

Baloise Group

**MARKET CONSISTENT
EMBEDDED VALUE REPORT**

2011

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1. INTRODUCTION

1.1. Basis of Preparation

Since 2001 the Baloise Group has published Embedded Value (“EV”) results for its Life Insurance businesses as supplementary information to its statutory and IFRS accounts. EV represents shareholders’ economic value of the in-force life segment business at the valuation date, excluding future new business. It measures the shareholder value that an insurance portfolio is expected to create over its lifetime, taking a long term view of profitability. This differs from other accounting standards such as IFRS which currently focus on revenues and expenses occurring during a single reporting period.

Since 2009 the Baloise Group has published the EV results in line with the European Insurance CFO Forum ‘Market Consistent Embedded Value Principles’¹ (“MCEV Principles”).

This document provides details of the results, methodology and assumptions used to calculate the 2011 MCEV for the Baloise Group in accordance with the disclosure requirements of the MCEV Principles.

The methodology and assumptions used to determine the 2011 embedded value results for the Baloise Group, as well as the new business value and the analysis of movement between 2010 and 2011, have been subject to external review by the Actuarial & Insurance Solutions practice of Deloitte. Their opinion is included in the section ‘External Reviewer Statement’.

1.2. Covered Business

Baloise Group’s MCEV results cover all its material life insurance operations and entities, consistent with the business covered in its IFRS Life Insurance Segment as consolidated into the Group’s IFRS accounts.

A Market Consistent Embedded Value is calculated for all the life entities of the Baloise Group except for the life business of Nateus and the life businesses in Austria, Croatia and Serbia. The life insurance business of Nateus, which Baloise acquired in September 2011, is not included as its MCEV model is still under development. Nateus will be included in future MCEV reporting of Baloise group. For materiality reasons, the life businesses in Austria, Croatia and Serbia have been included in Baloise’s MCEV at their IFRS equity value. The statutory book values of these three companies held within the other life companies from the Baloise Group are removed as a consolidation effect.

All calculations are net of external reinsurance; results for individual operations are gross of internal reinsurance. All results reflect the interest of Baloise shareholders in the business. Where Baloise does not hold 100% of the shares of a particular entity a deduction is made for the corresponding external, or minority, interest.

Although no future new business is included in the valuation, the results are produced on the assumption that all operations remain open to new business and continue to operate in a similar manner and scale relative to the current position; i.e. on a “going concern” basis.

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1.3. Definitions

According to the MCEV Principles the MCEV represents the present value of shareholders' interests in the earnings distributable from assets allocated to the covered business after allowance for the aggregate risks in the covered business, where the allowance for risk is calibrated to match the market price where reliably observable.

The MCEV consists of the following components²:

- Shareholders' Net Assets ("SNA") – the market value of assets attributed to covered business, which are not backing the liabilities from the covered business.
- Value of In-Force ("VIF"), made up of the following components:
 - Present Value of Future Profits – the present value of future post-tax shareholder profits from the assets backing the liabilities associated with the in-force covered business. Baloise calculates this value on a 'certainty equivalent' basis and refers to it as the Certainty Equivalent Value of Business In-Force ("CEVBF")
 - Time Value of Financial Options and Guarantees ("TVFOG") – an allowance for the potential impact on future shareholder cash flows of all financial options and guarantees in the in-force covered business, valued in line with similar cash flows (from a timing and risk perspective) that are traded in capital markets³;
 - Frictional Costs of Capital ("FCC") reflecting the taxation and investment management costs on shareholder assets locked into the business. Baloise's approach is to apply this cost to the whole SNA, whereas the MCEV Principles only require it to be applied to Required Capital;
 - Cost of Non-Hedgeable Risks ("CNHR") - an allowance for the potential impact on shareholder cash flows of risks, both financial and non-financial, not allowed for in the CEVBF or the TVFOG.

Baloise also refers to the CEVBF net of TVFOG as the Net Present Value of Future Profits ("NPVFP").

New business is the sale of new Life Insurance Segment contracts during the reporting year, including cash flows arising from the projected renewal of those new contracts. Its definition and the derivation of the Market Consistent Value of New Business ("MCVNB") are discussed below under Methodology.

Two measures of the volume of new business are used to derive the margin on new business. The measures of volume are APE (Annual Premium Equivalent)⁴ and PVNBP (present value of new business premiums)⁵.

² Further details of Baloise's approach to defining and calculating these items are given in the Methodology section below

³ Further details on the methods employed and the Economic Scenario Generator used are given in the Methodology section below

⁴ APE (Annual Premium Equivalent) is the annual amount of new regular premiums plus 10% of new single premiums written.

⁵ PVNBP (present value of new business premiums) is calculated as the present value from new business, discounting using the reference yield curve, of its initial and expected future premiums using assumptions and projection periods that are consistent with those used to calculate the MCVNB.

2. MCEV AND MCVNB RESULTS

2.1. Baloise MCEV

The Baloise MCEV was CHF 2'153m at 31.12.2011 with an operating return on MCEV of 14.5% and an economic return on MCEV of -32.3% in 2011.

The strong operating performance generated earnings of CHF 373m and reflects in particular the positive impacts of bonus adjustments, favourable risk results, as well as efficiency programs and cost savings especially in Switzerland. The operating earnings also include the new business value of CHF 35m.

The negative economic return was mainly driven by reductions in the CHF and EUR yield curve and the widening of spreads on corporate and some government bonds during the year.

Table 1 – Baloise MCEV

CHF Mio.	31.12.2010	31.12.2011	Change	RoEV ⁶
Switzerland	1'824	1'645	-179	-9.8%
Germany	284	181	-103	-34.4%
Belgium	244	106	-138	-55.1%
Luxembourg	140	122	-18	-10.3%
Liechtenstein	38	32	-7	-69.5%
Other	46	47	1	-32.7%
Consolidation adjustments	-3	20	23	n.a.
Total	2'573	2'153	-420	-17.8%

The Baloise Embedded Value is the sum of the individual entity Embedded Values subject to consolidation adjustments. These adjustments result from the removal of the statutory book values of those life companies held within other Life entities included in the MCEV and from the effect on CNHR of diversification of risk between companies. Baloise's MCEV can be further broken down into the following components as shown in Table 2:

Table 2 – Breakdown of Baloise MCEV

CHF Mio.	31.12.2010	31.12.2011	Change	Change in %
CEVBF	2'119	1'890	-230	-10.8%
TVFOG	-287	-419	-131	45.7%
CNHR	-252	-347	-94	37.4%
FCC	-110	-90	20	-18.2%
Value of In-Force (VIF)	1'469	1'034	-435	-29.6%
Shareholders' Net Assets (SNA)	1'104	1'119	15	1.3%
MCEV	2'573	2'153	-420	-16.3%

The components of the Value of In-Force and the definition of the Shareholders' Net Assets follow the MCEV Principles and are described in the Methodology section below.

⁶The returns on opening MCEV of Germany, Belgium and Luxembourg and Other are calculated in local currency and are net of capital movements and the impact of acquired/divested business.

2.2. Volume and Value of New Business

The Baloise new business margin on APE was 10.2% in 2011, marginally lower than a year earlier. The new business value decreased by 40.8% to CHF 35m despite operational improvements and improvements in the business mix. This was mainly due to lower volumes in Liechtenstein and Luxembourg and adverse changes in market conditions with historically low interest rates, wide credit spreads, and high volatilities. APE (decreased by 31.4% driven by the declines in Liechtenstein and Luxembourg which reported exceptionally high new business volumes in 2010 due to external factors as described in the entity-specific sections below.

Table 3a shows the new business volumes, value and margins using APE (Annual Premium Equivalent) as a measure for the volume of new business.

Table 3a – Baloise New Business - Premium Volumes, Values and Margins on APE

CHF Mio.	APE			MCVNB			NB Margin on APE		
	2010	2011	Change	2010	2011	Change	2010	2011	Change
Switzerland	166	159	-4.5%	17	28	65.2%	10.0%	17.3%	7.3% pts
Germany	81	74	-9.0%	14	8	-39.7%	16.8%	11.1%	-5.7% pts
Belgium	21	24	12.8%	5	2	-50.5%	21.5%	9.4%	-12.0% pts
Luxembourg	119	51	-56.6%	18	4	-77.4%	15.5%	8.1%	-7.4% pts
Liechtenstein	112	34	-69.3%	6	-7	-223.5%	5.2%	-20.9%	-26.1% pts
Total	498	342	-31.4%	59	35	-40.8%	11.8%	10.2%	-1.6% pts

In Table 3b the new business margins on PVNBP (present value of new business premiums) are displayed.

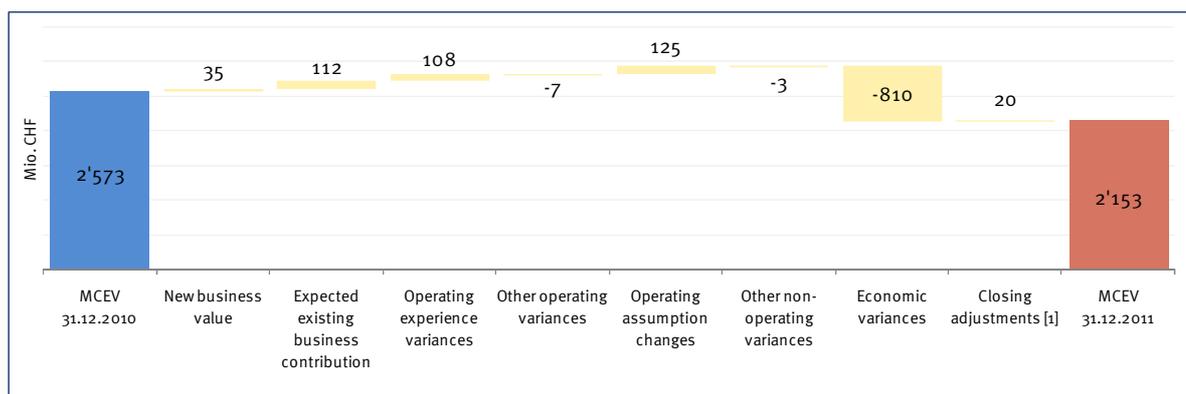
Table 3b – Baloise New Business - Premium Volumes, Values and Margins on PVNBP

CHF Mio.	PVNBP			MCVNB			NB Margin on PVNBP		
	2010	2011	Change	2010	2011	Change	2010	2011	Change
Switzerland	2'058	2'035	-1.1%	17	28	65.2%	0.8%	1.4%	0.5% pts
Germany	700	633	-9.4%	14	8	-39.7%	1.9%	1.3%	-0.6% pts
Belgium	198	255	29.0%	5	2	-50.5%	2.3%	0.9%	-1.4% pts
Luxembourg	1'184	514	-56.6%	18	4	-77.4%	1.6%	0.8%	-0.7% pts
Liechtenstein	1'119	343	-69.3%	6	-7	-223.5%	0.5%	-2.1%	-2.6% pts
Total	5'258	3'780	-28.1%	59	35	-40.8%	1.1%	0.9%	-0.2% pts

MCVNB is calculated at the year-end, using year-end projection assumptions and is adjusted to comply with a point of sale valuation. Further details of Baloise's approach to defining new business are given in the Methodology section below.

