

Allianz

Market Consistent Embedded Value Report

2009

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# 1 Introduction

## 1.1 Basis of Preparation

Embedded value (or “EV”) represents shareholders’ economic value of the inforce life and pension business of an insurance company, which is the value of the business written as of 31 December 2009. Future new business is not included.

Since 2008 Allianz discloses Embedded Value in line with the European Insurance CFO Forum Market Consistent Embedded Value (MCEV) Principles<sup>1</sup> (“the Principles”) which was launched in June 2008 and amended in October 2009. The projection of assets and liabilities applying market consistent economic assumptions ensures a consistent valuation of assets and liabilities. In addition an explicit allowance is made for residual non-hedgeable risk.

The revision of the MCEV principles by the CFO Forum as of October 2009 permits the potential inclusion of a liquidity premium in the reference rate. Allianz has not included a liquidity premium in the reference rate used for the results presented in the main disclosure, but has shown the impact of this as a sensitivity.

This document provides details on the results, methodology and assumptions used to calculate the 2009 embedded value for the Allianz Group in accordance with the disclosure requirements of the MCEV principles. As in previous years, we do not include look-through profits in our main values but provide them as additional information only, as we would like to retain a clear split between the segments in line with our primary IFRS accounts

Please see Appendix A for a detailed description of the MCEV methodology and Appendix E for a glossary of definitions and abbreviations.

The methodology and assumptions used to determine the 2009 embedded value results for the Allianz Group have been reviewed by Towers Watson. Their opinion is included in Section 4.

## 1.2 Covered Business

The business covered in embedded value figures includes all material Life/Health operations which are consolidated into the Life/Health segment of the IFRS accounts of Allianz Group worldwide. The main product groups are:

- Life and disability products including riders
- Deferred and immediate annuity products, both fixed and variable
- Unit-linked and index-linked life products
- Capitalization products
- Long term health products

All calculations are net of external reinsurance: results for individual regions are shown net of intra-group reinsurance with the value of such intra-group reinsurance being included in the total embedded value. Where debt is allocated to covered business, it is marked to current market value.

All results reflect the interest of Allianz shareholders in the life entities of the Group. Where Allianz does not hold 100% of the shares of a particular life entity a deduction is made for the corresponding minority interest<sup>2</sup>. Entities that are not consolidated into Allianz IFRS accounts, i.e. entities where Allianz only holds a minority, are not included in the 2009 MCEV results. In particular the company in India is not included.

The pension fund business written outside the Life/Health segment is also not included.

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<sup>2</sup> Minorities are evaluated as of 31.12.2009.

## 2 Overview of results

As of 31 December 2009 Allianz Group's total embedded value amounted to EUR 24,283mn, 94% more than published in 2008. The value of new business written in 2009 was EUR 613mn, EUR 357mn or 139% more than the value published in 2008.

MCEV Earnings for 2009 were EUR 10,920mn.

### 2.1 Embedded Value results

The table below shows the embedded value result split by its components: the net asset value and the value of inforce.

Exhibit 1

MCEV	2008	2009	change in 2009
	EUR mn	EUR mn	%
Net asset value	9,884	12,343	25%
Free surplus	-63	3,527	n/a
Required capital	9,946	8,816	-11%
Value of Inforce	2,662	11,940	349%
Present value of future profits	9,332	19,429	108%
Cost of options and guarantees	-4,296	-4,227	-2%
Cost of residual non-hedgeable risk	-1,009	-1,778	76%
Frictional Cost of required capital	-1,366	-1,485	9%
<b>MCEV</b>	<b>12,545</b>	<b>24,283</b>	<b>94%</b>

The embedded value as of 31 December 2009 was EUR 24,283mn, which is 94% higher than the value of EUR 12,545mn published in 2008, after a net capital inflow of EUR 601mn.

The material change in the embedded value during 2009 is in line with the recovery of markets after last year's distorted financial markets. Higher long term interest rates were the main driver for the recovery in Europe and Asia. In the USA the recovery was driven by narrowing credit spreads, higher interest rates and higher equity values.

The capital market improvements also resulted in lower capital requirements and higher free surplus. A capital injection in the USA further increased the free surplus.

The increase in the value of inforce was mostly due to the sharp increase of the present value of future profits reflecting narrowing credit spreads in the USA, overall higher long term interest rates and refined modeling of the crediting strategy in Germany. In 2008 Germany conservatively implemented the new profit sharing regulation (*Mindestzuführungsverordnung*) and in 2009 refined the strategy. This resulted in an increase of the present value of future profits.

The cost of options and guarantees remained similar to 2008 although interest rates moved away from guarantees. The main reason was the higher value of options and guarantees in the USA. As options and guarantees moved out of the money, their intrinsic value included in the present value of future profits reduced but their time value increased. Furthermore, certain indices that previously used historical volatilities now use current implied volatilities.

The increase in the cost of residual non-hedgeable risk was driven mainly by the increase in Germany where longevity risk capital requirements were included in the model. Furthermore the cost of capital charge increased from 3.6% to 4.5% (see Appendix B.2)

The details of the opening adjustments as well as the drivers for the change in embedded value during the year are explained in more detail in the following sections.

## 2.2 New Business

Allianz's value of new business in 2009 more than doubled since 2008 when the market turbulences distorted the results. The value is however still below the 2007 pre-crisis level due to unfavorable market conditions, particularly in the first half of 2009 and lower sales in the wake of the crisis.

Exhibit 2 shows the value of new business at point of sale. Please note that 2009 values are calculated using assumptions at the start of the quarter in which the business was sold whereas 2008 values were calculated based on year-end assumptions. Please refer to Appendix A.5 on our methodology for value of new business. The 2009 value of new business using year-end assumptions would be EUR 685mn.

Exhibit 2

### Value of New Business

	2008	2009	change in 2009
	EUR mn	EUR mn	%
<b>Value of New Business</b>	<b>256</b>	<b>613</b>	139%
New Business Margin <sup>1</sup>	0.8%	1.7%	0.9%-p
<i>Present value of new business premium</i>	33,812	36,416	8%
APE Margin <sup>2</sup>	6.8%	15.1%	8.3%-p
<i>Single Premium</i> <sup>3</sup>	18,611	21,966	18%
<i>Recurrent Premium</i>	1,898	1,847	-3%
<i>Recurrent premium multiplier</i> <sup>4</sup>	8	8	-2%

1) New business margin = Value of new business / Present value of future new business premiums

2) APE margin = Value of new business / (recurrent premium + single premium/10)

3) The single premium 2008 does not include following items for Germany:  
increase in quota share of co-insurance contract (EUR 95mn), Kapitalisierungsprodukt (EUR 341mn),  
certain special funds products (EUR 127mn) and Parkdepot business (EUR 813mn);  
In 2009 Parkdepot is excluded (EUR 1.766mn)

4) Recurrent Premium Multiplier = (PVNBP - single premium) / recurrent premium

New business volumes in 2009 were above the level achieved in 2008. The present value of new business premiums increased by 8% from EUR 33,812mn to EUR 36,416mn in 2009, the increase driven by the growth of single premium business. Germany and Italy experienced particularly high growth in single premium volumes.

The new business margin increased from 0.8% in 2008 to 1.7% overall in 2009. The margin improved to 2.4% in the second half of the year, however, on average, the margin was dampened by difficult market conditions, particularly in the first two quarters. The improved financial markets represented the main driver of the recovery. The USA contributed to the recovery by the re-pricing of products in the later quarters and the suspension of non-profitable products. The increase in volumes in Italy had a further impact on the overall increase in the margin due to the higher than average margins of their business.

Exhibit 3 below summarizes the analysis of change in the new business value from the value published in 2008 to the 2009 value. Additional details on the drivers for the change in each region can be found in the regional analysis in Section 3.

Exhibit 3

**Development of Value of New Business**

	Value of New Business	New Business Margin	Present Value of NB Premium
	EUR mn	EUR mn	EUR mn
<b>Reported Value as at 31 December 2008</b>	<b>256</b>	<b>0.8%</b>	<b>33,812</b>
Total initial adjustments	27	0.1%	146
<i>Change in Foreign Exchange</i>	18	0.1%	-81
<i>Change in Allianz interest</i>	9	0.0%	226
<b>Adjusted Opening Value as at 31 December 2008</b>	<b>283</b>	<b>0.8%</b>	<b>33,958</b>
Change in volume	13	0.0%	1,564
Change in business mix	5	0.0%	0
Change in assumptions	311	0.8%	895
<b>Value of new business as at 31 December 2009</b>	<b>613</b>	<b>1.7%</b>	<b>36,416</b>

The initial adjustments of the value of new business include:

- Change in foreign currency exchange rates (EUR 18mn), primarily driven by movements of the US Dollar and Korean Won.
- Change in Allianz interest (EUR 9mn) reflects the value of new business from the first time consolidation of Thailand.

The impact of assumption changes (EUR 311mn) is mostly due to higher interest rates.

For details on the regional development please refer to Section 3.



## 2.3 Analysis of MCEV Earnings

Exhibit 4 shows the change in embedded value and free surplus from the published value 2008 to the value as of 31 December 2009.

Exhibit 4

### Analysis of Earnings of Embedded Value

	Earnings on MCEV analysis			
	Free Surplus	Required Capital	ViF	MCEV
	EUR mn	EUR mn	EUR mn	EUR mn
<b>MCEV reported as at 31 December 2008</b>	<b>-63</b>	<b>9,946</b>	<b>2,662</b>	<b>12,545</b>
<i>Restatements</i>	537	-537	0	0
<b>Opening MCEV as at 31 December 2008</b>	<b>474</b>	<b>9,410</b>	<b>2,662</b>	<b>12,545</b>
Total opening adjustments	36	3	177	217
<i>Foreign Exchange Variance</i>	32	-32	163	163
<i>Acquired / Divested business</i>	3	36	14	54
<b>Adjusted Opening MCEV as at 31 December 2008</b>	<b>510</b>	<b>9,413</b>	<b>2,839</b>	<b>12,762</b>
Value of new business at point of sale	-57	0	669	613
Expected existing business contribution <i>reference rate</i>	280	0	607	887
Expected existing business contribution <i>in excess of reference rate</i>	902	0	346	1,248
Transfer from ViF and required capital to free surplus <i>on in-force at begin of year</i>	-373	470	-97	0
<i>on new business</i>	1,105	-305	-800	0
	-1,478	776	703	0
Experience variance	-41	39	213	210
Assumption changes	-37	35	-466	-468
Other operating variance	-12	-26	301	263
<b>Operating MCEV earnings</b>	<b>661</b>	<b>518</b>	<b>1,573</b>	<b>2,752</b>
Economic variances	1,635	-1,114	7,677	8,197
Other non operating variance	120	0	-150	-30
<b>Total MCEV earnings</b>	<b>2,416</b>	<b>-597</b>	<b>9,101</b>	<b>10,920</b>
Closing adjustments <i>Net capital movements</i>	601	0	0	601
<b>Closing MCEV as at 31 December 2009</b>	<b>3,527</b>	<b>8,816</b>	<b>11,940</b>	<b>24,283</b>

**Restatements** (EUR +/-537mn in free surplus / required capital). This contains a correction of the required capital and free surplus in France. For France the local solvency requirement exceeds the requirement from the economic capital. Local solvency rules in France allow the so-called *Reserve de Capitalisation* to be used as available funds to cover solvency requirements. This was previously only partially reflected in determining the required capital and was revised in 2009 (see 3.4.2).

#### The initial adjustments include the following changes:

- **Change in foreign currency exchange rates** (EUR +163mn). In particular, the US Dollar and Korean Won moved against the Euro. The changes led to an increase in embedded value.
- **Change in Allianz interest in the Group's life insurance companies** (EUR +54mn). This adjustment represents the change in Allianz Group's interest in its entities over the year. Thailand was consolidated for the first time in 2009, thereby adding EUR 54mn to embedded value.

The key components of the change in 2009 are as follows:

**Value of new business (VNB) written in the year (EUR 613mn)**

This represents the value of new business written in the year. The new business value at point of sale takes into account all expenses in connection with new business, including acquisition expense overruns. Additional details on the development of the value of new business are provided in Section 2.2.

- **Expected existing business contribution** is comprised of three elements.
  - **Expected existing business contribution with reference rates (EUR 887mn)** shows the **unwinding of the discount on embedded value with reference rates** used in the market consistent projection. For the inforce portfolio as at the start of the year, it contains notional interest on all embedded value components for one year using the start of the year assumptions. Since the required capital reflects the undiscounted capital requirement at the end of the year, there is no unwinding effect in this column. The risk-free interest earned on all assets backing the NAV directly increases the free surplus. The value of inforce increases as all future profits now require one year less discounting.

For the new business written during the year it contains the progression from point of sale until end of year based on point of sale assumptions.

In addition, this step contains the **release from risk with regard to options and guarantees and non-financial and residual non-hedgeable risks**. The margin for the year built into the valuation for uncertainty with regard to asymmetric financial risk and non-financial risk is released in this step.

The impact of this step has significantly reduced in comparison to the corresponding movement last year. The reason is the much lower start base and in particular the negative value of inforce in the US, due to the wide credit spreads in 2008. This reduction of existing business contribution based on the unwind of the reference rates is compensated by a much higher value in the next step:

- **Existing business contribution in excess of reference rates (EUR 1,248mn)** shows the additional earnings in embedded value consistent with management expectations for the business. In this step, based on normalized real world assumptions shown in Appendix C, risk premiums on equity, real estate and corporate bonds are expected to materialize in the first projection year 2009, whereas risk free assumptions are maintained unchanged for the further projection from 2010 onwards.

As mentioned in the previous step, the impact of this step is higher than in last year's movement particularly driven by the US, where the widening of credit spreads led to a negative projection of future profits. However when allowing for the expected materialization of credit spreads the expected profit is positive leading to a high positive variance in this step.

- **Transfer from value of inforce and required capital to free surplus** shows the effect of **the realization of the projected net profits** from the value of inforce to the net asset value. It reduces the value of inforce and increases the net asset value, but does not have any impact on the embedded value in total as it only contains the release of profits included in the value of inforce to the free surplus during the year. It also includes the projected release from required capital to free surplus.

This step is shown separately for inforce at the beginning of the period and new business written during the period. For new business, it shows the negative impact on free surplus projected to occur during the first year to the extent that initial expenses are higher than profits in the first year, and to the extent that these expenses cannot be covered through policyholder funds (EUR 703mn impact on value of inforce). The amount of additional required capital to be held for new business (EUR 776mn impact on required capital)

increases the strain on the free surplus at the point of sale. The **total strain from new business** on the free surplus is the combined impact of expense strain and initial capital binding, and this sums up to EUR 1,478mn negative impact on free surplus. Taking into account the acquisition expense overrun the new business strain increases to EUR 1,535mn.

- **Experience variances (EUR 210mn):** This item shows the impact of deviations of actual experience from expectations during the year regarding non-economic factors – for example higher or lower lapses, mortality, expenses, etc. This item contains various partially offsetting items which are explained in the regional section. The main impact is from the higher than expected premium increases in Germany. This item also includes the impact of one-off costs of EUR 38mn. The details for each region are described in Section 3.
- **Assumption changes (EUR -468mn):** Changes in non-economic assumptions such as those for lapses, mortality and expenses, which occurred during the year are included in the line items ‘Assumption changes’. The main drivers for this change are the higher expected holding cost due to higher proportional allocation to the life segment after the sale of Dresdner Bank, a change in assumptions on morbidity and lapse rates in Korea as well as higher expected expenses in France and Germany. The details for each region are described in Section 3.
- **Other operating variances (EUR 263mn)** include operating impacts not included above, such as management reaction to economic changes, e.g. changes in crediting and investment strategies. Further, model changes are included in this item. In 2009, this includes the impact from changes in the crediting and investment strategy in Germany, and the model improvements in France, USA and Germany. The details for each region are described in Section 3.

**Operating MCEV earnings:** This item shows the change of the adjusted opening MCEV due to all operating drivers listed above and amounts to EUR 2,752mn or 22% of adjusted opening MCEV.

- **Economic variances (EUR 8,197mn)** include the impact of changes in interest rates, the impact of actual development of financial markets as well as the impact of actual performance of the assets in the portfolio. It includes investment variances on new business from point of sale until end of year.

The significant increase in embedded value is due to the increase in interest rates with an embedded value impact of EUR +3.7bn, the rise in equity markets during the year with an impact of EUR +1.0bn, and the narrowing of credit spreads with an impact of EUR +3.4bn. Across all regions, economic variances in the year were positive. The largest impact is seen in the USA (EUR +4.0bn), where higher interest rates and narrowing credit spreads impacted both the options and guarantees and the present value of future profits, and Europe (EUR +3.5bn) where higher interest rates contributed to the significant increase in the present value of future profits. The details of the development per region are described in Section 3.

- **Other non-operating variances (EUR -30mn)** include mandatory regulatory changes and other changes in legislation.

