

## Market Consistent Embedded Value (MCEV)

The Group MCEV is a measure of the consolidated value of shareholders' interest in the in-force business of the Swiss Life Group. It includes the insurance business covered by the MCEV methodology and all other business valued by its IFRS net asset value.

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## 1 Introduction

### 1.1 BASIS OF PREPARATION

Market consistent embedded value (MCEV) is a measure of the consolidated value of shareholders' interests in the in-force covered business of the Swiss Life Group. Covered business includes life, health and pension business of the company. The Group MCEV is a measure of the consolidated value of shareholders' interest in the covered and non-covered business in force of the company. Business in force includes business written as at 31 December 2009; future new business is not included. The notion of market consistent embedded value (MCEV) will alternatively refer within the course of this report to the MCEV of Swiss Life's covered business, of one of its market units, or to the Swiss Life's Group MCEV.

Swiss Life's market consistent embedded value reporting follows the European Insurance CFO Forum Market Consistent Embedded Value Principles<sup>1</sup>. The cost of credit risk from bonds is calculated and disclosed in addition to mandatory requirements from the Principles. Further details on the MCEV methodology are given in section 4.

PricewaterhouseCoopers have audited this market consistent embedded value report. Their opinion is part of this report and can be found in section 6.

### 1.2 COVERED BUSINESS AND NON-COVERED BUSINESS

Covered business includes all of Swiss Life's life, health and pension business, with the exception of Swiss Life Insurance Solutions AG and Swiss Life Products (Luxembourg) S.A. which are not yet material for MCEV purposes. Included are namely life businesses in Switzerland, France, Germany, Luxembourg and Liechtenstein. All other businesses such as investment management and AWD are included in the non-covered business at their IFRS net asset values. In the case of France, all business is included in covered business; the value of non-life insurance and non-health insurance business is their IFRS net asset value.

MCEV (and Group MCEV) are net of external reinsurance.

### 1.3 DEFINITIONS

Swiss Life's Group MCEV consists of the MCEV for covered business and of the IFRS net asset value for non-covered business.

According to MCEV Principle 3, the MCEV represents the present value of shareholders' interests in the earnings distributable from assets allocated to the covered business after sufficient allowance for the aggregate risks in the covered business. It is calculated on a post-tax basis taking into account current legislation and known future changes.

The MCEV for covered business is broken down into the net asset value (NAV), i.e., the value of assets not backing liabilities, and the value of in-force business (VIF), i.e., the value of future profits emerging from operations and assets backing liabilities.

The net asset value is split between:

- The required capital (RC), i.e., the amount of capital provided by shareholders necessary to run the business
- The free surplus (FS): additional capital allocated to the covered business above the required capital

The value of in-force covered business is defined as the sum of:

- The certainty equivalent value of future profits from in-force covered business (CEV)
- The time value of financial options and guarantees (TVOG), including the cost of credit risks
- The cost of residual non-hedgeable risks (CNHR)
- The frictional costs of required capital (FC)

The IFRS net asset value (IFRS NAV) is defined as the unadjusted IFRS net asset value allocated to the non-covered business. For more details about the MCEV components, see section 4 on methodology. Please note that the notion of certainty equivalent value is equivalent to the notion of present value of future profits in the CFO Forum Principles.

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## 2 Summary of MCEV Results

All results and components are shown in CHF million. Rounding differences may occur.

### 2.1 GROUP MCEV

The following table shows MCEV key results as at 31.12.2009 compared to the results as at 31.12.2008:

In CHF million	Net asset value	Value of in-force business	Total	Total
			2009	2008
Covered business	2 324	1 808	4 132	3 569
Non-covered business	2 745	n/a <sup>1</sup>	2 745	2 753
GROUP MCEV	5 069	1 808	6 877	6 321
Value of new business			123	119
Total MCEV earnings			651	-1 285

<sup>1</sup> n/a: not applicable

The Group MCEV includes the covered as well as the non-covered business. The covered business is valued according to the MCEV methodology; the resulting value is the MCEV. The value of the non-covered business included in the Group MCEV is the unadjusted IFRS net asset value.

The Group MCEV increased by 9%. The value of the non-covered business remained at the previous year's level. The value of covered business increased by 16%, mainly caused by the economic recovery. This increase was weakened by waiving the liquidity premium. For the 2009 calculation,

no liquidity premium was assumed, whereas for 2008, liquidity premiums of 65 bps (for Switzerland) and 50 bps (for France, Germany and Luxembourg) were applied.

The change in value of new business by 3% is driven by an increase in new business premiums, combined with lower new business margins.

### 2.2 MCEV OF COVERED BUSINESS

The following table shows the MCEV by components, together with the previous year's figures:

In CHF million	2009	2008
Net asset value	2 324	1 971
Free surplus	319	87
Required capital	2 005	1 884
Value of in-force business	1 808	1 598
Certainty equivalent value	4 848	4 007
Time value of financial options and guarantees	-1 984	-1 481
Cost of residual non-hedgeable risks	-631	-398
Frictional costs of required capital	-425	-530
MCEV	4 132	3 569

The net asset value (NAV) of the covered business is the market value of assets allocated to the covered business, which are not backing liabilities. Goodwill and intangibles are not included in the net asset value. The required capital (RC) is that part of the net asset value whose distribution to shareholders is restricted. The free surplus (FS) is calculated as the difference between the total net

asset value and the required capital. The NAV of the operations in France includes goodwill and intangible assets of their non-life and non-health insurance operations (see section 3.2).

The certainty equivalent value (CEV) is the present value of future shareholder profits – net of tax – under the certainty equivalent scenario. This scenario is derived from reference rates as at the respective valuation date. The CEV contains the part of the value of financial options and guarantees which materialises in the certainty equivalent scenario (also called intrinsic value of the financial options and guarantees).

The time value of financial options and guarantees (TVOG) is calculated as the difference between the market consistent expected present value of future shareholder profits with all stochastic economic scenarios and the certainty equivalent value. The TVOG therefore represents the additional market price of financial options and guarantees in excess of the intrinsic value which is already allowed for in the reference scenario. The TVOG also includes the cost of credit risk related to investments in corporate bonds. The amount of credit risk on group level is CHF –476 million for 2009 compared to CHF –234 million for 2008. This change is mainly due to credit spread tightening.

The cost of residual non-hedgeable risks (CNHR) represents the value of risks which cannot be calculated in a market consistent way because there are no liquid markets, such as insurance risks, expense risks, and risks from variances to assumed rules for policyholder decisions. It is calculated under a cost of capital approach.

The frictional costs of required capital (FC) are the present value of costs incurred by shareholders due to investment management expenses and taxes on the investments of restricted assets. They are calculated based on the required capital.

The value of in-force business (VIF) is the sum of the certainty equivalent value, TVOG, CNHR, and FC. Thus MCEV is the sum of net asset value and value of in-force business, or the sum of free surplus, required capital and value of in-force business.

MCEV increased on both components NAV, especially on its free surplus part, and VIF. The main reason is the economic recovery. This is explained in more detail in section 2.5. The increase in cost of non-hedgeable risks is

caused by the change of the valuation method for the French health business from the traditional to the market consistent approach, see section 3.2.

### 2.3 VALUE OF NEW BUSINESS

The value of new business (VNB) represents the value added by new business written in 2009. It is calculated consistently with the methodology and assumptions used for the business in force. The value of new business is calculated as the effect on MCEV from writing new business, i.e., it is the difference between the MCEV at year end and the MCEV which would have resulted, had no new business been written during the year.