2.3. Analysis of Change in MCEV

Movements in the MCEV over the year can be analysed as shown below:



[1] Includes capital movements and currency translation effects

Table 4 – Baloise 2011 MCEV Movement and Earnings Analysis

CHF Mio.	SNA	VIF	MCEV
Opening MCEV	1'104	1'469	2'573
New Business Value	-42	77	35
Expected existing business contribution (reference yield only)	17	62	79
Expected existing business contribution (in excess of reference yield)	8	25	33
Expected transfers to SNA	106	-106	0
Operating experience variances	32	76	108
Other operating variances	-91	84	-7
Operating assumption changes	0	125	125
Operating MCEV earnings	30	343	373
Other non-operating variances	-5	2	-3
Economic variances	-37	-773	-810
Total MCEV earnings	-12	-429	-441
Capital movements	37	0	37
Currency translation effects	-10	-7	-17
Closing MCEV	1'119	1'034	2'153

The total **return on the opening MCEV** amounts to -17.8%. Strong operating earnings contribute 14.5% to the return on opening embedded value.

The **value of new business** of CHF 35m is made up of investment from SNA (as initial expenses, commissions and reserves exceeding the initial premiums received) in future shareholder cash flows from the new business that serve to increase VIF. The value shown is that of new business still in force at the year-end, using year-end projection assumptions and adjusted to point of sale to reflect discounting and changes in unrealised gains. Entity-specific details on the origins of the MCVNB are given below.

The **expected existing business contributions** include:

- i. expected earnings on the opening SNA and VIF at the opening reference yields including the impact of release from risk in TVFOG and CNHR (CHF +79m), and

- ii. management's expectation of additional earnings (CHF +33) primarily in respect of risky assets expected to earn long term returns in excess of reference yields.⁷

As the in-force business runs off during the year [transfers to SNA](#) shows the expected release of profit from the in-force portfolio into shareholder equity. This release of profits has no net impact on the MCEV.

[Operating experience variances](#) (CHF +108m) include the impact of experience versus expectations in the insurance contract portfolios in non-economic areas such as mortality, expenses, and persistency. They mainly reflect better than expected morbidity and persistency experience in Switzerland.

[Other operating variances](#) (CHF -7m) include the impact on MCEV of adjustments of the bonus rates and of changes in the bonus rules except for those which are directly driven by the change in economic conditions and are therefore captured in the economic variances. The position also contains the variance due to modelling changes, the impact of management decisions such as the changes in the asset allocation, as well as small adjustments to comply with a point of sale valuation of the new business written during the year. In 2011 the other operating variances mainly reflect the effects of bonus adjustments and reserve strengthening especially in Switzerland and the impact of model refinements in various entities.

Assumptions for experience in areas such as lapses, mortality and expenses are reviewed on a regular basis. The impact (CHF +125m for 2011) of any changes in expectations is captured in [Operating Assumption Changes](#). The positive contributions mainly result from experience-driven updates of biometric assumptions in Switzerland as well as from reduced cost bases in Switzerland and Belgium partially offset by the impact of revised cost assumptions in Liechtenstein and Luxembourg.

[Other non-operating variances](#) (CHF -3m) include any other non-economic deviations from expectation that are not captured by the items above, e.g. the impact of tax and regulatory changes. In 2011, the positive impact from a regulatory reduction of the minimal guaranteed interest rate on mandatory savings in the Swiss group business was more than offset by the negative impact from regulatory changes in Germany regarding interest rate reserve strengthening.

[Economic variances](#) (CHF -810m) include the impact of both experience during the year and assumption changes at the year-end regarding economic items such as reference yields, volatilities, inflation rates, returns on investments, and taxes. The economic variances are driven by the adverse change in economic conditions in 2011 with lower interest rates, increased credit spreads, and higher volatilities (see Economic Assumptions section below).

[Currency translation effects](#) resulting from the consolidation in Swiss Francs reduced the MCEV by CHF 17m.

[Capital movements](#) include dividends due from the Life Segment to Baloise Group during 2011 and capital contributions to Life Segment business. In 2011 CHF 20m were paid into Baloise Liechtenstein and CHF 17m into the life business in Croatia.

⁷The risk premiums over the reference yields used for this calculation are shown in the Economic Assumptions section below.

2.4. Sensitivities

Sensitivities are an important part of the MCEV analysis in order to judge those areas in which shareholder value can change with experience. The following tables show changes in Baloise's MCEV and MCVNB resulting from changes in various economic and operating parameters. These sensitivities follow the descriptions in the MCEV Principles (see the Methodology section for details).

CHF Mio.	Δ MCEV	Δ MCEV in %	Δ MCVNB	Δ MCVNB in %
Base Value	2'153	-	35	-
+100 bps to reference yields	751	35%	14	39%
-100 bps to reference yields	-1'238	-57%	-31	-89%
10% decrease in equity / property values	-374	-17%	-3	-9%
25% increase in equity / property implied volatilities	-82	-4%	-2	-7%
25% increase in swaption implied volatilities	-196	-9%	-6	-16%
without liquidity premium	-623	-29%	-16	-46%

The MCEV is highly sensitive to movements in fixed interest yields and to changes in the liquidity premium since a significant part of the in-force business is traditional business in which shareholder profits are driven by a margin on future interest yields. The effect is asymmetric due to the impact of guarantees and options tending to bite more in low interest rate scenarios. The sensitivity mainly stems from Switzerland, Belgium, and Germany as a large share of these businesses is traditional business with interest rate guarantees close or even above the level of interest rates at year-end 2011. The interest rate sensitivities in Luxembourg and Liechtenstein are comparably low as the portfolios in these countries consist mainly of non-traditional products which have no interest rate guarantees.

The economic sensitivities of the MCVNB broadly follow those of the MCEV.

CHF Mio.	Δ MCEV	Δ MCEV in %	Δ MCVNB	Δ MCVNB in %
Base Value	2'153	-	35	-
10% decrease in lapse rates	56	3%	5	14%
10% decrease in maintenance expenses	178	8%	6	18%
10% decrease in initial expenses	n.a.	n.a.	5	15%
5% improvement in mortality assumptions - insurance	20	1%	1	3%
5% improvement in morbidity assumptions	48	2%	1	4%
5% improvement in mortality assumptions - annuity	-49	-2%	-1	-2%
1%-pt decrease for CNHR	105	5%	5	15%

Lower lapse rates tend to keep business on Baloise's books for longer, increasing the average period over which shareholder profits are earned. In some markets this positive impact is offset by lower projected profits on surrenders. Overall the impact on Baloise's 2011 MCEV is slightly positive (+3%). As expected, lower projected expenses tend to increase the MCEV. Mortality improvements affect different types of products in different ways. Lower mortality rates tend to increase profits on (protection) products with mortality risk (+1% on the Baloise 2011 MCEV) and reduce profits on (annuity-type) products with longevity risk (-2% on the Baloise 2011 MCEV). Improvements in morbidity increase the MCEV as expected. Baloise also provides the sensitivity of the MCEV to a different rate of capital charge for the CNHR so that analysts can make their own estimates of this cost.

The operational sensitivities of the MCVNB broadly follow those of the MCEV.

No sensitivity to the level of Required Capital has been provided here as Baloise calculates the FCC on the whole SNA. Hence a different level of Required Capital has a neutral impact on the overall MCEV, just affecting the way the SNA would be split between Required Capital and Free Surplus.

2.5. Reconciling MCEV Shareholders' Net Assets to IFRS Equity

The local statutory balance sheets, rather than IFRS balance sheets, are the starting point for the MCEV projections. It is possible, however, to reconcile the net assets used in determining the MCEV for Baloise's Life business with those published under IFRS, by considering the adjustments necessary to reach statutory net assets:

CHF Mio.	Total
IFRS Shareholders' Equity as at 31.12.2011	2'407
Removal of DAC & intangible assets	-150
Unrealised capital gains included in VIF instead of SNA under MCEV	-1'051
Difference in IFRS reserves compared to statutory reserves	-305
Other adjustments	218
Shareholders' Net Assets as at 31.12.2011	1'119

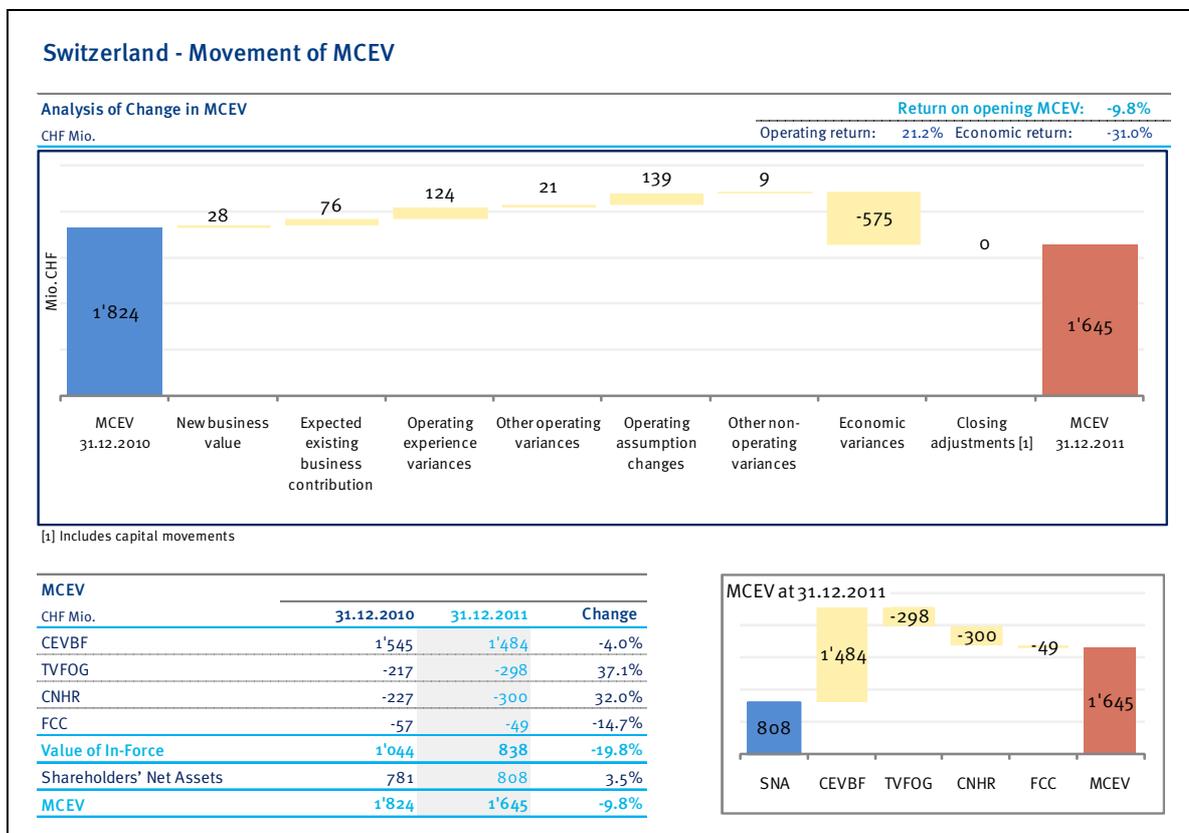
The major elements of the reconciliation are as follows:

- Elimination of all Deferred Acquisition Costs (DAC) and intangible assets from the IFRS balance sheet;
- Deduction from IFRS net assets of unrealised gains that are projected in the MCEV as part of the VIF but form part of the IFRS net assets;
- Further reconciliation steps between the Statutory and IFRS balance sheets, predominantly reflecting different reserving bases.