**Total MCEV earnings:** This item summarizes the movements during the year due to all drivers listed above and amounts to EUR 10,920mn or 86% of the adjusted opening MCEV.

- **Closing adjustments: Net capital movement (EUR 601mn)** is net movement of dividends paid by and capital injections paid to our life companies. The US operations received a capital injection of EUR 1,045mn<sup>1</sup> in 2009 that was greater than dividends paid by other countries, hence the positive closing adjustment.

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<sup>1</sup> Based on FX as of 31 December 2009.

## 2.4 Movement of Free Surplus and projected distributable earnings

The movement analysis in Exhibit 4 shows the development of the free surplus during the year, i.e. the development of the capital over and above the capital required to run the business.

The **published value 2008** was EUR -63mn: As described in last year's disclosure the free surplus was temporarily distorted by the capital market conditions at year-end and while all entities are always capitalized to meet the higher of the local solvency capital or local market standard requirements, the internal risk capital requirement is met at the Group level. Temporary distortions in some markets will not immediately result in capital injections. A slightly negative free surplus at Group level at the end of 2008 is a consequence of ignoring available buffers in sufficiently capitalized entities to fill up requirements in entities temporarily below requirements. In 2009 with the recovery of capital markets the required capital decreased and the free surplus returns to a positive balance.

As described above the **initial adjustments** include a restatement of the free surplus and required capital in France to better reflect local solvency requirement. Since in the past the *Reserve de Capitalisation* was not fully taken into account as available source to back solvency capital, the required capital was overstated and the free surplus was understated.

The main drivers of the movement of the free surplus in the year are:

- Expected realization of profits and release of capital from inforce of EUR +2,287mn consisting of the expected business contribution at reference rate and in excess of reference rate as well as the transfer from VIF and required capital.
- New Business strain of EUR -1,535mn including acquisition expense overruns
- Economic and non-economic variances of EUR +1,665mn
- Net capital movements of EUR +601mn

The numbers above show that release of distributable earnings from the inforce business is more than sufficient to cover the new business strain. Only in the US and in Asia, where portfolios are still in growth phase, the projected release from inforce was not yet sufficient to cover the new business strain. The reasons are on the one hand acquisition cost overruns and on the other hand the fact that inforce business is still young and does not yet release required capital. With the growth and the maturing of these portfolios we expect that the expense strain on the new business written in these regions will decrease and inforce will release more distributable earnings also in these regions.

Exhibit 5 provides an overview of the expected maturity profile of distributable earnings from the current inforce book in the future. Free cash flows to shareholder are projected as the net of tax profits according to a deterministic best-estimate projection based on real-world economic assumptions as shown in Appendix C and the projected release of required capital. The following table shows the release of free cash flows to shareholders grouped in 5 year time buckets, where each bucket includes the undiscounted sum of these years. Please note that as we only show cash flows generated from the current inforce portfolio, they do not allow for any future new business strain nor future profits from additional layers of new business.

Exhibit 5

**Release of free Cash Flows to Shareholder**

	Free Cash Flows
	EUR mn
year 1-5	11,199
year 6-10	9,922
year 11-15	8,285
year 16-20	6,743
year 21-25	5,604
year 26-30	4,478
year 31-35	3,799
year 36-40	3,649
year 41-45	3,046
year 46-50	2,390
later than 50 year	6,379

Timing of the cash flows depends very much on the underlying portfolio, and varies over the Group. Within Allianz there are short term portfolios e.g. short term saving or protection, as well as long term portfolios, for example annuities. The overall long duration of liabilities is mainly driven by the block of long term traditional business in Germany. The projection shows stable earnings releases and return on capital over the whole projection of the policies.

The overall increase since 2008, is due to the new business written in 2009, the higher interest rate environment, which also has an impact on the real-world returns, but also, especially at the longer durations, reflects better modeling of the projected cash-flows in Germany whereby now, in line with the projection in the EV, unallocated reserves are fully used to support policyholder participation during the projection of the business, while in the past unallocated reserves were treated as orphan funds that only contributed to a proportional increase of investment returns as non-interest bearing funds.

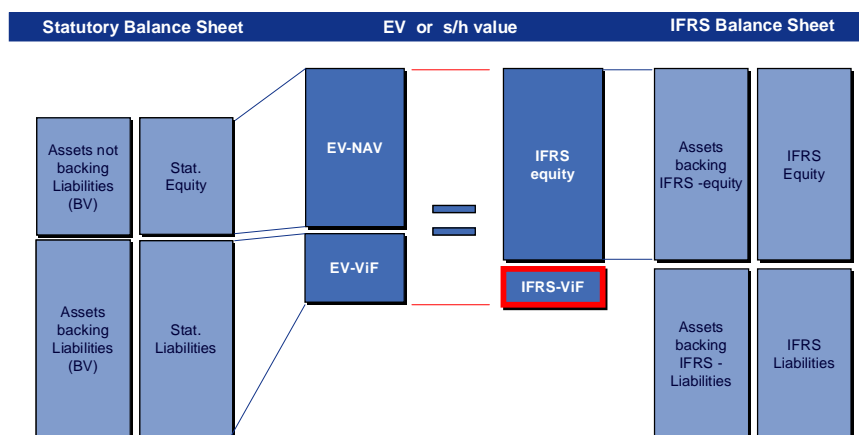
## 2.5 Shareholder value not accounted for in Group IFRS Equity and Group MCEV

Allianz Embedded Value reflects the value of shareholders' interest in the life business of Allianz Group. This value includes the determination of best estimate liabilities for bonus payments and tax payments, which are derived from results based on local statutory accounting rather than on the Group's IFRS profit and loss account (P&L). Therefore local balance sheet and P&L are the starting point for the embedded value projections of our subsidiaries.

However, the result of these calculations is a balance sheet reflecting the shareholder value of the inforce business. The accounting principles applied in the projection are required to determine realistic best estimate cash-flows. Apart from this, in the definition of embedded value the local balance sheet also determines the split of the total embedded value into net asset value, i.e. the value of the assets not backing liabilities which can also be interpreted as the equity component of the embedded value, and value of inforce i.e. the value of future profits emerging from operations and assets backing liabilities.

For Allianz Group's other segments, the shareholder value is derived from the Group's IFRS equity. Starting from the embedded value balance sheet we have determined the additional value not accounted for in IFRS equity i.e. the shareholder margin in our life business that has not yet been recognized in the Group equity. This additional value is referred to below as IFRS-VIF. As the impact of future new business is not included in the embedded value, we compare it to the IFRS equity for covered business excluding any goodwill.

For this exercise we analyzed the differences between the embedded value balance sheet and the IFRS-balance sheet, to determine elements that have been recognized in the IFRS-equity but not in the EV-NAV and vice versa.



The table below shows that of the EUR 11,940mn future related element of embedded value (i.e. PVFP less O&G less CNHR less CReC), EUR 8,161mn represents an economic value of the covered life insurance business that is not captured within the IFRS shareholders' equity:

Exhibit 6

**Additional Value not accounted for in IFRS equity**

	2008	2009
	EUR mn	EUR mn
<b>Value of Inforce</b>	<b>2,662</b>	<b>11,940</b>
Deferred acquisition cost / value of business acquired	-17,348	-15,194
Difference in IFRS reserves compared to statutory reserves	11,191	9,799
Shareholders' portion of unrealized capital gains included in PVFP	1,330	-3,150
Asset valuation differences	884	1,289
Other adjustments	1,797	3,477
<b>Additional value not accounted for in IFRS shareholders' equity</b>	<b>515</b>	<b>8,161</b>

The primary components of the table are as follows.

- **Deferred acquisition cost / value of business acquired (EUR -15,194mn)**  
 The excess of the IFRS amount of the deferred acquisition cost (DAC) and value of business acquired (VOBA) assets over the statutory levels included in the PVFP. DAC decreased from last year mainly due to the decrease of shadow adjustments in the USA.
- **Difference in IFRS reserves compared to statutory reserves (EUR +9,799mn)**  
 This reserve difference is shown after offsetting the policyholders' portion of any unrealized gains or losses and asset valuation differences. Aggregate IFRS life technical and unallocated profit sharing reserves exceed statutory reserves used in PVFP modeling. The main reason for this difference is that in many local statutory accounting models, instead of setting up a deferred acquisition cost asset, the reserves are reduced to reflect part of these acquisition costs, as per local regulation. This excess of IFRS reserves increases the value not accounted for in IFRS shareholders equity. The change from last year is related to the policyholder share of asset and liability valuation differences that have been captured under "other adjustments" rather than as unrealized gains for differences in reserves.
- **Shareholders' portion of unrealized capital gains included in PVFP (EUR -3,150mn)**  
 When projecting future profits on a statutory basis, the related profits/losses will include the shareholder value of unrealized capital gains/losses. To the extent that assets in IFRS are valued at market and the market value is higher/lower than the statutory book value, these profits/losses have already been taken into account in the IFRS equity.  
 This item was positive last year due to unrealized losses under local statutory accounting, and turned negative this year due to unrealized capital gains.
- **Asset valuation differences (EUR +1,289mn)**  
 This element is the shareholder value of the difference between market value and book value of assets (valued at IFRS book value).
- **Other Adjustments (EUR +3,477mn)**  
 This includes various items not included above related to differences in valuation under embedded value and IFRS. The increase from 2008 to 2009 is mainly due to an increase in deferred tax liabilities related to the change in unrealized gains. Besides it contains changes in other asset and liability positions, for example derivatives, that have not been captured under unrealized capital gains included in PVFP.

Based on the MCEV for the covered business and the IFRS equity for the non covered business the Allianz Group MCEV is shown in Exhibit 7.

Exhibit 7

Group MCEV	2008	2009
	EUR mn	EUR mn
IFRS equity for Allianz group (net of minorities)	33,684	40,166
Additional value not accounted for in IFRS shareholders' equity	515	8,161
Deduct Goodwill for Life/Health <sup>1)</sup>	-2,282	-2,286
<b>Group MCEV <sup>1)</sup></b>	<b>31,916</b>	<b>46,041</b>
<b>Covered business MCEV</b>	<b>12,545</b>	<b>24,283</b>
<b>IFRS equity non covered business &amp; financing adjustments</b>	<b>19,371</b>	<b>21,758</b>

1) MCEV principles require the inclusion of non covered business on an unadjusted IFRS basis, and therefore including Goodwill for non covered business. In 2008 disclosure Goodwill for non covered business of EUR 8,939 mn was excluded.

The Group MCEV as of 31 December 2009 was EUR 46,041mn, which is 44% higher than the value for 2008 of EUR 31,916mn. This increase is after a dividend payment to shareholders of EUR 1,580mn in 2009.

Exhibit 8 shows the analysis of earnings of Group MCEV in line with the methodology of the MCEV principles. "Non covered" includes all segments except for Life/Health, in particular it also contains the impact of Allianz Group's financing structure as well as consolidation effects between covered and non covered business. The analysis of earnings for non covered business is based on the IFRS income statement and balance sheet, specifically operating earnings for non covered business are based on IFRS operating profit. Due to the differences in definition of operating profit for IFRS applied to non covered business and operating earnings in MCEV for the covered business we do not show a total for operating earnings and non operating earnings separately.

Exhibit 8

Analysis of Earnings of Group MCEV

	Covered business MCEV	Non covered business & financing adj. IFRS	Total Group MCEV
	EUR mn	EUR mn	EUR mn
<b>Group MCEV reported as at 31 December 2008</b>	<b>12,545</b>	<b>10,432</b>	<b>22,977</b>
Inclusion of goodwill for non covered business		8,939	8,939
<b>Opening Group MCEV as at 31 December 2008</b>	<b>12,545</b>	<b>19,371</b>	<b>31,916</b>
Opening adjustments	217	494	711
<b>Adjusted Opening MCEV as at 31 December 2008</b>	<b>12,762</b>	<b>19,865</b>	<b>32,627</b>
Operating MCEV earnings <sup>1)</sup>	2,752	4,373	not meaningful
Non operating MCEV earnings <sup>2)</sup>	8,167	-523	not meaningful
<i>Non covered: IFRS net income</i>		2,297	
<i>Non covered: IFRS operating profit</i>		-4,373	
<i>Non covered OCI</i>		1,553	
<b>Total MCEV earnings</b>	<b>10,920</b>	<b>3,850</b>	<b>14,770</b>
Other movements in IFRS net equity	0	324	324
Closing adjustments <sup>3)</sup>	601	-2,282	-1,681
<b>Closing MCEV as at 31 December 2009</b>	<b>24,283</b>	<b>21,758</b>	<b>46,041</b>

1) For the non covered business Operating Profit of Allianz Group before Taxes and Minorities excluding the Segment LH is used as Operating MCEV earnings.

2) For the non covered business, the Non operating MCEV earnings are calculated as follows:  
 IFRS Net income after Taxes and Minorities of Allianz Group excluding the segment Life/Health  
 ./. IFRS Operating Profit of Allianz Group excluding the segment Life/Health  
 + Changes in OCI (Unrealized Gains / Losses) of Allianz Group excluding the segment Life/Health

3) Includes dividends paid from Allianz SE to shareholders (-1.580 mn Euro) and dividends paid from non covered business to covered business (-114 mn Euro) which are included in the Non operating MCEV earnings of the covered business.

Group MCEV increases by EUR 14,125mn which consists of the increase in covered business MCEV by EUR 11,738mn and the increase in non covered business by EUR 2,387mn. Non covered business grows from operating profit of EUR 4,373mn mainly from P/C business. The total movement of Group MCEV is reduced by capital movements reported as closing adjustments, which consist of dividends from Allianz SE to shareholders and net capital outflows from non covered to covered business. The latter are included in the non-operating MCEV earnings of the covered business.



## 2.6 Sensitivities

Sensitivity testing with respect to the underlying best estimate assumptions is an important part of embedded value calculations. Both economic and non-economic factors are tested. The same management actions and policyholder behavior have been assumed in the sensitivities as for the base case. It should be noted that the various sensitivities are in most cases correlated so that the impact of two events occurring simultaneously is not likely to be the sum of the outcomes of the corresponding tests. Where it has been determined that the impact of assumption changes is symmetrical, one-sided sensitivities are shown.

The numbers presented in the table below provide the sensitivity with regard to the primary economic and non-economic factors according to the MCEV Principles. The size of the assumption shifts are not indicative of what may or may not actually occur. In reality the factors will move in increments greater or smaller than those presented below.

Most sensitivities are significantly lower than they were in 2008 as a result of more favorable market conditions and interest rates that have moved away from guarantees.

Please note that to reduce complexity the sensitivity analysis for the value of new business has been carried out on a central value of new business recalculated using end of year assumptions.

Exhibit 9

Sensitivities	Inforce		New Business	
	MCEV	MCEV	VNB	VNB
	EUR mn	%	EUR mn	%
<b>Central Assumptions</b>	<b>24,283</b>	<b>100%</b>	<b>685</b>	<b>100%</b>
Required Capital equal to local solvency capital	583	2%	41	6%
<i>EV change by economic factors</i>				
Risk Free Rate -100bp	-4,720	-19%	-191	-28%
Risk Free Rate +100bp	2,308	10%	151	22%
Risk Free Rate -50 bp	-1,993	-8%	-96	-14%
Risk Free Rate +50 bp	1,349	6%	104	15%
Charge for CNHR +100bp	-395	-2%	-29	-4%
Equity and property values - 10%	-957	-4%	-12	-2%
Swaption volatilities +25%	-861	-4%	-40	-6%
Equity option volatilities +25%	-604	-2%	-31	-5%
Liquidity premium +10bp	797	3%	26	4%
<i>EV change by non-economic factors</i>				
Lapse Rates -10%	315	1%	67	10%
Maintenance Expenses -10%	698	3%	58	8%
Mortality -5% for products with death risk	179	1%	16	2%
Mortality -5% for products with longevity risk	-262	-1%	-20	-3%

A breakdown of the sensitivity results by region is provided in Section 3.

- **Sensitivity to capital requirement**

Using only local solvency capital requirements to determine the required capital instead of the internal required capital reduces the necessary capital and the frictional cost of holding required capital. However, for several companies the capital requirement is already determined by the local statutory requirement and therefore the embedded value increases by only EUR 583mn or 2%.

- **Sensitivity to a decrease/increase of the underlying market risk free rates**

This sensitivity shows by how much the embedded value would change if market interest rates in the different economies would fall/rise. The sensitivity is designed to indicate the impact of a sudden parallel shift in the risk-free yield curve, accompanied by a shift in all economic assumptions including discount rates, market values of fixed income assets as well as equity and real estate return assumptions. Due to the asymmetric and non-linear impact of embedded financial options and guarantees, falling market rates have a higher impact on embedded value than rising interest rates and the impact increases for each further step down.

