

Embedded Value at 31 December 2002 for Swiss Life / Rentenanstalt

Introduction

The value of in-force **life** insurance business of the Swiss Life / Rentenanstalt Life Company and subsidiaries has been calculated as at 31 December 2002 in order to be able to show an embedded value. The embedded value for the previous year is also shown together with items contributing to the change in embedded value during 2002. Sensitivities to changes in certain assumptions have also been calculated.

Goodwill has been eliminated for entities for which an embedded value has been calculated using a value of in-force business and an adjusted net asset value.

The embedded value of the life business is assessed to be:

the shareholders' interest in the net assets of the Group
plus
the value (to shareholders) of the in-force life business
less
the cost of solvency capital.

The value of in-force life business is calculated as the present value of projected future after-tax profits attributable to shareholders arising from the in-force life business (ignoring profits from future new business). The present value is calculated at discount rates which incorporate risk margins.

The values for new life business have been calculated as the present value as at inception of projected future after-tax profits to shareholders using the assumptions used for the 31 December 2002 embedded value. They allow for the cost of solvency capital required to support the solvency margin requirements of the new business.

The embedded value calculations follow a commonly used methodology, but it should be noted that they do not attempt to estimate the "Fair Value" methodology currently being implemented by the IASB.

Results

The calculated values for the Swiss Life / Rentenanstalt Life Company and subsidiaries are shown below. They do not include CHF 881 million of capital in Swiss Life Holding.

<u>Embedded value as at:</u>	31/12/2002	31/12/2001
	CHF millions	CHF millions
Value of shareholders' interest in the net assets	1'740	4'461
Value of in-force business	5'185	4'644
Cost of locking-in solvency margin	(1'309)	(1'003)
Total embedded value	5'616	8'102

The embedded value include the values for new business written in the preceding year of CHF 94 million for 2002 and CHF 46 million for 2001. The 2001 new business value is lower due to lower margins and higher expenses assumptions.

Geographical breakdown

A geographical breakdown of the figures is set out in the tables below. They do not include CHF 881 million of capital in Swiss Life Holding.

Embedded value split by region	31/12/2002	31/12/2001
	CHF millions	CHF millions
Switzerland		
Shareholders interest in the net asset value	534	2'895
Value of in-force business	3'859	3'190
Cost of locking-in solvency margin	(1'014)	(774)
<i>Embedded value</i>	3'379	5'311
European Division		
Shareholders interest in the net asset value	1'206	1'566
Value of in-force business	1'326	1'454
Cost of locking-in solvency margin	(295)	(229)
<i>Embedded value</i>	2'237	2'791
Total embedded value	5'616	8'102

Luxembourg, Italy and Spain have been included at figures based on the book values at which the companies appear in the accounts of Rentenanstalt Holding.

Economic Assumptions

The economic assumptions used in the calculations were:

Economic assumptions by region	31/12/2002	31/12/2001
	%	%
Switzerland		
Discount rate	7.0	7.0
Pre tax investment returns		
Fixed interest	2.5 - 3.5	3.5
Real Estate	4.6	
Ordinary shares	7.0	7.0
European Division		
Discount rate	7.9	8.3
Pre tax investment returns		
Fixed interest	4.25 - 4.6	5.1
Real Estate	5.6	
Ordinary shares	8.0	8.1

In 2002, fixed interest yields are projected to increase linearly over five years.

Where there are different rates in different countries or products within a country, the rates shown are averages weighted by the value of in-force business.

Other assumptions

Other assumptions including mortality, morbidity, persistency and expenses have been chosen having regard to the recent and expected local experience of the insurance companies of the Group.

Translation of foreign currencies

Calculations for individual countries have been performed in the local currencies and the results translated at the foreign currency year-end rates adopted for the Group accounts.

Change in embedded value

The expected increase in value over the year was CHF 602 million

The major item contributing to the change in embedded value was the effect of negative deviations in investment experience including write-downs in the value of subsidiaries. Investment performance in 2002 reduced the embedded value by CHF 3'222 million. The reduction in projected investment returns further reduced the embedded value by CHF 2'606 million (after allowing for associated changes in policyholder bonuses other than the Swiss Group business). The reduction in Swiss Group business (BVG business) guaranteed interest rate from 4.0% to 3.25% increased the embedded value by CHF 681 million.

Additionally, reductions in expenses across the Group increased the embedded value by CHF 834 million and tariff increases in the Swiss Group business increased the embedded value by 1'109 million.

The value added by new business written in the year 2002 was CHF 94 million.

Foreign exchange rate changes reduced the value by CHF 74 million.

Miscellaneous other items, including changes to experience assumptions made up the balance of the change of value.

Sensitivities

The sensitivity of the results has been calculated for changes to some of the major assumptions. The results were:

Sensitivities at 31/12/2002 (Deviation from central value)	Switzerland	European Division	Total
Items	CHF millions	CHF millions	CHF millions
Full implementation of Cost Saving Program	304	183	487
1% reduction in discount rate	213	91	304
0.5% increase to future new money rates	512	278	790
0.5% decrease to future new money rates	(1'185)	(266)	(1'451)
10% increase in market value of equities	63	70	133
10% increase in market value of property assets	620	31	651

The sensitivities to a 0.5% change in new money investment rates are after allowing for changes to policyholder benefits.

External Review

B&W Deloitte, consulting actuaries, reviewed the methodology and assumptions used in the calculations of the embedded value and the values of new business. On the basis of the data provided by Swiss Life / Rentenanstalt, B&W Deloitte has reported to the company that it considers that the embedded value and values of new business are reasonable.

Included business

The values at which the major banking and non life insurance companies are included are as follows:

Book Values	CHF Million	
	31/12/2002	31/12/2001
Banca del Gottardo and STG	1'692	2'604
Non life [and health]	465	989

The Swiss and French companies included in the non life (and health) company net asset values (at book value) are:

- La Suisse Accidents (Lausanne) - Switzerland
- Société Suisse Santé – France
- Société Suisse Accidents - France