



**SNS REAAL**

# European Embedded Value Report 2009

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# 1 Introduction

## 1.1 European Embedded Value Principles

The European Embedded Value ('EEV') Principles were published in May 2004 by the CFO Forum. The principles and the additional guidance on EEV disclosures published in October 2005, provide a framework for calculating and reporting supplementary embedded value information.

SNS REAAL N.V. ('SNS REAAL') recognises the importance of the CFO Forum's framework for embedded value ('EV') reporting and the embedded value results of the Insurance activities of SNS REAAL presented in this report comply with the EEV Principles for embedded values.

# Independent review

Towers Watson has reviewed the calculation of the embedded value of the Insurance activities of SNS REAAL as at 31 December 2009, the value of its new business written during 2009 and the movement analysis over 2009. The covered business included all life insurances and associated rider benefits. All material business units were included in the review.

Towers Watson has concluded that the methodology and assumptions used comply with the European Embedded Value Principles and Guidance noting the disclosed treatment of expense synergies.

The directors are responsible for the Embedded Value calculations. However, Towers Watson has performed high-level checks on the results of the calculations and has discovered no material issues.

Towers Watson has not, however, performed detailed checks on the models and processes used.

In arriving at these conclusions, Towers Watson has relied on the accuracy and completeness of data and information supplied by SNS REAAL and that the directors know of no other information or data which ought to have been made available to Towers Watson that would materially affect the conclusion set out herein.

This opinion is made solely to SNS REAAL N.V. 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 SNS REAAL for or in connection with its review work, the opinions it has formed, or for any statement set forth in this opinion.

Towers Watson  
Drs. H. Blaak AAG

# Embedded Value of the insurance activities of SNS REAAL

## 3.1 Highlights

### 3.1.1 Definition of embedded value

This part of the report contains the figures and analysis of the embedded value of the Insurance activities of SNS REAAL.

The embedded value for the life insurance business comprises two components:

- ⊙ Adjusted net asset value ('ANAV'), being the sum of
  - Required capital defined as 150% of the EU minimum solvency requirement reduced with the surplus value in the 'Wet op het financieel toezicht' (Wft) liability adequacy test (toereikendheidstoets), plus
  - Free surplus.
- ⊙ Value of in-force business ('VIF'), being the sum of
  - Present value of future after-tax profits, less
  - Cost of options and guarantees, less
  - Cost of holding required capital.

Together, these two components make up the life insurance economic value (EV). The value of holding activities is included within the life insurance EV, as a part of the adjusted net asset value. The adjusted net asset value of SNS REAAL's non-life insurance and the value of other activities have been added to this value to determine the total EV of the Insurance activities.

All material blocks of life insurance business are included in the results presented in this report. The following product groups have been valued:

- ⊙ Life products and their associated disability rider benefits;
- ⊙ Deferred and immediate annuity products;
- ⊙ Pension products.

Future new life insurance business to be sold after the valuation date is not reflected in the figures shown in this report. No allowance has been made for the potential value added by the renewal of current policies by existing non-life policyholders. The assumptions used in calculating the EV (e.g. expenses), have been set on a going-concern principle.

The inflow of new members in existing group pension contracts is included in the life new business.

Future after-tax profits are estimated using actuarial methods. Future operating and economic assumptions are based upon current best estimates. These assumptions are reviewed annually in line with EEV guidance. The distribution of these profits, in terms of both amount and timing, is restricted by accounting rules (International Financial Reporting Standards – IFRS). The estimated timing of future after-tax profits allows for these restrictions.

The pension plans of our recent acquisitions classify as defined benefit plans. For these plans SNS REAAL holds a provision on the balance sheet in line with IAS19. In the calculations for IAS19 the corridor option under IFRS is followed, adjusting the corridor within the net asset value. The remainder of SNS REAAL's employees is covered under defined contribution plans. These are insured with parties that do not belong to SNS REAAL, and as a result there are no adjustments to EV required with respect to these employee benefit plans. The costs to SNS REAAL of all of these plans have been included in the expenses allowed for in the embedded value calculations.

SNS REAAL uses EV as an internal management tool for its life insurance operations. Within the Insurance activities of SNS REAAL, EV plays an important role in:

- ⊙ Pricing of new business;
- ⊙ Analysis of operating performance;
- ⊙ Product line management;
- ⊙ Distribution channel management.