The following sections show the premium volumes, measured in annual premium equivalent (APE) and present value of new business premiums (PVNBP), the value of new business and the new business margins on the basis of APE and PVNBP. The annual premium equivalent is defined as new annual premiums plus 10% of new single premiums. The present value of new business premiums is equal to new single premiums plus the present value of new annual premiums which is calculated on the same assumptions as the value of new business.

Additional explanations about new business calculations can be found under section 4.2 later in this report.

This table shows the value of new business together with the new business premium volumes and margins. Within MCEV reporting, PVNBP is used to measure the premium volume of new business. For better comparison with previous disclosures, the traditional measure of APE is also shown.

Amounts in CHF million

	2009	2008
VALUE OF NEW BUSINESS	123	119
New business strain <sup>1</sup>	-133	-125
Value of new business before new business strain	255	244
Annual premiums	678	643
Single premiums	8 146	4 791
PRESENT VALUE OF NEW BUSINESS PREMIUMS (PVNBP)	14 390	10 935
Average annual premium multiplier	9.2	9.6
New business annual premium equivalent (APE)	1 493	1 122
NEW BUSINESS MARGIN (% PVNBP)	0.9%	1.1%
New business margin (% APE)	8.2%	10.6%

<sup>1</sup> New business strain represents the effect on the net asset value from writing new business.

The increase in single premiums and subsequently in PVNBP is mainly generated by Private Placement Life Insurance (PPLI). The changes in economic assumptions together with waiving of liquidity premiums lowered the overall new business margin.

## 2.4 GROUP MCEV – ANALYSIS OF EARNINGS

The table below shows the change in market consistent embedded value split by components from the MCEV as at 31 December 2008 to the MCEV as at 31 December 2009.

In CHF million	Covered business MCEV	Non-covered business IFRS	Total Group MCEV	Total Group MCEV
			2009	2008
OPENING GROUP MCEV	3 569	2 753	6 321	9 312
Opening adjustments	-1	-159	-161	-556
ADJUSTED OPENING GROUP MCEV	3 567	2 593	6 161	8 756
Operating MCEV earnings	194	-75	120	3 123
Non-operating MCEV earnings	568	-37	531	-4 408
TOTAL MCEV EARNINGS	763	-112	651	-1 285
Other movements in IFRS net equity	n/a <sup>1</sup>	43	43	-737
Closing adjustments	-198	220	22	-412
CLOSING GROUP MCEV	4 132	2 745	6 877	6 321

<sup>1</sup> n/a: not applicable

The opening adjustments represent dividend payments from the covered and non-covered business, resulting in the reduction of par value of CHF 5 per share as shown in the Consolidated Financial Statements (Note 1).

The operating MCEV earnings for non-covered business correspond mainly to gains and losses from Swiss Life Holding, AWD, Swiss Life Property Management and from the discontinued banking segment. The operating MCEV earnings for covered business are explained in the next section. The comparatively very high operating earn-

ings in 2008 are based on two effects: First, gains resulting from divestments and second, de-risking of strategic asset allocation mainly in Switzerland.

The non-operating MCEV earnings include positive economic variances on covered business (see next section). For non-covered business they relate to borrowing costs for the non-covered business. For 2008, the highly negative non-operating MCEV earnings originated from the economic developments in that year.

The other movements in IFRS net equity (non-covered business only) are mainly due to the sale of treasury shares, as well as the change in unrealised capital gains and losses and the change in minority interest.

The closing adjustments result mainly from a restructuring concerning the Swiss and French businesses. After the restructuring of the French business in 2008, the remaining French branch was left as a holding company without insurance activity and included in non-covered business

for the Group MCEV 2008. During 2009, this branch – with a negative IFRS NAV – was integrated into the Swiss business. The effect on Group MCEV is neutral. In addition, the closing adjustments relate to the change in currency exchange rates during 2009.

## 2.5 COVERED BUSINESS – ANALYSIS OF EARNINGS

The table below shows the analysis of earnings for the covered business in 2009:

In CHF million	Free surplus	Required capital	VIF	MCEV	
				2009	2008
OPENING MCEV	87	1 884	1 598	3 569	6 572
Opening adjustments	-1	-	-	-1	-212
ADJUSTED OPENING MCEV	86	1 884	1 598	3 567	6 360
Value of new business	-364	231	255	123	119
Expected existing business contribution (reference rate) <sup>1</sup>	3	24	53	80	334
Transfers from VIF and required capital to free surplus	-384	513	-129	0	0
Experience variances	-355	104	77	-174	222
Assumption changes	1	-1	180	180	1 174
Other operating variance	53	-60	-7	-15	-149
OPERATING MCEV EARNINGS	-1 047	811	430	194	1 700
Economic variances	1 512	-706	-225	581	-4 247
Other non-operating variances	-10	-	-3	-13	6
TOTAL MCEV EARNINGS	455	105	203	763	-2 541
Closing adjustments	-222	16	8	-198	-250
CLOSING MCEV	319	2 005	1 808	4 132	3 569

<sup>1</sup> This presentation of the analysis of earnings for the covered business is compliant with MCEV Principles, except that no indication of the expected existing business contribution in excess of the reference rate has been provided by Swiss Life.

**OPERATING MCEV EARNINGS** – The value of new business contributions from free surplus and required capital sum up to the new business strain of CHF -133 million. This represents the shareholders' share in acquisition expenses for new business. The VIF-component of CHF 255 million is the value of future risk-adjusted profits from new business.

Expected existing business contribution (reference rate) assumes average market performance of all assets at the reference rate during the reporting period. Shareholders' results from this step are shown here, including the release from costs of residual non-hedgeable risks and look-through contributions.

Transfers from value in force and required capital to free surplus include the shifts of the results of the preceding step to free surplus and shifts between free surplus and required capital. The total effect in this line is zero. Transfer from free surplus to required capital is due to the depressed economic conditions as of 31.12.2008, leading to a projected reduction of buffers eligible for covering the solvency requirements.

Experience variances aggregate the impact of actual performance versus expectations on insurance contracts regarding non-economic assumptions such as mortality, expenses, lapses, as well as the deviations in handling of additional reserves. A strengthening of additional reserves in the Swiss business and their subsequent partial release over time leads to a decrease in NAV and an

increase in VIF. Within the NAV, the shift from free surplus to required capital originates from the higher than anticipated projected policyholder participation in the German operations.

Assumption changes refer to the impact of the change on assumptions such as future mortality, morbidity, longevity rates, changes in surrender rates, expense rates, and rules for future profit sharing. These are commented on in section 3.2.

Other operating variance refers to any other changes that differ from the expected values not captured by the items above. This includes effects of an improved approach for cost of credit risk as well as a refinement of interest rate modelling.

**ECONOMIC VARIANCES** – These are by far the biggest effects on free surplus, required capital, and VIF. They originate from:

- a much better corporate bond investment income for the reporting period than assumed at 31.12.2008 and a reduction of credit spreads on the bond portfolio over the amount implied by the liquidity premiums applied at 31.12.2008
- correspondingly higher credit risk exposure and therefore higher costs of credit risk
- lower reference rates due to waiving the liquidity premiums and only little changes in swap rates for both Swiss francs and euro
- a better equity-type asset performance than assumed for the expected business contribution (reference rate)
- higher assumed (swaption) implied volatilities, where it has to be noted that the assumptions for the valuation at 31.12.2008 were based on market averages over 2008. For 2009, implied volatilities as at the valuation date were applied.