As shown above a shift of -100bps in interest rates causes a reduction of the Group's embedded value by EUR 4,720mn or 19%. This is significantly lower than the corresponding impact shown for 2008 as risk free rates have risen for all economies and are now further from guarantees. In addition, as a result of improved equities, larger buffers are available to absorb interest rate shocks. The value of new business decreases by EUR 191mn. This is lower than the effect in 2008 mainly due to interest rates being further from current guarantees on new business.
- **Sensitivity to an increase in the charge for residual non-hedgeable risk by 100 bps**

The effect of increasing the capital charge for residual non-hedgeable risk by 100bps decreases the embedded value by EUR 395mn. This sensitivity has increased since 2008 due to the increased capital. Please see Sections A.4.3 and B.2 for an explanation of the cost of residual non-hedgeable risk.
- **Sensitivity to a decrease in equity/property values at the valuation date by 10%**

This sensitivity is designed to indicate the impact of a sudden change in the market values of equity and property assets. Since the modeled investment strategies take into account a certain target allocation based on market value, this shock may lead to a rebalancing of the modeled assets at the end of the first year, when defined boundaries for each asset class are exceeded.

A drop of equity values by 10% reduces embedded value by EUR 957mn and the sensitivity is lower than the level shown for 2008, as equity share has reduced.
- **Sensitivity to an increase in volatilities for fixed income and for equity incl. real estate by 25%**

This sensitivity shows the effect of increasing all volatilities, i.e. swaption implied volatilities, and equity option implied volatilities including real estate volatility, by 25% of the assumed rate. As an increase in volatilities leads to a higher time value of options and guarantees for traditional participating business, embedded value decreases by EUR 861mn or 4% for an increase in swaption implied volatility and by EUR 604mn or 2% for an increase in equity option implied volatility. This sensitivity decreased from last year due to interest rates and equities being further away from guarantees.
- **Sensitivity to a liquidity premium of 10bps**

Revised CFO Forum MCEV Principles issued in October 2009 allow the application of a liquidity premium. As, by year-end, there was no consensus amongst CFO Forum members on the implementation, Allianz continues to calculate its embedded value without a liquidity premium. To aid comparison with peers, the CFO Forum has recommended a liquidity premium sensitivity of 10bps. The liquidity premium is not applied to unit-linked and variable annuity business. The application of the liquidity premium increases embedded value by EUR 797mn.
- **Sensitivity to a decrease in lapse rates by 10%**

The impact of a 10% proportionate decrease in projected lapse rates is an increase in embedded value of EUR 315mn or 1%. This impact increased from last year in line with the overall increase of value of inforce.
- **Sensitivity to a decrease in maintenance expenses by 10%**

The impact of a 10% decrease in the projected expenses on embedded value is EUR 698mn or 3% as future projected profits would increase. This sensitivity is similar to last year.

- **Sensitivity to a decrease in mortality and morbidity rates by 5%**

This sensitivity shows the impact of a decrease of mortality and morbidity rates of 5%. Higher mortality has a negative impact in products with mortality risk (e.g. endowments and term life products) and a positive impact in products with longevity risk (life annuities). Since the future experience for the different insured populations in the two product groups might vary significantly the impact of this sensitivity is shown separately. For products with mortality risks the impact of decrease in mortality rates by 5% leads to an increase of EUR 179mn or 1%. The impact on products with longevity risk is a decrease in value of EUR 262mn or 1%. This impact is on a low level, as this is mitigated by the ability to share technical profit and hence the sensitivity to longevity risk is low.

### 3 Regional analysis of Embedded Value

#### 3.1 Overview

The following tables provide an overview of the contribution of the various operating entities and regions to the embedded value results and to the value of new business of Allianz Group. A detailed analysis for each region is provided in the following sections.

The regions are defined as follows:

- **Germany Life** includes Allianz Lebensversicherungs AG; its subsidiaries are included at equity.
- **Germany Health** consists of the German Health entity Allianz Private Krankenversicherung
- **France** includes the life entities of Allianz France.
- **Italy** includes the life entities of Allianz Italy including the Irish subsidiary.
- **Western Europe** is comprised of the remaining entities in Western Europe including operations in Switzerland, Austria, Allianz Seguros and Allianz Eurovida in Spain, Belgium, Netherlands, Portugal, Greece, Egypt, Turkey and now also includes Allianz Global Life Ltd. (GLU).
- **New Europe** is made up of the entities in Central and Eastern Europe including operations in Slovakia, Poland, Hungary, Czech Republic, Croatia, Romania and Bulgaria.
- **USA** consists of Allianz Life of North America.
- **Asia** includes the consolidated Asian operations in Korea, Taiwan, Japan, China, Indonesia and Malaysia and now for the first time includes Thailand.
- **Holding** includes the impact of holding costs and intra-group reinsurance.

Exhibit 10 provides an overview of the 2009 embedded value by region and a break down of the components:

Exhibit 10

#### Embedded Value Results by region

	Germany Life	Germany Health	France	Italy	Western Europe	New Europe	USA	Asia	Holding	Total
	EUR mn	EUR mn	EUR mn	EUR mn	EUR mn	EUR mn	EUR mn	EUR mn	EUR mn	EUR mn
<i>Net asset value</i>	1,739	325	2,065	1,939	2,274	342	2,787	773	99	<b>12,343</b>
Free surplus	594	73	784	984	813	213	422	-362	8	<b>3,527</b>
Required capital	1,145	252	1,281	956	1,461	130	2,365	1,135	91	<b>8,816</b>
<i>Value of In-force</i>	6,416	1,163	2,153	1,169	1,024	386	-38	15	-349	<b>11,940</b>
Present value of future profits	9,563	1,390	3,156	1,525	1,805	479	1,238	590	-318	<b>19,429</b>
Cost of options and guarantees	2,236	0	443	163	393	38	847	106	0	<b>4,227</b>
Cost of residual non-hedgeable risk	657	43	252	110	231	46	140	298	0	<b>1,778</b>
Frictional Cost of required capital	254	183	309	82	157	9	289	171	31	<b>1,485</b>
<b>MCEV</b>	<b>8,155</b>	<b>1,488</b>	<b>4,218</b>	<b>3,109</b>	<b>3,298</b>	<b>728</b>	<b>2,749</b>	<b>788</b>	<b>-250</b>	<b>24,283</b>
in % of total Embedded Value	34%	6%	17%	13%	14%	3%	11%	3%	-1%	100%
<b>Value of In-Force by product type</b>										
<i>Traditional</i>	5,940	1,163	1,846	798	656	230	-213	-451	-356	9,612
<i>Unit Linked</i>	465	0	308	366	366	150	-650	355	7	1,367
<i>Index Linked</i>	11	0	0	6	2	5	825	111	0	960

The MCEV for the European region is EUR 20,996mn. As a result of increased interest rates in Europe the MCEV increased by EUR 4,872mn. The improvement is much larger in the USA, where narrowing of credit spreads increased the value to EUR 2,749mn in 2009 and in Asia where interest rate increases resulted in an increase in the MCEV to EUR 788mn.

Negative free surplus in Asia arises from the operation in Taiwan as locally deployed capital is less than the risk capital required before group diversifications.

Exhibit 11 provides an overview of the ratios between required capital and reserve / solvency requirement.

Exhibit 11

**Required capital**

	2008			2009		
	Required Capital EUR mn	% of Reserve	% of Solvency Requirement	Required Capital EUR mn	% of Reserve	% of Solvency Requirement
Germany Life	1,100	1.0%	n/m	1,145	0.9%	n/m
German Health	244	1.4%	140%	252	1.4%	140%
France	1,773	3.1%	100%	1,281	2.1%	100%
Italy	868	2.9%	100%	956	2.9%	100%
Other Western Europe	1,878	7.2%	157%	1,461	5.2%	135%
New Europe	161	7.2%	150%	130	5.1%	110%
USA	2,160	4.8%	297%	2,365	4.8%	421%
Asia	1,688	17.0%	450%	1,135	8.3%	339%
Allianz Re	74	5.2%	100%	91	6.6%	100%
<b>Total</b>	<b>9,946</b>	<b>3.3%</b>	<b>188%</b>	<b>8,816</b>	<b>2.7%</b>	<b>191%</b>

Required capital decreased by EUR 1,130mn to EUR 8,816mn in 2009. The decrease is mostly driven by lower requirements in Asia and other Western Europe due to the impact of a higher value of inforce as available source to cover risk capital following the recovery of financial markets. The correction to the capital requirements in France (described in France's regional analysis) also contributed to the decrease in required capital. The increase in other regions is in line with growth of business.

Please note that for Germany additional capital on top of Allianz's internal required capital and solvency capital was allocated to better reflect local market standards. The required capital proportional to the reserve is still low due to high policyholder resources admissible for solvency purposes and the high value of inforce available as an eligible source of capital for internal capital purposes. Please see Appendix A.3 on the required capital definition.

Exhibit 12 provides an **overview over the new business values 2009**, the split by product type and the most important KPIs by region:

Exhibit 12

**New Business Value at point of sale by region**

	Germany Life	Germany Health	France	Italy	Western Europe	New Europe	USA	Asia	Holding	Total
	EUR mn	EUR mn	EUR mn	EUR mn	EUR mn	EUR mn	EUR mn	EUR mn	EUR mn	EUR mn
<b>New Business Value</b>	<b>340</b>	<b>16</b>	<b>113</b>	<b>124</b>	<b>77</b>	<b>54</b>	<b>-110</b>	<b>71</b>	<b>-73</b>	<b>613</b>
in % total VNB	56%	3%	18%	20%	12%	9%	-18%	12%	-12%	100%
<b>New Business Margin</b>	<b>3.5%</b>	<b>1.8%</b>	<b>1.9%</b>	<b>2.2%</b>	<b>2.3%</b>	<b>5.4%</b>	<b>-1.8%</b>	<b>2.0%</b>	<b>n/a</b>	<b>1.7%</b>
Present value of NB premium	9,817	886	6,097	5,615	3,376	1,003	6,111	3,512	0	36,416
APE Margin <sup>2</sup>	37.3%	20.7%	19.8%	19.8%	19.8%	41.1%	-17.7%	9.9%	n/a	15.1%
Single Premium <sup>3</sup>	3,773	0	4,052	4,578	1,634	535	5,905	1,489	0	21,966
Recurrent Premium	535	77	166	168	223	77	30	571	0	1,847
Recurrent premium multiplier <sup>4</sup>	11	12	12	6	8	6	7	4		8
<b>New Business Value by product type</b>										
Traditional	302	16	106	70	64	35	-44	40	-73	516
Unit Linked	38	0	7	54	13	19	-58	15	0	88
Index Linked	0	0	0	0	0	0	-8	16	0	9
<b>New Business Margin by product type</b>										
Traditional	3.3%	1.8%	1.9%	1.9%	2.3%	5.0%	-7.2%	3.3%	n/a	2.1%
Unit Linked	5.4%	n/a	1.2%	2.9%	2.3%	6.3%	-3.4%	0.9%	n/a	1.2%
Index Linked	n/a	n/a	n/a	n/a	0.0%	5.7%	-0.2%	2.5%	n/a	0.2%

1) Index Linked in the US also includes a small block of fixed annuity products

2) APE margin = Value of new business / (recurrent premium + single premium/10)

3) The single premium for Germany Life in 2009 does not include Parkdepot (EUR 1,766mn)

4) Recurrent Premium Multiplier = (PVNBP - single premium) / recurrent premium

New business volumes in 2009 were above the level achieved in 2008. The present value of new business premiums increased by 8% in 2009. The increase was driven by the growth of single premium business with particularly high growth in Germany and Italy. This growth was further supported by the recovery of sales in Asia which overall compensates for lower volumes in France and the USA.

New business margins have been increasing over the year, but are still impacted by the economic conditions particularly during the first two quarters. New business margins of the growth markets in Asia have improved.

In the USA the new business margin improved due to the recovery of capital markets and product management that included the re-pricing of fixed- and indexed annuity products during the year and the suspension of variable annuity products in the first quarter. The new business margin on first quarter sales was negative. The margin turned positive in the second half after the launch of re-designed variable annuity riders.

For more detailed information on each region please refer to the regional analysis in the following sections.

## 3.2 Germany Life

In 2009, the embedded value for Allianz Germany Life improved essentially due to increased long term interest rates and equity values, which also explains the improved new business value. New business volume remained high and Germany continued to contribute significantly to total value added in the Group.

### 3.2.1 Development of Value of New Business

The value of new business written in Germany in 2009 was EUR 340mn, which is 13% higher than the published value for 2008. The new business margin increased from 3.3% to 3.5%. Exhibit 13 shows an analysis of the change in new business value:

Exhibit 13

#### Movement of Value of New Business - Germany Life

	Value of New Business	New Business Margin	Present Value of NB Premium
	EUR mn	%	EUR mn
<b>Reported Value as at 31 December 2008</b>	<b>300</b>	<b>3.3%</b>	<b>9,033</b>
Change in volume	0	0.0%	-13
Change in business mix	-9	-0.1%	0
Change in assumptions	50	0.2%	798
<b>Value of new business as at 31 December 2009</b>	<b>340</b>	<b>3.5%</b>	<b>9,817</b>

Volumes in 2009 remained at the high levels of 2007 and 2008 despite the economic crisis. The increase in single premium production compensated for the decline in recurring premium sales.

The main drivers of the higher value of new business were the improved capital markets, corrected lapse rates and the inclusion of the *Kapitalisierungsprodukt* in the reporting scope. The impacts are shown in “change in assumptions”. The change in present value of new business premium is essentially due to the inclusion of the *Kapitalisierungsprodukt*.

### 3.2.2 Development of Embedded Value and Free Surplus

The embedded value for Allianz Germany Life increased from EUR 5,308mn to EUR 8,155mn after a dividend payment of EUR 356mn.

The movement analysis in Exhibit 14 summarizes the main drivers for the change in embedded value of Allianz Germany Life.

Exhibit 14  
**Analysis of Earnings of Embedded Value - Germany Life**

	Earnings on MCEV analysis			
	Free Surplus	Required Capital	ViF	MCEV
	EUR mn	EUR mn	EUR mn	EUR mn
<b>MCEV reported as at 31 December 2008</b>	<b>406</b>	<b>1,100</b>	<b>3,801</b>	<b>5,308</b>
<i>Restatements</i>	-1	-1	0	-2
<b>Adjusted Opening MCEV as at 31 December 2008</b>	<b>405</b>	<b>1,099</b>	<b>3,801</b>	<b>5,305</b>
<b>Value of new business at point of sale</b>	<b>0</b>	<b>0</b>	<b>340</b>	<b>340</b>
Expected existing business contribution <i>reference rate</i>	47	0	332	379
Expected existing business contribution <i>in excess of reference rate</i>	-8	0	144	135
Transfer from VIF and required capital to free surplus <i>on in-force at begin of year</i>	415	49	-464	0
<i>on new business</i>	-200	40	160	0
<b>Experience variance</b>	<b>24</b>	<b>0</b>	<b>245</b>	<b>269</b>
<b>Assumption changes</b>	<b>0</b>	<b>0</b>	<b>-37</b>	<b>-37</b>
Other operating variance	1	0	-126	-126
Operating MCEV earnings	478	49	434	961
<b>Economic variances</b>	<b>67</b>	<b>-3</b>	<b>2,221</b>	<b>2,285</b>
Other non operating variance	0	0	-40	-40
Total MCEV earnings	545	46	2,615	3,206
Closing adjustments <i>Net capital movements</i>	-356	0	0	-356
<b>Closing MCEV as at 31 December 2009</b>	<b>594</b>	<b>1,145</b>	<b>6,416</b>	<b>8,155</b>

The restatement reflects Allianz Global Life that is no longer reported under Allianz Germany Life. This leads to a lower opening value.

The MCEV earnings were 60% of the adjusted opening value. The main drivers of the earnings were the economic variances, reflecting the impact of the rise in long term interest rates and equity markets.

Earning the risk free investment return on the inforce portfolio increased embedded value by EUR 379mn, expected returns in excess of risk free rates increased embedded value by a further EUR 135mn.

The new business strain was EUR 200mn. The new business strain is low compared to other markets and reflects the impact of the German open-fund business model, where new business and inforce portfolio are managed as a single fund. This structure allows for the offset of new business strain against technical profits from the inforce portfolio before policyholder profit sharing.

Experience variances mainly reflect the positive impact from higher than expected premium increases. Assumption changes reflect higher expected expenses.

Other operating variances shows the positive effect of a change in crediting strategy following the introduction of a new profit sharing regulation (MZVO) introduced in 2008. The positive impact is offset by



higher volatility of equities as a result of changed modeling of the volatility of some indices and the increase in CNHR due to the inclusion of longevity risk in the risk capital calculation. As currently policyholder participation in the shock scenario is only approximated, the implementation is considered conservative.

Economic variance of EUR 2,285mn shows the impact of the higher long term interest rates at year-end and the recovery of equity markets. The increase in the long term reinvestment rates increased the investment margins available in the future, and growth in equity values resulted in an increase in the available buffers in the unrealized capital gains.