### 3.1.2 Embedded value results

All figures in this document are presented on an after-tax basis except where stated otherwise. The table below provides a high-level overview of the EV results.

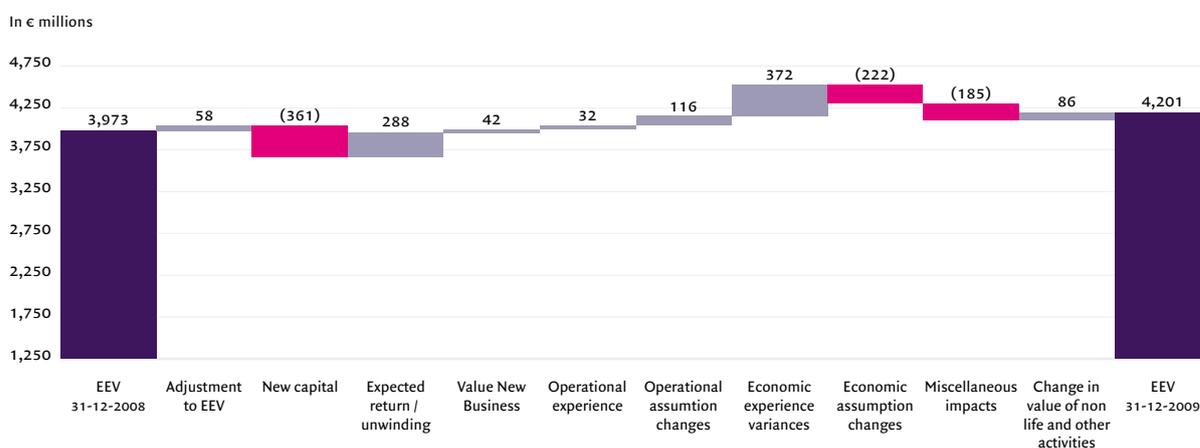
Table 1: Total embedded value

In € millions	2009	2008
Life Insurance adjusted net asset value	2,124.0	2,180.1
Life Insurance Value in Force	1,605.9	1,419.6
<b>Life Insurance EV</b>	<b>3,729.9</b>	<b>3,599.7</b>
Net asset value of non-life and other activities	471.1	373.2
<b>Total EV</b>	<b>4,201.0</b>	<b>3,972.9</b>

The embedded value increased by € 228.1 million during 2009 (+5.7%), of which € 41.8 million (+1.6%) is ANAV and € 186.4 million (+13.1%) is VIF. The breakdown of this increase is explained in section 3.5.5.

In the recalculation on a SNS REAAL basis allowance has been made for the deferral and amortisation of value of business acquired ('VOBA') and intangibles resulting from several acquisitions in the last years (Zwitserleven, AXA NL, Zurich).

## 1 EV analysis of change



Without capital movements (€ 360.5 million) and transfer of the 'brandname' Zwitserleven from the balance sheet of the Group activities of SNS REAAL to that of the Insurance activities (€ 126.0 million) the EEV 2009 would have been € 4,687.5 million, an increase of € 714.6 million (+18.0%).

### 3.1.3 New business results

The value added by new business has increased in 2009. The value of the 2009 and 2008 new life insurance business is summarised in the table below.

Table 2: Value new business

In € millions	2009	2008
New Annualised Premium Equivalent ('NAPE')	406.1	456.4
Present Value New Business Premium ('PVNBP')	2,115.7	2,857.9
Value New Business ('VNB')	42.3	7.6
Margin as % of PVNBP	2.0%	0.3%

The Dutch Market for life insurance products remained very competitive and the market conditions remain challenging. Sales of individual unit linked products fell sharply. As a result, the NAPE decreased in 2009. The PVNBP especially decreased because of a changing product mix from unit linked and universal life policies with long premium instalments to group pension contracts with shorter premium instalments.

SNS REAAL has introduced a very competitive individual risk product that resulted in higher sales with sound margins. In addition, renewals in existing group contracts from the group pension portfolio were high in both the number of contracts as well as the value of contracts, resulting in an increase of the value of new business.

### 3.2 Economic assumptions

Economic assumptions are approved by SNS REAAL's Executive Board and are based on input from the SNS REAAL Asset Liability Committee. The risk-free rates for the first five years of the projections have been derived from the implied 10-year forward rates on government bonds as of year end 2008 and 2009 respectively. After five years, risk free rates are assumed to remain constant.

