

KBC Group

Embedded Value Report 2009



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Management Summary

The Market Consistent Embedded Value (MCEV) 2009 of KBC's life insurance operations is an estimate of the economic value of KBC's current (covered) life insurance business as at 31/12/2009. An estimation is also made of the Value of the New Business (VNB) acquired during 2009.

KBC uses the MCEV as a management tool for its life operations. Applications derived from the MCEV model such as profit testing and VNB analysis are integrated into the everyday operations of the life business.

KBC applies a market consistent valuation methodology compliant with the European Embedded Value principles.

The 2009 scope of KBC's MCEV model is the life insurance business of following KBC subsidiaries: KBC Insurance Belgium, ČSOB Pojišť'ovna CZ and Warta TUnZ PL.

Due to the divestment program, Fidea and Vitis are no longer in scope of this MCEV report.

For 2009 the covered business lines account for 98% of the life provisions and 95% of the premium inflow (including unit-linked) of the life insurance business within KBC Group.

As at 31/12/2009, the MCEV stood at EUR 3 503 million.

The total MCEV increased with 28,8%, mainly due to better performing financial markets.

To calculate the MCEV, the Value of Business In force (VBI) is added to the Adjusted Net Asset Value (ANAV). The ANAV of the life business in scope amounted to EUR 2 558 million, while the VBI came to EUR 945 million.

The VNB of 2009 amounted to EUR 53 million. The new business margin on an Annualized Premium Equivalent basis came to 19%, while it stood at 2,3% when compared to the Present Value of New Business Premiums.

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Introduction

In this report, an analysis is made of the Market Consistent Embedded Value (MCEV) of KBC's life insurance business.

The 2009 scope of KBC's MCEV model is the life insurance business of following KBC subsidiaries: KBC Insurance Belgium, ČSOB Pojišť'ovna CZ and Warta TUnZ PL.

For 2009 the covered business lines account for 98% of the life provisions¹ and 95% of the premium inflow (including unit-linked) of the life insurance business within KBC Group.

For calculating the MCEV, we use a valuation of both the assets and the liabilities of the company in a way that is consistent with prices in the financial markets. The value of unquoted assets and liabilities is equivalent to the value that would be placed on the cash flows generated by these assets and liabilities in a deep and liquid market. It is, in a sense, simply an application of standard valuation principles by insurance companies which is also consistent with modern financial valuation theory applied in the financial markets and hence also with the replication concepts used in ALM.

Therefore the MCEV can be interpreted as the economic value of our current (covered) in-force business. It is defined as the sum of the Adjusted Net Asset Value (ANAV) and the Market Consistent Value of Business In force (MC VBI).

The ANAV corresponds to the shareholders' equity from an economic point of view, with relation to the life insurance business in scope.

The MC VBI expresses the market consistent value of the existing life insurance portfolio in scope.

A description of the methodology and the parameter assumptions can be found in Appendix C.

¹ An overview of the life insurance provisions per BU within KBC Group can be found in Appendix D.

1. MCEV results of KBC Group

1.1 Overview

Table 1 shows a high level overview of the MCEV results.

Table 1

Embedded Value ('000 EUR)	2008 restated ²	2009	% change 2008 - 2009
ANAV	2 247 835	2 558 202	+13,8%
MC VBI	472 370	944 804	+ 100,0%
Total MCEV	2 720 206	3 503 007	+28,8%

The total MCEV 2009 increased with 29%, compared to the MCEV at 31/12/2008.

The ANAV is positively impacted by the increase in unrealized capital gains and negatively impacted by the accounting losses over 2009. The loss arose mainly from impairments on equity. During 2009, a capital injection of 250 million EUR was made from KBC Group to KBC Insurance Belgium.

Also the MC VBI is positively impacted by better market conditions. Its increase is mainly due to the increase of unrealized capital gains on the assets that are counted as a part of the VBI and the decrease in implied volatilities. The latter resulted in a lower Time Value of Financial Options and Guarantees (TV FOG).

Around 6% of the total MCEV is generated through KBC Asset Management via the management of unit-linked funds.

The changes in the ANAV and VBI are fully detailed in the movement analysis in Section 3.

² The MCEV figures of 2008 were restated to take into account:

- the change of the scope: Fidea and Vitis are no longer in scope; and
- some model improvements with relation to the ANAV and the VBI of the covered life insurance business.

For more information about this restatement we refer to Appendix A.

1.2 Adjusted Net Asset Value (ANAV)

Starting from the shareholders' equity on consolidated IFRS accounts of the life insurance business in scope, the ANAV is derived. Table 2 shows the adjustments that lead to this ANAV. The ANAV can be divided between required capital and free surplus. Based on the risk appetite of KBC Group, the required capital for the covered life business stood at 1 022 million EUR at end 2009.

The cost of the required capital is implicitly included in the Market Value Margin (MVM), that forms a part of the MC VBI.

Table 2

Adjusted Net Asset Value (‘000 EUR)	31/12/2009
shareholders equity after capital increase allocated to the covered life insurance business	2 766 456
Adding unrealized capital gains not recognised in IFRS	78 737
Elimination of Intangible Assets/ Goodwill	-79 415
Allocation of unrealized capital gains to VBI	-379 164
Reserves adjustments	171 588
ANAV 2009 after capital increase	2 558 202

We start from the shareholders' equity on consolidated IFRS accounts of the life insurance business in scope, after capital increase.

We add the unrealized capital gains/losses that are not yet reflected in the IFRS balance sheet, e.g. unrealized capital gains on HTM bonds.

The intangible assets (mainly goodwill) are eliminated.

The unrealised capital gains/losses on the assets that are counted as a part of the MC VBI are deducted.

From an economic viewpoint, some additional reserves (e.g. reserve for low interest rate risk) on the IFRS balance sheet are part of the shareholders' equity. Therefore these reserves are added to the ANAV.