### 3.2.3 Sensitivities

Exhibit 15 shows the sensitivities for embedded value and value of new business:

Exhibit 15

<b>Sensitivities - Germany Life</b>	Inforce	Inforce	NB	NB
	EUR mn	%	EUR mn	%
<b>Central Assumptions</b>	<b>8,155</b>	100%	<b>302</b>	100%
Required Capital equal to local solvency capital	253	3%	17	6%
<i>EV change by economic factors</i>				
Risk Free Rate -100bp	-2,616	-32%	-91	-30%
Risk Free Rate +100bp	1,130	14%	104	34%
Charge for CNHR +100bp	-146	-2%	-10	-3%
Equity and property values - 10%	-288	-4%	17	6%
Swaption volatilities +25%	-447	-5%	-18	-6%
Equity option volatilities +25%	-181	-2%	6	2%
<i>EV change by non-economic factors</i>				
Lapse Rates -10%	99	1%	19	6%
Maintenance Expenses -10%	204	3%	22	7%
Mortality -5% for products with death risk	13	0%	1	0%
Mortality -5% for products with longevity risk	-160	-2%	-18	-6%

Allianz Germany Life's business has a long premium payment term, in addition to having a high proportion of traditional participating business. As a result, sensitivities to market drivers show a significantly higher impact on embedded value than the sensitivities to non-economic factors. Sensitivities to non-economic parameters remain low because technical surplus is shared with policyholders.

Due to the asymmetric nature of the embedded financial options and guarantees, falling market rates have a much higher impact on embedded value than rising interest rates. With the current interest rate environment higher than it was in 2008, the sensitivity to interest rates is much lower than in 2008, for both inforce and new business portfolios.

As a result of the marginal approach to valuing new business, some new business sensitivities, in particular equity sensitivities, may appear counter intuitive. Guarantees on new business are lower than inforce guarantees so that the addition of new business to the portfolio reduces the overall guarantee level, which can become more valuable in distressed scenarios applied in some sensitivity tests.

### 3.3 Germany Health

In 2009 the embedded value increased from EUR 1,092mn to EUR 1,488mn as a direct result of the capital market recovery.

#### 3.3.1 Development of Value of New Business

The value of new business written by our German health business in 2009 was EUR 16mn with a new business margin of 1.8%. Exhibit 16 shows an analysis of the change in new business value:

Exhibit 16

**Movement of Value of New Business - German Health**

	Value of New Business	New Business Margin	Present Value of NB Premium
	EUR mn	%	EUR mn
<b>Reported Value as at 31 December 2008</b>	<b>15</b>	<b>1.6%</b>	<b>922</b>
Change in volume	0	0.0%	12
Change in business mix	0	0.0%	0
Change in assumptions	1	0.2%	-48
<b>Value of new business as at 31 December 2009</b>	<b>16</b>	<b>1.8%</b>	<b>886</b>

In 2009, the value of new business increased slightly from EUR 15mn to EUR 16mn, and the new business margin increased from 1.6% to 1.8%.

This increase is driven mainly by the recovery of capital markets and the 1% growth in recurring premiums.

### 3.3.2 Development of Embedded Value and Free Surplus

The total embedded value for the German health business increased by EUR 396mn from EUR 1,092mn to EUR 1,488mn after a dividend payment of EUR 53mn.

The analysis of earnings in Exhibit 17 summarizes the main drivers for the change in embedded value of the German health business.

Exhibit 17  
**Analysis of Earnings of Embedded Value - Germany Health**

	Earnings on MCEV analysis			
	Free Surplus	Required Capital	ViF	MCEV
	EUR mn	EUR mn	EUR mn	EUR mn
<b>Opening MCEV reported as at 31 December 2008</b>	<b>53</b>	<b>244</b>	<b>795</b>	<b>1,092</b>
<b>Value of new business at point of sale</b>	<b>0</b>	<b>0</b>	<b>16</b>	<b>16</b>
Expected existing business contribution <i>reference rate</i>	9	0	26	36
Expected existing business contribution <i>in excess of reference rate</i>	3	0	5	9
Transfer from ViF and required capital to free surplus <i>on in-force at begin of year</i>	43	7	-51	0
<i>on new business</i>	0	0	0	0
<b>Experience variance</b>	<b>6</b>	<b>0</b>	<b>-3</b>	<b>2</b>
<b>Assumption changes</b>	<b>0</b>	<b>0</b>	<b>-8</b>	<b>-8</b>
Other operating variance	8	1	6	15
Operating MCEV earnings	69	8	-9	69
<b>Economic variances</b>	<b>3</b>	<b>0</b>	<b>377</b>	<b>380</b>
Other non operating variance	0	0	0	0
Total MCEV earnings	73	8	368	449
Closing adjustments <i>Net capital movements</i>	-53	0	0	-53
<b>Closing MCEV as at 31 December 2009</b>	<b>73</b>	<b>252</b>	<b>1,163</b>	<b>1,488</b>

MCEV earnings were EUR 449mn or 41% of the (adjusted) opening value.

Earning the risk free investment return on the inforce portfolio increased embedded value by EUR 36mn, expected returns in excess of risk free rates increased embedded value by a further EUR 9mn. The main impact during 2009 was the rise in interest rates and equity markets which had an overall impact of increasing embedded value strongly by EUR 380mn or 35%.

The new business strain is zero, since acquisition expenses are fully covered by acquisition expense loadings from new business and inforce portfolios, as these also contribute to the marginal value of new business.

### 3.3.3 Sensitivities

Exhibit 18 shows the sensitivities for embedded value and value of new business:

Exhibit 18

<b>Sensitivities - Germany Health</b>	Inforce	Inforce	NB	NB
	EUR mn	%	EUR mn	%
<b>Central Assumptions</b>	<b>1,488</b>	100%	<b>16</b>	100%
Required Capital equal to local solvency capital	51	3%	0	3%
<i>EV change by economic factors</i>				
Risk Free Rate -100bp	-376	-25%	-6	-38%
Risk Free Rate +100bp	364	24%	5	30%
Charge for CNHR +100bp	-10	-1%	0	-1%
Equity and property values - 10% <sup>1</sup>	-18	-1%	0	0%

1) Deviating from analyst presentation due to late correction

The German health business's embedded value is most sensitive to changes in interest rates. A drop in interest rates by a further 100bps from current low levels reduces embedded value by EUR 376mn or 25%. The impact of the up and down shifts in interest rates shows a symmetric behavior. This is due to the ability to adjust premium rates in the event of adverse experience.

A drop in equity and property values by 10% reduces embedded value by EUR 18mn or 1%. No sensitivity to volatility changes is shown as the value of options and guarantees is zero. Please see Appendix A.7.

As the German health business has the ability to adjust premiums as a result of non-economic assumption changes, no sensitivities to non-economic assumptions are shown.

### 3.4 France

In 2009 the embedded value of Allianz France increased from EUR 3,795mn to EUR 4,218mn. The growth of embedded value is mainly due to new business and improved economic conditions.

#### 3.4.1 Development of Value of New Business

The value of new business written by Allianz France in 2009 was EUR 113mn, which is 10mn lower than the value reported in 2008 due to lower volumes despite the positive business mix impact. New business margin remains at 1.9%, the same as 2008.

Exhibit 19 shows an analysis of the change in new business value:

Exhibit 19  
**Movement of Value of New Business - France**

	Value of New Business	New Business Margin	Present Value of NB Premium
	EUR mn	%	EUR mn
<b>Reported Value as at 31 December 2008</b>	<b>123</b>	<b>1.9%</b>	<b>6,330</b>
Change in volume	-5	0.0%	-233
Change in business mix	4	0.1%	0
Change in assumptions	-10	-0.2%	0
<b>Value of new business as at 31 December 2009</b>	<b>113</b>	<b>1.9%</b>	<b>6,097</b>

Relative to 2008, premium volume reduced by EUR 233mn or 4%. However, in 2008 Allianz France experienced an exceptional increase in group pension sales, which was not repeated in 2009. All other business lines, i.e. group protection, individual life, and partnerships showed strong growth in 2009.

Consumers remain risk averse, keeping demand for pure unit-linked products low. Decreasing sales in unit-linked investment products was however more than compensated for by growth in profitable traditional and multi-support products in the individual and group life lines. The observed shift in business mix had a positive impact on New Business Margin and consequently increased the value of new business by EUR 4mn.

The positive impact of economic assumption changes was offset by other assumption changes, such as expense and lapse assumption and a slightly higher capital for residual non-hedgeable risk. The net impact reduces the value of new business by EUR 10mn.

### 3.4.2 Development of Embedded Value and Free Surplus

The total embedded value for Allianz France increased from EUR 3,795mn to EUR 4,218mn.

The movement analysis in Exhibit 20 summarizes the main drivers for the change in embedded value of Allianz France.

Exhibit 20  
**Analysis of Earnings of Embedded Value - France**

	Earnings on MCEV analysis			
	Free Surplus	Required Capital	VIF	MCEV
	EUR mn	EUR mn	EUR mn	EUR mn
<b>MCEV reported as at 31 December 2008</b>	<b>204</b>	<b>1,773</b>	<b>1,818</b>	<b>3,795</b>
<i>Restatements</i>	537	-537	0	0
<b>Adjusted Opening MCEV as at 31 December 2008</b>	<b>741</b>	<b>1,236</b>	<b>1,818</b>	<b>3,795</b>
<b>Value of new business at point of sale</b>	<b>0</b>	<b>0</b>	<b>113</b>	<b>113</b>
Expected existing business contribution <i>reference rate</i>	40	0	100	140
Expected existing business contribution <i>in excess of reference rate</i>	42	0	43	85
Transfer from VIF and required capital to free surplus <i>on in-force at begin of year</i>	113	100	-213	0
<i>on new business</i>	-209	171	38	0
<b>Experience variance</b>	<b>-135</b>	<b>20</b>	<b>33</b>	<b>-82</b>
<b>Assumption changes</b>	<b>-14</b>	<b>14</b>	<b>-113</b>	<b>-113</b>
<i>Other operating variance</i>	-121	97	157	132
<i>Operating MCEV earnings</i>	-75	230	120	275
<b>Economic variances</b>	<b>118</b>	<b>-185</b>	<b>216</b>	<b>149</b>
<i>Other non operating variance</i>	0	0	0	0
<b>Total MCEV earnings</b>	<b>42</b>	<b>45</b>	<b>336</b>	<b>424</b>
Closing adjustments <i>Net capital movements</i>	0	0	0	0
<b>Closing MCEV as at 31 December 2009</b>	<b>784</b>	<b>1,281</b>	<b>2,153</b>	<b>4,218</b>

MCEV earnings of Allianz France in 2009 were EUR 424mn.

The restatement on required capital reflects a correction in the treatment of *Reserve de Capitalisation* for local solvency requirements. Allianz includes the *Reserve de Capitalisation* in the projection of the value of inforce, to better reflect the economic value of this reserve for MCEV and risk capital purposes. However, as local solvency rules allow it to be used as available capital, the required capital, which for France is based on local solvency rules, needs to be reduced. This was previously not considered.

Earning the risk free investment return on the inforce portfolio increased embedded value by EUR 140mn, and expected returns in excess of risk free rates increased embedded value further by EUR 85mn.

Experience variances had a negative impact of EUR 82mn which was mainly due to negative morbidity experience. In line with negative experience, unfavorable assumption changes, in particular higher expected expenses, reduced embedded value further by EUR 113mn. Other operating variances reflect changes with respect to crediting strategy and buffer usage that reduce the value of options and guarantees, thereby increasing the embedded value by EUR 132mn.

Economic variances have positive EUR 149mn impact reflecting the increase of interest rates at the long end and the equity market recovery.

### 3.4.3 Sensitivities

Exhibit 21 shows the sensitivities for embedded value and value of new business of Allianz France.

Exhibit 21

<b>Sensitivities - France</b>	Inforce	Inforce	NB	NB
	EUR mn	%	EUR mn	%
<b>Central Assumptions</b>	<b>4,218</b>	100%	<b>113</b>	100%
Required Capital equal to local solvency capital	0	0%	0	0%
<i>EV change by economic factors</i>				
Risk Free Rate -100bp	-241	-6%	0	0%
Risk Free Rate +100bp	60	1%	-8	-7%
Charge for CNHR +100bp	-56	-1%	-5	-4%
Equity and property values - 10%	-356	-8%	-13	-11%
Swaption volatilities +25%	-70	-2%	-2	-2%
Equity option volatilities +25%	-187	-4%	-7	-6%
<i>EV change by non-economic factors</i>				
Lapse Rates -10%	83	2%	10	9%
Maintenance Expenses -10%	198	5%	5	5%
Mortality -5% for products with death risk	51	1%	1	1%
Mortality -5% for products with longevity risk	-22	-1%	1	1%

Sensitivities to economic assumptions have eased significantly from last year due to favorable market conditions.

The value of options and guarantees is much lower than it was in 2008 following interest rate increases. As such, a fall in the risk free rate of 100bps reduces embedded value by EUR 241mn or 6%. An increase in interest rates by 100bps increases the embedded value by EUR 60mn or 1%.

Allianz France has a higher exposure to equity and property than most other countries and is therefore more sensitive to a drop in equity and property value. A drop by 10% reduces embedded value by 8%.

Sensitivities to non-economic factors are low due to the ability to share the technical result with policyholders.

New business economic sensitivities with interest rate shocks are somewhat impacted by the marginal approach calculation, as explained for Germany Life.

### 3.5 Italy

In 2009, revenues in the Italian insurance market recovered, especially in bancassurance and financial advisors' distribution channels, which were hit severely in 2008 by the adverse insurance environment. Allianz Italy outperformed the market. Allianz Italy's embedded value increased from EUR 2,754mn to EUR 3,109mn in 2009. The recovery is driven by narrowing of the spread between government bonds and swaps, recovery in new business volumes and improvement in equity market performance.

#### 3.5.1 Development of Value of New Business

The value of new business written by Allianz Italy in 2009 was EUR 124mn with a new business margin of 2.2%. Exhibit 22 shows an analysis of the change in new business value in 2009.

Exhibit 22

**Movement of Value of New Business - Italy**

	Value of New Business	New Business Margin	Present Value of NB Premium
	EUR mn	%	EUR mn
<b>Reported Value as at 31 December 2008</b>	<b>96</b>	<b>2.5%</b>	<b>3,814</b>
Change in volume	44	0.0%	1,760
Change in business mix	7	0.1%	0
Change in assumptions	-24	-0.4%	40
<b>Value of new business as at 31 December 2009</b>	<b>124</b>	<b>2.2%</b>	<b>5,615</b>

New business sales volumes recovered from the 2008 low when they were severely hit by the adverse insurance environment. Premium development was driven by higher sales of single premium products in traditional business with minimum guarantees sold via bancassurance, offsetting low demand for pure unit-linked business.

On assumption changes, lower swap rates up to 10 years term negatively impacted the margin in traditional business. However the business is largely matched with Italian government bonds yielding above swap rates (see below). Besides that acquisition expense assumptions relative to present value of premium are higher for single premium business.

The spreads of Italian government yields over Euro swap rates narrowed in 2009. The capitalization of the spreads inherent in the Italian government bonds would increase the value of new business by EUR 22mn, and hence resulting in a new business margin of 2.6%.



### 3.5.2 Development of Embedded Value and Free Surplus

The total embedded value for the Italian operations increased from EUR 2,754mn to EUR 3,109mn after a net capital movement of EUR -96mn.

The movement analysis in Exhibit 23 summarizes the main drivers for the change in embedded value of Allianz Italy.

Exhibit 23  
**Analysis of Earnings of Embedded Value - Italy**

	Earnings on MCEV analysis			
	Free Surplus	Required Capital	ViF	MCEV
	EUR mn	EUR mn	EUR mn	EUR mn
<b>Opening MCEV reported as at 31 December 2008</b>	<b>830</b>	<b>868</b>	<b>1,055</b>	<b>2,754</b>
<b>Value of new business at point of sale</b>	<b>0</b>	<b>0</b>	<b>124</b>	<b>124</b>
Expected existing business contribution <i>reference rate</i>	53	0	50	103
Expected existing business contribution <i>in excess of reference rate</i>	17	0	0	17
Transfer from ViF and required capital to free surplus <i>on in-force at begin of year</i>	41	81	-122	0
<i>on new business</i>	254	-63	-191	0
	-213	144	69	0
<b>Experience variance</b>	<b>64</b>	<b>-2</b>	<b>-43</b>	<b>19</b>
<b>Assumption changes</b>	<b>1</b>	<b>-1</b>	<b>-33</b>	<b>-33</b>
Other operating variance	6	-2	-12	-8
<b>Operating MCEV earnings</b>	<b>182</b>	<b>77</b>	<b>-36</b>	<b>222</b>
<b>Economic variances</b>	<b>68</b>	<b>11</b>	<b>150</b>	<b>228</b>
Other non operating variance	0	0	0	0
<b>Total MCEV earnings</b>	<b>249</b>	<b>87</b>	<b>114</b>	<b>451</b>
Closing adjustments <i>Net capital movements</i>	-96	0	0	-96
<b>Closing MCEV as at 31 December 2009</b>	<b>984</b>	<b>956</b>	<b>1,169</b>	<b>3,109</b>

The MCEV earnings were EUR 451mn or 16% of the (adjusted) opening MCEV.