**CLOSING ADJUSTMENTS** – These represent raising or pay-back of capital and currency exchange rate fluctuation. The major part is related to the integration of the French branch into the Swiss operation as described in section 2.4.



## 2.6 SENSITIVITIES

The table below shows sensitivities of the MCEV and the value of new business to important financial market parameters and to operational and demographic assumptions.

### SENSITIVITIES AS AT 31 DECEMBER 2009

Amounts in CHF million

	Change in MCEV	+/-	Change in value of new business	+/-
<b>BASE VALUE</b>	<b>4 132</b>		<b>123</b>	
<b>Economic</b>				
100 bp increase of interest rates (reference rates)	982	24%	38	31%
100 bp decrease of interest rates (reference rates)	-1 535	-37%	-82	-67%
10% increase in equity / property market values	901	22%		- <sup>1</sup>
10% decrease in equity / property market values	-997	-24%		- <sup>1</sup>
25% increase in equity / property implied volatilities	-392	-9%	-18	-15%
25% decrease in equity / property implied volatilities	302	7%	16	13%
25% increase in swaption implied volatilities	-347	-8%	-14	-11%
25% decrease in swaption implied volatilities	345	8%	13	11%
<b>Operational</b>				
10% increase in maintenance expenses	-421	-10%	-31	-25%
10% decrease in maintenance expenses	409	10%	29	23%
10% proportionate increase in lapse rates	-155	-4%	-24	-20%
10% proportionate decrease in lapse rates	165	4%	23	19%
<b>Demographic</b>				
5% proportionate increase in mortality rates (death cover)	-26	-1%	-3	-3%
5% proportionate decrease in mortality rates (annuities)	-114	-3%	-1	-1%
5% increase of longevity driver (annuities)	-50	-1%	0	0%
5% proportionate increase in morbidity rates	-107	-3%	-7	-6%
5% proportionate decrease in morbidity rates	105	3%	7	6%
<b>Other</b>				
Required capital 100% statutory solvency capital <sup>2</sup>	200	5%	17	14%

<sup>1</sup> not available

<sup>2</sup> For the base value, a solvency requirement of 150% is assumed.

As can be seen in the table above, the sensitivities with the biggest impact on the MCEV and the value of new business are the economic sensitivities: interest rates, equity/property market values, and their corresponding volatilities. Operational sensitivities such as expenses, lapse rates and required capital also have a significant impact. The same sensitivities are also relevant to the value of new business.

## 2.7 RECONCILIATION OF IFRS NET ASSET VALUE TO GROUP MCEV

Swiss Life's MCEV for covered business reflects the value of the shareholders' interest in the life, health and pension business of the Swiss Life Group. This value includes the determination of best estimate liabilities for bonus and tax payments, which are derived from results based on local statutory accounting rather than on IFRS. There-

fore local balance sheets and profit and loss accounts are the starting point for the projections. The net asset value (of assets not backing liabilities) is based on the local balance sheet, but adjusted at market value.

For the other parts of the Swiss Life Group, i.e., the non-covered business, the shareholder value is derived from its contribution to the Group's IFRS net asset value.

### RECONCILIATION OF IFRS NET ASSETS TO GROUP MCEV AS AT 31 DECEMBER 2009

In CHF million

	2009
IFRS NET ASSETS	7 208
Adjustments	-2 139
Reserves and investments valuation differences	719
DAC / DOC and other intangible assets	-2 407
Goodwill <sup>1</sup>	-451
Net asset value	5 069
Value of in-force business	1 808
GROUP MCEV <sup>2</sup>	6 877

<sup>1</sup> Goodwill adjustments correspond to goodwill of covered business with the exception of CHF 93 million from French operations (see section 3.2).

<sup>2</sup> Group MCEV includes CHF 1 718 million of goodwill and intangible assets as part of the unadjusted IFRS net assets for non-covered business.

Starting with the total IFRS net assets, there are valuation differences between IFRS and MCEV regarding the net asset value for the covered business. In the reconciliation these valuation differences are shown under "adjustments". The main elements that have been adjusted are deferred acquisition costs (DAC), goodwill and other intangible assets, differences between statutory and IFRS balance sheet items reflecting different reserving bases, and different treatment of the investments and unrealised gains (that form part of the IFRS net assets but are projected on MCEV as part of the value of in-force business in the MCEV calculations).

The adjusted IFRS net asset value corresponds to the MCEV net asset value of the Swiss Life Group. Adding the value of in-force business leads to the Group MCEV.

### 3 Information by Market Unit

#### 3.1 MARKET UNITS

Swiss Life's covered business is subdivided according to market units as follows:

- Life and pension business in Switzerland
- Life, health and pension business in France
- Life and pension business in Germany
- Life and pension business in Luxembourg and Liechtenstein (together referred to as Insurance Other)

This breakdown by market units essentially coincides with the IFRS insurance segments in the annual report. There are minor differences since the MCEV classification follows the legal structure in order to ensure a correct modelling of the profit sharing. A significant discrepancy from the IFRS insurance segment reporting is the treatment of Swiss Life Asset Management in France, which belongs in this report to the MCEV of Swiss Life in France.

**SWITZERLAND** – Swiss Life's main business in the Swiss market is group life business. The individual business includes all the typical traditional savings, risk and annuity products, as well as modern savings and retirement products with flexible guarantees. The share of the mod-

ern products is steadily increasing. Swiss Life's own sales force plays the major role in distribution, followed by AWD.

**FRANCE** – The life insurance products sold through Swiss Life Assurance et Patrimoine consist mainly of savings and annuity products, while risk products play a minor role. New business focuses on multi-support products, combining traditional savings and unit-linked components. The main distribution channels are independent financial advisors and private banking. The health business is sold through Swiss Life Prévoyance et Santé.

**GERMANY** – Swiss Life sells traditional and modern products for individual and group life business. Disability insurance plays an important role. The main distribution channel is independent brokers, followed by financial advisors such as AWD.

**INSURANCE OTHER** – Swiss Life supplies private placement life insurance (PPLI) in Liechtenstein, Singapore and Luxembourg. In Luxembourg, Swiss Life also provides group insurance solutions for international and local corporate clients through Corporate Solutions.

#### 3.2 RESULTS BY MARKET UNIT

##### MCEV BY MARKET UNIT FOR THE YEAR 2009

In CHF million						
	Switzerland	France <sup>1</sup>	Germany	Insurance Other	Total	
Net asset value	741	1 247	379	-43	2 324	
Free surplus	300	134	-28	-87	319	
Required capital	441	1 114	407	45	2 005	
Value of in-force business	772	678	125	233	1 808	
Certainty equivalent value	2 884	1 153	513	298	4 848	
Time value of financial options and guarantees	-1 602	-148	-227	-7	-1 984	
Cost of residual non-hedgeable risks	-267	-222	-99	-44	-631	
Frictional costs of required capital	-243	-105	-63	-14	-425	
MCEV	1 513	1 926	503	190	4 132	

<sup>1</sup> The value for France includes CHF 93 million in goodwill and intangible assets originating from the non-life and non-health insurance operations.