Tax adjustments relative to the above changes in capital are taken into account in the different items.

After these adjustments, the shareholders' equity reflects the full economic (market consistent) value.

1.3 Market Consistent Value of Business In force (MC VBI)

The MC VBI expresses the market consistent value of the life insurance portfolio in scope. It is defined as the Certainty Equivalent Present Value of Future Profits (CE PVFP), taking into account the Time Value of Financial Options and Guarantees (TVFOG) and a Market Value Margin (MVM) for non-hedgeable risks.

Table 3 shows the composition of the MC VBI as at 31/12/2009 and the comparison with the restated MC VBI figures of 2008. Table 3 also shows the evolution of the VBI expressed as a percentage of the technical provisions of the covered life insurance portfolios, exclusive of extra reserves for low interest rate risk.

Table 3

Value of Business In force ('000 EUR)	2008 restated	2009	2009 under the new profit sharing policy
CE PVFP after tax	936 059	1 321 111	1 077 491
TVFOG	-363 787	-250 561	-6 941
MVM	-99 902	-125 746	-125 746
MC VBI	472 370	944 804	944 804
Technical provisions	18 822 820	20 916 135	20 916 135
VBI / TP	2,51%	4,52%	4,52%

- The CE PVFP increased significantly during 2009, mainly because of the better financial environment, leading to higher unrealized capital gains, which was partly offset by the impact of lower short term interest rates (due to the current product mix). Also the update of the expense assumptions had a positive effect on the MC VBI.
- The lower implied equity and interest rate volatilities led to a decrease of the TVFOG.
- The MVM increased mainly due to higher capital charges for operational risk, based on the QIS 5 formula (in anticipation of Solvency II).

At end 2009, KBC Insurance changed its profit sharing policy. This new approach doesn't change the overall amount of future profit sharing but only the way it is distributed over the future years.

In table 3, the composition of the MC VBI is also depicted taking into account this new profit sharing policy. Due to the change in profit sharing policy for KBC Insurance Belgium, the TV FOG for KBC Insurance Belgium becomes zero. The remaining TV FOG comes from BU CEER. A more detailed description of this new profit sharing policy can be found in Appendix C.

2. Value of New Business (VNB) results

The Value of New Business (VNB) accounts for the value of the new policies written during 2009 and is measured at date of sale (whereas in the VBI, this is included at year-end value). The value of new premiums in 2009 on existing business is not recognised as VNB.

Expected future new business is also not taken into account in the VNB (or VBI figures).

The methodology used for the VNB is the same as the one used for the valuation of existing business. For the non-economic parameters we use year-end assumptions. The economic assumptions are based on the quarter the products were sold.

As it is a measure of the VNB at date of sale, the reported VNB includes the initial income and expenses incurred at the inception of the policies involved.

Table 4 shows the total VNB at date of sale and the ratios of the VNB compared to

- the Present Value of New Business Premiums (PVNBP); and
- the Annualized Premium Equivalent (APE)
= recurrent premiums + 1/10th of single premiums.

Table 4

Value of New Business (‘000 EUR)	2008 Restated	2009
VNB	89 277	53 044
PVNBP	2 493 418	2 362 723
VNB/PVNBP	3,6%	2,3%
APE	272 716	279 714
VNB/APE	32,7%	19,0%

The VNB of 2009 decreased compared to the VNB of 2008.

Due to the product mix, the VNB of KBC Insurance Belgium is very sensitive to short-term interest rates. Therefore the decrease is mainly caused by these low short-term interest rates.

The decrease in VNB was also driven by lower new business volumes in Warta TUnZ PL and in the Unit-Linked products of KBC Insurance Belgium.

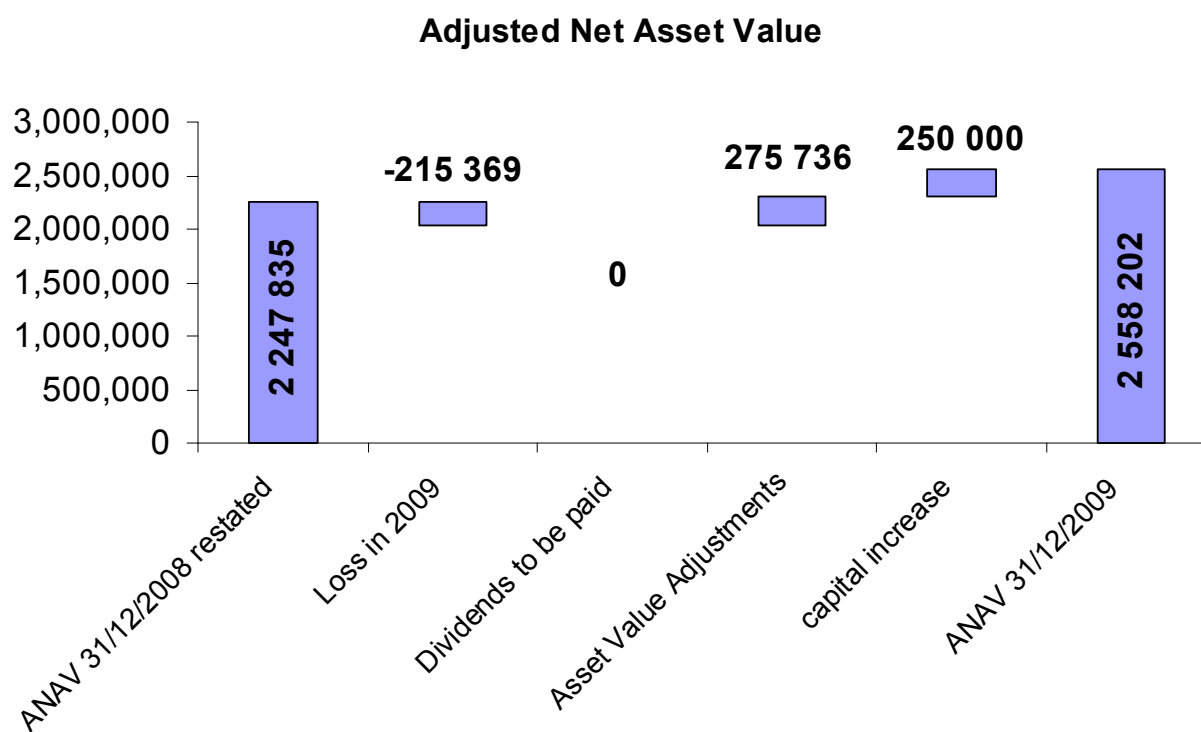
The PVNBP and APE ratios decreased respectively to 2,3% and 19,0%.