Equity returns are set by reference to the risk free rate and assume an equity risk premium of 300 basis points. The property returns assume a premium above risk free rates of 200 basis points. These risk premiums assumed on equity investments and on property investments reflect SNS REAAL's current view of prospective returns concerning these asset classes.

#### 3.2.1 New money investment assumptions

New money investment assumptions include the long term risk-free interest rates, new money credit spreads, equity and property returns. The rates used for the life insurance EV at both year end 2008 and 2009 are outlined in the tables below. The net credit spread on fixed interest investments has been based upon the underlying credit ratings within the asset portfolio.

Table 3: New money investment assumptions 2008

	2009	2010	2011	2012	2013	2014+
Risk free rate	3.49%	3.72%	3.96%	4.15%	4.33%	4.56%
Net credit spread on fixed interest	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%
Equity returns	6.49%	6.72%	6.96%	7.15%	7.33%	7.56%
Property returns	5.49%	5.72%	5.96%	6.15%	6.33%	6.56%

Table 4: New money investment assumptions 2009

	2010	2011	2012	2013	2014	2015+
Risk free rate	3.81%	4.17%	4.51%	4.76%	4.96%	5.11%
Net credit spread on fixed interest (REAAL)	0.64%	0.64%	0.64%	0.64%	0.64%	0.64%
Net credit spread on fixed interest (Zwitserleven)	0.32%	0.32%	0.32%	0.32%	0.32%	0.32%
Equity returns	6.81%	7.17%	7.51%	7.76%	7.96%	8.11%
Property returns	5.81%	6.17%	6.51%	6.76%	6.96%	7.11%

Future investments for non-unit linked business have been assumed to be invested in a mix of fixed interest investments, equities, and property.

The risk free rates used in 2008 and 2009 have been based on the 10-year forward rates of government yields as at 31 December. The average credit rating of the existing fixed interest portfolio is 'AA'. Current market values of fixed interest assets make an implicit allowance for defaults on the existing portfolio.

### 3.2.2 Risk discount rate

The risk discount rate is a combination of the risk free rate (in this case, the ultimate rate shown in the tables above) to reflect the time value of money plus a risk margin to reflect market and non-market risk due to experience variance in future years. In particular, a risk margin is added to allow for the risk that projected additional returns on, for example, equities are not achieved.

In determining the discount rate the principle is followed that an appropriate risk margin should be applied, using a weighted average cost of capital ('WACC') approach. The WACC is calculated by using a risk free interest rate, an equity risk premium, a risk factor ( $\beta$ ) and an allowance for the impact of debt financing (based on the market value of this debt).

Table 5: Derivation of Risk Discount Rate

	2009	2008
Risk free rate	5.11%	4.56%
Equity risk premium	3.00%	3.00%
Risk factor ( $\beta$ )	1.20	1.10
Weighting debt financing	28%	41%
After-tax cost of debt financing	7.89%	7.97%
Weighting government capital	8.9%	18.0%
After-tax cost of government capital	10.12%	8.5%
Risk discount rate	8.50%	8.00%

The assumed risk factor ( $\beta$ ), i.e. the correlation between returns of the equity portfolio of the Insurance activities and European stock market returns, has been estimated based on a comparison between the MSCI Index and the MSCI Insurance Index.

The WACC computation produced a discount rate at the end of 2009 of 8.5%, an increase of 50 basis points compared to the end of 2008. The credit spreads for debt financing have narrowed (2009: 2.71% and 2008: 3.41%) but the risk free rate has risen 55 basis points, on balance resulting in a slightly lower risk margin (risk discount rate less ultimate risk free rate) in 2009 (2009: 3.39% and 2008: 3.44%).

The WACC for the value new business is calculated using the average level for the WACC during the year. This WACC for new business calculations is 8.3% for 2009 (2008: 7.7%).

No other adjustments for risk are reflected in the discount rate. Differences in risk by product line are reflected through the capital allocation and through deductions due to the time value of financial options and guarantees.

### 3.2.3 Economic scenarios

A series of economic scenarios has been generated for use in determining the cost of options and guarantees. The way in which these scenarios have been derived is described below.