## MCEV BY MARKET UNIT FOR THE YEAR 2008

In CHF million

	Switzerland	France <sup>1</sup>	Germany	Insurance Other	Total
Net asset value	383	1 272	356	-40	1 971
Free surplus	-40	171	37	-82	87
Required capital	423	1 101	319	41	1 884
Value of in-force business	818	410	169	201	1 598
Certainty equivalent value	2 403	838	521	246	4 007
Time value of financial options and guarantees	-1 051	-182	-242	-6	-1 481
Cost of residual non-hedgeable risks	-275	-30	-62	-32	-398
Frictional costs of required capital	-259	-216	-48	-7	-530
MCEV	1 201	1 682	525	161	3 569

<sup>1</sup> The value for France includes CHF 90 million in goodwill and intangible assets originating from the non-life and non-health insurance operations.

**SWITZERLAND** – The relatively high amount of time value of financial options and guarantees results from a combination of a small spread between market and guaranteed interest rates, the high volatility of interest rates and relatively large costs of credit risk due to the significant share of corporate bonds in the Swiss asset portfolio. The “legal quote” rules (statutory minimum policyholder distribution ratio) applying to the profit sharing of the Swiss group life business also add to the time value of financial options and guarantees.

The net asset value is influenced by the hybrid debt. It includes the – negative – difference between the market value of assets covering the hybrid debt in the statutory balance sheet and the marked-to-model value of the hybrid debt which is calculated as described in section 4.3. The increase in NAV is mainly a consequence of the annual operational profit and the increase in value of the assets covering equity and hybrid debt.

**FRANCE** – The MCEV of Swiss Life in France consists of the following three components:

- The life business, which is concentrated in Swiss Life Assurance et Patrimoine
- The health insurance business of Swiss Life Prévoyance et Santé
- Other companies in France which are accounted for by their IFRS net asset value

For the French health insurance business, the methodology of the market consistent embedded value has been applied in 2009, whereas in 2008 the traditional embed-

ded value methodology was used. The difference in value resulting from the transition from traditional embedded value as at the beginning of 2009 is CHF –5 million. While the traditional embedded value accounted for risk by means of a spread in the discount rate, the market consistent embedded value of the French health insurance business accounts for risk through the cost of non-hedgeable risk. As this business does not contain any financial options and guarantees, it does not contribute to the time value of financial options and guarantees.

**GERMANY** – The size of the cost of residual non-hedgeable risks comes from disability contracts which play an important role in the German business mix.

The time value of financial options and guarantees is relatively high. The reason is the high level of guarantees applicable to the German business together with the “legal quote” enforced in Germany. This effect is increased by high interest volatilities and low long-term interest rates.

The observed increase in required capital can be explained by a noticeable decrease in the free part of the policyholder bonus fund (RfB). The negative free surplus stems from the assumed required coverage of 150% of statutory solvency. Free surplus would be positive at a 100% requirement of statutory solvency.

**INSURANCE OTHER** – The contributions of PPLI business to the total MCEV of Insurance Other accounts for about two thirds of the value.

The products of PPLI contain only very small financial guarantees, so the TVOG is negligible. The negative net asset value is explained by not taking into account the

goodwill for the former insurance company CapitalLeben as part of Liechtenstein.

## VALUE OF NEW BUSINESS BY MARKET UNIT FOR THE YEAR 2009

Amounts in CHF million

	Switzerland	France	Germany	Insurance Other	Total
VALUE OF NEW BUSINESS	11	43	21	48	123
New business strain <sup>1</sup>	-55	-54	-9	-15	-133
Value of new business before new business strain	65	96	30	63	255
Annual premiums	161	360	154	3	678
Single premiums	1 352	1 867	193	4 734	8 146
PRESENT VALUE OF NEW BUSINESS PREMIUMS (PVNBP)	3 396	4 652	1 587	4 755	14 390
Average annual premium multiplier	12.7	7.7	9.1	6.2	9.2
New business annual premium equivalent (APE)	296	547	173	477	1 493
NEW BUSINESS MARGIN (% PVNBP)	0.3%	0.9%	1.3%	1.0%	0.9%
New business margin (% APE)	3.6%	7.8%	12.2%	10.1%	8.2%

<sup>1</sup> New business strain represents the effect on the net asset value from writing new business.

## VALUE OF NEW BUSINESS BY MARKET UNIT FOR THE YEAR 2008

Amounts in CHF million

	Switzerland	France	Germany	Insurance Other	Total
VALUE OF NEW BUSINESS	48	47	12	12	119
New business strain <sup>1</sup>	-33	-66	-9	-16	-125
Value of new business before new business strain	81	114	21	28	244
Annual premiums	146	355	137	5	643
Single premiums	1 167	1 523	155	1 947	4 791
PRESENT VALUE OF NEW BUSINESS PREMIUMS (PVNBP)	3 824	3 767	1 356	1 987	10 935
Average annual premium multiplier	18.2	6.3	8.7	8.7	9.6
New business annual premium equivalent (APE)	262	507	153	199	1 122
NEW BUSINESS MARGIN (% PVNBP)	1.2%	1.3%	0.9%	0.6%	1.1%
New business margin (% APE)	18.2%	9.4%	7.9%	5.8%	10.6%

<sup>1</sup> New business strain represents the effect on the net asset value from writing new business.

**SWITZERLAND**— New business consists of new contracts and new coverages on existing contracts. Within group life business, replacements and newly hired persons for existing contracts are not accounted for as new business.

The value of new business written in 2009 dropped considerably to a mere 22% of the previous year's value. This is mainly caused by the removal of the liquidity premium, narrowing the spread between market and guaranteed interest rates. Higher assumed volatilities also contributed to this decline.

In accordance with the strategy, there is a shift towards modern savings and retirement products with flexible guarantees and risk products. This shift did not result in a noticeable overall change of new business margin. Whereas the margin for modern products has been increasing, the margin for traditional business decreased due to a shift from products with regular premiums to single premium products, which are less profitable.

For the 2009 MCEV closure, the recognition of new business premiums for Swiss group life business was changed: Incoming reserves for new insured individuals (“eingebrachte Freizügigkeitsleistungen”) replacing exiting ones are no longer recognised as premiums, as these reserves only compensate partly for outgoing reserves. This reduced the PVNBP for 2008 by roughly CHF 900 million. The increase in PVNBP starting from the adjusted 2008 value amounts to 15%. This also explains the decrease of the average annual premium multiplier.

**FRANCE** – The value of new business for Swiss Life in France is determined as the sum of the value of new business for the life business and that for the health business.

The value of new business remained stable compared to 2008, in spite of a volume increase. The lower new business margin mostly resulted from two effects. First, the business mix was less favourable, namely a higher share of traditional vs. unit-linked saving. Second, the change

from traditional embedded value to market consistent embedded value for the health business resulted in an increase of PVNBP and thus in a decrease in the new business margin.

**GERMANY** – The value of new business as well as the new business margin for the German operations have increased when compared with the values reported for 2008. The higher volume of risk and supplementary disability insurance contracts written contributed substantially to this enhancement.

**INSURANCE OTHER** – As the most important line of business in Insurance Other is private placement life insurance (PPLI), by far the biggest share of new business premiums consists of single premiums. This business generated almost the entire massive increase in single premium volume. The new business margin increased considerably compared to the previous year. This is related to pricing initiatives and higher average premium amounts.