Around 10% of the total VNB is generated through KBC Asset Management via the management of unit-linked funds.

3. Movement analysis

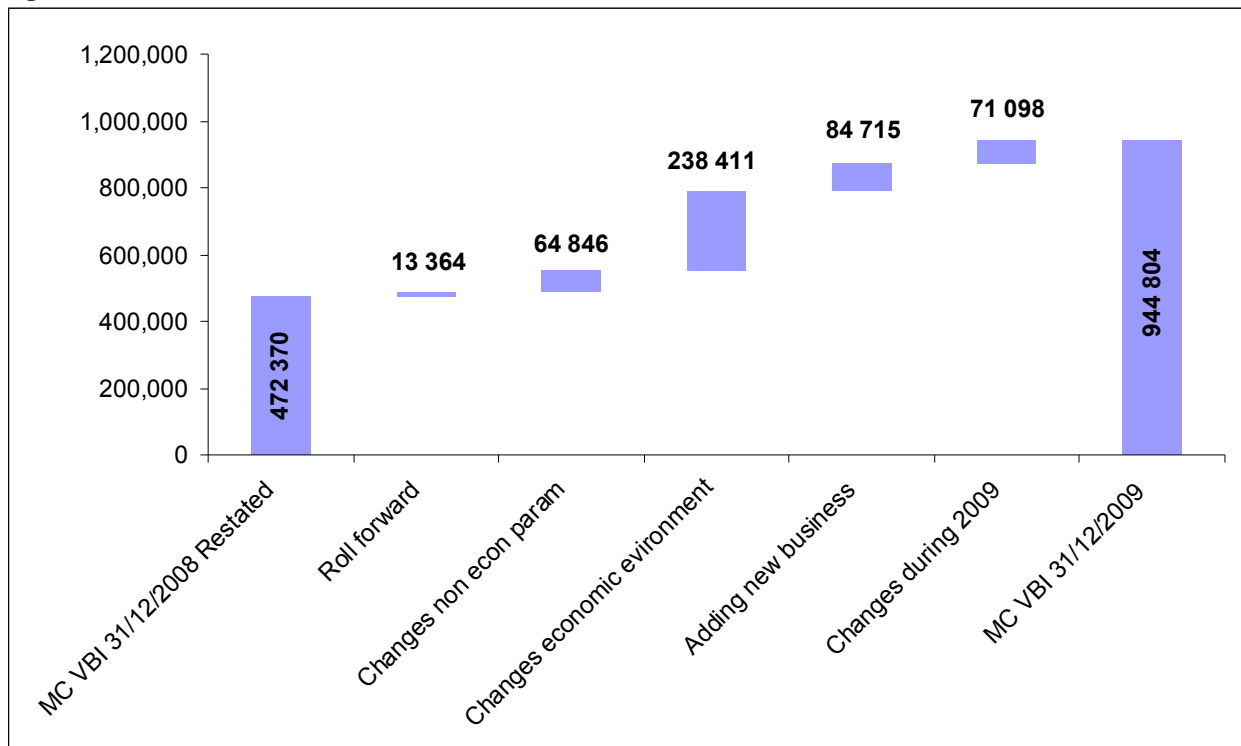
The movement analysis explains the movement from the MCEV 2008 to the MCEV 2009. This evolution is depicted in Figure 1 and Figure 2, which analyse the changes in the ANAV and the VBI, respectively.

Figure 1



- The loss in 2009 is largely due to asset impairments on equity during 2009
- No dividend has been paid for 2009.
- The asset value adjustments account for the impact of higher unrealized capital gains in the ANAV.
- During 2009 a capital injection from KBC Group to KBC Insurance was made.

Figure 2



Major drivers of changes in the MC VBI 2009 are:

- The roll forward, which contains the modelled profits over 2009 that are released from the MC VBI and transferred to the ANAV.
- Changes in non-economic parameters:
The positive impact is mainly due to a decrease in maintenance expenses at KBC Insurance Belgium, especially for certain non-linked products.
At ČSOB Pojišť'ovna CZ, the cost allocation system was revised, resulting in lower maintenance expenses and higher acquisition expenses.
- Changes in the economic environment:
The prevailing financial market context had a positive impact on the MC VBI, due to a significant increase in the unrealized capital gains behind the life portfolio. Also the TVFOG decreased significantly due to lower implied equity and interest rate volatilities.
- Adding New Business:
At the end of 2009 a value of EUR 85 million is added through the sale of new policies. This is the year-end value of the new business of 2009³.
- Changes during 2009:
These consist of the value created by additional premiums paid by policyholders under existing single premium contracts and the value created/lost by the difference between parameter assumptions and experienced data in 2009.

³ This value equals the VNB of 2009 based on year-end assumptions and exclusive of the new business strain. The new business strain is the loss on initial expenses and commissions that is already recognized in the profit and loss account of 2009.

4. Sensitivities

The calculation of the MCEV relies upon the current market conditions and several best estimate assumptions. This section assesses the impact of changes in these assumptions.