The narrowing of spreads between Italian government bonds and Euro swaps, the recovery of equity markets and change in Euro swap rates contributed positively to economic variances.

Earning the risk free investment return on the inforce portfolio increased embedded value by EUR 103mn and long term expected returns in excess of risk free rates increased embedded value further by EUR 17mn.

Impact of experience variances and assumption changes decreased the value slightly. Higher lapse experience, increase in investment expense assumptions and increase in cost of capital charge have led to a reduction in the embedded value. This is partially offset by the positive effect of lower effective tax rates in Italy.

The Allianz MCEV methodology does not allow for the capitalisation of the spreads on government bonds in the value of inforce or the value of new business. However, for asset liability matching purposes, Allianz Italy uses government bonds to back its liabilities. If the spreads on Italian government bonds were taken into account, the additional value created would increase the value of inforce by EUR 117mn (EUR +274mn in 2008)

### 3.5.3 Sensitivities

Exhibit 24 shows the sensitivities for the embedded value and value of new business of Allianz Italy.

Exhibit 24

<b>Sensitivities - Italy</b>	Inforce	Inforce	NB	NB
	EUR mn	%	EUR mn	%
<b>Central Assumptions</b>	<b>3,109</b>	100%	<b>125</b>	100%
Required Capital equal to local solvency capital	0	0%	0	0%
<i>EV change by economic factors</i>				
Risk Free Rate -100bp	-113	-4%	-6	-5%
Risk Free Rate +100bp	39	1%	-1	-1%
Charge for CNHR +100bp	-25	-1%	-4	-3%
Equity and property values - 10%	-81	-3%	-4	-3%
Swaption volatilities +25%	-61	-2%	-3	-3%
Equity option volatilities +25%	-14	0%	-1	-1%
<i>EV change by non-economic factors</i>				
Lapse Rates -10%	35	1%	10	8%
Maintenance Expenses -10%	38	1%	5	4%
Mortality -5% for products with death risk	4	0%	1	1%
Mortality -5% for products with longevity risk	-4	0%	0	0%

For Allianz Italy, all of the sensitivities are comparatively low. Liabilities in the Italian business are well matched and backed by Italian government bonds, which under normal conditions leads to low interest rate sensitivity and low options and guarantees value.

Non-economic sensitivities are low for Allianz Italy.

### 3.6 Other Western Europe

The embedded value of the region increased from EUR 2,528mn to EUR 3,298mn. In 2009, Other Western Europe now also includes business written by Allianz Global Life. The inclusion of the entity added EUR 2mn to the embedded value of the region.

#### 3.6.1 Development of Value of New Business

In 2009, the value of new business of the entities included in “Other Western Europe” was EUR 77mn with a new business margin of 2.3%. This represents an increase in the value of new business by 24% and a margin 30bps above last year’s. Exhibit 25 shows an analysis of the change in new business value.

Exhibit 25

#### Movement of Value of New Business - Other Western Europe

	Value of New Business	New Business Margin	Present Value of NB Premium
	EUR mn	%	EUR mn
<b>Reported Value as at 31 December 2008</b>	<b>62</b>	<b>2.0%</b>	<b>3,131</b>
Change in volume	4	0.0%	208
Change in business mix	-16	-0.5%	0
Change in assumptions	26	0.8%	37
<b>Value of new business as at 31 December 2009</b>	<b>77</b>	<b>2.3%</b>	<b>3,376</b>

The inclusion of Allianz Global Life increased the new business value by EUR 4.6mn.

The overall growth in volume in the region is 7%. Premium growth is maintained in most countries. Customers, especially in Southern Europe, appreciated the financial strength of Allianz Group companies and purchased an increasing volume of investment products.

Volumes of more profitable mortgage and credit protection products however declined due to reduced bank loan activity, which led to a slight reduction in the new business margin, as shown under “change in business mix”..

Increasing interest rates in the second half of 2009 increased margins above 2008 levels.

### 3.6.2 Development of Embedded Value and Free Surplus

The embedded value for the entities in the “Other Western Europe” region increased from EUR 2,528mn to EUR 3,298mn after a net capital movement of EUR -50mn. The movement analysis in Exhibit 26 summarizes the main drivers for the change in embedded value:

Exhibit 26  
**Analysis of Earnings of Embedded Value Western Europe**

	Earnings on MCEV analysis			
	Free Surplus	Required Capital	ViF	MCEV
	EUR mn	EUR mn	EUR mn	EUR mn
<b>MCEV reported as at 31 December 2008</b>	<b>174</b>	<b>1,878</b>	<b>475</b>	<b>2,528</b>
<i>Restatements</i>	<i>1</i>	<i>1</i>	<i>0</i>	<i>2</i>
<b>Opening MCEV as at 31 December 2008</b>	<b>176</b>	<b>1,879</b>	<b>475</b>	<b>2,530</b>
Total opening adjustments	0	1	0	0
<i>Foreign Exchange Variance</i>	<i>0</i>	<i>1</i>	<i>0</i>	<i>0</i>
<b>Adjusted Opening MCEV as at 31 December 2008</b>	<b>176</b>	<b>1,880</b>	<b>475</b>	<b>2,531</b>
<b>Value of new business at point of sale</b>	<b>0</b>	<b>0</b>	<b>77</b>	<b>77</b>
Expected existing business contribution <i>reference rate</i>	51	0	57	108
Expected existing business contribution <i>in excess of reference rate</i>	22	0	45	67
Transfer from ViF and required capital to free surplus <i>on in-force at begin of year</i>	65	61	-126	0
<i>on new business</i>	187	-16	-171	0
	-122	77	45	0
<b>Experience variance</b>	<b>-20</b>	<b>4</b>	<b>27</b>	<b>11</b>
<b>Assumption changes</b>	<b>-20</b>	<b>19</b>	<b>-33</b>	<b>-34</b>
<i>Other operating variance</i>	<i>173</i>	<i>-205</i>	<i>186</i>	<i>155</i>
<b>Operating MCEV earnings</b>	<b>272</b>	<b>-121</b>	<b>232</b>	<b>382</b>
<b>Economic variances</b>	<b>415</b>	<b>-297</b>	<b>316</b>	<b>435</b>
<i>Other non operating variance</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
<b>Total MCEV earnings</b>	<b>687</b>	<b>-418</b>	<b>549</b>	<b>817</b>
Closing adjustments <i>Net capital movements</i>	-50	0	0	-50
<b>Closing MCEV as at 31 December 2009</b>	<b>813</b>	<b>1,461</b>	<b>1,024</b>	<b>3,298</b>

The restatement reflects Allianz Global Life that is now reported under Other Western Europe.

The MCEV earnings were EUR 817mn or 32% of the adjusted opening MCEV.

Earning the risk free investment return on the inforce portfolio increased embedded value by EUR 108mn, and long term expected returns in excess of risk free rates increased embedded value further by EUR 67mn.

Experience variance and assumption changes reflect better than expected mortality experience for risk products in Spain and Portugal, and a good morbidity result on the Swiss disability annuity business. Switzerland, Portugal, the Netherlands and Austria reported positive lapse experience.

Expenses were higher than expected in Spain and the Netherlands, as per policy costs increased with sales not meeting expected levels.

Economic variance is the main driver for change in the embedded value in 2009 as the ongoing recovery of capital markets improved values throughout the region. Allianz Seguros in Spain forms the notable exception, as the company continues to suffer from high credit spreads on its corporate bond portfolio.

The net capital movement of EUR -50mn reflects dividend payments.

### 3.6.3 Sensitivities

Exhibit 27 shows the sensitivities for the embedded value and value of new business.

Exhibit 27

<b>Sensitivities - Other Western Europe</b>	Inforce	Inforce	NB	NB
	EUR mn	%	EUR mn	%
<b>Central Assumptions</b>	<b>3,298</b>	100%	<b>78</b>	100%
Required Capital equal to local solvency capital	60	2%	3	4%
<i>EV change by economic factors</i>				
Risk Free Rate -100bp	-582	-18%	-33	-42%
Risk Free Rate +100bp	301	9%	16	21%
Charge for CNHR +100bp	-52	-2%	-3	-4%
Equity and property values - 10%	-142	-4%	-3	-4%
Swaption volatilities +25%	-60	-2%	-4	-5%
Equity option volatilities +25%	-51	-2%	-2	-3%
<i>EV change by non-economic factors</i>				
Lapse Rates -10%	24	1%	2	3%
Maintenance Expenses -10%	103	3%	8	10%
Mortality -5% for products with death risk	36	1%	4	5%
Mortality -5% for products with longevity risk	-42	-1%	-1	-1%

The sensitivity to interest rates for inforce and new business has decreased since 2008 but is still material for some countries due to the long term nature of their group pension business. The main driver for the decrease is higher interest rates which means that options and guarantees have moved further away from the strike point than they were last year. Due to the asymmetric nature of the embedded financial options and guarantees, falling market rates have a higher impact on embedded value than rising interest rates.

The impact of sensitivities to non-economic factors is reduced in some countries where technical profits are subject to profit sharing with policyholders as is the case in Switzerland and Austria.

### 3.7 USA

In 2009, the embedded value and value of new business of Allianz Life US increased after capital market distortions in 2008 due to narrowing credit spreads, higher interest rates and improving equity markets.

#### 3.7.1 Development of Value of New Business

The value of new business written by Allianz Life US in 2009 amounted to EUR -110mn with a new business margin of -1.8%. The total margin was negative due to first quarter sales. After the re-design of products, business written in the second half has a positive margin. Exhibit 28 shows an analysis of the change in the value of new business.

Exhibit 28

##### Movement of Value of New Business - US

	Value of New Business	New Business Margin	Present Value of NB Premium
	EUR mn	%	EUR mn
<b>Reported Value as at 31 December 2008</b>	<b>-364</b>	<b>-5.5%</b>	<b>6,595</b>
Total initial adjustments	11	0.0%	-198
<i>Change in Foreign Exchange</i>	11	0.0%	-198
<b>Adjusted Opening Value as at 31 December 2008</b>	<b>-353</b>	<b>-5.5%</b>	<b>6,397</b>
Change in volume	16	0.0%	-286
Change in business mix	-31	-0.5%	0
Change in assumptions	259	4.2%	0
<b>Value of new business as at 31 December 2009</b>	<b>-110</b>	<b>-1.8%</b>	<b>6,111</b>

The 2009 value of new business is EUR 243mn higher than the value in 2008, after adjustment for the change in value of the US Dollar.

The main driver for the new business margin increase from -5.5% to -1.8% was the recovery of capital markets in 2009, with higher interest rates and significantly narrower credit spreads. The margin improved to 0.9% in the second half of the year.

Compared to last year, the business mix shift had a slightly negative impact on the new business margin, which was due to variable annuity sales in the first quarter of 2009 that were not fully offset by the positive impacts of product management in the subsequent quarters.

The product management included the re-pricing of fixed- and indexed annuity products during the year and the suspension of variable annuity products in the first quarter. The margin turned positive in the second half after the launch of re-designed variable annuity riders.

### 3.7.2 Development of Embedded Value and Free Surplus

The total embedded value for Allianz Life US increased from EUR -3,318mn to EUR 2,749mn after a capital injection of EUR 1,045mn<sup>1</sup>.

The movement analysis in Exhibit 29 summarizes the main drivers for the change in embedded value.

Exhibit 29  
**Analysis of Earnings of Embedded Value - US**

	Earnings on MCEV analysis			
	Free Surplus	Required Capital	ViF	MCEV
	EUR mn	EUR mn	EUR mn	EUR mn
<b>Opening MCEV reported as at 31 December 2008</b>	<b>-773</b>	<b>2,160</b>	<b>-4,705</b>	<b>-3,318</b>
Total opening adjustments	23	-65	141	100
<i>Foreign Exchange Variance</i>	23	-65	141	100
<b>Adjusted Opening MCEV as at 31 December 2008</b>	<b>-750</b>	<b>2,095</b>	<b>-4,564</b>	<b>-3,218</b>
<b>Value of new business at point of sale</b>	<b>-23</b>	<b>0</b>	<b>-87</b>	<b>-110</b>
Expected existing business contribution <i>reference rate</i>	43	0	-8	35
Expected existing business contribution <i>in excess of reference rate</i>	818	0	100	918
Transfer from ViF and required capital to free surplus <i>on in-force at begin of year</i>	-973	123	850	0
<i>on new business</i>	-506	263	243	0
<b>Experience variance</b>	<b>26</b>	<b>0</b>	<b>-31</b>	<b>-5</b>
<b>Assumption changes</b>	<b>0</b>	<b>0</b>	<b>-34</b>	<b>-34</b>
Other operating variance	-54	35	141	122
Operating MCEV earnings	-163	158	932	927
<b>Economic variances</b>	<b>170</b>	<b>112</b>	<b>3,711</b>	<b>3,993</b>
Other non operating variance	119	0	-117	2
Total MCEV earnings	126	270	4,526	4,922
Closing adjustments <i>Net capital movements</i>	1,045	0	0	1,045
<b>Closing MCEV as at 31 December 2009</b>	<b>422</b>	<b>2,365</b>	<b>-38</b>	<b>2,749</b>

The MCEV earnings were EUR 4,922mn of the adjusted opening value.

The change in value of the US Dollar led to an increase in the opening embedded value of EUR 100mn.

Earning the risk free investment return on the inforce portfolio increased embedded value by EUR 35mn and long term expected returns in excess of risk free rates, projected using real world assumptions, increased embedded value by a further EUR 918mn. The impact of the first step is low because of the low start base and in particular the negative value of inforce, which even leads to a negative unwind of the value of inforce. This however is compensated by a much higher value in the following step where, allowing for the expected materialization of credit spreads, the expected profit is positive leading to a high positive variance.

Experience variance and assumption changes show the negative impact mainly from lapses.

Other operating variance of EUR 122mn shows a positive impact on embedded value. This is driven primarily by the refinement of the modelling of assets.

<sup>1</sup> Based on FX as of 31 December 2009.

The recovery of capital markets during 2009, in particular higher interest rates, narrowing credit spreads and favorable equity market development, increased the embedded value by EUR 3,993mn.

Required capital, which reflects the level agreed with local rating agencies, increased by EUR 270mn to EUR 2,365mn at year-end 2009 in line with reserve growth. The resulting excess of EUR 422mn in the net asset value compared to required capital is reflected in free surplus.

### 3.7.3 Sensitivities

Exhibit 30 shows the sensitivities for Allianz Life US embedded value and value of new business:

Exhibit 30

<b>Sensitivities - US</b>	Inforce	Inforce	NB	NB
	EUR mn	%	EUR mn	%
<b>Central Assumptions</b>	<b>2,749</b>	<b>100%</b>	<b>7</b>	<b>100%</b>
Required Capital equal to local solvency capital	192	7%	19	280%
<i>EV change by economic factors</i>				
Risk Free Rate -100bp	-297	-11%	-41	-599%
Risk Free Rate +100bp	137	5%	26	376%
Charge for CNHR +100bp	-31	-1%	-3	-39%
Equity and property values - 10%	-51	-2%	-7	-109%
Swaption volatilities +25%	-180	-7%	-12	-176%
Equity option volatilities +25%	-161	-6%	-26	-386%
<i>EV change by non-economic factors</i>				
Lapse Rates -10%	-21	-1%	2	29%
Maintenance Expenses -10%	74	3%	7	102%
Mortality -5% for products with death risk	15	1%	1	22%
Mortality -5% for products with longevity risk	-28	-1%	-2	-29%

Compared to 2008, inforce and new business sensitivities to interest rates, equities and lapse rates have decreased significantly, as the narrowing of credit spreads and higher swap rates have reduced the pressure from options and guarantees.

The inforce sensitivity to volatilities has increased in comparison to the corresponding values shown in 2009 because the options and guarantees are now much closer to the strike rate, which increases the time value of the options and guarantees, whereas last year they were deeply in the money. Volatilities only affect the time value of options and guarantees. As options and guarantees move from in the money to the strike rate, their time value increases and intrinsic value decreases.

The sensitivity to lower lapse rates shows a loss in the inforce business, and a profit in the new business. This indicates that, compared to new business, more options and guarantees are still in the money for the inforce business written before 2009.



### 3.8 Growth Markets

Growth Markets comprises the regions in New Europe and Asia.

The embedded value of the region increased from EUR 517mn to EUR 1,516mn. The pension fund business written outside the Life/Health segment in New Europe is not included in the embedded value.