## ANALYSIS OF EARNINGS BY MARKET UNIT FOR THE YEAR 2009

In CHF million

	Switzerland	France	Germany	Insurance Other	Total
OPENING MCEV	1 201	1 682	525	161	3 569
Opening adjustments	40	-38	-3	-	-1
ADJUSTED OPENING MCEV	1 241	1 644	522	161	3 567
New business value	11	43	21	48	123
Expected existing business contribution (reference rate)	22	52	2	5	80
Experience variances	-22	-95	-43	-15	-174
Assumption changes	51	99	39	-9	180
Other operating variance	-66	52	12	-12	-15
OPERATING MCEV EARNINGS	-4	150	30	18	194
Economic variances	465	157	-55	15	581
Other non-operating variances	37	-46	-	-4	-13
TOTAL MCEV EARNINGS	498	261	-25	29	763
Closing adjustments	-227	21	6	1	-198
CLOSING MCEV	1 513	1 926	503	190	4 132

The predominant effects in the analysis of earnings for every market unit are the economic variances – which are explained in section 2.5.

**SWITZERLAND** – Almost the entire opening and closing adjustments result from restructuring concerning the Swiss and French businesses. This was described in section 2.4.

The experience variances stem mainly from a higher than assumed build-up of additional reserves with an overall slightly negative impact on the MCEV.

The assumption changes are dominated by group life persistency variances and individual life expense assumption variances.

Most significantly, other operating variance reflects the impact of enhancements in the crediting and investment rules for individual business and the valuation model for modern products.

The dominant effect in the economic variances for the operations in Switzerland results from the narrowing of credit spreads. Economic variances also include a negative impact of a more risky strategic asset allocation. This is in accordance with the higher risk capacity at 31.12.2009 following the financial recovery during the reporting year.

Other non-operating variances are tax variances.

**FRANCE** – The introduction of the new strategic asset allocation for the life insurance business led to positive assumption changes.

In the economic variances for the French operations, the positive equity-type asset performance overcompensates for the negative effect from not accounting for liquidity premiums.

The main drivers behind experience variances were higher taxes and higher than anticipated bonuses to the policyholders due to competition.

In other operating variance, the effect of changing the model applied to the French health business from traditional embedded value to market consistent embedded value is included. The remaining impact comes mainly from the updated value of the French non-insurance companies.

The effects of exchange rate fluctuations of the euro against the Swiss franc are shown in the closing adjustments.

**GERMANY** – The non-accounting for liquidity premiums and the comparatively lower decrease of credit spreads are the main reasons for the negative economic variance.

Higher than anticipated policyholder participation resulted in negative experience variances.

The deviation in assumption changes has been mainly caused by updated persistency assumptions for group business as well as revised assumptions for profit sharing.

The deviations in other operating variance are related to a higher part of the total business in-force being modelled together with an enhanced modelling of the policyholder surrender behaviour and the integration of the use of free policyholder reserves (Freie RfB) in emergency situations.

The closing adjustments show a slight positive effect from the exchange rate fluctuation of the euro against the Swiss franc.

**INSURANCE OTHER** – Higher than anticipated surrender rates are the main reason behind the negative experience variance. This is related to the tax discussion between Liechtenstein and Germany and the recent economic environment.

The higher basis for assumed recurring expenses for Corporate Solutions decreased the MCEV and is included in the assumption variances. A negative effect included here is related to the decreased assumed persistency rates for PPLI.

Reviewed expense allocations within Corporate Solutions as well as an enhanced bonus fund projection are the main reasons for the other operating variance.

The higher than anticipated investment return in 2009 due to the recovering market conditions resulted in higher assets under control. This is one of the main drivers for PPLI's value in force and is reflected in the economic variances.

## 4 Methodology

### 4.1 MCEV COMPONENTS FOR COVERED BUSINESS

**NET ASSET VALUE (NAV)** – The net asset value is the market value of assets allocated to the covered business, which are not backing the liabilities from the covered business.

The net asset value is calculated as the statutory equity capital, adjusted by the unrealised gains or losses on assets covering the equity capital that are attributable to shareholders after taxes. Depending on local regulatory restrictions, equalisation reserves are also included in the net asset value. Intangible assets are not accounted for in the net asset value.

The net asset value is further split between the required capital (RC) and the free surplus (FS).

**REQUIRED CAPITAL (RC)** – The required capital is the market value of assets, attributed to the covered business – over and above that required to back liabilities for covered business – whose distribution to shareholders is restricted. Swiss Life bases the amount of required capital on 150% of the statutory solvency level according to Solvency I.

The amount of required capital disclosed is presented from a shareholders' perspective and thus is net of funding sources other than shareholder resources (such as subordinated loans or policyholders' share in unrealised gains).

**FREE SURPLUS (FS)** – The free surplus is the market value of any assets allocated to, but not required to support, the in-force covered business at the valuation date. The free surplus is calculated as the difference between the net asset value and the required capital.

The free surplus, unlike the required capital, is supposed to be immediately releasable and hence does not affect the frictional costs of required capital.

**VALUE OF IN-FORCE BUSINESS (VIF)** – The value of in-force business consists of the following components:

1. Certainty equivalent value (CEV)
2. Time value of financial options and guarantees (TVOG), including the cost of credit risk (see below)
3. Cost of residual non-hedgeable risks (CNHR)
4. Frictional costs of required capital (FC)

In the MCEV Principles, the term present value of future profits (PVFP) is used instead of certainty equivalent value.

Certainty equivalent value and time value of financial options and guarantees are items that involve balance sheet projections consisting of local statutory liabilities and assets in line with:

- Local legal obligations
- Company practice due to commercial and competitive constraints
- Local market practice in the calculation of embedded values

**CERTAINTY EQUIVALENT VALUE (CEV)** – The certainty equivalent value is defined as the present value of the future shareholders' statutory profits (net of tax) under the certainty equivalent scenario.

In this scenario, future market returns are determined as the forward rates implied in the reference rates at the valuation date. Discounting is done at the same reference rates. Consequently, the certainty equivalent value includes the intrinsic value of financial options and guarantees, but not the corresponding time value.

The rules for management and policyholders' actions applied in the certainty equivalent scenario are the same as those used for the stochastic projection used to determine the time value of financial options and guarantees.

**TIME VALUE OF FINANCIAL OPTIONS AND GUARANTEES (TVOG)** – The certainty equivalent value does not allow for the risk that the financial outcome for shareholders could differ from the one implied by the certainty equivalent scenario. This is of particular relevance when products or funds include guarantees or options for the policyholder such as:

- Guaranteed interest rates
- Profit sharing and "legal quotes"
- Maturity guarantees
- Guaranteed minimum death benefits
- Guaranteed annuity options
- Surrender options



For such products or funds, a stochastic projection has been run allowing for the range of possible scenarios for financial markets. The TVOG is calculated as the difference between the average present value of shareholder cash flows (profits or losses) and the certainty equivalent value, plus the cost for credit risk (see remarks on credit risk below). The TVOG therefore represents the additional market price of those financial options and guarantees in excess of the intrinsic value which are already allowed for in the certainty equivalent value.

At the end of the projection, shareholders are assumed to meet any shortfall of assets against liabilities or to receive a part of any residual assets. The same applies to the certainty equivalent value.

The cost of credit risk accounts for the credit risk of investments in bonds that would have otherwise been unaccounted for in other MCEV components. It is defined as the present value of charges on the projected economic capital for credit risk.