3. DETAILED RESULTS BY REGION

The following tables provide an overview of the movement of the MCEV and of the volume and value of the new business of the various entities of the Baloise group. All returns in this section are shown in local currency.

3.1. Switzerland



The strong operating return on MCEV of 21.2% in Switzerland was outweighed by the negative economic contribution resulting in a total return on MCEV of -9.8%.

Operating experience variances, in particular the impact of better than expected morbidity, persistency, and expense results, increased Switzerland's MCEV by CHF 124m.

Other operating variances benefited from the management decision to reduce interest rate bonuses for products with high guarantees in response to the adverse economic environment. This positive impact was partly offset by the decision to strengthen various reserves within management discretion and through model refinements.

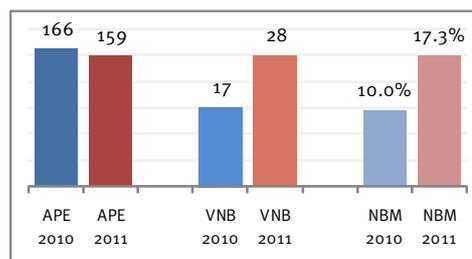
The operating assumption changes accounted for CHF 139m essentially due to the positive impact from efficiency programs and contributions from revised morbidity, mortality, and persistency assumptions following an analysis of past experience.

The Swiss authority lowered the minimum guaranteed interest rate on mandatory savings in group business from 2.0% to 1.5% in 2011 which is reflected in the other non-operating variances.

The main driver for the development of the Switzerland's MCEV was the economic variances which resulted from the historically low interest rates, the widening of credit spreads and the increase in volatilities.

Switzerland - Volume and Value of New Business

New Business - Premium Volumes, Values and Margins			
CHF Mio.	31.12.2010	31.12.2011	Change
MCVNB	17	28	65.2%
Regular Premium	98	89	-9.0%
Single Premium	681	696	2.1%
APE	166	159	-4.5%
NB Margin on APE	10.0%	17.3%	7.3% pts
PVNBP	2'058	2'035	-1.1%
NB Margin on PVNBP	0.8%	1.4%	0.5% pts



The APE remained almost at the same level as in the year before despite the low interest rates, owing to a shift towards unit linked structured products.

The increase in value of new business reflects the better business mix and the operational improvements. As the bulk of the new business premiums is written in the first half of the year, the value of new business profited from the relatively favourable interest rate conditions at that time. The changes in APE and value of new business hence lead to a margin of 17.3%.

3.2. Germany

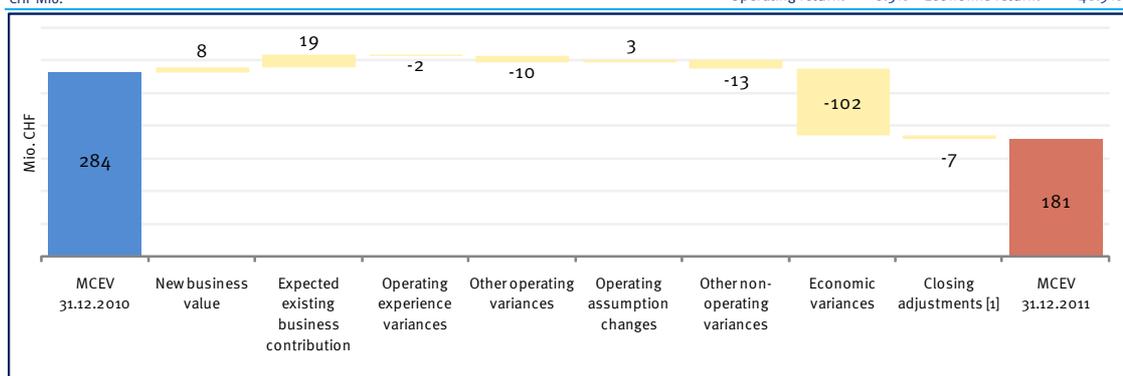
Germany - Movement of MCEV

Analysis of Change in MCEV

CHF Mio.

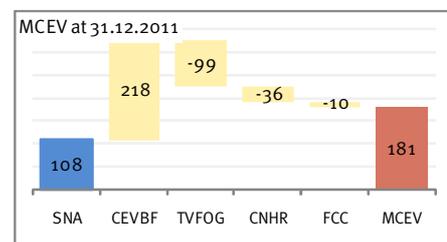
Return on opening MCEV: -34.4%

Operating return: 6.5% Economic return: -40.9%



[1] Includes capital movements and currency translation effects

MCEV			
CHF Mio.	31.12.2010	31.12.2011	Change
CEVBF	256	218	-14.7%
TVFOG	-40	-99	149.6%
CNHR	-25	-36	44.2%
FCC	-11	-10	-4.9%
Value of In-Force	181	73	-59.7%
Shareholders' Net Assets	103	108	4.5%
MCEV	284	181	-36.3%

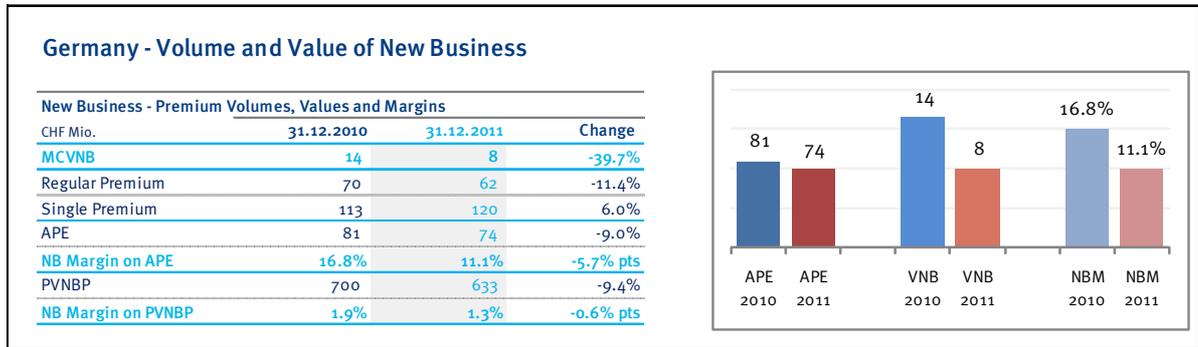


In Germany a positive operating return of 6.5% was more than offset by the adverse impact of the challenging market conditions resulting in a total return on MCEV of -34.4%.

The operating experience variances and the other operating variances reflect expense deviations and one-off costs resulting from the unbundling and connection of Deutscher Ring and Basler Deutschland. The other operating variances also include the impact of model refinements. The positive contribution of operating assumption changes is mainly due to changes in the asset allocation. The other non-operating variances reflect the impact of regulatory changes in Germany regarding interest rate reserve strengthening.

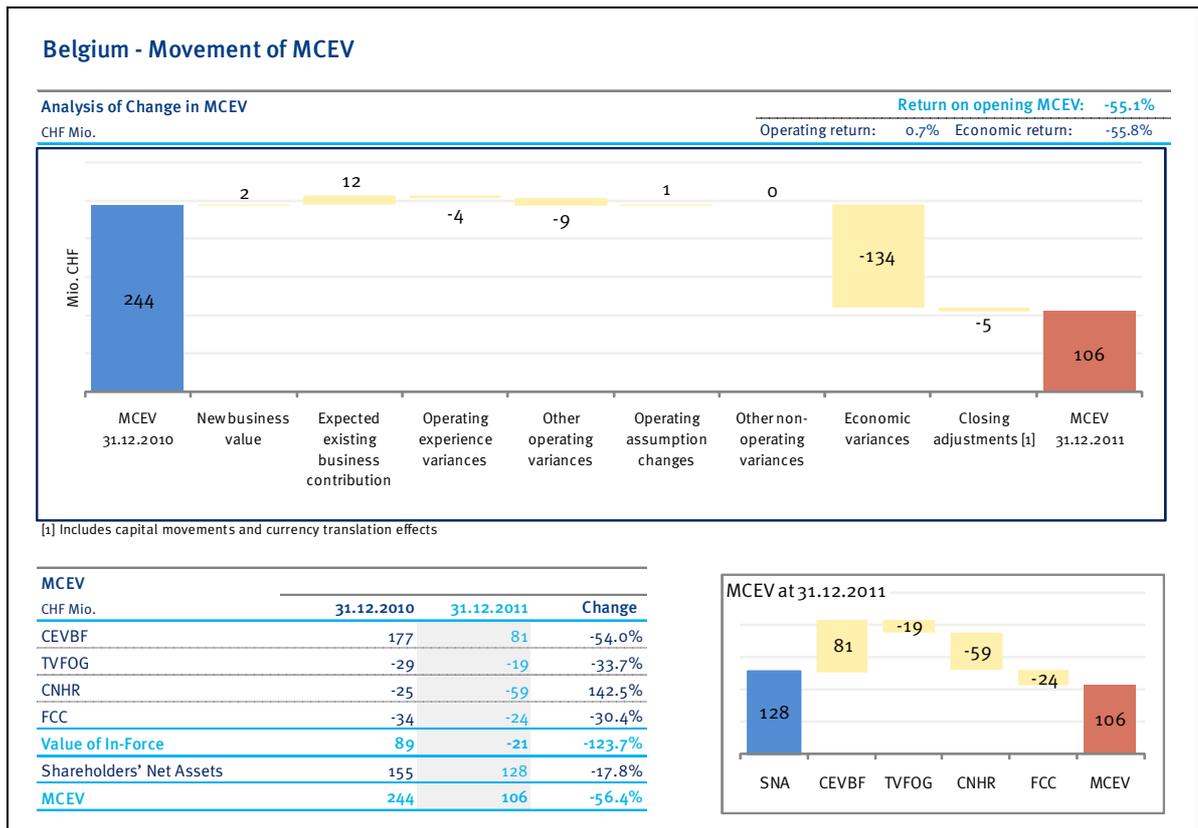
The main driver of Germany's MCEV was the economic variances (CHF -102m) due to lower interest rates and higher volatilities.

The depreciation of the Euro versus the Swiss Franc had a negative impact of CHF -7m reported as closing adjustment.



In Germany APE increased by 2.1% in local currency mainly due to higher single premium income from coinsurance business. The profitability of the new business in Germany decreased to a margin of 11.1% on APE as a result of the change in economic conditions.