#### 3.8.1 Development of Value of New Business

The value of new business contribution from Growth Markets in 2009 was EUR 125mn with a new business margin of 2.8%. The value increased by EUR 46mn or 59%.

Exhibit 31 shows an analysis of the change in new business value.

Exhibit 31

**Movement of Value of New Business - Growth Market**

	Value of New Business	New Business Margin	Present Value of NB Premium
	EUR mn	%	EUR mn
<b>Reported Value as at 31 December 2008</b>	<b>79</b>	<b>2.0%</b>	<b>3,987</b>
Total initial adjustments	16	0.2%	343
<i>Change in Foreign Exchange</i>	7	0.1%	117
<i>Change in Allianz interest</i>	9	0.1%	226
<b>Adjusted Opening Value as at 31 December 2008</b>	<b>95</b>	<b>2.2%</b>	<b>4,330</b>
Change in volume	3	0.0%	116
Change in business mix	8	0.2%	0
Change in assumptions	20	0.4%	68
<b>Value of new business as at 31 December 2009</b>	<b>125</b>	<b>2.8%</b>	<b>4,514</b>

In 2009, New Europe contributed a value of new business of EUR 54mn with a new business margin of 5.4%, unchanged from last year. Asia contributed a value of new business of EUR 71mn with a new business margin of 2.0%, up from last year's 0.7%.

The 2008 new business value was adjusted by EUR 7mn, mostly due to changes in value of the Korean Won (EUR +4.5mn) and the Japanese Yen (EUR +1mn). There was a further adjustment of EUR 9mn for the inclusion of Thailand which was not consolidated in the 2008 results.

Change in new business volumes increased the value of new business by EUR 3mn. The sales volume dropped across the New Europe region especially in Slovakia and Hungary compared to the previous year, during which the sales of single premium business in unit linked and certificate products were very successful. In Poland, sales volume increased from group credit protection products and traditional deposit product. Taiwan experienced a very strong increase of sales in the fourth quarter, especially single-premium variable unit-linked and variable annuity products while Japanese premium volumes were down.

The change in business mix increased the value of new business by EUR 8mn. The region experienced higher sales in Indonesia where business shifted away from unit-linked products. In New Europe the business mix shifted from single- to recurring premium and from unit-linked to traditional business. Results were affected by equity-related products being out of favour in the early part of the year, with Korea, Taiwan and Czech Republic moving away from the high margin variable and equity related products.

Assumption changes increased the value of new business by EUR 20mn, driven by higher interest rates leading to higher margins for traditional products in Taiwan and a switch from real-world assumptions to an MCEV basis in China, Indonesia and Malaysia. Other factors include an increase in lapse rates in Slovakia, and an increase in the assumed mortality in the credit protection products in Poland.

### 3.8.2 Development of Embedded Value and Free Surplus

The embedded value for the growth markets improved from EUR 517mn to EUR 1,516mn, an increase of EUR 1,000mn or 194%. The movement analysis in Exhibit 32 below summarizes the main drivers for the change in embedded value.

Exhibit 32  
Analysis of Earnings of Embedded Value - Growth Market

	Earnings on MCEV analysis			
	Free Surplus	Required Capital	ViF	MCEV
	EUR mn	EUR mn	EUR mn	EUR mn
<b>Opening MCEV reported as at 31 December 2008</b>	<b>-953</b>	<b>1,849</b>	<b>-379</b>	<b>517</b>
Total opening adjustments	12	68	36	116
<i>Foreign Exchange Variance</i>	9	32	22	63
<i>Acquired / Divested business</i>	3	36	14	54
<b>Adjusted Opening MCEV as at 31 December 2008</b>	<b>-941</b>	<b>1,917</b>	<b>-343</b>	<b>633</b>
<b>Value of new business at point of sale</b>	<b>-34</b>	<b>0</b>	<b>159</b>	<b>125</b>
Expected existing business contribution <i>reference rate</i>	35	0	53	89
Expected existing business contribution <i>in excess of reference rate</i>	7	0	10	17
Transfer from ViF and required capital to free surplus <i>on in-force at begin of year</i>	5	27	-32	0
<i>on new business</i>	174	-44	-129	0
	-169	72	98	0
<b>Experience variance</b>	<b>3</b>	<b>17</b>	<b>-12</b>	<b>8</b>
<b>Assumption changes</b>	<b>-5</b>	<b>4</b>	<b>-92</b>	<b>-93</b>
Other operating variance	-44	53	-46	-37
Operating MCEV earnings	-32	100	40	108
<b>Economic variances</b>	<b>794</b>	<b>-752</b>	<b>697</b>	<b>739</b>
Other non operating variance	1	0	7	8
Total MCEV earnings	763	-652	744	855
Closing adjustments <i>Net capital movements</i>	29	0	0	29
<b>Closing MCEV as at 31 December 2009</b>	<b>-149</b>	<b>1,265</b>	<b>401</b>	<b>1,516</b>

The Total MCEV Earnings are EUR 855mn or 135% of the adjusted opening value, mostly driven by improving capital markets as interest rates improved and equity markets recovered.

The largest contributors to the improvement of the embedded value are Taiwan (EUR 498mn) and Korea (EUR 163mn). An initial adjustment, mostly due to Korean and Japanese foreign exchange movements, increased embedded value by EUR 116mn. The first time consolidation of Thailand added EUR 54mn.

Earning the risk free investment return on the inforce portfolio increased embedded value by EUR 89mn and expected returns in excess of risk free rates increased embedded value by a further EUR 17mn. Korea was the main influence, contributing over 45% of the value in both cases.

Assumption changes were mostly influenced by Korea (EUR -112mn) due to changes to lapse and morbidity rates. Other operating variances were negatively impacted by the improved modeling for mortality and lapse parameters for CNHR in Thailand.

Economic variances of EUR 739mn had the largest impact on the embedded value with improvements from Taiwan (EUR 417mn), Korea (EUR 187mn) and Thailand (EUR 93mn) being the main contributors, due to higher interest rates.

Closing Adjustments include capital injections to Japan (EUR 19mn) and China (EUR 31mn), partly offset by a dividend payment of EUR 21mn from Slovakia.

### 3.8.3 Sensitivities

Exhibit 33 shows the sensitivities for the embedded value and the value of new business.

Exhibit 33

<b>Sensitivities - Growth Market</b>	Inforce	Inforce	NB	NB
	EUR mn	%	EUR mn	%
<b>Central Assumptions</b>	<b>1,516</b>	<b>100%</b>	<b>117</b>	<b>100%</b>
Required Capital equal to local solvency capital	27	2%	2	2%
<i>EV change by economic factors</i>				
Risk Free Rate -100bp	-499	-33%	-15	-13%
Risk Free Rate +100bp	281	19%	8	7%
Charge for CNHR +100bp	-76	-5%	-5	-4%
Equity and property values - 10%	-21	-1%	-2	-2%
Swaption volatilities +25%	-44	-3%	-1	-1%
Equity option volatilities +25%	-10	-1%	-1	-1%
<i>EV change by non-economic factors</i>				
Lapse Rates -10%	93	6%	23	20%
Maintenance Expenses -10%	79	5%	11	9%
Mortality -5% for products with death risk	57	4%	6	5%
Mortality -5% for products with longevity risk	-7	0%	0	0%

Sensitivity to interest rates is driven by the higher guarantees in the old-block traditional portfolios in Korea and Taiwan. Due to the asymmetric nature of the embedded financial options and guarantees, falling market rates have a much higher impact on embedded value than rising rates.

The new business sensitivity to lapse rates is mostly driven by Korea, The corresponding inforce lapse sensitivity is lower, due to offsetting effects between old business where guarantees are in the money and new business with lower guarantees.

Sensitivities for New Europe are small. Liabilities are well matched and backed by government bonds, and equity exposure is limited, resulting in low economic sensitivities and option and guarantee values.

### 3.9 Holding

The holding segment in the MCEV report contains the results from internal reinsurance as well as the holding expense adjustment. The following table summarizes the impact of these adjustments:

Exhibit 34

<b>Summary Holding</b>	Impact of Holding Expense	Reinsurance	Total
	EUR mn	EUR mn	EUR mn
<b>Ending Embedded Value 2008</b>	-266	137	-129
<b>Ending Embedded Value 2009</b>	-409	159	-250
<b>Value of New Business 2008</b>	-64	9	-55
<b>Value of New Business 2009</b>	-80	7	-73

Despite roughly stable holding expenses, the after-tax impact of these on the embedded value and on the value of new business increased due to the higher allocation of the total holding expenses to the Life Segment in line with the changes in the holding structure due to the sale of Dresdner Bank.

As the entities calculate Embedded Value net of internal and external reinsurance, the corresponding projected profits of the internal life reinsurance entity increase the EV. Premiums are reported gross of reinsurance. Embedded Value increased, driven by the Value of New Business and the unwinding of the discount rate and risk capital. Value of new business from reinsurance decreased, mainly as 2008 was much higher than normal due to a Group Life external reinsurance deal from the Singapore branch.

## 4 Independent Opinion

Towers Watson has reviewed the methodology and assumptions used to determine the 2009 embedded value results for the Allianz Group, together with the disclosure provided in this document, against the requirements of the European Insurance CFO Forum Market Consistent Embedded Value Principles ("MCEV Principles")<sup>©</sup>. Our review covered the embedded value as at 31 December 2009, the value of 2009 new business, the analysis of movement in embedded value over 2009 and the sensitivities on the embedded value and new business value.

Towers Watson has concluded that the methodology and assumptions used by Allianz, together with the disclosure provided in this document, comply with the requirements of the MCEV Principles.

Towers Watson has also performed limited high-level checks on the results of the calculations and has confirmed that any issues discovered do not have a material impact on the disclosed 2009 embedded values, new business values, analyses of movement in embedded value and sensitivities. Towers Watson has not, however, performed detailed checks on the models and processes involved.

In arriving at these conclusions, Towers Watson has relied on data and information provided by Allianz SE and its subsidiaries. This opinion is made solely to Allianz SE in accordance with the terms of Towers Watson's engagement letter. To the fullest extent permitted by applicable law, Towers Watson does not accept or assume any responsibility, duty of care or liability to anyone other than Allianz SE for or in connection with its review work, the opinions it has formed, or for any statement set forth in this opinion.

## A Appendix: Methodology

Allianz Group provides the operating entities with detailed guidelines in order to ensure consistency of embedded value calculations throughout the Group. Allianz Group sets the economic assumptions centrally which are then used in the calculations by the operating entities. All results submitted to Allianz Group are signed off by the local chief actuary and the local CFO.

### A.1 Definitions

According to MCEV Principle 3, MCEV is defined as 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 an after-tax basis taking into account current legislation and known future changes.

The EV can be broken down into the net asset value, i.e. the value of the assets not backing liabilities, and the value of inforce, i.e. the value of future profits emerging from operations and assets backing liabilities.

The net asset value (or NAV) contains

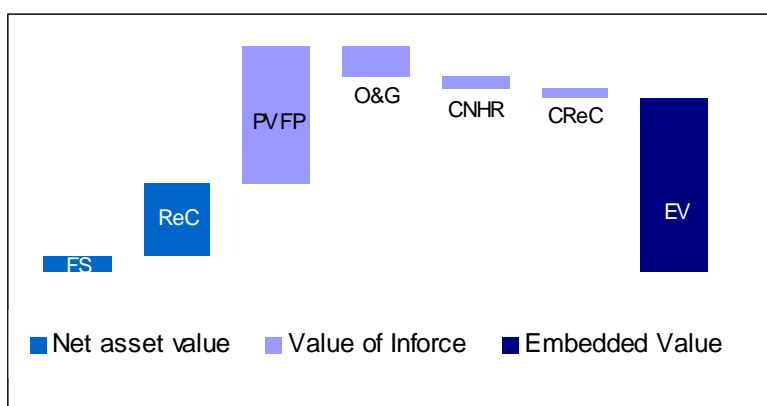
- the required capital (or ReC), i.e. the amount of capital necessary to run the business
- and the free surplus allocated to the covered business (or FS).

The value of inforce covered business (or VIF) is defined as

- the present value of future profits from inforce business (or PVFP)

after allowance for

- the time value of financial options and guarantees (or O&G),
- the cost of residual non-hedgeable risks (or CNHR),
- the frictional cost of required capital (or CReC).



### A.2 Net asset value

Net asset value (or “NAV”) is the market value of the assets not backing local statutory reserves at 31 December 2009, net of an allowance for tax on unrealized capital gains. The NAV includes the required capital (or “ReC”), i.e. the amount of capital required to support inforce business in excess of local statutory reserves, and the free surplus (or “FS”), i.e. the market value of any capital allocated to, but not required to support, the inforce business at the valuation date.

### A.3 Required Capital

According to the MCEV Principles the ReC is the amount of capital required to be held to support covered business in excess of local statutory reserves, taking into account external requirements such as solvency requirements as well as capital required to meet internal objectives. In Allianz, the required capital is defined as the maximum of the local minimum statutory solvency capital, the capital requirement derived from the internal risk capital model and additional capital to reflect market standards (see also section 3.1).

The internal risk capital in Allianz Group is defined as the maximum loss in terms of Market Consistent Embedded Value (MCEV) that shareholders may experience under adverse conditions over a time horizon of one year with a confidence interval of 99.93% reflecting the Group's target rating of AA. In other words, Risk Capital is held to protect against insolvency from the point of view of the economic balance sheet during the time horizon of one year. The time horizon has been chosen to be one year as it is assumed to take up to one year to transfer liabilities to a third party.

For the quantification of internal risk capital for life insurance operations, in a first step the risk universe is broken down into the categories market risk, credit risk, actuarial risks and business risks. These are further decomposed into single risk drivers and sub risk drivers; e.g. for mortality, level, trend and calamity risks are assessed separately. For each risk driver a stand-alone capital is defined based on the change in MCEV under worst case shock conditions of the corresponding risk driver.

Internal risk capital is calculated on a fund level, where "fund" refers to a subset of assets and related liabilities that are managed together, forming the basis for a common profit sharing mechanism and thus forming a key element of risk mitigation. In order to derive risk capital requirements on a fund level, stand-alone risk capital requirements per risk driver are aggregated in a first step to risk capital as per risk category and are further aggregated to a fund level. Diversification between non-financial risk types and between covered entities within MCEV scope is allowed for. Diversification does not include effects between financial and non-financial risk types and between covered and non-covered entities.

As described, Allianz internal risk capital for Life entities is based on the change in MCEV, and for P/C on a comparable change in economic value. Therefore the available economic capital to be considered to cover the capital requirement of the entity is the MCEV, which can be split into the VIF, i.e. the profit margin in the statutory reserves and the MCEV NAV. This means that to protect against insolvency from an economic point of view, capital may be required to be held in addition to local statutory reserves and statutory solvency capital up to risk capital, in case the available capital including margins in reserves is not sufficient to cover risk capital.

Generally, the economic capital requirement is monitored and met for each entity, however in exceptional situations, individual companies may not be fully capitalized beyond local solvency levels. This means that risk capital requirements may be higher than MCEV on a local level, or equivalently required capital may be higher than MCEV NAV, as long as targets are met at Group level. Nevertheless the local entities will have to reflect the full required capital (including the economic view) and calculate the cost of required capital accordingly.

## **A.4 Value of Inforce covered business**

The value of inforce covered business is defined as the present value of future profits from inforce covered business (or PVFP) after allowance for the value of financial options and guarantees (or O&G), for the cost of residual non-hedgeable risk (or CNHR) and for the frictional cost of required capital (or CReC). These terms are defined in the following sections.

### **A.4.1 Present value of future profits**

The PVFP is the discounted present value of the projected future emergence of shareholders' statutory profits, based on projected cash flows resulting from the current inforce portfolio.

Within the market consistent approach, each cash flow is valued using the discount rate consistent with that applied to such a cash flow in the capital markets. For example, an equity cash flow is valued using an equity risk discount rate, and a bond cash flow is valued using a bond risk discount rate.

Where cash flows are either independent of or move linearly with market movements, an equivalent and more practical method, known as the 'certainty equivalent' approach, can be applied, whereby it is assumed that all assets earn the risk-free rate and all cash flows are discounted using the risk-free rate. This leads to the same result as the method described in the previous paragraph.

The PVFP includes any intrinsic value of the embedded financial options and guarantees. Additional costs of O&G related to the variability of investment returns (the time value) are shown separately as described in the following section.

## A.4.2 Time value of options and guarantees

A market consistent approach has been adopted for the valuation of material financial options and guarantees, using a stochastic option pricing technique calibrated to be consistent with the market price of relevant traded options.

The most material options and guarantees granted by the Allianz Group companies are:

- Guaranteed interest rates and minimum maturity values
- Guaranteed minimum surrender values
- Annuity conversion options
- Extension options
- Options and guarantees for unit-linked contracts and variable life and annuities
- Fund switching options with guarantee

The time value of these options and guarantees is determined based on stochastic techniques. Due to their complex nature, for the majority of the business there is no closed form solution to determine the value. Therefore stochastic simulations are applied which project all cash-flows and reserves including expenses, taxes etc. under a significant number of economic scenarios to determine a stochastic PVFP. The time value of O&G is then calculated as the difference between the certainty equivalent and the stochastic PVFP.