The initial economic capital for credit risk is defined as the impact on the present value of future profits corresponding to the 99% expected shortfall of the credit loss from the actual bond portfolio over 1 year, due to the migration and default risk. The underlying credit risk calculations are performed using an internal model based on the CreditMetrics<sup>2</sup> methodology.

Dependencies between credit risk and other financial risks have been modelled and lead to an increase in the capital for credit risk. No diversification with insurance risks (including surrender and expenses) has been allowed for.

The economic capital for cost of credit risk has been projected proportionally to the statutory solvency margin in the same way as for the CNHR (see below). The same charge for annual cost of capital has been applied to the resulting projected capital at risk.

**COST OF RESIDUAL NON-HEDGEABLE RISKS (CNHR) –** The cost of residual non-hedgeable risks for risk factors such as mortality, morbidity, expenses and lapse rates is

calculated under a cost of capital approach. It is defined as the present value of annual charges on the projected economic capital for residual non-hedgeable risk.

The initial capital for the CNHR has been calculated using the standard approach within the Swiss Solvency Test applied to Swiss Life's MCEV framework. Therefore the corresponding economic capital is calculated by aggregating the stand-alone economic capital that corresponds to the following non-hedgeable risk factors:

- Mortality
- Longevity
- Disability/morbidity
- Recovery rates
- Capital options
- Lapses
- Expenses

The economic capital for CNHR has then been projected proportionally to the statutory Solvency I margin.

A capital charge of 4% per annum has been 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.

In order to be consistent with the CFO Forum Principles, no diversification between hedgeable and non-hedgeable risks has been taken into account. Furthermore no diversification effects between market units have been accounted for.

**FRictional Costs of Required Capital (FC) –** The frictional costs of required capital for the covered business are defined as the present value of the costs incurred by shareholders due to investment via the structure of an insurance company (compared to direct investment as individuals), such as tax on profits generated by the insurance company or the costs of asset management. Other potential frictional costs such as agency costs or financial distress costs have not been taken into account in the frictional costs of required capital.

<sup>2</sup> Copyright © 2009 JPMorgan Chase & Co. All rights reserved.

#### 4.2 NEW BUSINESS

New business is defined as covered business arising from the sale of new contracts and from new covers to existing contracts during the reporting year, including cash flows arising from the projected renewal of those new contracts. Higher premiums in Swiss group life contracts from wage increases are not considered new business. The value of new business (VNB) reflects the additional value to shareholders created through the activity of writing new business during the reporting period.

The value of new business of a period represents the effect on the MCEV at the end of the period from writing new business, i.e., it is the difference between the actual closing MCEV and the closing MCEV which would result if no new business had been written during the period. This is known as the “marginal” approach to value of new business. It applies to every MCEV component: certainty equivalent value, TVOG, CNHR and FC. Legal constraints – e.g. “legal quotes” – or management rules often apply to books of contracts as a whole instead of individual contracts. That is why the value of new business can be dependent on the business in force before the writing of new business.

A “stand-alone” valuation for value of new business has been performed when the business in force is not affected by writing new business (for example for unit-linked contracts). In this case, the value of new business has been valued independently of the business in force.

The value of new business is calculated with economic scenarios and assumptions at end of period.

#### 4.3 ASSET AND LIABILITY DATA

All assets and liabilities reflect the actual positions as of the valuation date.

**ASSETS** – The asset model used for the calculation of the MCEV differentiates three main asset classes:

- Cash and fixed income instruments
- Equity-type investments (including real estate)
- Derivatives

All bonds and bond-like securities (such as mortgages) are modelled as fixed or floating government bonds. For all bonds, coupons and nominals have been recalibrated so that the valuation of the bonds using the reference yields converges to the observed market value.

Equities, real estate, participations and alternative investments (hedge funds and private equities) are modelled separately using appropriate indices according to the corresponding volatilities and the corresponding geographical regions (Switzerland, Europe and USA).

Actual initial market values of assets have been taken where available (“marked-to-market”), or estimated where there is no market (“marked to model”), for example by discounting unquoted loan and mortgage asset proceeds. Local regulatory and accounting frameworks (such as the amortisation of bonds or lower of cost or market principle) are incorporated in the model.

When a substantial part of the assets is held in foreign currencies, these foreign assets are modelled explicitly (including the foreign currency exchange risk).

**INSURANCE LIABILITIES** – Liabilities are calculated in line with local statutory requirements using individual policy data. For projection purposes, policies of the same product with similar risk profiles are grouped together to form model points.

**HYBRID DEBT** – The going-concern assumption stipulates that for MCEV the hybrid debt allocated to the covered business is valued assuming that the coupons and nominal are paid with certainty. The hybrid debt is valued in a market consistent way by discounting the corresponding liability cash flows with the reference rates without any credit spreads. This leads to a difference to the fair value reported in the Notes to the Consolidated Financial Statements.

#### 4.4 ECONOMIC SCENARIO GENERATOR

The MCEV is calculated using a risk-neutral valuation, based on market consistent and arbitrage-free stochastic economic scenarios. Under this approach, the key economic assumptions are:

- The reference swap rates
- Interest rate and equity-type volatilities
- Correlations between the economic risk factors
- Inflation rates

The stochastic economic scenarios are generated by the Economic Scenario Generator. This software was developed and provided by Barrie & Hibbert, a UK based financial consulting company.

Since the assets and liabilities within the Swiss Life Group are mostly denominated in Swiss francs, euros or US dollars, the economic scenarios model these three economies in a market consistent way. The exchange rates and dividend yields are modelled as additional risk factors, as well as the inflation rates in each economy.

For the calculation of the MCEV and the value of the new business as at valuation date, 2000 economic scenarios (also referred to as simulations) are used, ensuring a satisfying convergence of the models for all market units. For the calculation of the sensitivities and some steps in the movement analysis, some market units use fewer scenarios in connection with variance reduction techniques.

#### 4.5 DYNAMIC MANAGEMENT ACTIONS AND POLICYHOLDER BEHAVIOUR

Dynamic management actions and policyholder behaviour mainly concern the following areas: profit sharing for participating life businesses, asset allocation and realisation of gains and losses, and assumed policyholder behaviour with regards to their contractual options. They are dependent on the time period, economic scenario considered, local regulations and type of business.

The crediting rules for policyholders are consistent with current company practices and local regulatory environments, in particular regarding the existence of a “legal quote”. They ensure that the statutory solvency rules (Solvency I, including stress tests if legally required in the country), other legal requirements and target solvency margins are fulfilled for each projection year.

The rules for future asset allocations are consistent with going-concern assumptions. Asset realignment avoids deviating from the strategic asset allocation by more than a predefined margin and takes place after each projected year.

Lapse rates from policyholders have been dynamically modelled, depending on the difference between the credited rate to the policyholders and the policyholders’ expectations, which are based on benchmark market interest rates. Lapse parameters depend on the country and product line considered.

#### 4.6 LOOK-THROUGH PRINCIPLE

MCEV guidance requires that profits or losses incurred in service companies from managing covered business are measured on a “look-through” basis. This principle ensures that all profits and losses incurred with regard to the covered business are passed to the corresponding entity, and consequently passed to the present value of future profits.

Look-through adjustments are applied on the asset management services and corporate centre costs. The future profits or losses taken into account for this adjustment are those linked to the insurance business, after “legal quote” and taxes.

#### 4.7 CONSOLIDATION

The Group MCEV for Swiss Life comprises MCEV results for covered business and IFRS net asset values for non-covered business. Covered business comprises all relevant life insurance entities; non-covered business all other entities within the Swiss Life Group.