3.3. Belgium



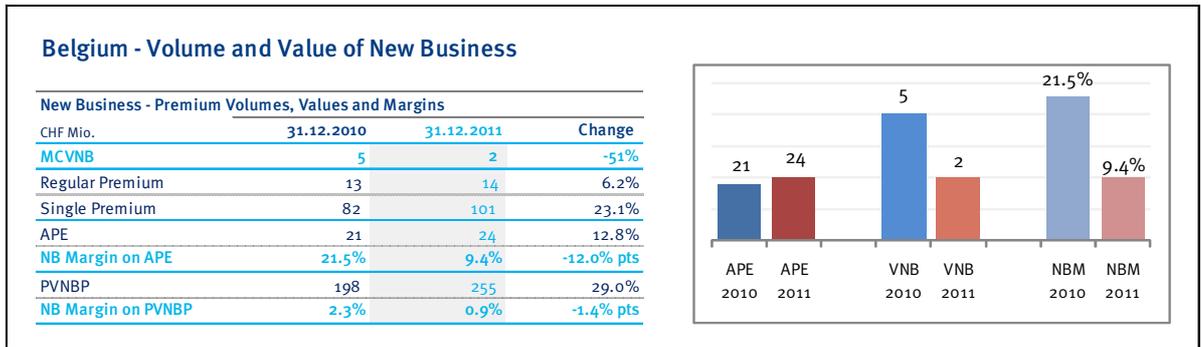
In September 2011 Baloise acquired the life insurance business of Nateus in Belgium. The value of this business is not included in the numbers above as the MCEV model for Nateus is still under development. Nateus will be included in future MCEV reporting of Belgium.

Belgium reported a total return on the MCEV of -55.1% in local currency in 2011 due to the negative economic contributions. The operating return was equal to 0.7%.

The operating experience variances contain expense deviations mainly due to one-off costs for acquisition projects. Other operating variances reflect model refinements, partially compensated by lower bonuses. The operating assumption changes mainly resulted from reduced administration expenses partially offset by the impact of revised persistency assumptions.

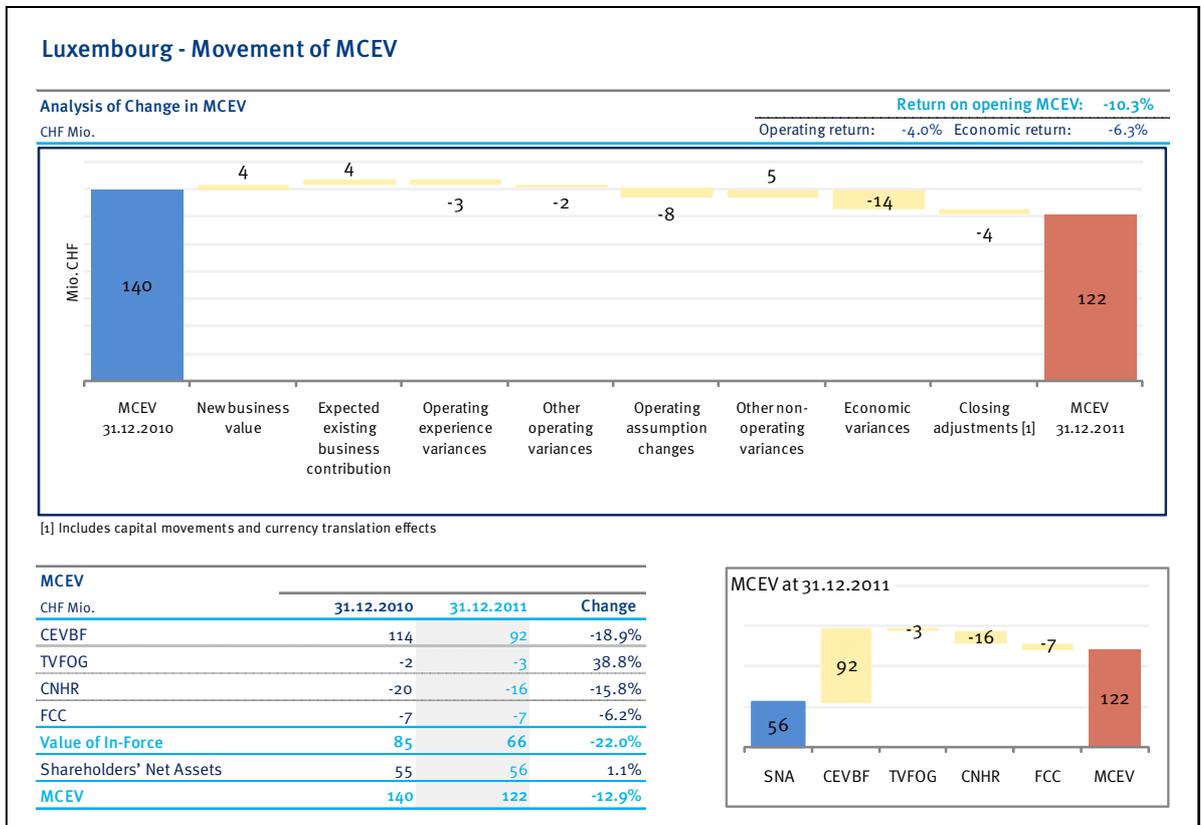
The MCEV is highly affected by the new economic environment which decreased the value with CHF 134m, mainly due to the spread widening and the lower interest rate.

The closing adjustments show the negative impact of CHF -5m resulting from the decline of the Euro versus the Swiss Franc.



In Belgium APE was (in local currency) 26.6% higher than in the previous year with increases across all business lines. The new business margin decreased to 9.4% on APE due to the change in economic conditions which outweighed improvements in the business mix.

3.4. Luxembourg

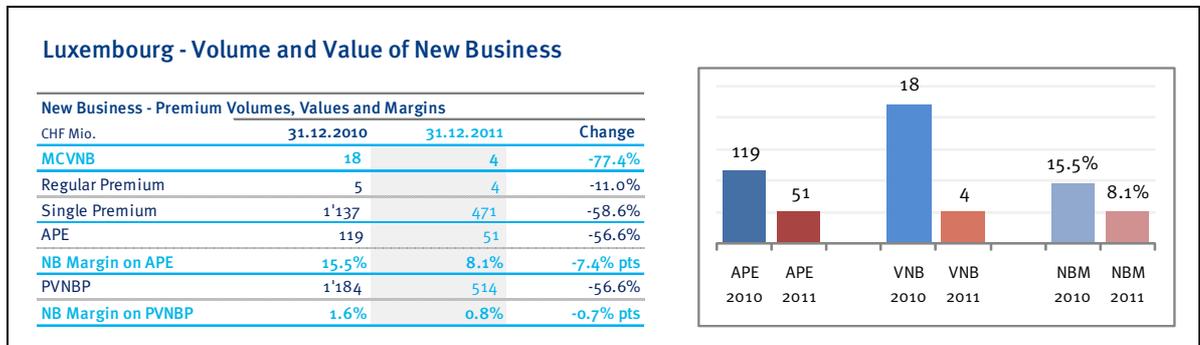


Luxembourg reported a total return on the MCEV of -10.3% in local currency in 2011. The operating return was equal to -4.0%.

The operating assumption changes mainly reflect revised cost assumptions. The other non-operating variances show the impact of a tax asset set up by the local holding.

As most of Luxembourg's business is unit linked without interest rate guarantees, the MCEV is less affected by economic variances than other entities. The decrease of CHF 14m is mainly driven by higher inflation and by the decrease in interest rates which affects the conventional business.

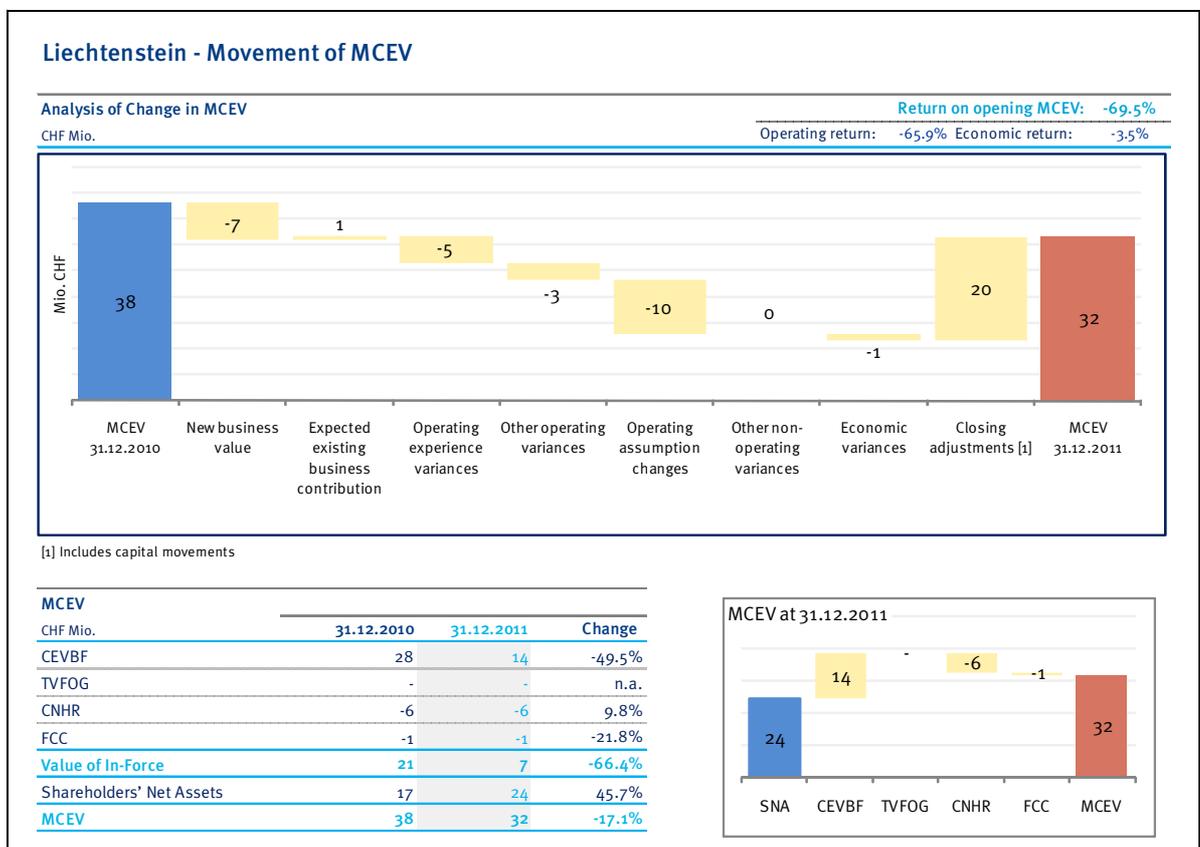
The depreciation of the Euro versus the Swiss Franc had a negative impact of CHF -4m reported as closing adjustment.



In Luxembourg, APE decreased by 51.4% in local currency compared to the previous year when APE was exceptionally high due to planned legislation changes. This year the APE returned to a normal level.