The models and assumptions employed in the stochastic simulation are consistent with the underlying embedded value and allow for the effect of management actions and policyholder behavior in different economic scenarios. The scenarios and the key parameters used in the calculations of O&G are described in Appendix B.1.

Allianz has developed a central asset-liability interaction tool which is used by all entities for the stochastic simulations for options and guarantees and also for the calculation of risk capital. An important part of this tool is the modeling of investment management and crediting strategies:

The main components of the **investment strategies** are the definition of a target asset allocation, definition of buying and selling rules for the rebalancing process and the definition of asset profiles for reinvestments. While in the standard model the target allocation is defined upfront for each fund and time step, some subsidiaries have refined the implemented strategy to include simple dynamic rules based on stress tests that are prescribed by local authorities. The target allocation is normally consistent with the current asset mix. Projected changes to the asset mix can only be considered to the extent that they have already been agreed in business plans and have been at least partly achieved by the end of the reporting period. Such changes are only considered to the extent that they are projected to be realized within the first three projection years.

The modeled **crediting strategy** considers all regulatory and contractual rules. Within these boundaries it is recognized that management behavior is driven by both shareholders' and policyholders' expectations given the economic environment in each scenario. The usage of buffers such as unrealized capital gains or participation funds to meet certain return targets for policyholders and shareholders is defined in the strategy. Where there is management discretion with regard to different types of profit sharing, as for example between terminal dividends versus cash or bonus crediting, a corresponding strategy is defined.

Implemented management strategies follow a strict governance procedure. All specific enhancements and significant parameters are signed off by both local management and Allianz Group. It needs to be demonstrated that the modeled strategies reflect observed management behavior and that any legal and contractual rules are considered as well as potential external drivers such as market pressure. Modeling simplifications are evaluated.

The valuation of guaranteed surrender, extension and conversion options requires modeling of **dynamic policyholder behavior** dependent on the movement of financial markets. Unlike options on traded assets, however, it is not possible to evaluate these options assuming fully rational policyholder behavior. Contractual features such as surrender penalties, terminal dividends or riders have an impact on the behavior just as the fact that certain embedded features in life contracts cannot be acquired elsewhere. Most Allianz subsidiaries model dynamic behavior as a function of the spread between the credited rates and a market benchmark return. The best estimate assumptions are only altered when the spread exceeds certain boundaries and the dynamic change of the best estimate rates is generally limited. The corresponding parameters vary by product and client group.



### A.4.3 Cost of residual non-hedgeable risk

MCEV Principle 9 requires explicitly an allowance for all non-hedgeable risk which are not already allowed for in the time value of options and guarantees or in the deterministic PVFP. In addition to the hedgeable financial risk captured in the time value or options and guarantees, allowance needs to be made for non-financial risks, for non-hedgeable financial risk and for operational risk, where both symmetric and asymmetric risk needs to be considered.

Allianz captures non-financial and operational risk within the cost of residual non-hedgeable risk (CNHR). Allianz applies a cost of capital approach, i.e. the allowance is calculated based on the cost of holding capital for non-financial and operational risk. The risk capital is based on the internal risk capital model and equal to the stand alone risk capital for mortality risk, lapse risk, expense risk and operational risk. It is based on a 99.93% percentile as required by Allianz target rating of AA for our internal model, to which we apply a capital charge of 4.5% (see Appendix B.2). Assuming a 99.5% percentile, this would correspond to a cost of capital charge of 6.5%.

Non-financial risk capital is allowing for an average diversification of covered risks. This covers diversification between non-financial risk types and between covered entities within MCEV scope. Diversification does not include effects between financial and non-financial risk types and between covered and non-covered entities. The capital is projected over the life time of the portfolio based on the projected reserve and other relevant drivers such as sum at risk. The same drivers are used to split the total capital for non-financial risk between existing business and new business. The charge applied to the projected capital reflects the cost of funds for the Group (see Appendix B.2). To ensure compliance with MCEV Principles, we have assessed separately the cost of asymmetries in non-financial risk and the cost of operational risk which is not included yet in the PVFP or in the options and guarantees. This analysis showed that the major part of our cost of residual non-hedgeable risk is actually an allowance for uncertainty and symmetric risk, and only the minor part of CNHR is the required allowance for asymmetric non-financial and operational risk.

Financial non-hedgeable risk exists in markets which are not sufficiently deep and liquid, e.g. where swaps are not available for all durations and only shorter than projected liabilities. For Allianz this is the case for Asian and New Europe entities. The MCEV Principles require that where the available swap yield curve is shorter than the projected liability cash flows, the swap curve should be extended using an appropriate methodology, for example forward rates remain level at the swap yield available at the longest term. In order to allow for the corresponding cost of financial non-hedgeable risk we apply a charge based on the impact of a 10bp down-shift in the yield curve. With emerging market practice this approach will be further refined. The corresponding allowance for financial non-hedgeable risk is allowed for in the CNHR and amounts to approximately EUR 40mn for the corresponding entities in Asia and New Europe.

### A.4.4 Frictional Cost of Required Capital

The cost of holding required capital is the difference between the amount of required capital and the present value of future releases, allowing for future investment returns of that capital. It reflects the impact on the value for the shareholder due to the fact that the capital is locked in the company to run the business.

The cost of holding the ReC consist of the projected tax to be paid on interest earned from assets backing the required capital in each projection year and the cost of investment management of these assets, where these have not already been allowed for in the PVFP.

Where investment income on assets backing required capital is subject to profit participation with policyholders, this leads to an additional source of frictional cost of required capital. For Allianz this applies only to the German Health business.

Where capital is derived from the internal risk capital model the capital is projected over the life time of the portfolio based on the projected reserve and other relevant drivers such as sum at risk. The same drivers are used to split the total required capital between inforce and new business.

## A.5 New Business

New business is comprised of individual and group policies sold during the reporting period including the expected renewals and expected future contractual alterations to those contracts. Recurring single premiums written under the same contract are included in the value of the contract where future single premiums and their level are reasonably predictable. Additional or ad-hoc single premiums that are paid into existing policies are treated as new business in the year of payment. Short-term group risk contracts are projected with allowance for renewal rates in line with observed experience.

The value of new business (VNB) is defined as the value added to the value of inforce by the new policies. It is calculated as the present value of future after tax profits (PVFPP) minus the time value of options and guarantees (O&G) minus the cost of residual non-hedgeable risk (CNHR) minus the cost of holding the required capital (CReC).

The values are point of sale values. To better reflect point of sale assumptions in 2009 Allianz changed its approach to value the new business based on interest rates valid at the beginning of the quarter the business was sold in line with our quarterly disclosure of value of new business. Appendix B.1 shows the corresponding economic assumptions. For our US business, where products are re-priced more frequently, we apply a bi-weekly update of economic assumptions for new business calculations to better reflect how the business is managed.

Timing and assumptions for the present value of new business premiums are in line with assumptions used for the value of new business.

As described in our 2008 disclosure document, in December 2008 the CFO Forum concluded that the market environment at the end of 2008 displayed highly unusual characteristics which reflected wide spread concern in the market about liquidity and triggered unusual activities. The CFO Forum therefore agreed that companies calculating MCEV may adhere to principle 15.3 and apply average volatilities or volatilities taken from a different date than the valuation date as a more adequate basis for the valuation of long term business in the books.

As a consequence in 2008 we based our MCEV on volatilities based on 30. September 2008. The same assumptions have been applied for new business values in the first three quarters in 2009. In the 4<sup>th</sup> quarter we unlocked the volatility assumptions and now again apply volatilities as of valuation date (see Appendix B.1).

Expense allowances takes into account all acquisition expenses, including any overrun.

For a major part of the business the value added by new business is equal to the stand-alone value calculated for the business written in the year. Investment return assumptions are based on the market assumptions described in Appendix B.1. For open fund products, where new policies and existing policies are managed together in one fund, the stand-alone value is adjusted for certain interaction effects between new business and inforce business. In Germany for example initial expenses can be shared with all policyholders of the inforce fund, so the shareholder strain from new business is reduced significantly. Furthermore, in order to capture the impact on the time value of options and guarantees from the interaction between new business and previously written business, open fund products are valued on a marginal basis as the difference between the O&G value calculated with and without new business.

## A.6 Participating business

The profit sharing assumptions take into account contractual and regulatory requirements, management strategy and the reasonable expectations of policyholders.

For companies with significant unrealized gains or profit-sharing reserves, the crediting strategies may include a distribution of these buffers to policyholders and shareholders as the business runs off, consistent with established company practice and local market practice and regulation. Alternatively, these buffers may not be required in many of the scenarios to pay competitive bonus rates and there will be excess assets at the end of the projection. In the latter case, the excess assets at the end of the projection are shared between policyholders and shareholders in a consistent manner and the discounted value of the shareholders' share is included in the inforce value.

## A.7 Health business

The MCEV methodology for the German Health business is aligned to the methodology used for the Life entities. In addition certain specifics to health have been taken into consideration.

- An annual inflation of health cost is assumed which triggers premium adjustments on a regular basis.
- Any adjustment to the technical interest rates is determined in line with regulatory requirements
- The company's strategy to limit premium increases on inforce policies is applied.
- The time value of financial options and guarantees reported is zero as the technical interest rate used for reserving is not a minimum guarantee and can be adjusted in line with regulatory requirements. In addition, we have assessed that the ability to adjust premiums with respect to changes in economic factors is sufficient to fully cover the financial guarantees.
- Investment income on assets backing required capital is subject to profit participation, which leads to an additional source of frictional cost of required capital. This leads to a two thirds reduction in the shareholder value of required capital after frictional cost.
- The impact of 2009 German Health Reform is allowed for subject to limited experience on policyholder reaction to the reform.

## A.8 Look through adjustments

Under the MCEV Guidance, profits or losses in subsidiary companies providing administration, investment management, sales and other services related to managing the covered business should be included on a "look through" basis in the total MCEV profits.

The expenses incurred in service companies are directly deducted from the PVFP. As the majority of the related contracts are at cost, no further look-through adjustments are required for these arrangements.

There are, however, some arrangements with respect to the covered business where profits arise in service companies and the asset management segment, which have not been included in the MCEV calculations.

The total value of look-through adjustments on an MCEV basis is approximately EUR 550mn as at 31 December 2009. This additional value has not been included in the MCEV figures.

## B Appendix: Assumptions

### B.1 Economic assumptions

The embedded value results for 2009 are based on economic market conditions as of 31 December 2009.

Options and guarantees have been evaluated using market consistent scenarios. These have been generated to be arbitrage free, and the model underlying the scenarios has been calibrated to replicate actual prices for selected financial instruments at the valuation date. This calibration is provided by Barrie & Hibbert, a UK based financial consulting company. Stochastic economic scenarios are then generated centrally by an application also provided by Barrie & Hibbert.

Key economic assumptions for risk neutral evaluation are for every economy

- the risk free yield curve,
- the implied volatilities for each asset class,
- correlations between different asset classes and economies.

Market data for interest rates have been taken from an internal data base fed by Reuters data; market data used for calibration of volatilities has been taken from Reuters and Bloomberg where available and sufficiently liquid. Correlations and volatilities for real estate are based on historical data.

Risk free yield curves used in the certainty equivalent approach and the stochastic scenarios as reference rates are based on swap rates as at 31 December 2009.

For Korea reference rates are based on government rates as due to systematic distortions in the Korean swap versus the Korean government bond market, swap rates are not a robust source to evaluate the investment situation for a local company: As foreign investors have to pay a special tax ranging between 11% and 27.5% of interest income on government bonds which does not apply to local investors, local investors have a significant competitive advantage on the government bond market. As the same tax does not apply for the swap market external investors concentrate their investments on the swap market while local investors concentrate on the bond market. Studies performed at the beginning of 2009 demonstrate that external investors possess Korean bonds by 4.5% out of Korean bond market, while trading volume by external investors in the swap market is about 50% including foreign banks located in Korea. Therefore the swap and the government markets are largely disconnected and the swap rates do not provide a robust basis for producing reference rates for the valuation of a local business. As required by guidance 15.4 we therefore use governments as a basis for the reference rates.

For currencies where swap markets are not sufficiently deep and liquid for all required durations as is the case in Hungary and Poland, the yield curves are extrapolated by considering the behavior of the reference currency EUR at the long end. For Taiwan and Thailand, where government curves exist beyond the horizon where swap markets are deep and liquid, the swap curve has been extended to the length of the government bond curve by maintaining a constant margin from the end of the swap curve and assuming that it remains level thereafter.

For currencies where swap markets are not sufficiently deep and liquid, government rates are used as is the case in China, Indonesia, Malaysia, Croatia, and Romania. The corresponding MCEV of these entities is less than 1% of the total MCEV.

Table 1 shows the risk free yields used in the market consistent valuation by currencies:

**Table 1: Risk free rates**

		1 year	2 year	5 year	10 year	20 year
		%	%	%	%	%
EUR	as of 31.12.2008	3,12%	2,72%	3,23%	3,79%	3,89%
	as of 31.03.2009	1,83%	1,81%	2,69%	3,46%	4,00%
	as of 30.06.2009	1,52%	1,82%	2,93%	3,74%	4,37%
	as of 30.09.2009	0,96%	1,71%	2,75%	3,54%	4,15%
	as of 31.12.2009	1,05%	1,81%	2,82%	3,69%	4,23%
CHF	as of 31.12.2008	1,12%	1,14%	1,97%	2,66%	2,77%
	as of 31.03.2009	0,86%	0,78%	1,77%	2,60%	2,85%
	as of 30.06.2009	0,82%	0,81%	1,90%	2,80%	3,31%
	as of 30.09.2009	0,36%	0,79%	1,68%	2,54%	3,14%
	as of 31.12.2009	0,36%	0,84%	1,70%	2,55%	3,08%
USD	as of 31.12.2008	2,04%	1,48%	2,14%	2,57%	2,84%
	as of 31.03.2009	1,40%	1,40%	2,29%	3,00%	3,38%
	as of 30.06.2009	1,62%	1,54%	3,02%	3,88%	4,29%
	as of 30.09.2009	0,64%	1,35%	2,76%	3,62%	4,07%
	as of 31.12.2009	0,63%	1,38%	3,01%	4,12%	4,74%
KRW	as of 31.12.2008	3,28%	3,65%	4,21%	4,58%	4,84%
	as of 31.03.2009	2,70%	3,72%	4,96%	5,45%	5,61%
	as of 30.06.2009	2,99%	4,03%	4,90%	5,48%	5,78%
	as of 30.09.2009	2,20%	3,90%	5,05%	5,51%	5,78%
	as of 31.12.2009	2,44%	3,67%	4,81%	5,41%	5,79%
CZK	as of 31.12.2008	3,97%	2,67%	2,85%	3,34%	3,26%
	as of 31.03.2009	2,86%	2,70%	3,19%	3,76%	4,14%
	as of 30.06.2009	2,62%	2,64%	3,53%	3,97%	4,40%
	as of 30.09.2009	2,47%	2,60%	3,49%	3,92%	4,30%
	as of 31.12.2009	2,14%	2,24%	3,03%	3,62%	4,11%
HUF	as of 31.12.2008	9,62%	8,20%	7,88%	7,24%	6,06%
	as of 31.03.2009	10,33%	10,47%	10,13%	9,09%	7,52%
	as of 30.06.2009	9,58%	8,63%	8,46%	8,05%	6,71%
	as of 30.09.2009	7,37%	6,87%	6,97%	6,83%	6,05%
	as of 31.12.2009	6,48%	6,84%	7,30%	7,18%	6,43%
PLN	as of 31.12.2008	5,96%	4,29%	4,13%	4,41%	4,18%
	as of 31.03.2009	4,31%	4,55%	5,23%	5,48%	5,41%
	as of 30.06.2009	4,82%	4,97%	5,47%	5,53%	5,44%
	as of 30.09.2009	4,49%	4,91%	5,44%	5,46%	5,27%
	as of 31.12.2009	4,53%	5,07%	5,77%	5,79%	5,53%
THB	as of 31.12.2008	1,82%	1,76%	2,23%	2,40%	2,59%
	as of 31.03.2009	2,22%	2,23%	3,03%	3,55%	3,88%
	as of 30.06.2009	1,94%	2,59%	3,74%	4,43%	5,08%
	as of 30.09.2009	1,63%	2,36%	3,67%	4,38%	5,08%
	as of 31.12.2009	1,20%	2,13%	3,66%	4,56%	5,21%
TWD	as of 31.12.2008	1,55%	1,09%	1,28%	1,46%	1,67%
	as of 31.03.2009	0,92%	1,01%	1,56%	1,88%	2,33%
	as of 30.06.2009	0,93%	0,99%	1,64%	1,94%	2,31%
	as of 30.09.2009	0,92%	0,94%	1,67%	2,08%	2,51%
	as of 31.12.2009	0,91%	1,00%	1,86%	2,26%	2,61%
JPY	as of 31.12.2008	0,73%	0,73%	0,91%	1,24%	1,70%
	as of 31.03.2009	0,95%	0,77%	0,97%	1,33%	1,86%
	as of 30.06.2009	0,88%	0,66%	0,88%	1,40%	2,01%
	as of 30.09.2009	0,45%	0,58%	0,86%	1,46%	2,13%
	as of 31.12.2009	0,34%	0,48%	0,70%	1,44%	2,24%

Annual zero coupon rates derived from swap rates except KRW which is based on government bond rates.