4.1 Non-economic sensitivities

Three groups of sensitivities are calculated for the non-economic parameters:

- Expenses +/-10%. All non-commission expense figures throughout the projection are multiplied by 1,1 and 0,9 respectively. Expense inflation is kept at the level of the basic calculation.
- Lapses and dormancy +/-10%. Lapse and dormancy assumption rates throughout the projection are multiplied by 1,1 and 0,9 respectively.
- Mortality rate +/-5%. All mortality experience rates throughout the projection are multiplied by 1,05 and 0,95 respectively.

Table 5 and Table 6 reflect the impact of changing the underlying assumptions on the MC VBI⁴ and the VNB, respectively.

Table 5

Non-economic sensitivities on MC VBI ('000 EUR)	
MC VBI	944,804
Expenses +10%	-5.17%
Expenses -10%	5.17%
Lapses & Dormancy +10%	-6.02%
Lapses & Dormancy -10%	6.86%
Mortality + 5%	-1.73%
Mortality – 5%	1.74%

Table 6

Non-economic sensitivities on VNB ('000 EUR)	
VNB	53 044
Expenses +10%	-8.71%
Expenses -10%	8.71%
Lapses & Dormancy +10%	-5.66%
Lapses & Dormancy -10%	5.06%
Mortality + 5%	-2.54%
Mortality – 5%	2.55%

Because of different portfolio compositions the impacts on VNB and VBI figures are different.

⁴ Since these sensitivities impact the MCEV only through the MC VBI, the impact is expressed as a percentage of the MC VBI.

4.2 Economic sensitivities

Also three groups of economic sensitivities are calculated:

- upward and downward parallel shifts of 50 Bp and 100 Bp in the risk-free interest rate (IR) yield curve;
- a 10% increase and decrease in the value of equity markets at the start of the projection;
- a 25% increase in implied volatilities for both interest rates and equities. All implied volatilities are multiplied by 1,25.

Table 7 and Table 8 reflect the impact of changing the underlying assumption on the MCEV and the VNB, respectively. These sensitivity shocks have an impact on the value of the portfolios, as well as on the other assets covering the ANAV of the business in scope. The impact of these shocks is therefore expressed as a percentage of the total MCEV.

Due to the change in future profit sharing policy, as explained in Appendix C, the KBC Insurance figure is no longer sensitive to a change in interest rate volatilities and equity volatilities. The sensitivity to equity volatilities comes from BU CEER.

The economic sensitivities on the VNB are determined under the assumptions that there is no compensation by the assets they are invested in.

Table 7

Economic sensitivities on MCEV ('000 EUR)	
Base case MCEV	3 503 007
IR +50 Bp	-0.41%
IR -50 Bp	0.67%
IR +100 Bp	-1.33%
IR -100 Bp	0.70%
Equity +10%	0.33%
Equity -10%	-0.33%
IR volatilities +25%	0.00%
Equity volatilities +25%	-0.08%

Table 8

Economic sensitivities on VNB ('000 EUR)	
Base case VNB	53 044
IR +50 Bp	33.49%
IR -50 Bp	-35.30%
IR +100 Bp	65.29%
IR -100 Bp	-72.56%
Equity +10%	-9.77%
Equity -10%	9.77%
IR volatilities +25%	0%
Equity volatilities +25%	-0.07%

5. Review statement

Towers Watson has reviewed the methodology and assumptions used to calculate the embedded value at 31 December 2009 and the 2009 value of new business, for the in-scope life insurance operations of KBC Insurance Belgium, ČSOB Pojišťovna CZ and Warta TUnZ PL.

Towers Watson has concluded that the methodology and assumptions used comply with the EEV Principles and Guidance, and in particular that:

- The methodology makes allowance for the aggregate risks in the covered business through KBC's market consistent methodology as described in this document;
- The operating assumptions have been set with appropriate regard to past, current and expected future experience;
- The economic assumptions used are internally consistent and derived from observable market data. It is noted that for 2009 reference rates have been based on swap rates as at 31 December 2009 plus a uniform uplift of 20bp; and
- For participating business, the assumed bonus rates and the allocation of profit between policyholders and shareholders, including in particular the methodology used to determine the value of the profit sharing budget for KBC Insurance Belgium's new profit sharing policy, are consistent with the projection assumptions, established company practice and local market practice.

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 total KBC embedded value at 31 December 2009 and 2009 value of new business. 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 KBC. This opinion is made solely to KBC 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 KBC for or in connection with its review work, the opinions it has formed, or for any statement set forth in this opinion.

Appendix A. Restatement MCEV 2008

Table 9 shows the restated MCEV 2008 figures taking into account:

- Change of scope: Vitis and Fidea are not taken into account; and
- some model improvements w.r.t. the ANAV and the MC VBI of the covered life insurance portfolios, as a results of a review of our models.

Table 9

Embedded Value (‘000 EUR)	2008	2008 Restated
ANAV	2 314 941	2 247 835
MC VBI	470 676	472 370
MCEV	2 654 163	2 720 206

Appendix B. Detailed Business Unit results

B.1. BU Belgium (KBC Insurance Belgium)

B.1.1. MCEV results

Table 10 shows the composition of the MCEV at 31/12/2009 and the comparison with the MCEV figures of 2008. Table 11 contains the evolution of the VBI expressed as a percentage of the technical provisions of the covered life insurance portfolios, exclusive of extra reserves for low interest rate risk.

Table 10

Embedded Value ('000 EUR)	2008 restated	2009	2009 under the new PS policy
ANAV	2 179 133	2 497 339	2 497 339
CE PVFP after tax	841 538	1 181 655	938 035
TVFOG	-356 785	-243 619	0
MVM	-78 845	-108 242	-108 242
MC VBI	405 908	829 793	829 793
MCEV	2 585 040	3 327 132	3 327 132

Table 11

Value of Business In force ('000 EUR)	2008 Restated	2009
MC VBI	405 908	829 793
Technical provisions	17 424 284	19 560 473
VBI / TP	2,33%	4,24%

The total MCEV 2009 increased strongly with 29% after a serious decrease in 2008.