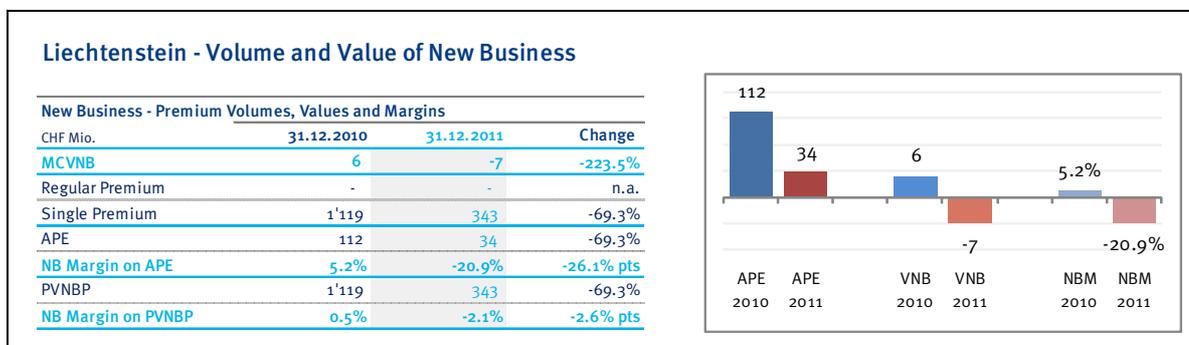
The margin on APE in Luxembourg decreased to 8.1% mainly due to the change in market conditions with higher inflation and lower interest rates.

3.5. Liechtenstein



Liechtenstein reported a return on MCEV of -69.5%. The operating return is equal to -65.9%.

The negative operating earnings essentially reflect expense overruns caused by the start-up modelling approach and the impact of revised expense assumptions, which now allow for costs for a reinforced growth strategy with strong cooperation with Luxembourg as well as for an accelerated variable annuities production for the Swiss market. For facilitation reasons all expenses arising from the reinforced business have been allocated to Liechtenstein for MCEV 2011, while in future some of them will incur in the other involved entities.



The volume of new business is lower in line with expectations compared to the previous year which strongly benefited from the tax amnesty in Italy.

The combination of scale effects and revised expense assumptions result in a negative new business margin.

4. METHODOLOGY

The MCEV is a measure of the consolidated value of shareholder investments in the covered business, determined as the value arising from the run-off of business in force at the year-end using assumptions consistent with a going concern basis. To determine the assumptions for valuing in-force business it is assumed that the company continues to write new business at levels consistent with recent years, although no value of future new business is included in the MCEV.

Projections are made of future cash flows net of external reinsurance and net of taxes over 40 years, with a split between shareholders and policyholders of the residual balance sheet at the end of the projections.

Baloise's MCEV is the sum of the Shareholders' Net Assets (SNA) and the Value of In-Force (VIF) of its Life Insurance Segment business, terms which are described further below.

The Baloise Group provides each reporting entity with detailed methodological guidelines based on the MCEV principles and with basic economic assumptions used in the calculation of its MCEV. MCEV results are signed off against these by the local CEO.

4.1. Covered Business

For the purposes of Baloise Group MCEV reporting, covered business is defined as all the business included in the Life Insurance segment of the published IFRS accounts. This includes a range of traditional and unit linked life insurance risk protection, savings / investment and retirement products distributed to individuals and companies by the life entities of the Baloise Group. Descriptions of terms below apply to legal entities and businesses within the Life Insurance segment.

A Market Consistent Embedded Value is calculated for Basler Leben AG ("Baloise Switzerland"), the life business of Mercator Verzekeringen NV ("Belgium"), Deutscher Ring Lebensversicherung-Aktiengesellschaft ("Deutscher Ring"), and Basler Leben AG Direktion für Deutschland ("DfD") - together "Germany"-, for Baloise Vie Luxembourg SA ("Baloise Luxembourg") and Baloise Life Liechtenstein AG ("Baloise Liechtenstein"). Smaller Life Companies⁸ from the Baloise Group have been included at their IFRS equity value and the statutory book values of those Companies within other life entities have been removed as a consolidation effect.

The business of Nateus Life NV which Baloise acquired in September 2011 is not included in Baloise's 2011 MCEV reporting. It will be included in future MCEV reporting of Baloise group.

4.2. Components of MCEV

Shareholders' Net Assets

The SNA is given by the statutory shareholders' equity⁹ plus the amount of undisclosed surplus allocated to the SNA after tax plus the pension scheme deficit / surplus cost after tax¹⁰.

The starting point for determining SNA is shareholders' equity as reported in the local statutory balance sheet. In some territories this balance sheet includes some assets at values other than market value¹¹ and some technical reserves set up¹² voluntarily, which together can be significant. Where relevant an 'undisclosed surplus'

⁸ These Companies are the life business of Basler Versicherungs-Aktiengesellschaft in Österreich ("Basler Austria"), Basler osiguranje Zagreb d.d. ("Basler Croatia") and Zivotno osiguranje "Basler" a.g.o. ("Basler Serbia").

⁹ Includes dividend for the year reported on, which is payable in the following year

¹⁰ See 'Employee Pension Schemes' below for details

¹¹ E.g. historical cost, lowest ever value

¹² E.g. financial reserves

is determined as the sum of such hidden reserves in the assets (unrealised gains) and in the liabilities. To determine the proportion of this surplus included in projections to calculate the NPVFP, appropriate assets are selected with a statutory book value exactly sufficient to back technical reserves (net of any applicable deferred acquisition costs) and funds for future appropriation and bonuses. The unrealised gains on these assets are included in the calculation of NPVFP in accordance with local rules and any relevant past practice, in particular regarding the timing of realisation and proportion of gains expected to be allocated to policyholders as bonus. Any remaining assets, together with their unrealised gains, are included in SNA.

The SNA can be split into Required Capital (RC) and Free Surplus (FS) in line with MCEV Principles 3, 4 and 5. In line with its policy of charging the same rate of FCC to the entire SNA (see 'Frictional Costs of Capital' below), Baloise does not report such a split.

Value of In-Force

The Value of In-Force is defined to be the Net Present Value of Future Profits (NPVFP) minus Frictional Costs of Capital (FCC) minus Cost of Non-Hedgeable Risks (CNHR). The NPVFP is given by the Certainty Equivalent Value of the Business In-Force (CEVBF) minus the Time Value of Financial Options and Guarantees (TVFOG).

These two items are described below. Both involve projections of a balance sheet consisting of local statutory liabilities and assets in line with local legal obligations, company practice due to commercial and competitive constraints and local market practice in the calculation of Embedded Values.

Certainty Equivalent Value of Business in-Force

Financial projections of the statutory balance sheet are carried out allowing for expected behaviour of the in-force business. The Certainty Equivalent Value of Business in Force ("CEVBF") is the present value of the expected future profits (net of tax) attributable to shareholders. It is based on the assumption that all asset classes earn the forward reference yield¹³, from which general investment management costs¹⁴ are deducted. All projected best-estimate cash flows are discounted using the same reference yield curve (i.e. the equivalent gross reference zero yield curves). However, the existing bond portfolio is assumed to run off at the running yield, while new money is invested at the reference yield. For business with financial options or guarantees this value includes the intrinsic value of the options / guarantees.

Time Value of Financial Options and Guarantees

The CEVBF does not allow for asymmetries in the risks that financial outcomes for shareholders could be better or worse than expected in the CEVBF scenario, in particular where products or funds include a guarantee or option of which the policyholder could take advantage in adverse circumstances. Options and guarantees with significant financial risk explicitly valued in the MCEV include:

- Minimum guaranteed interest rates;
- Bonus options;
- Maturity guarantees;
- Guaranteed minimum death benefits (GMDB);
- Guaranteed annuity options (GAO) / conversion factor for Swiss Group business;
- Surrender options.

For products with such features a stochastic financial projection is run allowing for the range of possible scenarios for financial markets. The Time Value of Financial Options and Guarantees ("TVFOG") is calculated

¹³ By reference to swap rates in the relevant currency – see Economic Assumptions section below

¹⁴ Excluding specific property management costs

as the difference between the average over all scenarios of the net present value of future profits to Baloise Group shareholders, and the (usually higher) value from the deterministic (certainty equivalent) projection described above under CEVBF. It therefore captures the cost to shareholders in those scenarios where the options / guarantees come into the money and are exercised.

Within the stochastic scenarios which are calculated for Switzerland, Germany and Belgium, discounting is done by deflators (stochastic discount factors) which are calibrated to produce market consistency¹⁵. These stochastic projections are performed using the TSM economic scenario generator supplied by Deloitte Capital Markets and calibrated to the reference yields (see Economic Assumptions section below).

Such calculations can be particularly important to capture the potential cost to shareholders of providing support to ‘participating’ funds in order to provide the basic policyholder guarantees in scenarios where the unrealised gains and reserves such as bonus funds are exhausted (shareholder burn-through cost). In such scenarios, where assets are projected in any year to be insufficient, shareholders are assumed to inject sufficient capital to meet basic policyholder guarantees. At the end of the projection shareholders are assumed to meet any shortfall of assets against liabilities, or receive a part of any residual assets as a “liquidation dividend”, the amount of which reflects local practice and local requirements.

Where the result is not expected to be materially different from a full stochastic projection, some guarantees and options are valued using closed form solutions. This is the case for Baloise Luxembourg and Baloise Liechtenstein, most of whose business is unit-linked without guarantees.

Frictional Costs of Capital

Frictional costs of capital (“FCC”) are costs incurred by shareholders due to investment via the structure of an insurance company compared to investment as individuals, such as tax on profits within the insurance company or the costs of investment management.

Such costs on reserves held to meet expected policyholder benefits are reflected in the calculation of the NPVFP. Baloise’s MCEV and MCVNB also allow for the deduction of the following FCC on the total SNA (and not only on the RC), as at the valuation date the whole SNA is held by the Group to support it as a going concern backing both in-force business and the development of future new business:

- Taxation of the investment income on shareholders’ net assets held by the insurance company, at the rate paid locally by each entity;
- Investment expenses (net of tax relief) incurred in managing the shareholders’ net assets.

Cost of Non-Hedgeable Risks

The volatility of the returns on risky assets (such as stock market-listed equities), whose risk is for the most part readily hedgeable in financial markets, is reflected in the determination of the NPVFP. The MCEV also allows for the cost of volatility of non-hedgeable risk factors such as mortality, morbidity, expenses and lapse rates. As – by definition – there is no clear market for such risks, their valuation is open to interpretation. MCEV Principle 9 proposes a standard method – a ‘cost of capital’ approach - which Baloise follows.

The initial amount of capital at risk is calculated in a similar manner to the Swiss Solvency Test (SST) analytical model for insurance risk, i.e. based on a number of sensitivities and using the same correlation matrix between

¹⁵ The calibration ensures that observed market prices of key assets and derivatives are reproduced sufficiently closely when valuing using projection and discounting of cash flows under stochastic scenarios.

sensitivities. However, the assumptions used for the calculations are those from the MCEV rather than those from the SST. For example, reference yields are swap rates and not government bond rates. This initial capital at risk is then projected for future years in line with the evolution of an appropriate proxy measure such as reserves or premiums. A capital charge of 4% is applied to the resulting projected capital at risk. It represents the excess return or risk premium that a shareholder might expect on capital exposed to non-hedgeable risks. These annual charges are discounted using the reference yields and summed up to give the Cost of Non-Hedgeable Risks (“CNHR”). Allowance is made for diversification of risk between countries, product types and risk factors using a matrix of estimates of correlations between the various risks.

The CNHR also includes an allowance for the estimated potential impact on shareholder cash flows of bond defaults where this is not otherwise captured in the CEVBF or TVFOG due to the modelling approach taken for bonds with yields higher than reference yields¹⁶. This allowance is made by including a cost of capital approach for credit risk, adapted to take into account the shareholder’s share in credit risk.