Covered business relates to the insurance operations in:

- Switzerland
- Germany
- France: consolidated, including life and health business
- Luxembourg
- Liechtenstein

The sum of all market consistent embedded values for the market units of the covered business forms the total MCEV for covered business.

Non-covered business comprises all other entities of the Swiss Life Group that are valued as the unadjusted IFRS net asset value on a consolidated level, such as the distribution unit AWD or investment management, financing and holding companies. Non-covered business is added to the MCEV results from the covered business to form the Group MCEV.

For future MCEV publications, other units – such as Swiss Life Products (Luxembourg) S.A. and Swiss Life Insurance Solutions AG – will be included under covered business as soon as their MCEV is significant.

#### **4.8 EMPLOYEE PENSION SCHEMES AND SHARE-BASED PAYMENT PROGRAMMES**

Allowance is made for gains or losses arising from the defined benefit pension plans for Swiss Life's own employees. The effects are modelled as respective expenses in the projections. In Switzerland there is no need for separate projection of expenses as the pension scheme for own employees is included in the portfolio as an insurance contract. In other units the major part of the effect is covered by external insurance contracts. The rest is based on best estimates.

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

## 5 Assumptions

### 5.1 ECONOMIC ASSUMPTIONS

The market-consistent calibration of the economic scenarios is provided by Barrie & Hibbert and is based on traded market instruments at the valuation date wherever possible. This includes nominal and real yield curves, interest rate volatility and equity volatilities. Where market data has not been available or the market has not been liquid enough, the model calibration has been based on best estimate assumptions. This includes notably correlations, exchange rate volatilities and real estate volatility.

**5.1.1 REFERENCE RATES** – The reference rates used for the calculation of the MCEV 2009 are based on the swap rates as at 31 December 2009.

The MCEV principles permit the use of liquidity premiums. Given the continued development of a suitable methodology to quantify liquidity premiums, Swiss Life decided to set liquidity premiums at zero for the calculation of the MCEV 2009.

#### 5.1.1.1 SWAP RATES AS AT 31 DECEMBER 2009

Economy	1 year	2 year	5 year	10 year	15 year	30 year
Switzerland	0.49%	0.87%	1.71%	2.50%	2.85%	2.83%
Euro Zone	1.31%	1.88%	2.81%	3.59%	3.96%	3.94%
United States	0.66%	1.43%	2.98%	3.97%	4.36%	4.53%

The reference rates used for the calculation of the MCEV 2008 include an additional liquidity premium of 65 basis points for Switzerland, and 50 basis points for France, Germany and Luxembourg. Swiss Life has considered

that the spreads on debt securities for liquidity risks cannot be ignored in the disorderly market conditions observed at the end of 2008.

#### 5.1.1.2 SWAP RATES AS AT 31 DECEMBER 2008

Economy	1 year	2 year	5 year	10 year	15 year	30 year
Switzerland	0.80%	1.11%	1.96%	2.61%	2.79%	2.44%
Euro Zone	2.55%	2.76%	3.24%	3.74%	3.90%	3.54%
United States	1.29%	1.45%	2.16%	2.57%	2.81%	2.72%

**5.1.2 VOLATILITY ASSUMPTIONS** – Volatility assumptions for the year-end 2009 calculations are derived from market data as at 31 December 2009. In the absence of deep and liquid markets as at 31 December 2008, the volatility assumptions for interest rates and equities, used for the calculation of the MCEV 2008, are based on averages of implied volatilities observed during the year 2008 at the end of each quarter.

The interest rate volatilities are based on implied volatilities of at-the-money receiver swaptions. The tenors are 20 years for the euro and the US dollar and 10 years for the Swiss franc.

## 5.1.2.1 SWAPTION IMPLIED VOLATILITIES AS AT 31 DECEMBER 2009

Economy	1 year option	2 year option	5 year option	10 year option	15 year option	30 year option
Switzerland	27.4%	25.1%	21.7%	19.9%	n/a <sup>1</sup>	n/a <sup>1</sup>
Euro Zone	21.0%	20.5%	17.4%	15.6%	16.2%	16.5%
United States	25.9%	24.7%	20.6%	16.3%	14.3%	12.5%

<sup>1</sup> n/a: not available

## 5.1.2.2 INTEREST RATE VOLATILITIES USED FOR THE CALCULATION AS AT 31 DECEMBER 2008

Economy	1 year option	2 year option	5 year option	10 year option	15 year option	30 year option
Switzerland	19.4%	17.8%	15.6%	15.0%	14.7%	10.4%
Euro Zone	17.0%	15.6%	13.9%	13.3%	13.4%	12.3%
United States	26.6%	23.9%	20.0%	16.0%	14.9%	13.4%

The equity implied volatilities are derived from the 10-year at-the-money equity put option prices.

## 5.1.2.3 EQUITY OPTION IMPLIED VOLATILITIES USED FOR THE CALCULATION AS AT 31 DECEMBER 2008 AND 31 DECEMBER 2009

Economy	Index	Volatility	Volatility
		2009	2008
Switzerland	SMI	23.7%	27.6%
Euro Zone	Eurostoxx	28.6%	29.5%
United States	S&P 500	29.0%	29.6%

The property volatilities are based on best estimate assumptions.

## 5.1.2.4 PROPERTY VOLATILITIES USED FOR THE CALCULATION AS AT 31 DECEMBER 2008 AND 31 DECEMBER 2009

Economy	Volatility	Volatility
	2009	2008
Switzerland	10.0%	10.0%
Euro Zone	15.0%	15.0%

**5.1.3 CORRELATION ASSUMPTIONS** – The correlation assumptions between different asset classes are based on historical market data. The correlations between returns on equities and on 10-year zero coupon bonds are assumed to be 16% for 2009.

**5.1.4 INFLATION ASSUMPTIONS** – The inflation assumptions have been derived from inflation-linked bond prices, where inflation-linked bonds are traded. For the Swiss economy, the real interest rate model is calibrated on the inflation forecast by Consensus Economics, an international economic survey organisation.

## 5.1.4.1 FORWARD INFLATION RATES USED FOR THE CALCULATION AS AT 31 DECEMBER 2009

Economy	1 year	2 year	5 year	10 year	15 year	30 year
Switzerland	0.6%	0.6%	1.0%	1.9%	2.2%	1.6%
Euro Zone	1.7%	2.0%	2.1%	2.8%	3.2%	2.5%

## 5.1.4.2 FORWARD INFLATION RATES USED FOR THE CALCULATION AS AT 31 DECEMBER 2008

Economy	1 year	2 year	5 year	10 year	15 year	30 year
Switzerland	0.9%	1.8%	3.6%	4.1%	3.5%	1.9%
Euro Zone	0.8%	0.7%	1.0%	2.2%	2.5%	2.0%

## 5.2 TAXATION AND LEGISLATION

Tax assumptions have been set in line with the local tax regime. Tax losses carried forward are considered in the projections. Taxation rules are based on individual com-

panies' total results. Tax impact of future new business has not been allowed for. The following table 5.2.1 shows the corporate tax rates applied.