The ANAV is positively impacted by the increase in unrealized capital gains, but negatively impacted by the accounting losses over 2009. The loss arose mainly from asset impairments on equity which was offset by an additional capital increase.

Also the MC VBI is impacted by the better performing financial markets resulting in an increase in unrealized capital gains on the assets that are counted as a part of the VBI and a decrease in implied volatilities. The latter resulted in a lower Time Value of Financial Options and Guarantees (TV FOG).

B.1.2. Value of New Business (VNB) results

Table 12 shows the total VNB at date of sale together with the ratios of the VNB compared to the PVNBP and the APE.

Table 12

Value of New Business (‘000 EUR)	2008 Restated	2009
VNB	72 879	42 999
PVNBP	1 537 574	1 554 401
VNB/PVNBP	4,7%	2,8%
APE	175 585	197 480
VNB/APE	41,5%	21,8%

The VNB of 2009 decreased compared to the VNB 2008. Also the PVNBP ratio and APE ratio decreased.

Due to the product mix, the VNB is very sensitive to short-term interest rates. Therefore the decrease is mainly caused by these low short-term interest rates.

The decrease in VNB was also driven by lower new business volumes in unit-linked products, combined with higher initial expenses.

B.2. BU CEER (ČSOB Pojišť'ovna CZ and Warta TUnZ PL)

B.2.1. MCEV results

Table 13 shows the composition of the MCEV as at 31/12/2009 and the comparison with the MCEV figures of 2008. Table 14 contains the evolution of the VBI expressed as a percentage of the technical provisions of the covered life insurance portfolios, exclusive of extra reserves for low interest rate risk.

Table 13

Embedded Value ('000 EUR)	2008 restated	2009
ANAV	68 703	60 863
CE PVFP after tax	94 521	139 456
TVFOG	-7 002	-6 941
MVM	-21 057	-17 503
MC VBI	66 463	115 012
MCEV	135 165	175 875

Table 14

Value of Business In force ('000 EUR)	2008 Restated	2009
MC VBI	66 463	115 012
Technical provisions	1 398 536	1 355 661
VBI / TP	4,75%	8,48%

For BU CEER the total MCEV increased with 30%, mainly due to a significant increase in the MC VBI figure.

The increase in the VBI is caused by:

- better performing financial markets
- better cost management and a better split of the total expenses between maintenance expenses and acquisition expenses.

B.1.2. Value of New Business (VNB) results

Table 15 shows the total VNB at date of sale together with the ratios of the VNB compared to the PVNBP and the APE.

Table 15

Value of New Business (‘000 EUR)	2008	2009
VNB	16 399	10 045
PVNBP	955 845	808 322
VNB/PVNBP	1,72%	1,24%
APE	97 131	82 234
VNB/APE	16,88%	12,2%

The PVNBP and APE ratios for BU CEER are strongly impacted by Warta Gwarancja. This is a short-term insurance product, sold by Warta TUnZ PL, that generates a high premium income, but a relative smaller VNB (due to its short term character). Without taking account of this specific product the PVNBP and APE ratios would be 3,4% and 32,9%, respectively.

Although the acquisition expenses increased⁵ at *ČSOB Pojišť'ovna CZ*, their VNB remained stable, while the VNB at Warta decreased, mainly due to lower sale volumes.

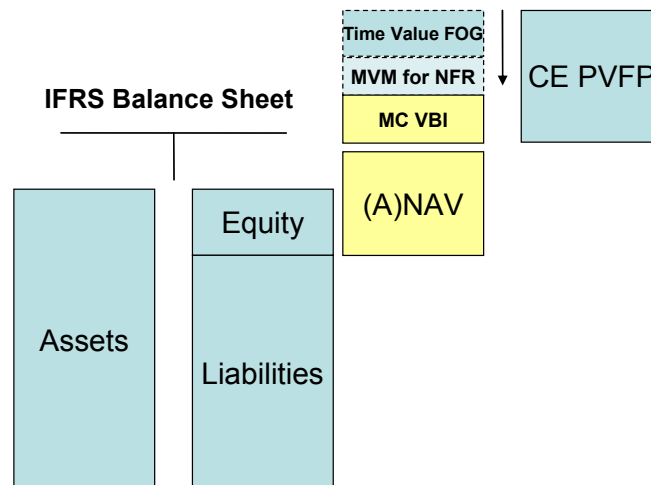
⁵ Due to the revision of their cost allocation system

Appendix C. Methodology and assumptions

C.1. Methodology

A market consistent valuation is a valuation of both the assets and the liabilities of the company in a way that is consistent with prices in the financial markets of financial instruments with similar characteristics. The value of unquoted assets and liabilities is equivalent to the value that would be placed on the cash flows generated by these assets and liabilities in a deep and liquid market. It is, in a sense, simply an application of standard valuation principles by insurance companies which are also consistent with modern financial valuation theory applied in the financial markets and hence also with the replication concepts used in ALM.

Several methods exist to present the market consistent value of the life insurance business. KBC has opted to present the figures in a way that is intuitively close to the traditional way of presenting embedded values and in line with the EEV principles.