#### Scenarios for traditional profit-sharing business

Where profit-sharing is based on an external index (e.g., u-yield), the u-yield is approximated as the projected return on 10 year Government bonds minus 20 basis points (2008: 20 basis points). Where management has some discretion over the amount of profit-sharing, the level of profit-sharing is estimated as a moving average of projected returns on fixed interest investments with an average maturity of 10 years.

In the calculation principles used for the profit sharing in the Zwitterleven products the u-rate is determined at the so called partial u-rate at valuation date. During the projection period the u-rate is defined as the current risk free rate increased by the difference between partial u-rate and risk free rate at valuation date.

### Scenarios for unit-linked and group segregated account business

Economic scenarios are generated using expected returns on each of the different investment categories, based upon the correlation between returns in each of the investment categories and the volatility of return per category.

### Volatility and correlation

The following volatility and correlation parameters were used to determine the time value of financial options and guarantees. These are based on historical levels.

Table 6: Volatility 2008 and 2009

	Fixed interest	Equities
2008	0.68%	21.0%
2009	0.68%	21.0%

Table 7: Correlation matrix 2008 and 2009

	Fixed interest	Equities	Property
Fixed interest	100%	0%	0%
Equities	0%	100%	65%

### 3.2.4 Taxes

In calculating after-tax earnings, an allowance has been made for tax-exempt income and expenses. The effective rate of tax used in projecting future after-tax profits is 22.5% (2008: 22.5%).

### 3.2.5 Required capital

In addition to policyholder reserves, solvency capital is needed to support the life insurance business. This 'required capital' is an allocation of surplus that cannot be distributed until it is no longer needed to support the business in-force. There is a price to pay, when setting aside capital to protect policyholders, commonly referred to as the Cost of Capital (CoC). The CoC is included within the EV and value of new business.

SNS REAAL has set the required capital level of the Insurance activities at 150% (2008: 150%) of the EU regulatory minimum requirement, based on Solvency I. This reflects the level of capital considered by SNS REAAL to be appropriate to manage the business, allowing for the company's assessment of the level of market, insurance and operating risk inherent in the underlying portfolio.

According to the supervisory laws (Wft) that came into force on January 1st 2007, the surplus value in the Wft liability adequacy test (toereikendheidstoets) can be treated as solvency capital, thus reducing the required shareholder's capital and as a result also reducing the cost of capital. The same definition of required capital is used for both existing and new business.

## 3.3 Operational assumptions

All of expenses of the Insurance activities, including corporate overhead expenses, have been allocated to the various business units within the Insurance activities. Other than certain non-recurrent expenses, as discussed below, expenses attributable to the life insurance businesses have been allocated to acquisition or maintenance expenses and are included in the EV projections.

### 3.3.1 Expenses, synergy and expense inflation

As a result of the acquisition of several insurance activities in the Netherlands, expense reductions are expected to be higher than envisaged last year once integration of these activities has been realised.

For the EEV calculations, SNS REAAL feels that it is appropriate to take 100% of the expected synergy on non-acquisition expenses for the life business of acquired insurance activities (AXA NL, Zwitserleven) into account. These synergy effects are included in the figures of 2008 and recalculated in 2009. The expected synergy effect presented in 2008 considering 2009 has been achieved.

Table 8: Synergy and efficiency gains

In € millions	2009	2010	2011	2012	2013	2014
End 2008	11.5	23.3	13.8	7.0	0.0	0.0
End 2009		17.6	15.8	12.8	6.2	6.8

The table above does not include the impact of expense inflation. Expense inflation assumptions are as follows:

Table 9: Increase in renewal expenses<sup>1</sup>

	2009	2010	2011	2012	2013	2014	2015+
End 2008	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%
End 2009		1.25%	1.50%	2.00%	2.00%	2.00%	2.00%

<sup>1</sup>) Also used for inflation of wages

In 2009 expenses used to determine unit costs excluded the costs associated with the extra expenses due to the integration of AXA NL and Zwitserleven (2009: € 17.4 million, 2008: € 33.4 million). Besides this, € 34.4 million (2008: € 40.0 million) is deducted because the costs were made for non recurrent items.

### 3.3.2 Mortality, disability and lapses

In 2009 the method of calculation the assumptions has been realigned. With regards to this methodology the assumptions used in the EV calculations have been based on a review of actual operating experience.