4.3. Dynamic Actions, Bonus Policy and Policyholder Behaviour

The actions taken by policyholders and management are likely to vary in different financial scenarios. Baloise has set up Management Decision Rules for each business unit setting out its expected approach to managing, amongst others, targets for asset realizations, the choice of the investment strategy – asset allocations and mix - and setting bonuses or allocation of investment surplus depending on experience and expectations of the financial performance of the business. These Management Decision Rules can have a significant impact on the MCEV, as they define the timing of the cash flows and the distribution of income between the policyholder and the shareholder. The Rules are implemented in cash flow projections for calculating MCEV and New Business Values and have regard to:

- The behaviour of the insurance business in each country;
- The past application of discretion;
- The influence of market practice regarding that discretion;
- Past public communication; and
- Legal requirements.

Bonus Rates

The amount of bonus allocated to policyholders is chiefly dependent on:

- The technical result and financial return of the companies;
- The local regulatory environment, in particular regarding the existence of a ‘legal quote’;
- The guaranteed interest rate of the products;
- The policyholders' expectation given local market practice; and
- The solvency situation of the company (with respect to unrealised gains, bonus fund or financial reserves).

Dynamic Assumptions in Stochastic Models

For stochastic modelling certain assumptions vary with the scenario being modelled. These include:

¹⁶ See section ‘Asset and Liability Data’ below

- Bonus rates are linked to the dynamic realisation of gains of the fund and the fund performance, reflecting past and expected future management behaviour in different scenarios. Bonus rates dependent on scenario-dependent projected returns follow the kind of rules described above.
- Option take-up rate(s), such as annuity take-up rates, are scenario-dependent where financial scenarios are expected to, or have in the past, affected policyholder take-up rates.
- Dynamic policyholder lapse rates are implemented where stochastic projections are performed. Where possible such lapse rules reflect the local observed past behaviour, and expected future behaviour, of policyholders.
- Dynamic asset allocation strategies are incorporated into the stochastic models, where appropriate. They reflect past behaviour, and expected future behaviour, of the management.

4.4. New Business

In line with MCEV Principle 10 new business is defined as covered business arising from the sale of new contracts during the reporting year, including cash flows arising from the projected renewal of those new contracts. The distinction between new business and variations on existing business for each product is based on the specific policy conditions, is consistent from year to year, and corresponds to the classification used for Baloise's published new business figures. In each case account is taken of:

- The contract terms;
- Whether increments are automatic or whether additional sales effort is required;
- The manner in which management and the industry treat such cases in managing the business;
- Whether further initial commission is paid.

Values of new business are calculated using similar approaches to those applied for in-force – dependent on the type of business (participating, non-participating, unit linked) and the type of options / guarantees attached. These allow for TVFOG on new business, FCC and CNHR. Subject to appropriate allocation of assets and unrealised gains (see below) the FCC is calculated in proportion to the solvency margin in respect of new business. The CNHR for new business written during the year is derived from the CNHR for the in-force portfolio based on the respective size of the present value of future mathematical reserves for the new business and for the in-force, thus allowing for both the relative size of new business at inception and the relative size of its future development compared to the in-force.

The value calculated is of that business still in force at the end of the year, using assumptions applied at the year-end and discounted to the point of sale.

Consistent with the 'going concern' approach to calculating MCEV, the MCVNB for funds containing participating business is calculated using a marginal approach. This means that the MCVNB (before acquisition expenses) is calculated by performing valuations of the portfolio at the year-end including and excluding new business. The MCVNB is the difference in NPVFP between the two portfolios after acquisition expenses to the company, after allowing for frictional costs and costs of non hedgeable risk related to new business and after adjustments to point of sale. Note that no proportional sharing of the unrealised capital gains between in-force and new business is done, as this would artificially increase the value added by new business.

4.5. Asset and Liability Data

Market values of individual investments are taken where available (“marked-to-market”), or estimated where there is no liquid market (“marked to model”), for example by discounting unquoted loan and mortgage asset proceeds. Credit risk is captured via an increase in the CNHR (as explained above).

For bonds, market and book values are calculated at each point in time in order to project the realisation of gains. The book value is amortised according to local accounting rules.

For equities, the current total book value and market value are input to projection models – future realisations are calculated at an aggregate, rather than a single stock, basis. Local regulatory and accounting frameworks, for example the ‘lowest value’ principle, are incorporated in the model where appropriate.

For property investments price and income indices are applied in projection models to the current value and income to generate changes in property values and regular income.

Other bond-like securities such as loans (including policy loans) and mortgages are modelled as separate ‘buckets’ of government bonds in their respective currency. For policy loans in Switzerland, the theoretical duration of the loans has been shortened to take into account expected policy lapses. For all other purposes these assets are modelled as regular government bonds.

Other equity-like securities such as private equity and minority participations in non-group companies, as well as alternative investments (mainly hedge funds) have been modelled as linear combinations of existing cash and equity categories, with weights aiming to ensure that the overall volatility of the asset class is in line with market data.

When a substantial part of the assets are held in foreign currencies (in practice, only those assets of Baloise Switzerland and Baloise Liechtenstein denominated in Euros) they are modelled explicitly, including the foreign exchange risk. For other assets denominated in foreign currency but modelled as local currency assets, the modelled volatilities are adjusted to reflect the foreign exchange risk.

Liabilities are calculated in line with local statutory requirements using individual policy data. For projection purposes policies of the same product with similar term, duration and risk profile are grouped to form ‘model points’. Checks are made to ensure that modelled values are sufficiently close to those for individual policies.

4.6. Sensitivities

The sensitivities shown in this report follow the descriptions in the MCEV Principles 17.8.

- +/- 100 bp to reference yields - indicates the impact of a sudden parallel shift in the entire reference yields¹⁷, including allowance for consequent movements in fixed interest asset values and other assumptions.
- 10% decrease in equity/property market values - indicates the impact of a sudden change in the market-values of equity and property assets, without a corresponding change in dividend / rental yields, the situation being equivalent to a fall of 10% of the absolute amount of the future dividends or rental yields.

¹⁷ Including the ultimate forward rate. The shifted reference yields are floored at zero.

- **25% increase in equity/property implied volatilities** - indicates the impact of a (multiplicative, i.e. volatilities x 1.25) 25% increase in market implied equity/property volatilities on the cost of options and guarantees.
- **25% increase in swaption implied volatilities** - indicates the impact of a (multiplicative) 25% increase in market implied swaption volatilities on the cost of options and guarantees.
- **without liquidity premium** - indicates the impact of using reference rates without a liquidity premium.
- **10% decrease in maintenance expenses** – indicates the impact of a reduction in the projected future cost of administering contracts, with no change in inflation assumptions.
- **10% decrease in initial expenses** – indicates the impact of a reduction in the cost of acquiring new business, including initial commissions.
- **10% decrease in lapse rates** – indicates the impact of a (multiplicative) reduction in projected lapse / surrender rates. Depending on the terms for lapses the impact on MCEV and on MCVNB could be positive or negative for different types of contracts or for an individual contract at different times.
- **5% improvement in mortality rates** – indicates the impact of a (multiplicative) reduction in deaths at all ages. The distinction is made between death coverage and annuity contracts where the risk to shareholder cash flows is from higher (death coverage) versus lower (annuities) mortality.
- **5% improvement in morbidity rates** – indicates the impact of a (multiplicative) reduction in disability insurance claims incidence rates at all ages.
- **1%-pt decrease in capital charge for CNHR** – indicates the impact of changing the rate of charge for capital for non-hedgeable risks from 4% to 3%.

The events described are assumed to occur immediately after the valuation date. The economic sensitivities of the new business value hence indicate how the value of the business written in the reporting period changes if the economic market conditions change. They give no indication of the profitability of future new business written in the changed market conditions. The sensitivities allow for consistent changes in future cash flows and experience assumptions directly affected by the changed assumption, for example bonus rates. Each sensitivity is treated independently of the others, though in practice there is likely to be some correlation between them. The sensitivities show the impact of only one from a continuum of possible changes in the parameters tested – note that impacts may not be linear with respect to variation of any given parameter.

Sensitivity projections include the same set of dynamic management and policyholder reaction rules as the main MCEV / MCVNB projection. In more extreme scenarios, or stable long-term scenarios far away from the best estimate, policyholder behaviour might be expected to change and management might be expected to take different (mitigating) actions such as changes to pricing terms – such actions have not been included in these sensitivities. For some types of business the impacts of changing experience are mitigated by the requirement / decision to share profits and losses with policyholders.

4.7. Further Definitions and Assumptions

MCEV theory

The overall approach under MCEV aims to value future statutory profits in line with the way in which financial markets value cash flows with similar timing and uncertainty. In the absence of variations in experience (of investment performance, claims, lapses, expenses...) against that expected, in particular asymmetries in the effect of such variations on shareholder profit, this is achieved by summing SNA and using the ‘certainty equivalent’ approach (as described above) to determine a VIF. Calculation of the TVFOG as described above makes a market-based allowance for the cost to shareholders of future variation in financial market risks that are generally hedgeable, whilst the calculation and deduction of FCC and CNHR make allowance – albeit in areas for which prices are not generally visible in markets – respectively for the direct cost of holding capital within the insurance business in excess of that needed to meet reserves, and the price that shareholders require for exposing their capital to risks that are not generally hedgeable.

Beyond the approach described above no allowance is made for other costs sometimes associated with market consistent valuation of a business - 'Agency costs', 'Limited liability put option', or 'Costs of financial distress'. Allowing for the Limited liability put option would be inappropriate under the assumption of the business as a going concern in which shareholders are assumed to contribute capital to meet shortfalls of assets over liabilities. Allowance for costs of financial distress, being largely related to future new business, is inappropriate in the context of a valuation excluding any value of future new business.

Economic Scenario Generator

For stochastic modelling Baloise employs TSM supplied by Deloitte Capital Markets. TSM is an economic model that delivers simulations of market scenarios and deflators for all years of the projection period (currently 40 years for Baloise). Usually 5,000 simulations (e.g. for Switzerland) but at least 1,000 simulations are used in the projections. The economic model is calibrated to the reference yields in such a way that modelled market values of equities, bonds and some specific swaptions and equity options, reproduced using deflator techniques, are market consistent. TSM can model several economies simultaneously (in effect EUR and CHF for Baloise).

Consolidation Adjustments

MCEV and MCVNB are calculated as described above on an entity-by-entity basis within each country where Baloise has Life Insurance Segment business. Each entity models its business gross of intra-group reinsurance so that all intra-group reinsurance contracts consolidate out. For the smaller covered businesses – those in Austria, Croatia and Serbia - no VIF-related projections are carried out. Their MCEV is simply set equal to Baloise's share of their IFRS equity value. The life insurance business of Nateus which Baloise acquired in September 2011 is not included in Baloise's 2011 MCEV reporting. It will be included in future MCEV reporting of Baloise group.

The Baloise Group's MCEV / MCVNB is the sum of these individual entity MCEV / MCVNB subject to consolidation adjustments to:

- Allow for stakes held in covered business by investors outside the Baloise Group;
- Remove the statutory book values of those companies within other Life entities; and
- Allow for the effect on CNHR of diversification of risk between countries.