The KBC MCEV consists of the following elements:

$$\begin{aligned}
 \text{MCEV} &= \text{Adjusted Net Asset Value} \\
 &+ \text{Certainty Equivalent Present Value of Future Profits} \\
 &- \text{Time Value of Financial Options and Guarantees} \\
 &- \text{Market Value Margin for non-hedgeable risks}
 \end{aligned}
 \left. \vphantom{\begin{aligned} \text{MCEV} \\ &+ \\ &- \\ &- \end{aligned}} \right\} = \text{Value of Business In force}$$

ANAV methodology

Starting from the shareholders' equity on consolidated IFRS accounts of the life insurance business in scope, the net tangible assets are derived. The following main adjustments are made to arrive at the ANAV:

- Unrealized capital gains/losses that are not yet reflected in the IFRS balance sheet are added, e.g. the unrealized capital gains/losses on the held-to-maturity (HTM) bonds.
- Some intangible assets (mainly goodwill) are eliminated, since they conceptually represent a book value of what is in principle taken into account in the VBI. Note however that some acquired life insurance portfolios within the BU CEER are not yet in scope of the VBI and that in general no value is attributed for future new business.
- Some additional reserves on the IFRS balance sheet are considered to be part of the ANAV from an economic viewpoint. These reserves are added to the ANAV.
- Unrealised capital gains/losses that will be included in the VBI as part of the portfolios' value need to be subtracted from the ANAV in order to preclude double-counting.
- Tax adjustments relative to the above changes in capital are taken into account.

After these adjustments, the shareholders' equity reflects the full economic (market consistent) value. The ANAV can be further broken down in two components: the required capital and free surplus.

The required capital is the part of the ANAV that is required to support the life business and can only be released to the shareholder over time as the life business runs off.

VBI methodology

The different building blocks used to calculate a market consistent VBI are described in detail below.

Certainty Equivalent Present Value of Future Profits (CE PVFP) after tax

The CE PVFP is the base value of the business without taking into account risk margins on the expected investment returns. This CE PVFP can be calculated using the traditional EV models, excluding all risk margins from the projections and discounting at the risk-free rates. This value takes the expected or intrinsic value of the financial options and guarantees in the portfolio into account, but ignores the time value of options and guarantees, which is valued separately.

We add the unrealised capital gains/losses on the assets linked to the life insurance liabilities to this part of the VBI.

Tax adjustments are taken into account.

Time Value of Financial Options and Guarantees (TVFOG)

The TVFOG is disclosed explicitly to place a market consistent value on the asymmetry of shareholder profits around their expectations as a result of financial options and guarantees embedded in the insurance cash flows.

This TVFOG needs to be deducted from the basic CE PVFP.

The options and guarantees, in respect of which an explicit time value is calculated, are the profit-sharing in addition to the interest rate guarantees.

At this time, KBC has chosen not to model other policyholder behaviour options, such as lapses, on a stochastic basis. Including this will require further study and an extension of the models.

The TVFOG is calculated as the difference between a stochastic valuation of the shareholders' margins (calculated by using 1000 risk-neutral scenarios on the basis of a KBC proprietary economic scenario generator) and a single deterministic valuation based on the central scenario at the time of projection (current market conditions also used in the CE PVFP valuation).

At end 2009, KBC Insurance Belgium changed his PS policy for future profit sharing, leading to less optionality and TV FOG. More details about this new future profit sharing policy can be found under '*Modelling of participation business*'.

Market Value Margin (MVM) for non-hedgeable risks

Where the market consistent value of future liability cash flows can be determined as the cost of setting up a replicating portfolio, the price can be determined from observable market prices. In order to determine the full market value of the liabilities, an explicit MVM for non-hedgeable risks needs to be deducted. In this way, an investor is compensated for the cost of taking on non-hedgeable risks.

KBC models the MVM for non-hedgeable risks according to a cost-of-capital approach. This approach is supported by the CRO Forum and is in line with approaches taken in Solvency 2 and the Swiss Solvency Test. The basic premise of the cost-of-capital approach is that sufficient capital is needed to cover these non-hedgeable risks during the run-off of the business.

The non-hedgeable risks that are taken into account as the basis for the MVM calculations are life insurance risks (mortality and longevity), operational risks and non-hedgeable ALM risks. The capital required for these risks is estimated using KBC's internal Economic Capital model. This Economic Capital model is based on the capital requirements for an AA solvency rating for the life business.

In line with the proposals elaborated in the Quantitative Impact Studies for Solvency 2 and the approach taken in the Swiss Solvency Test, a cost-of-capital risk premium (above the risk-free rate) of 6% p.a. is used to determine the MVM.

The MVM described above includes an implicit allowance for the Cost of Required Capital, being the cost of the taxation effect on the investment return earned on the Required Capital and the investment expenses incurred linked to the Required Capital. As described earlier, the Required Capital is the part of the ANAV that is required to support the life business, and can only be released to the shareholder over time as the life business runs off. An alternative, equivalent, presentation of the results could have been made, with an explicit allowance for the Cost of Required Capital and a much smaller allowance for non-hedgeable risks.

Based on these current market evolutions KBC will revise its MVM approach during 2010.

VNB methodology

The Value of New Business (VNB) includes only the value of the new policies written in 2009. The value of new premiums on existing business is not recognised as VNB.

Expected future new business is not taken into account in the VNB or VBI figures.

The methodology used for the VNB is the same as the one used for the valuation of existing business and is calculated at date of sale. For the non-economic parameters we use year-end

assumptions. The economic assumptions are based on the end of the relevant quarter. For Warta TUnZ PL and ČSOB Pojišť'ovna CZ year-end assumptions are used for all parameters. The reported VNB includes the initial income and expenses incurred at the inception of the policies involved.

Participating (or with profit) business

Participating business is typically characterised by:

- a minimum guaranteed interest rate; and
- profit sharing on top of this minimum guaranteed interest rate. The models reflect profit sharing according to past practice, reflecting the link with the performance of the financial markets, competition and taking into account management actions.

The nature of the profit sharing policy typically leads to asymmetric results, as investment returns in excess of the guaranteed rate will be partially paid out to policyholders, while, conversely, shareholders bear the full risk of investment returns below the guaranteed rate. The TVFOG reflects the likelihood of these asymmetric payments to the policyholders. It is the value on top of the intrinsic value of those options, which is captured in the CE PVFP.

