calculated using a hard close approach for all countries.

h) Market consistent discounting

Zurich has adopted a “bottom-up” market consistent approach for the projection and discounting of future cash flows in the calculation of the EV. As a result, the risks inherent in the cash flows are allowed for in a way that is consistent with the way the market is expected to allow for such risks.

In principle, this method values each cash flow using a discount rate consistent with that applied to such a cash flow in the capital markets. For example, an equity cash flow is valued using an equity risk discount rate, and a bond cash flow is valued using a bond discount rate. If a higher return is assumed for equities, the equity cash flow is discounted at this higher rate.

In practice, Zurich has applied a computational method known as a “risk neutral” approach. This involves projecting the assets and liabilities using a distribution of asset returns where all asset types, on average, earn the same risk free rate.

The risk free yield curve assumptions are based on the swap curve in each major currency (US dollars, Euros, British pounds sterling and Swiss francs).

For liabilities where payouts are either independent or move linearly with markets, deterministic techniques (referred to as “certainty equivalent”) have been used. In such cases, the projection and discounting are based on the same risk free yield curve.

i) Economic scenario generator

For 2006, all operations have used actual yield curves observable as of December 31 for the calculation of the certainty equivalent value of business in-force.

The calculations of the time value of options and guarantees are based on stochastic simulations using an Economic Scenario Generator (“ESG”) provided by Barrie & Hibbert. The outputs (“simulations”) have been calibrated to conform to the economic parameters specified by Zurich. The approaches used to prepare these simulations are described below.

- For US, UK, Germany, Switzerland and Ireland, the simulations used for calculation of time value of options and guarantees reflect the actual yield curves observable as of December 31, 2006 and implied volatilities quoted by a number of investment banks as of November 30.
- For Italy, Spain and Hong Kong, the simulations used for calculation of time value of options and guarantees reflect the yield curves observable as of November 30 and implied volatilities quoted by a number of investment banks as of November 30.

All simulations used for the 2005 EV results were calibrated using actual yield curves and implied volatilities as of December 31, 2005.

Simulations are produced for the economies in the US, UK, Switzerland and the Euro-Zone. In each economy, risk free nominal interest rates are modeled using a LIBOR market model. The excess return on other asset classes relative to the total returns on risk free assets are then modeled using a multi-factor lognormal model. Hong Kong uses US dollar simulations as their principal liabilities are US dollar denominated. Chile uses closed form solutions rather than simulations. The other operations not mentioned above have no significant options and guarantees. Further details are set out under “Economic assumptions” in section 5.

j) Corporate Center costs

Corporate Center costs that relate to covered business have been allocated to the relevant companies and included in the projected expenses. These are fully taken into account in the EV.

k) Holding companies

Holding companies that belong to Global Life have been consolidated in the EV at their local statutory net asset value. Related expenses are small and so have been excluded from the projection assumptions. Holding companies outside Global Life are not included in the EV of the covered business.

l) Consolidation adjustments

Where a reinsurance arrangement exists between two life companies in Global Life, the value of the reinsurance is shown in the EV of the ceding company. This has no material impact on the reported results.

EV is shown net of minority holdings. Where Zurich has a majority interest in a subsidiary company, the new business value and the premium information are shown gross of minority holdings. The minorities' share of new business value is eliminated through "operating variance, after tax".

m) Debt

Where a loan exists between a company in Global Life and a Group company not within Global Life, the loan is valued for EV purposes consistently with the value shown in the Group's IFRS financial statements.

n) "Look through" principle – Service companies

There are some companies within Global Life that provide administration and distribution services. These are valued on a "look through" basis. The results do not include any Group service companies outside Global Life.

In the UK, a multi-tie distribution company called Openwork has replaced the former tied distribution network. This is included in the EV on a "look through" basis. After allowance for certain one-off expenses, profits and losses are attributed to new business value. Certain future revenue streams, mainly renewal commissions on business sold, are discounted and contribute to the new business value and to the value of business in-force.

In Germany, the majority of distribution and administration is provided by service companies. These are valued on a "look through" basis. These companies also provide limited services to companies outside Global Life, and the present value of the profits and losses on these services are included in the EV and the new business value.

In Switzerland, an investment management company provides asset management services to external pension schemes written in foundations and other pension funds. The present value of the net asset management fees, after tax, is included in the EV and the new business value.

o) Employee pension schemes

No allowance has been made in the EV for any past service surplus or deficit in the Group's employee pension schemes. Details of surplus/deficit are disclosed in the Group's annual financial statements on an IAS 19 basis.

An adjustment has been made to the expense assumptions for each life business to include expected pension scheme costs in respect of future service entitlements.

p) Employee share options

The costs of share options granted to employees are not included in the EV, other than to the extent that they are allowed for in the local statutory accounts upon which the shareholders' net assets are based. Further information on the costs of share options is given in the Group's IFRS financial statements.

q) Change in legislation or solvency regime.

The impacts of changes in legislation or solvency regime are generally included in economic variance for the purpose of the analysis of movement.