## 5.2.1 TAX ASSUMPTIONS

	2009	2008
Switzerland	22.3%	22.3%
France	34.4%	34.4%
Germany	32.6%	32.6%
Luxembourg	22.0%	22.0%
Liechtenstein	13.0%	13.0%

## 5.3 OPERATING ASSUMPTIONS

Non-economic assumptions such as mortality, morbidity and lapse rates have been determined by the respective business units based on their best estimate as at the valuation date. Best estimate assumptions are set by considering past and current experience.

Expense assumptions are reconciled with past and current experience. They do not account for future cost reductions. All the expected expense overruns affecting the covered business, such as overhead expenses and development costs in new markets have been allowed for in the calculations. Corporate costs are included in the expenses of market units by means of a look-through procedure (see section 4.6).

## 6 External Auditors' Statement

To the Board of Directors of  
Swiss Life Holding AG  
General-Guisan-Quai 40  
8002 Zürich

### Report of the Auditor on Embedded Value Report 2009

As requested, we have audited the accompanying Embedded Value Report 2009 of Swiss Life Group for the period ended 31 December 2009. The Embedded Value Report has been prepared in accordance with the Market Consistent Embedded Value ("MCEV") Principles issued in June 2008 and amended in October 2009 by the European Insurance CFO Forum as described in Section 1.

The Board of Directors of Swiss Life Holding AG is responsible for the preparation of the Embedded Value Report in accordance with the MCEV Principles as described in Section 1. Our responsibility is to express an opinion on the Embedded Value Report based on our audit.

We conducted our audit in accordance with Swiss Auditing Standards and with the International Standards on Auditing. Those Standards require that we plan and perform the audit to obtain reasonable assurance about whether the Embedded Value Report is free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures of the Embedded Value Report. An audit also includes assessing the principles used, significant estimates made by management, as well as evaluating the overall presentation of the Embedded Value Report. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the Embedded Value Report at 31 December 2009 has been properly prepared on the basis of the MCEV Principles. Without qualifying our opinion, we draw your attention to the fact that areas of non-compliance with the guidance underlying the MCEV Principles have been disclosed by Swiss Life Holding AG in accordance with G1.4 of the MCEV Principles.

This report has been prepared solely for the Board of Directors of Swiss Life Holding AG in accordance with the terms of our engagement letter. We do not, in giving this opinion, accept or assume responsibility for any other purpose or to any other person to whom this report is shown except where explicitly agreed by our prior consent in writing. This report does not extend to any financial statements of Swiss Life Holding AG.

PricewaterhouseCoopers AG

Peter Lüssi  
Audit expert

Michael Köhler

Zurich, 22 March 2010



## 7 Glossary and List of Abbreviations

**ANNUAL PREMIUM EQUIVALENT (APE)** – Volume measure for new business. Sum of regular premiums from new business +10% of single premiums on business written during the period.

**AVERAGE ANNUAL PREMIUM MULTIPLIER** – The average annual premium multiplier is determined as the difference between PVNBP and the new business single premiums, divided by new business annual premiums.

**BEST ESTIMATE ASSUMPTIONS** – A best estimate assumption should equal the mean estimate (probability weighted average) of outcomes of that risk variable.

**CERTAINTY EQUIVALENT SCENARIO** – Economic scenario under which asset returns are equal to the reference rates.

**CERTAINTY EQUIVALENT VALUE (CEV)** – Certainty equivalent value is defined as the present value of the future shareholders' statutory profits (net of tax) under the certainty equivalent scenario.

**CFO FORUM** – The CFO Forum is a high-level discussion group formed and attended by the Chief Financial Officers of major European listed, and some non-listed, insurance companies. Its aim is to discuss issues relating to proposed new accounting regulations for their businesses and how they can create greater transparency for investors. It published the MCEV Principles together with a detailed Basis for Conclusions on 4 June 2008 and an amendment in October 2009.

**COST OF CREDIT RISK** – The cost of credit risk accounts for the credit risk of investments in bonds that would otherwise have been unaccounted for in other MCEV components.

**COST OF RESIDUAL NON-HEDGEABLE RISKS (CNHR)** – The cost of residual non-hedgeable risks accounts for risk factors such as mortality, morbidity, expenses and lapse rates.

**COVERED BUSINESS** – The business to which the MCEV methodology has been applied, in line with the MCEV Principles. Covered business includes all of Swiss Life's major life, health and pension business.

**FREE SURPLUS (FS)** – The free surplus is the market value of any assets allocated to, but not required to support, the in-force covered business at the valuation date.

**FRICTIONAL COSTS OF REQUIRED CAPITAL (FC)** – The additional investment and taxation cost incurred by shareholders through investing required capital in the company compared to direct investment as individuals.

**GROUP MCEV** – The Group MCEV for Swiss Life comprises MCEV results for covered business and IFRS net asset values for non-covered business of the Swiss Life Group (as explained above under point 4.7).

**IFRS** – International Financial Reporting Standards

**“LEGAL QUOTE”** – Statutory minimum policyholder distribution ratio

**LOOK-THROUGH PRINCIPLE** – Method by which profits or losses from service companies within the Swiss Life Group, which are directly related to managing the covered business, are included in the MCEV and in the value of new business.

**MARKET CONSISTENT EMBEDDED VALUE (MCEV)** – Market consistent embedded value is a measure of the consolidated value of shareholders' interests in the in-force covered business of the Swiss Life Group.

**NET ASSET VALUE (NAV)** – The net asset value is the market value of assets, attributed to the covered business over and above that required to back liabilities for covered business.

**NEW BUSINESS MARGIN** – The value of new business divided by the present value of new business premiums (PVNBP) or divided by the annual premium equivalent (APE) respectively.

**NON-COVERED BUSINESS** – All business of the Swiss Life Group which is not accounted for under covered business, such as investment management and AWD, is included in the non-covered business of the Group MCEV by means of their IFRS net asset values.

**NON-TRADITIONAL BUSINESS** – Unit-linked-type contracts, with or without additional financial guarantees and policyholder options.

**OPERATING MCEV EARNINGS** – Change in MCEV and in Group MCEV in the reporting period after initial and closing adjustments, economic variances and other non-operating variances, as well as other movements in IFRS net equity.

**PRESENT VALUE OF NEW BUSINESS PREMIUMS (PVNBP)** – Volume measure for new business. It represents the present value of premiums from new business. It is the sum of single premiums and the present value of periodic premiums from new business.

**REFERENCE RATE** – The reference rates used for the calculation of the MCEV are based on the swap rates at the valuation date. For the year-end 2008, liquidity premiums were included in addition (see section 5).

**REQUIRED CAPITAL (RC)** – The required capital is the market value of assets, attributed to the covered business over and above that required to back liabilities for covered business, whose distribution to shareholders is restricted.

**TIME VALUE OF FINANCIAL OPTIONS AND GUARANTEES (TVOG)** – The TVOG represents the additional market price of those financial options and guarantees in excess of the intrinsic value of options and guarantees which is already allowed for in the certainty equivalent value.

**TOTAL MCEV EARNINGS** – Change in MCEV and in Group MCEV in the reporting period after initial and closing adjustments and other movements in IFRS net equity.

**VALUE OF IN-FORCE BUSINESS (VIF)** – The value of in-force business represents the net present value of future profits emerging from operations and assets backing liabilities, after accounting for TVOG, CNHR and FC.

**VALUE OF NEW BUSINESS (VNB)** – The value of new business reflects the additional value to shareholders created by writing new business during the reporting period.

**VARIABLE ANNUITIES** – Unit-linked contracts with additional guarantees and policyholder options.