At end 2009, KBC Insurance modified his Profit Sharing modelling. In the new profit sharing policy, part of the incoming premium is set aside for future profit sharing and invested in a certain asset mix. The return on these assets, together with the initial investments, is granted as profit sharing over the lifetime of the contract.

We expect that this new approach would leave the distribution of future profit sharing to be largely unaffected. It also guarantees that no more than the budget can be granted as profit sharing.

So by putting a certain budget aside for granting profit sharing, there is a clear split between the returns for the shareholders and the policyholders, which leads to a TV FOG of zero.

The change reflects a change in profit sharing policy rather than refined modelling and has no effect on the total value of future profit sharing. Therefore the total MCEV is not affected by the change in modelling, but the sensitivities are.

C.2. Economic assumptions

- **Yield curve**

The swap yield curve as at 31/12/2009 plus an allowance for a liquidity premium (see below) is adopted as the basis for the risk-free investment assumptions. The following table shows the swap yield curves as at 31/12/2009. For comparison purposes, the swap yield curve as at 31/12/2008 is also shown. For BU Belgium and ČSOB Pojišť'ovna CZ, rates beyond 30 years, and 20 years respectively, were derived under the assumption of a flat forward curve. For Warta TUnZ PL, flat extrapolation on the spot rates was used.

This yield curve (after inclusion of a liquidity premium) is used to derive stochastic economic scenarios, risk-free discount factors and forward reinvestment yields in the CE PVFP.

maturity	EUR		PLN		CZK	
	2008	2009	2008	2009	2008	2009
1	2.42%	1.37%	3.79%	3.32%	2.78%	1.29%
2	2.68%	1.81%	4.31%	5.08%	2.33%	2.25%
3	2.90%	2.19%	4.19%	5.47%	2.67%	2.65%
5	3.25%	2.81%	4.15%	5.81%	2.82%	3.03%
7	3.50%	3.27%	4.25%	5.83%	2.93%	3.26%
10	3.74%	3.74%	4.41%	5.83%	3.19%	3.64%
15	3.87%	4.11%	4.39%	5.73%	3.37%	4.06%
20	3.83%	4.19%	4.17%	5.48%	3.37%	4.14%
25	3.70%	4.13%	4.17%	5.48%	3.37%	4.03%
30	3.54%	4.01%	4.17%	5.48%	3.37%	3.87%

- **Liquidity premium**

As in 2008, KBC Insurance applied a liquidity premium above the swap rates. This liquidity premium reflects the ability, in current market conditions, to earn risk-free returns in excess of swap rates.

Based on the liquidity premium available in the financial markets and the actual asset portfolio, KBC Insurance used a liquidity premium of 20 bps. For economies with less observable data, the same liquidity premium is used.

- **Implied volatilities**

The volatilities in a risk-neutral model are calibrated to the implied volatilities of market prices for different asset classes. For KBC Insurance the Economic Scenario Generator is calibrated to volatilities of at-the-money 10-year swaptions and at-the-money equity options for the Eurostoxx 50. For ČSOB Pojišť'ovna CZ the euro data for swaptions market have been used since CZK swaptions market practically does not exist. For Warta TUnZ PL, the implied volatilities of a 4,5% cap for PLN are used to calibrate the model.

The applied volatilities for 2008 and 2009 are shown in the following tables.

EUR Swaption volatilities		
Year	2008	2009
1	31,70%	22,20%
3	24,10%	18,90%
5	20,80%	16,50%
10	18,30%	14,30%
20	25,50%	17,20%
30	25,30%	18,40%

EUR Equity volatilities		
Year	2008	2009
1	35,00%	24,40%
3	33,95%	26,62%
5	33,75%	27,10%
10	34,02%	28,58%
20	35,02%	29,58%
30	36,02%	30,58%

PLN Cap volatilities		
Year	2008	2009
1	13%	23,9%
3	17%	24,3%
5	17%	24,4%
10	15%	20,2%

- **Inflation**

The inflation rates are adjusted according to KBC's most recent forecasts.

BU Belgium	2008		2009	
	Wage	CPI	Wage	CPI
2009	1,5%	0,2%	1,5%	0,1%
2010	2,0%	1,7%	1,1%	1,6%
2011	2,5%	2,0%	1,7%	1,8%
>=2012	2,5%	2,0%	2,3%	2,1%

ČSOB Pojišť'ovna CZ	2008		2009	
	Wage	CPI	Wage	CPI
2009	6,0%	2,8%	4,3%	1,5%
2010	6,0%	2,6%	4,0%	2,0%
2011	5,0%	2,2%	4,5%	2,3%
>=2011	5%	2,2%	4,5%	2,3%

Warta TUnZ PL	CPI	
	2008	2009
2009	2,7%	2,3%
2010	2,2%	2,3%
2011	2,5%	2,5%
>=2012	2,5%	2,5%

C.3. Non-economic assumptions

- ***Mortality and lapse rates***

Cash flows are based on best estimate assumptions in order to reflect the obligations to the policyholders.

- For Belgium, the mortality experience rates are based on the Belgian mortality experience tables that are published by Assuralia (the Belgian professional organization of insurance companies) and updated each year. For CEER we use local data to determine the best estimate mortality rates.
- Lapses and dormancy rates are based on yearly experience studies performed by the life actuaries of each subsidiary. Based on historical figures and management judgement of future best estimates, lapse and dormancy figures are derived for the following years. The lapse and dormancy assumptions are set at product level and take into account several aspects, such as the sales channel, age of policyholder(s), lifetime of the policy, fiscal treatment, etc.

- ***Tax assumptions***

Tax is modelled on a top-down basis. The appropriate tax rates are applied to all items that are recognised as (future) profits.