For THB and TWD, swap rates until year 10 and extrapolation based on government rates afterwards.

According to MCEV Principles G15.3, volatility assumptions should be based on the most recently available information as at the valuation date. Swaption implied volatilities used for the 2009 MCEV calculations are therefore based on 31 December 2009

As described in A.5 due to distortions in the market at beginning of 2009 value of new business for the first three quarters were based on volatilities as of 30 September 2008 which had also been applied to MCEV 2008. In the 4<sup>th</sup> quarter we unlocked the volatility assumptions and now again apply volatilities as of valuation date.

Table 2 shows the development of swaption implied volatilities and table 3 shows the swaption implied volatilities for four main currencies.

**Table 2: Development of swaption implied volatilities**

	Dec 07	Sep-08	Dec 08	Mar 09	Jun-09	Sep-09	Dec 09
	%	%	%	%	%	%	%
EUR	10.5%	<b>13.0%</b>	23.7%	18.1%	14.6%	15.0%	<b>15.6%</b>
CHF	13.0%	<b>12.7%</b>	20.4%	20.7%	18.3%	18.9%	<b>19.9%</b>
USD	13.3%	<b>16.3%</b>	25.7%	21.3%	16.9%	19.2%	<b>16.3%</b>
KRW	10.8%	<b>10.8%</b>	10.8%	10.8%	10.8%	11.9%	<b>11.7%</b>

*Volatilities implied in option on 20 year swaps for EUR and USD; 10 year swaps for CHF from Dec-08 on; with term 10 years at the money. Historical volatilities for KRW till Jun-09, option on 10 year swaps afterwards.*

**Table 3: Swaption implied volatilities**

option term		1 year	2 year	5 year	10 year	20 year
		%	%	%	%	%
EUR	as of 30.09.2008	16.4%	15.3%	13.7%	13.0%	11.8%
	as of 31.12.2009	21.0%	20.5%	17.4%	15.6%	17.4%
CHF	as of 30.09.2008	18.3%	16.7%	14.0%	12.7%	12.0%
	as of 31.12.2009	27.4%	25.1%	21.7%	19.9%	14.7%
USD	as of 30.09.2008	24.7%	22.5%	20.1%	16.3%	14.5%
	as of 31.12.2009	25.9%	24.7%	20.6%	16.3%	12.8%
KRW	as of 30.09.2008	12.3%	12.0%	11.5%	10.8%	8.5%
	as of 31.12.2009	16.0%	14.0%	11.9%	11.7%	11.2%

*Volatilities implied in option on 20 year swaps at the money (10 year swaps for CHF and KRW at year end 2009). For KRW historical volatilities on 30.09.2008 and implied volatilities on 31.12.2009 for all terms.*

For modeling fixed income stochastic scenarios, the extended 2-factor Black-Karasinski model is used.

For fixed income instruments, parameters are fitted to at-the-money swaption implied volatilities. When calibrating to swaption implied volatilities, the greatest weight has been given to the volatilities implied by options on 20-year swaps or the longest term available, in order to account for the long term nature of the life business.

A range of equity indices is considered. For modeling equity and real estate returns, a short rate excess model is used to generate returns from fixed income dynamics of the economy. A constant volatility model is used where the modeled equity volatility is independent of the option term.

Equity volatilities are taken from implied volatilities of long term equity options at the money, targeted to the longest maturity option available (10 years).

Table 4 shows the equity option implied volatility for the main equity indices.

**Table 4: Equity option implied volatilities at the money**

Index		as of	as of	as of	as of	as of	as of	
		31.12.2007	<b>30.09.2008</b>	31.12.2008	31.03.2009	6/30/2009	9/30/2009	12/31/2009
		%	%	%	%	%	%	
EUR	DAX	27.8%	<b>28.3%</b>	33.8%	32.2%	28.4%	30.5%	27.5%
	EUROSTOXX	27.3%	<b>28.1%</b>	34.3%	34.0%	28.6%	28.2%	28.6%
	CAC	28.0%	<b>29.1%</b>	33.0%	32.9%	28.6%	27.3%	28.7%
CHF	SMI	23.7%	<b>25.8%</b>	32.5%	29.6%	25.5%	23.8%	23.7%
USD	S&P 500	25.9%	<b>28.4%</b>	35.2%	34.1%	29.9%	27.3%	29.0%
KRW	KOSPI	36.4%	<b>36.4%</b>	36.4%	36.4%	36.4%	29.6%	29.4%

*Volatilities implied in 10 year equity option at the money, historic volatility for KOSPI till June 2009*

Best estimate levels of volatility are used in the market consistent calibration to derive real estate volatility since meaningful option prices for the property market were not available. The CHF real estate volatility is reviewed and updated in 2009 to reflect the lower volatility in the Swiss specific real estate environment.

Table 5 shows the real estate volatility for the main currencies.

**Table 5: Real estate volatilities**

	as of	
	9/30/2008	12/31/2009
	%	%
EUR	13.8%	13.8%
CHF	13.8%	8.9%
USD	13.8%	13.8%
KRW	13.8%	13.8%

To show the impact of asset mixes and inter-economy relations, correlation assumptions were estimated from historic market data (see Table 6), which was reviewed and updated in 2009. The sensitivity of the MCEV to all correlation parameters is generally small.

**Table 6: Correlation assumptions**

	Fixed income 1 year bond rate				Equity Indices					
	EUR	CHF	USD	KRW	CAC	HDAX	KOSPI	SPI	Eurostoxx50	S&P500
Fixed income	1.00	0.63	0.48	0.40	0.22	0.22	0.14	0.22	0.23	0.16
1 year bond rate		1.00	0.43	0.31	0.11	0.13	0.14	0.13	0.13	0.01
			1.00	0.45	0.22	0.23	0.11	0.22	0.23	0.12
				1.00	0.06	0.08	0.10	0.06	0.08	0.03
Equity Indices					1.00	0.91	0.45	0.88	0.88	0.70
						1.00	0.47	0.88	0.89	0.66
							1.00	0.48	0.43	0.25
								1.00	0.85	0.62
									1.00	0.63
										1.00

A set of 1000 scenarios is used for stochastic calculations of options and guarantees. To reduce Monte-Carlo errors antithetic random variables are used.

## B.2 Capital charge for cost of residual non-hedgeable risk

The capital charge for non-financial risk is calculated as a multiple of the market-assessed risk factor for the insurance segment (beta) and the equity market risk premium. The values used at 31 December 2009 are 0.9 for beta and 5.0% for the equity market risk premium leading to a capital charge of 4.5% (3.6% in 2008 and the first three quarters of 2009). The value for beta is derived from a peer analysis for the individual segments and corresponds to a weighted beta of 0.9 for the Allianz Group. The equity market risk premium is based on best estimate assumptions with reference to analyst and academic assumptions.

### B.3 Foreign currency exchange rates

Embedded values are calculated in local currencies and converted to Euro using the corresponding exchange rates as of the valuation date. Exchange rates are consistent with the rates used the balance sheet of our IFRS financial accounts. The exchange rates against the Euro are shown in the table 7 below.

**Table 7: Main exchange rates against EUR**

	2008	2009
CHF	1.4850	1.4832
USD	1.3917	1.4348
KRW	1,839.1	1,670.7
CZK	26.875	26.405
HUF	266.70	270.23
PLN	4.1535	4.1059
THB	48.285	47.835
TWD	45.893	45.891

### B.4 Non-economic assumptions

Non-economic assumptions such as mortality, morbidity, lapse rates or expenses are determined by the respective business units based on their best estimate as at the valuation date.

Best estimate assumptions are set by considering past, current and expected future experience. Future expected changes are taken into account in best estimate assumptions only when sufficient evidence exists and the changes are reasonably certain. Future improvements in productivity can be allowed only if they have been agreed in business plans which have been partly achieved at least by the end of the reporting period, and only to the extent that they are projected to be realized within the first projection year. All the expected expense overruns affecting the covered business, such as holding company operating expenses, overhead costs and development costs in new markets are allowed for in the calculations.

### B.5 Tax assumptions

Tax assumptions are set in line with the local tax regime. Tax losses carried forward are considered in the projections. Tax is based on marginal tax impacts. For example, losses on different portfolios can be compensated within one company, and also between Life and P/C portfolios where held in one legal entity. Tax impact of future new business is not allowed for. The following Table 8 shows the nominal tax rates applied.

**Table 8: Tax assumptions**

	2008	2009
Germany	31%	31%
France	34%	34%
Italy	32%	32%
USA	35%	35%
Korea	22%	22%
Switzerland	22%	21%



## C Appendix: Real world economic assumptions

Free shareholder cash flows as shown in 2.5 are based on real world economic assumptions.

The following assumptions are centrally provided:

- Risk free zero coupon yields
- Equity returns
- Real estate returns
- Risk discount rates

Risk free yield curves are the same under real world assumptions as under risk neutral assumptions and are based on swaps, see Table 1.

Reinvestment rates are held constant for all future periods and all asset classes which means that yields are assumed constant over time for all durations and do not dynamically follow the forward curve.

Fixed risk premiums are assumed for all risky assets. Return assumptions for equity and real estate are derived from the risk free rate, i.e. the 10 year swap rate, plus a risk premium; see Table 9.

**Table 9: Economic assumptions for real world projection**

	2008	2009
Equity risk premium	400bp	500bp
Real estate risk premium	0.2 x 10 year swap rate	

Other economic assumptions applied in the real-world projections such as credit spreads, credit defaults, returns for other asset classes are determined by the respective business units based on the local market data.

All economic assumptions are as of 31 December 2009.

## D Appendix: Disclaimer

### Cautionary note regarding forward-looking statements

The statements contained herein may include statements of future expectations and other forward-looking statements that are based on management's current views and assumptions and involve known and unknown risks and uncertainties that could cause actual results, performance or events to differ materially from those expressed or implied in such statements. In addition to statements which are forward-looking by reason of context, the words "may", "will", "should", "expects", "plans", "intends", "anticipates", "believes", "estimates", "predicts", "potential", or "continue" and similar expressions identify forward-looking statements. Actual results, performance or events may differ materially from those in such statements due to, without limitation, (i) general economic conditions, including in particular economic conditions in the Allianz Group's core business and core markets, (ii) performance of financial markets, including emerging markets, and including market volatility, liquidity and credit events (iii) the frequency and severity of insured loss events, including from natural catastrophes and including the development of loss expenses, (iv) mortality and morbidity levels and trends, (v) persistency levels, (vi) the extent of credit defaults, (vii) interest rate levels, (viii) currency exchange rates including the Euro/U.S. Dollar exchange rate, (ix) changing levels of competition, (x) changes in laws and regulations, including monetary convergence and the European Monetary Union, (xi) changes in the policies of central banks and/or foreign governments, (xii) the impact of acquisitions, including related integration issues, (xiii) reorganization measures, and (xiv) general competitive factors, in each case on a local, regional, national and/or global basis. Many of these factors may be more likely to occur, or more pronounced, as a result of terrorist activities and their consequences. The company assumes no obligation to update any forward-looking statement.

#### **No duty to update**

The company assumes no obligation to update any information contained herein.

## E Appendix: Glossary and abbreviations

<b>Aggregate policy reserves</b>	Policies inforce- especially in life, health, and personal accident insurance- give rise to potential liabilities for which funds have to be set aside. The amount required is calculated actuarially.
<b>Best estimate assumptions</b>	A best estimate assumption should equal to the mean estimate (probability weighted average) of outcomes of that risk variable.
<b>Cost of residual non-hedgeable risk (CNHR)</b>	Explicit allowance for non-hedgeable risk based on cost of capital approach. as defined in MCEV Principle 8. It takes into account non-hedgeable financial risk, non-financial risks, and operational risk, like expense, lapse and operational risk. Both symmetric and asymmetric risk are considered.
<b>Covered business</b>	The contracts to which the MCEV methodology has been applied, in line with the MCEV Principles.
<b>Deferred acquisition costs</b>	Expenses of an insurance company which are incurred in connection with the acquisition of new insurance policies or the renewal of existing policies. These include commissions paid and the costs of processing proposals.
<b>Embedded value, (EV); Market Consistent Embedded Value (MCEV)</b>	MCEV is a measure of the consolidated value of shareholders' interest in the covered business. It is defined as Net asset value (NAV) + Present value of future profits (PVFP) + Time value of options and guarantees (O&G) + Cost of residual non-hedgeable risk (CNHR) + Frictional Cost of required capital (CReC)
<b>Free surplus (FS)</b>	The market value of any assets allocated to, but not required to support, the inforce business covered as defined in MCEV Principle 4. Formerly it was named excess capital.
<b>Frictional Cost of required capital (CReC)</b>	The additional investment and taxation costs incurred by shareholders through investing required capital in the company rather than directly. Further, frictional cost may be due to any sharing of investment income on required capital with policyholders, as defined in MCEV Principle 8.
<b>IAS</b>	International Accounting Standards.
<b>IFRS</b>	International Financial Reporting Standards. Since 2002, the designation IFRS applies to the overall framework of all standards approved by the International Accounting Standards Board. Already approved standards will continue to be cited as International Accounting Standards (IAS).
<b>Implied risk discount rate</b>	Risk discount rate which, when used within the traditional deterministic embedded value projection gives the same value as that arising from the MCEV
<b>Look-through basis</b>	A basis via which the impact of an action on the whole Group, rather than on a particular part of the Groups, is measured. Under this basis, the MCEV would allow for the value of profits or losses which arise from subsidiary companies providing administration, investment management, sales and other services in relation to the covered business.
<b>MCEV earnings</b>	Change in EV after initial adjustments and before capital transfers
<b>Net asset value (NAV)</b>	Capital not backing local statutory liabilities, valued at market value.
<b>New business margin</b>	Value of new business divided by present value of new business premiums
<b>New business strain</b>	Impact of new business on free surplus in the year business is written: (negative) profit in the first year plus initial capital binding. Negative result in first year reflects shareholder share in initial expenses
<b>Present value of future profits (PVFP)</b>	Future (statutory) shareholder profits after tax projected to emerge from operations and assets backing liabilities, includes value of unrealized gains on assets backing policy reserves.
<b>Present value of new business premiums (PVNBP)</b>	The present value of future premiums on new business written during the year discounted at the rate applied to that cash flow, as defined in MCEV Principle 10. It is the present value of projected new regular premiums, plus the total amount of single premiums received
<b>Reinsurance</b>	Where an insurer transfers part of the risk which he has assumed to another insurer.
<b>Reserve for premium refunds</b>	That part of the operating surplus which will be distributed to policyholders in the future. This refund of premiums is made on the basis of statutory, contractual, or company by-law obligations, or voluntary undertaking.
<b>Required Capital (ReC)</b>	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 as defined in Principle 5. It is determined as higher of local solvency, capital requirement from internal risk capital and additional capital required by market standards
<b>Reference rate</b>	Risk free rate based on swap rates used for valuation of PVFP in the certainty equivalent approach
<b>Risk discount rate (RDR)</b>	Rate used in the previous top-down EV approach to discount future profits.
<b>Stochastic techniques</b>	Techniques that incorporate the potential future variability in assumptions affecting their outcome.
<b>Time value and intrinsic value of options and guarantees</b>	An option feature has two elements of value, the time value and intrinsic value. The intrinsic value is that of the most valuable benefit under the option under conditions

	at the valuation date. Time value is the additional value ascribable to the potential for benefits under the option to increase in value prior to expiry.
<b>Value of inforce (VIF)</b>	Present value of future profits from inforce business (PVFP) plus the time value of financial options and guarantees (O&G) granted to policyholders, plus the cost of residual non-hedgeable risk (CNHR), plus the frictional cost of holding required capital (CReC)
<b>Value of new business (VNB)</b>	The additional value to shareholder created through the activity of writing new business. It is defined as Present value of future profits (PVFO) after acquisition expenses plus the time value of financial option and guarantees (O&G), plus the cost of residual non-hedgeable risk (CNHR), plus the frictional cost of holding required capital, all determined at issue date.
<b>Variable annuities</b>	The benefits payable under this type of life insurance depend primarily of the performance of the investments in a mutual fund. The policyholder shares equally in the profits or losses of the underlying investments.