Mortality assumptions have been updated to reflect improvements in life expectancy for the population in general and also to reflect a more detailed analysis of recent historical mortality experience for the various products sold by SNS REAAL. Lapse assumptions have also been updated to reflect changes in recent historical experience.

The SNS REAAL Asset Liability Committee has provided a sign-off that the assumptions represent their best estimates for 2008 and 2009.

### 3.4 Capital

The EV is based on local reporting requirements and allows for required capital defined as being 150% of the EU minimum solvency requirement less the surplus value in the Wft liability adequacy test.

#### 3.4.1 Adjusted net asset value

The table below illustrates the derivation of the adjusted net asset value figures for Life insurance business and Non-Life insurance activities that are part of the total EV.

Table 10: Adjusted net asset value

In € millions	2009	2008
Net asset value Life insurance activities	2,713.1	2,659.3
Net asset value Non-Life insurance activities	574.1	483.4
Minority interests	13.3	12.6
Total reported shareholders' equity	3,300.5	3,155.3
Net asset value Life insurance activities	2,713.1	2,659.3
Restricted capital ( <i>beklemd vermogen</i> )	(8.4)	(8.7)
Goodwill Life	(444.3)	(469.2)
Other	(136.4)	(1.3)
Adjusted net asset value Life insurance activities	2,124.0	2,180.1
Net asset value Non-Life insurance activities	574.1	483.4
Goodwill Non-Life	(110.1)	(85.2)
Adjusted net asset value Non-Life insurance activities	464.0	398.2
Adjusted net asset value Insurance activities	2,588.0	2,578.3
Other activities	7.0	(25.0)
<b>Total adjusted net asset value</b>	<b>2,595.1</b>	<b>2,553.3</b>

The amount shown in the table above as 'Restricted Capital' (*beklemd vermogen*) results from the adoption of IFRS and relates to individual profit-sharing business. In this line, part of the revaluation of the underlying assets is to be distributed to policyholders in the future in the form of profit-sharing. The expected future value to be distributed to policy holders is classified as restricted capital. The amount deducted from the net asset value in this respect, has been added to the value of in-force business i.e., this adjustment represents a reallocation of value between the adjusted net asset value and the value of in-force business.

The goodwill shown in the table above has arisen as a result of the acquisition of Zurich, AXA NL and Zwitterleven. As illustrated above, goodwill has been excluded for EEV purposes.

The 2009 total amount of goodwill (after tax) is € 554.4 million (2008: € 554.4 million) of which € 110.1 million is taken into account in the Non-Life net asset value. The 2009 increase in the goodwill at Non-Life is mirrored by a decline at Life and due to a calculation adjustment.

'Other' presented in the table above refers especially to the goodwill assigned to the 'brandname' Zwitterleven (€ 126.0 million negative), which has been transferred from the balance sheet of the Group activities of SNS REAAL to that of the Insurance activities in 2009.

'Other activities' presented in the table above exist merely as a result of expenses made for administration activities (e.g. the employee benefit plans of SNS REAAL's employees).

#### 3.4.2 DAC and VOBA

In calculating the new business and value in force business (VIF) figures shown in this report, allowances have been made for the deferral and amortisation of deferred acquisition costs (DAC) and value of business acquired (VOBA).

At the end of 2009, DAC totalled € 541.0 million (2008: € 587.6 million) and VOBA € 1,028 million (2008: € 1,124 million). The amortisation of DAC and VOBA has been allowed for in projecting future after-tax distributable profits. The value of in force business includes the net present value of these profits.

The results of the IFRS Liability Adequacy Test performed at end 2009 show that both the DAC and VOBA are recoverable from future profits. The Liability Adequacy Test also shows that the amount deferred with regards to 2009 new business is recoverable from future margins.

## 3.5 Results

### 3.5.1 Embedded value

The table below provides details of the EV as of year-end 2008 and year-end 2009. Non-Life insurance and other activities are included on the basis of their net asset value.