- ***Expenses***

For KBC Insurance Belgium, all expenses of the covered life insurance business are included in the projections by means of a detailed Activity-Based Costing model.

Projected expenses are expected to grow at the same rate as expected future wage inflation. There is no allowance made for future productivity gains.

The other subsidiaries have used their own allocation system to derive their expenses.

Appendix D. Time series

KBC Group gross provisions for life insurance 31/12/2005-31/12/2009 per Business Unit

('000 EUR)		2005	2006	2007	2008	2009	Δ'08-09
Belgium	Unit Linked	7 156 039	8 174 953	7 511 088	5 767 550	6 021 405	4,40%
	Non Linked	8 546 005	9 593 191	10 336 629	11 898 110	13 813 195	16,10%
	Total	15 702 044	17 768 143	17 847 717	17 665 661	19 834 600	12,28%
CEER	Unit Linked	198 707	395 966	571 369	626 491	794,448	26,81%
	Non Linked	669 780	778 229	886 887	1 246 709	1 086 198	-12,87%
	Total	868 487	1 174 195	1 458 256	1 873 200	1 880 646	0,40%
KBC	Total	16 570 531	18 942 338	19 305 973	19 538 861	21 715 246	12,68%

CEER = Business Unit Central and Eastern Europe and Russia

Appendix E. Glossary and abbreviations

Glossary

Adjusted Net Asset Value (ANAV)	The tangible net assets on a marked-to-market-value basis derived from adjusting the consolidated IFRS balance sheet.
Best estimate	The expected outcome from the range of possible outcomes for future experience. In practice, the realization will differ from the best estimate forecast because we can not predict the future with certainty. However, best estimates imply that the expected value of future deviations in performance is zero, so that the Embedded Value is neither overestimated nor underestimated.
Certainty Equivalent Present Value of Future Profits (CE PVFP)	The present value of future statutory after tax profits over the remaining duration of liabilities in a scenario where all investments are assumed to earn the risk-free rates and cash flows are discounted at the same risk-free rate.
Covered business	The contracts to which the MCEV methodology has, in line with the EEV Principles, been applied.
Discount rate	The rate at which future cash flows are discounted back to valuation date.
European Embedded Value (EEV)	Embedded Value calculated under the EEV Principles (see below).
European Embedded Value Principles	A consistent framework published in May 2004 by the CFO Forum for the calculation and reporting of embedded value to improve comparability and transparency in embedded value reporting across Europe.
In-force business	Policies that are in effect as at the valuation date.
Market Consistent Embedded Value (MCEV)	The value that would be placed on the cash flows generated by the assets and liabilities in a deep and liquid market. It is thus a value based on objective market prices, without subjective decisions on discount rates or other financial parameters.
Movement analysis	Analysis of the change in MCEV from one reporting year to the next.
Market Value Margin (MVM) for non-hedgeable risks	An estimation of the costs of the non-hedgeable risks in the portfolio. This value is added to the fair value of the insurance liabilities to obtain a market price that would be paid in a transaction at arm's length.

Non-hedgeable risks	Risks for which no deep and liquid capital market in which to hedge them exists.
Present value	Value of a future cash flow at the valuation date, discounted at the appropriate discount rate.
Stochastic techniques	Techniques that incorporate the potential future variability in assumptions affecting their outcome.
Time value and intrinsic value	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. The time value is the additional value ascribable to the potential for benefits under the option to increase in value prior to expiry.
Valuation date	The date at which all items of the Market Consistent Embedded Value and movement analysis are valued.
Value of Business in Force (VBI)	The MC VBI expresses the market consistent value of the life insurance portfolio in scope. It is defined as the Certainly Equivalent Present Value of Future Profits (CE PVFP), taking into account the Time Value of Financial Options and Guarantees (TV FOG) and a Market Value Margin (MVM) for non-hedgeable risks.
Time Value of Financial Options and Guarantees (TVFOG)	Features of the covered business conferring potentially valuable guarantees underlying, or options to change, the level or nature of policyholder benefits and exercisable at the discretion of the policyholder, whose potential value is impacted by the behaviour of financial variables.
Value of New Business (VNB)	Present value of the additional value to shareholders created through the activity of writing new business during the year under consideration.

Abbreviations

ALM	Asset Liability Management
ANAV	Adjusted Net Asset Value
APE	Annualized Premium Equivalent
Bp	Basis point
BU	Business Unit
CDO	Collateralized Debt Obligation
CE PVFP	Certainty Equivalent Present Value of Future Profits
CEER	Business Unit Central and Eastern Europe and Russia
CPI	Consumer price index
EEV	European Embedded Value
HTM	Held-to-maturity
IFRS	International Financial Reporting Standards
IR	Interest rate
MC	Market Consistent
MCEV	Market Consistent Embedded Value
MVM	Market Value Margin
NHR	Non-hedgeable risks
PVNB	Present Value of New Business Premiums
TP	Technical Provisions
TVFOG	Time Value of Financial Options and Guarantees
VBI	Value of Business In Force
VNB	Value of New Business

Disclaimer

Embedded Value is the result of cash-flow projections based on underlying assumptions and expectations.

Many assumptions made with regard to general economic conditions, the performance of financial markets, taxes, changes in legislation, the frequency and severity of insured loss events, mortality and morbidity levels and trends, etc., are beyond KBC's control. If an assumption is altered, this can result in a significantly different Embedded Value. Deviations from assumed experience are normal and are to be expected. Even without any change in the parameters, actual results will vary from those projected, due to normal random fluctuations.

Embedded Value cannot be considered as an absolute value. Embedded Value, together with a sensitivity analysis, provides an idea of the magnitude of the expected value created by insurance activities.

Under no circumstances should the inclusion of the projections (including the relevant underlying assumptions and expectations) be regarded as a representation, warranty or prediction that the business will achieve or is likely to achieve any particular results.