Holding Companies, Service Companies and "Look Through" Principle

In the Baloise Group, all expenses incurred with regard to covered business are passed down to the life insurance entities and these costs are included¹⁸ in the expenses modelled in the NPVFP. The expenses passed to the Life Insurance companies include an allocation of Head Office expenses incurred by the Baloise Holding which are split between life, non-life and asset management segments and pushed down to the respective entities. Thus expenses allowed for in the MCEV are entirely consistent with the IFRS reporting for the Life Insurance Segment of the Baloise Group.

MCEV Principles Guidance (G11.13) requires that profits for the covered business are measured on a "look-through" basis. On this basis, where services such as investment management are provided and charged for by another Group entity the cost reflected in the MCEV should be that to the group as a whole (rather than just that to the Life entity). In line with the "look-through" principle, Baloise's MCEV allows for services provided to the covered business by all suppliers – whether within the Life segment, within the Baloise Group but outside the Life segment, or external to the Baloise Group - at their cost to the Baloise Group. This approach applies to

¹⁸ Except for those investment expenses allowed for in FCC

expenses allowed for in calculation of both the NPVFP and the MCVNB. Profit or loss to Baloise Group companies outside the Life Segment on services provided to the Life Segment are thereby included in the MCEV and MCVNB.

Employee Pension Schemes

For the Baloise MCEV calculation adjustments are made to the SNA in respect of any employee pension scheme surplus / deficit and ongoing obligations relative to those as calculated under IAS 19. The SNA is adjusted¹⁹ to allow for:

- The net of tax shareholders' share (as some will effectively be allocated to policyholders) of the proportion allocated in respect of employees working in the Life Insurance Segment (vs. other IFRS segments) of the surplus / deficit in the pension fund as per the IAS 19 Defined Benefit Obligation ("DBO").
- Any excess / shortfall²⁰ of the IFRS future contribution rate²¹ compared to the pension fund contributions allowed for in the statutory expense basis (which forms the basis for expenses in the NPVFP), multiplied by a Net Present Value factor to allow for its continuation over the projected run-off of in-force business, adjusted for any surplus / deficit to allow for its net of tax impact on shareholders in the Life Insurance segment.

Employee Share Options

All employee benefits are accounted for. Wherever there is an obligation this is reflected in a market consistent liability in line with IAS19 which is included in the liabilities for the MCEV calculations. All actual expenditure is allowed for in the expense used to produce future expense assumptions.

Currency Conversion for Group Presentation

MCEV and MCVNB calculated in local currency are converted to CHF at year-end rates and year-average rates, respectively, as disclosed below in the MCEV Assumptions Section.

Group MCEV

Although MCEV Principles Guidance (G17.3.37-45) describes an approach to disclosure of a measure of the consolidated value of shareholders' interests in both covered business and other business segments combining covered business at MCEV and other business segments at (adjusted) IFRS net asset values, Baloise does not disclose such a 'Group MCEV'.

¹⁹ Increased for a surplus, decreased for a deficit

²⁰ Reduction / increase in SNA

²¹ That projected to be sufficient to maintain assets at the level of the IAS19 DBO

5. MCEV ASSUMPTIONS

5.1. Economic Assumptions

The economic assumptions are updated at each valuation and, taken together, aim to ensure that projected cash flows are valued in line with similar cash flows traded on capital markets.

Reference Yield Curves

The reference yield curves used for the calculation of Baloise MCEV are based on the following swap rates as at the valuation date.

Table 7 - Reference Yield Curves

Term (years)	CHF	CHF	EUR	EUR
	31.12.2010	31.12.2011	31.12.2010	31.12.2011
1	0.29%	0.05%	1.31%	1.41%
3	0.83%	0.19%	1.89%	1.38%
5	1.42%	0.59%	2.52%	1.74%
10	2.22%	1.26%	3.48%	2.43%
15	2.49%	1.52%	3.78%	2.74%
20	2.44%	1.74%	3.83%	2.75%
30	2.18%	2.10%	3.48%	2.55%

Following QIS 5, in 2011 Baloise applied a macroeconomic approach to derive the reference yield curves after the last liquid point (LLP) for CHF and EUR. Beyond this point, the Smith-Wilson extrapolation methodology is used to reach the currency specific ultimate forward rate (UFR) in year 90, which reflects a long term equilibrium interest rate. The LLP and UFR assumptions can be found in the table below.

For the MCEV 2011, Baloise has included a liquidity premium (LP) of 25 bp for Switzerland and of 108 bp for the Euro Zone. The liquidity premiums are derived in accordance with the methodology proposed by the CFO-Forum. As in QIS5, the liquidity premium depends on the nature of the liabilities and is applied to the following lines of business:

- 100% for annuities in pay out;
- 75% for participating business;
- 0% for non participating risk business, unit linked business and variable annuities.

The liquidity premium is added to the forward rate only until five years before the last liquid point. Beyond that point a five year linear decrease to zero is used. For the extrapolated part of the reference rates no liquidity premium is applied.²² The following table summarizes the assumptions which underlie the construction of the reference yield curves used for CHF and EUR.

Table 8 –Liquidity Premium and Extrapolation

Currency	LP	LP	LLP	UFR
	31.12.2010	31.12.2011	31.12.2011	31.12.2011
CHF	10 bp	25 bp	15 years	3.20%
EUR	35 bp	108 bp	30 years	4.20%

For certainty equivalent projections the discount rates used are the swap rates referred to in the table above after allowance for the liquidity premium. For stochastic projections TSM discounts cash flows using a series of

²² For year-end 2010, Baloise had applied a flat liquidity premium.

'deflators' for each scenario. Deflators are time-dependent stochastic discount factors calibrated to give the market values of assets and thus produce market-consistent projections.

The same model is used for both the certainty equivalent projections and the stochastic projections, ensuring that the CEVBF and the TVFOG are consistent with each other.

Equity and Property Volatilities

The equity volatility statistics shown below are based on analysis of the TSM output data, and hence show the economic projection assumptions produced by TSM for the two main currencies. The following table shows the annualised volatilities of equity indices used in the EV calculation, calibrated to market-implied volatilities of forward at-the-money 10-year EuroStoxx 50 (EUR) and SMI (CHF) capital return options.

Table 9a - Equity implied volatility

	Switzerland		Euro Zone	
	31.12.2010	31.12.2011	31.12.2010	31.12.2011
Equity implied Volatility	20.70%	20.23%	27.06%	27.02%

Baloise also makes assumptions regarding the volatility of property investments, estimated from relevant historic return data:

Table 9b - Property volatility

	Switzerland		Germany		Belgium		Luxembourg	
	31.12.2010	31.12.2011	31.12.2010	31.12.2011	31.12.2010	31.12.2011	31.12.2010	31.12.2011
Property volatility	4.85%	4.60%	4.14%	4.12%	13.16%	13.03%	5.11%	5.49%

Interest Rate Volatilities

Interest volatility can be described by the implied volatility of interest rate swaptions. Swaption implied volatilities vary both by the term of the option and also the term of the underlying swap contract. The following tables show swaption implied volatilities based on the TSM simulations used for the EV calculation and calibrated to market-implied at-the-money swaption volatilities:

Table 10a - Swaption implied volatilities CHF, 31.12.2010

	5 year swap term	10 year swap term	15 year swap term	20 year swap term	25 year swap term	30 year swap term
5 year option	37.0%	33.5%	32.9%	33.1%	32.8%	31.8%
10 year option	31.2%	31.6%	32.1%	31.8%	30.6%	29.0%
15 year option	35.0%	35.5%	34.5%	32.2%	29.5%	27.1%
20 year option	43.4%	40.2%	35.5%	31.3%	27.8%	25.0%
25 year option	46.4%	38.9%	33.2%	28.9%	25.6%	23.1%
30 year option	36.7%	30.9%	26.7%	23.6%	21.1%	19.1%

Table 10b - Swaption implied volatilities CHF, 31.12.2011

	5 year swap term	10 year swap term	15 year swap term	20 year swap term	25 year swap term	30 year swap term
5 year option	69.3%	60.6%	51.8%	44.7%	39.5%	35.6%
10 year option	57.7%	46.9%	39.5%	34.5%	30.9%	28.2%
15 year option	43.5%	36.4%	31.6%	28.2%	25.6%	23.6%
20 year option	35.4%	30.8%	27.4%	24.8%	22.7%	21.1%
25 year option	30.5%	27.5%	25.0%	22.9%	21.2%	19.8%
30 year option	26.9%	23.9%	21.6%	19.7%	18.2%	17.0%

Table 10c - Swaption implied volatilities EUR, 31.12.2010

	5 year swap term	10 year swap term	15 year swap term	20 year swap term	25 year swap term	30 year swap term
5 year option	20.5%	18.5%	17.5%	17.2%	17.2%	16.8%
10 year option	18.6%	17.6%	17.5%	17.5%	17.1%	16.4%
15 year option	18.1%	18.3%	18.3%	17.7%	16.7%	15.7%
20 year option	19.9%	19.7%	18.4%	16.9%	15.6%	14.4%
25 year option	21.9%	19.5%	17.4%	15.6%	14.2%	13.1%
30 year option	18.5%	16.2%	14.4%	13.0%	11.8%	10.9%

Table 10d - Swaption implied volatilities EUR, 31.12.2011

	5 year swap term	10 year swap term	15 year swap term	20 year swap term	25 year swap term	30 year swap term
5 year option	31.6%	27.5%	26.3%	26.1%	25.1%	23.1%
10 year option	25.7%	25.4%	25.7%	24.7%	22.5%	20.3%
15 year option	26.9%	27.2%	25.3%	22.1%	19.3%	17.2%
20 year option	29.7%	25.8%	21.3%	18.1%	15.8%	14.2%
25 year option	26.1%	20.6%	17.2%	14.8%	13.2%	12.0%
30 year option	17.9%	14.9%	12.9%	11.5%	10.5%	9.7%

Risk—Adjusted Returns

For equities the risk premium used in the computation of the expected existing business contribution above reference yield is assumed to be 300 bp. For properties, the risk premium above reference yield is set to 150 bp in Switzerland, to 200 bp in Belgium, to 100 bp in Luxembourg and to 0 bp in Germany. These risk premiums impact the corresponding position in the analysis of earnings but do not have any impact on Baloise MCEV.

Correlations

Assumptions are also derived in TSM regarding the correlations between returns on different asset classes – including equity total returns, dividend yields, inflation rates and bond yield curves. These are calibrated to averages of weekly correlations over the last 10 years between equity total returns and forward spot rates over various terms. The resulting correlations between 10-year bond returns and equity total returns are -0.25 (CHF) and -0.38 (EUR) at 31.12.2011.

The correlations between equity and property total returns are derived from relevant historical data. The correlations used were: -0.131 (Switzerland), +0.014 (Germany), +0.412 (Belgium), and +0.798 (Luxembourg) at 31.12.2011.

Inflation

The average rates of annual price inflation used in projections are derived as follows:

- For projections in CHF, in the absence of a market for inflation-linked bonds, synthetic inflation-linked bonds were used, calibrated to a target inflation of 0.5% (previous year: 0.5%) for the short term and 2.0% (previous year: 1.5%) for longer terms.
- For projections in EUR synthetic inflation-linked bonds were used, calibrated to a target inflation of 3.0% (previous year: 0.5%) for the short term and 2.5% (previous year: 2.0%) for longer terms. These assumptions are mainly backed by the break even inflation of inflation linked bonds.