Table 11: Embedded Value

In € millions	2009	2008
Free surplus (Life)	983.3	667.8
Required capital (Life)	1,140.7	1,512.3
<b>Total adjusted net asset value (Life)</b>	<b>2,124.0</b>	<b>2,180.1</b>
Present value of future profits	2,045.1	2,030.2
Cost of options and guarantees	(72.8)	(152.4)
Cost of capital	(366.4)	(458.2)
<b>Value of in-force business</b>	<b>1,605.9</b>	<b>1,419.6</b>
<b>Life insurance EV</b>	<b>3,729.9</b>	<b>3,599.7</b>
Net asset value of Non-Life and other activities	471.1	373.2
<b>Total EV</b>	<b>4,201.0</b>	<b>3,972.9</b>

All material blocks of Life insurance business are included in the reported EV results. Some minor portfolio's are not included in SNS REAAL's projection models (e.g. co-assurance) and are taken into account by calculating a pro rata estimated value.

The required capital presented is 150% of the EU minimum solvency requirement, including the effect of the quota share agreement on individual risk capital and is reduced by the surplus value of the Wft liability adequacy test (net of taxes). The reduction in 2009 is € 691.0 million (2008: € 378.3 million).

### 3.5.2 Options and guarantees

In addition to the margin above the risk free rate contained in the risk discount rate and the cost of holding required capital, risk is also allowed for under EEV through an explicit reduction in the EV for the (time) value of options and guarantees.

Options and guarantees result from a minimum guarantee within a specified profit sharing formula. Minimum guarantees are either 3% or 4% depending on the issue date of the policy, with more recent issues having lower guaranteed rates. In traditional business the technical provisions can relate to business with some form of profit-sharing (discretionary or otherwise). In individual unit-linked business there are forms of minimum maturity guarantees. Group segregated account business provides the policyholder with the right to leave paid-up benefits with SNS REAAL irrespective of whether the underlying assets are sufficient to meet the contract's liabilities.

The change in the time value of financial options and guarantees (from € 152.4 million at year-end 2008, to € 72.8 million at year-end 2009) is the result of changing risk free rates, the performance of the assets in 2009, and changes in the way of calculating the value of the option for group segregated account business, depending on the

choice of clients to either leave paid-up benefits with SNS REAAL or leave SNS REAAL with all underlying assets and contract liabilities.

### 3.5.3 Value of new business

An important element in the change in EV from one year to the next is the value added by new business. The value of new business is the present value of after-tax distributable profits associated with sales during the reporting period. The value is determined using the average of economic assumptions over each quarter during the year, and year-end operational assumptions. The cost of capital associated with the new business is included in the value of new business.

New business sales are expressed based on the following:

- ⊙ The New Annual Premium Equivalent ('NAPE'), equal to regular premium plus one tenth of single premium and
- ⊙ The Present Value of future New Business Premiums ('PVNBP') which equals the single premiums received in the year plus the present value of regular premiums projected to be received over the term of the new contracts, allowing for expected levels of lapse and mortality.

New business volumes include premiums that arise from the sales of new individual and group pension contracts and from 2009 new members in existing group pension contracts (impact on VNB € 4.6 million). Because for new contracts only premiums received in the contract period are in scope, renewals of existing group contracts are included in new business volumes. Projected contractual increases in premiums are reflected in the in-force value and deviations from these projections are treated as variations in experience rather than new sales. For individual policies, non-contractual increases to the benefits under these contracts are in principle included in new business.

The table below provides for an overview of the value created by the new business sold in 2009.

Table 12: Value added by new business

In € millions	2009	2008
<b>Value of new business</b>	<b>42.3</b>	<b>7.6</b>
NAPE	406.1	456.4
<b>VNB as % of NAPE</b>	<b>10.4%</b>	<b>1.6%</b>
PVNBP	2,115.7	2,857.9
<b>VNB as % of PVNBP</b>	<b>2.0%</b>	<b>0.3%</b>

For 2009, the value of new business (VNB) of REAAL amounted to € 23.1 million (2008: € -0.5 million). Zwitterleven added € 19.2 million (2008: € 8.2 million). Similar to the VIF, the impact on value of expected synergy savings and integration costs have been allowed for in determining the VNB.

The Dutch Market for life insurance products remained very competitive and the market conditions remain challenging. Sales of individual unit linked products fell sharply. As a result, the NAPE decreased in 2009. The PVNBP especially decreased because of a changing product mix from unit linked and universal life policies with long premium instalments to group pension contracts with shorter premium instalments.

SNS REAAL introduced a very competitive individual risk product that resulted in higher sales with sound margins. In addition, volumes of renewals of existing group contracts in the group pension portfolio were high in both the number of contracts as well as the value of contracts, resulting in an increase of the value of new business.