Table 11a – Inflation, 31.12.2010

Projection Term (years)	1	2	5	10	20	40
CHF	0.5%	0.5%	0.6%	0.6%	1.0%	1.5%
EUR	1.0%	1.0%	1.0%	1.5%	1.6%	2.6%

Table 11b – Inflation, 31.12.2011

Projection Term (years)	1	2	5	10	20	40
CHF	0.5%	0.8%	0.9%	1.0%	1.1%	2.5%
EUR	3.0%	3.0%	3.0%	2.9%	2.9%	3.0%

Expenses are assumed to grow in line with price inflation. For Group contracts where contributions are salary-dependent, salaries are assumed to grow slightly above price inflation.

Foreign Exchange Rates

For businesses operating outside Switzerland and Liechtenstein, values calculated in local currency are converted to CHF at the following rates – year-end rates for year-end items (e.g. MCEV) and year-average rates for items representing values spread throughout the year (e.g. MCVNB).

Table 12 - Exchange Rates

CHF per EUR	31.12.2010	31.12.2011
Year-end	1.251	1.214
Year average	1.383	1.233

5.2. Taxation and Legislation

All components of tax, including tax payable on investment returns, are modelled as explicit cash flows, at the rates expected to be incurred by each entity in the Life Insurance Segment. Tax rate assumptions are summarised in the following table:

Table 13 - Corporate Tax rate

Country / Company	2010	2011
Switzerland	20.0%	20.0%
Germany	30.5%	30.5%
Belgium	34.0%	34.0%
Luxembourg	31.1%	31.1%
Liechtenstein	12.5%	12.5%

Values allow for all current local regulation and any known future changes. The tax rate in Germany is a weighted average between the two German entities DfD and Deutscher Ring.

5.3. Operating Assumptions

Demographic Assumptions

Assumptions used in projections for variables such as lapse / surrender, paid-up policies, withdrawal, mortality and morbidity rates are based on analyses of Baloise's recent experience with the aim of projecting a best estimate of future experience.

Experience analyses for each of these factors are undertaken on a regular basis and attention paid particularly to the most recent experience as well as longer term trends. Adjustments are made where the experience or trends are not expected to continue in the long term.

Lapse rates are measured and projected by product type and, where possible, by duration in force. Experience analyses are normally weighted by annual premium or reserves for single premium policies rather than by numbers of policies.

Experienced mortality rates are normally investigated by sex, age and product type, weighted by sum assured or annuity rather than by numbers of policies or lives.

Expense Assumptions

Expense assumptions are based on allocations of all expenses incurred by the Baloise Group on Life Insurance Segment business ("Look-Through Basis" – see section 'Further Definitions and Assumptions' above) during the reporting year, including allocations of overheads within the Segment and of Baloise Holding expenses allocated to the Segment, plus expected expense inflation. No allowance is made for any future productivity gains. In total expenses of CHF 27.0m are treated as 'one-off' or non-recurring costs. Thereof CHF 21.1m had been anticipated in the previous year and were already included in the MCEV 2010. The one-off costs mainly relate to restructuring costs.

Expenses are split into the following categories:

- Investment management expenses – allocated in projections as a percentage of invested assets by reducing future investment returns.
- Acquisition costs allocated to new business consisting of:
 - Commissions;
 - Other acquisition costs.
- Maintenance costs allocated via a combination of 'unit costs' and proportional costs to the existing business, consisting of:
 - Policy maintenance costs;
 - Adjusted administration expenses;
 - Investment expenses, where these are not directly deducted from investment returns.

Baloise Liechtenstein's administration expenses are based on the medium-term business plan including allowance for costs supporting the growth strategy.

Management's selection of bonus rates and policyholder lapse rates are key variables for which dynamic assumptions – varying depending on the economic scenario – are applied in stochastic projections. Local application of dynamic bonus rates is consistent with current market and company practices as well as local regulatory requirements. In particular the 90% minimum legal quote for Group business in Switzerland and the “Mindestzuführungsverordnung” in Germany is respected. In the Swiss Individual business, in Belgium Luxembourg and Liechtenstein there is no legal quote. Here bonuses are essentially driven by market competition and modelled through a target credited rate, and by constraints on the bonus fund or on statutory solvency rules.

Where appropriate, dynamic asset allocation strategies are incorporated into the stochastic models reflecting the past behaviour and expected future behaviour of the management.

For local application of dynamic lapse rates the yields available on bonds are generally used as a proxy for policyholder expectations. Where bonus rates, or the earnings used to calculate them, are higher (lower) than policyholder expectations, then lower (higher) lapse rates are used in the projections since the policyholder is less (more) likely to lapse. The lapse parameters depend on the company and on the type of the policy.

6. DIRECTORS' STATEMENT AND EXTERNAL REVIEWER STATEMENT

Directors' Statement

The MCEV Accounts have been prepared in accordance with the latest MCEV Principles²³ launched by the European Insurance CFO Forum in June 2008 and amended in October 2009. Any deviation from the MCEV Principles or interpretation is stated in the Methodology section of this report.

We hereby confirm that the data, assumptions, models and methodology used to prepare the MCEV accounts:

- Are materially accurate;
- Appropriately reflect the way the Life business is managed, as well as its regulatory constraints and market environment;
- Cover the essential drivers of the Company's profitability and risks.

External Reviewer Statement

Baloise Holding, Aeschengraben 21, CH-4002 Basel, Switzerland

Dear Sirs,

Review of Embedded Value for the year ended December 31, 2011 of the Life segment of Baloise

We have reviewed the Market Consistent Embedded Value for the Life segment of Baloise as set out in Baloise's Financial Report for the year end 2011 ("the Disclosure"). The Disclosure comprises the Market Consistent Embedded Value of the Life segment as at 31 December 2011 together with the value of new business generated and the analysis of movement in the Embedded Value during 2011 (together "the Embedded Value results"). The scope of our review covered Baloise's major life insurance companies and considered the methodology adopted together with the assumptions and calculations made by Baloise in its Embedded Value.

The Embedded Value results, the assumptions underlying them and the information contained in the Disclosure are the sole responsibility of the Board of Directors of Baloise. They have been prepared by Baloise on the basis of Baloise's methodology as described in the Disclosure.

Our review was conducted in accordance with generally accepted actuarial practices and processes. It comprised a combination of such reasonableness checks, analytical review and checks of clerical accuracy as we considered necessary to provide reasonable assurance that the Market Consistent Embedded Value results have been compiled free of significant error. However, we have relied without verification upon the completeness and accuracy of data and information supplied by Baloise, including the shareholders' net assets as disclosed in the audited local statutory accounts and the IFRS accounts of the companies in the Life segment.

The calculation of Market Consistent Embedded Value results necessarily makes numerous assumptions with respect to economic conditions, operating conditions, taxes, and other matters, many of which are beyond Baloise's control. Although the assumptions used represent estimates which the Directors believe are together reasonable, actual experience in future may vary from that assumed in the calculation of the Embedded Value results and any such variations may be material. Deviations from assumed experience are normal and are to be expected. Market Consistent Embedded Value does not purport to be a market valuation and should not be interpreted in that manner since it does not encompass all of the many factors that may bear upon a market value, in particular franchise value.

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In our opinion,

- *The methodology and assumptions used are appropriate and - except as explicitly noted in the Disclosure - are compliant with the Market Consistent Embedded Value Principles set out by the European Insurance CFO Forum in June 2008 (the “MCEV Principles²⁴”) and amended in October 2009;*
- *The assumptions taken together made by Baloise are reasonable; and*
- *Baloise’s Embedded Value and New Business Value have been properly compiled on the basis of the methodology and assumptions chosen by Baloise and are compliant with the MCEV Principles.*

Our opinion is made solely to Baloise’s Directors as a body. To the fullest extent permitted by law we do not accept or assume responsibility to anyone other than Baloise’s Directors as a body for our work in respect of this opinion or for the conclusions that we have reached.

Yours faithfully,

Deloitte Consulting AG

²⁴ Copyright © Stichting CFO Forum Foundation 2008

7. LIST OF ABBREVIATIONS

APE	Annual Premium Equivalent
CEO	Chief Executive Officer
CEVBF	Certainty Equivalent Value of Business in Force
CFO	Chief Financial Officer
CNHR	Cost of Non Hedgeable Risks
DAC	Deferred Acquisition Costs
DBO	Defined Benefit Obligation
ESG	Economic Scenario Generator
EV	Embedded Value
FCC	Frictional Cost of Capital
FS	Free Surplus
GAO	Guaranteed Annuity Option
GMDB	Guaranteed Minimum Death Benefit
IAS	International Accounting Standards
IFRS	International Financial Reporting Standards
LLP	Last Liquid Point
LP	Liquidity Premium
MCEV	Market Consistent Embedded Value (= SNA + VIF)
MCVNB	Market Consistent Value of New Business
NPVFP	Net Present Value of Future Profits (= CEVBF – TVFOG)
PVNB	Present Value of New Business Premiums
RC	Required Capital
SMI	Swiss Market Index
SNA	Shareholders Net Assets (= RC + FS)
SST	Swiss Solvency Test
TSM	The Smith Model
TVFOG	Time Value of Financial Options and Guarantees
UFR	Ultimate Forward Rate
UL	Unit Linked
VIF	Value of In Force (= CEVBF – TVFOG – FCC – CNHR)

Information on the Baloise Group

The Market Consistent Embedded Value Report 2011 is only published in English.

AVAILABILITY AND ORDERING

The Market Consistent Embedded Value Report 2011 is available on the Internet at www.baloise.com as of 22 March 2012.

INFORMATION FOR SHAREHOLDERS AND FINANCIAL ANALYSTS

You can find detailed information and data on the Baloise share, the IR agenda, the latest presentations and how to contact Investor Relations on the Internet at www.baloise.com/investors. The information is available in German and English.

INFORMATION FOR MEDIA REPRESENTATIVES

At www.baloise.com/media you will find the latest media releases, presentations, reports, pictures and podcast files of various Baloise events as well as media contact details.

NOTE ON FORWARD-LOOKING STATEMENTS

This publication is intended to provide an overview of Baloise's business performance. It contains forward-looking statements including forecasts of future events, plans, goals, business developments and results based on the current expectations and assumptions of the Baloise management. These forward-looking statements should be used with due caution as they contain both known and unknown risks and uncertainties and may be affected adversely by other factors. In consequence, business performance, results, plans and goals could differ materially from those presented explicitly or implicitly in these forward-looking statements. Among the influencing factors are (i) changes in the overall state of the economy, especially in key markets; (ii) financial market performance; (iii) competitive factors; (iv) changes in interest rates; (v) changes in exchange rates; (vi) changes in the statutory and regulatory framework including accounting standards; (vii) frequency and magnitude of claims and development of claims history; (viii) mortality and morbidity rates; (ix) renewals and maturity of insurance policies; (x) legal disputes and administrative proceedings; (xi) departure of key employees; (xii) negative publicity and media reports. Baloise assumes no obligation to update or revise these forward-looking statements, to consider new information, future events etc. The past performance of Baloise is no indication of future results.