The internal rate of return ('IRR') is the discount rate at which the present value of distributable earnings projected to be earned by new business is equal to the total capital invested to write the business. New business generally requires capital to be invested to meet acquisition costs, set up statutory reserves in excess of premiums received and to meet required capital levels in excess of statutory reserves. This investment is then recouped over the remaining lifetime of the policies.

The IRR of the insurance activities of SNS REAAL's 2009 New Business is 11.1% (IRR 2008: 8.0%).

### 3.5.4 MCEV

Figures in this report are based on EEV principles. SNS REAAL intended to change the current EEV principles based methodology to a Market Consistent Embedded Value approach ('MCEV'). However, SNS REAAL has recently decided not to change the current methodology to MCEV. One of the reasons for this decision is the fact that European insurance companies have not agreed on nor implemented a unified MCEV methodology used in their MCEV calculations. The financial crisis has triggered significant debate on MCEV calculations including the allowance for an illiquidity premium. Therefore, SNS REAAL prefers to stick to the EEV methodology which is fully embedded in the processes of its Insurance activities.

During the implementation of Solvency II the development of a balance sheet which adequately represents the market value of the company is one of the key deliverables. This framework will provide us with the opportunity to make transparent adjustments of the aforementioned market value balance sheet into a balance sheet that can be used for internal management purposes and more closely reflect an (indirect) MCEV.

### 3.5.5 Analysis of the change in embedded value

The EV increased by € 228.1 million (2008: € 1,258.4 million) during 2009.

Without capital movements (€ 360.5 million) and transfer of the 'brandname' Zwitserleven from the balance sheet of the Group activities of SNS REAAL to that of the Insurance activities (€ 126.0 million) the EEV 2009 would have been € 4,687.5 million, an increase of € 714.6 million.

The change in the EV in 2009 is explained by the movement analysis shown in the table below. The analysis is shown separately for the adjusted net asset value and the value of in force business, including amounts transferred between these two categories.

Table 13: Movement analysis

In € millions	Adjusted net asset value	Value of in-force business	2009 Total	2008 Total
<b>EV from prior period</b>	<b>2,553.3</b>	<b>1,419.6</b>	<b>3,972.9</b>	<b>2,714.5</b>
Adjustments to EV from prior period	7.4	50.9	58.3	14.9
<b>Revised starting EV</b>	<b>2,560.7</b>	<b>1,470.5</b>	<b>4,031.2</b>	<b>2,729.5</b>
Value New Business		42.3	42.3	7.6
Expected return / unwinding	98.2	190.2	288.3	186.0
Transfer net result	180.1	(180.1)	--	--
Operational experience	7.7	141.0	148.7	88.5
<b>Operating return</b>	<b>286.0</b>	<b>193.3</b>	<b>479.3</b>	<b>282.1</b>
Economic experience variances	164.6	207.6	372.2	(719.5)
Economic assumption changes	--	(221.8)	(221.8)	(296.5)
New capital life business less dividend paid	(360.5)	--	(360.5)	1,654.5
Goodwill related to acquisitions	--	--	--	(312.9)
Miscellaneous impacts	(141.6)	(43.5)	(185.1)	3.3
Change in value of Non-Life and other activities	85.8	--	85.8	38.8
Goodwill related to acquisition of AXA's Non-Life activities	--	--	--	(5.5)
<b>Closing EV</b>	<b>2,595.1</b>	<b>1,605.9</b>	<b>4,201.0</b>	<b>3,972.9</b>

#### Adjustments to EV from prior period

The adjustments to EV from prior period represent the following impacts:

- ⊙ ANAV: the change is a result of the way tax-corrections are taken into account (€ 7.4 million);
- ⊙ VIF: € 7.6 million is a result of several actions to realign Zwitserleven's portfolio with SNS REAAL standards. Furthermore, there has been a change in the way of calculating the option for group segregated account business, depending on the choice of clients to either leave paid-up benefits with SNS REAAL, either leave SNS REAAL with all underlying assets and contract's liabilities (€ 43.3 million).

### Value New Business

This value represents the VNB of the Insurance activities of SNS REAAL. SNS REAAL introduced a very competitive risk product that resulted in higher sales with sound margins. In addition, volumes of renewals of existing group contracts in the group pension portfolio were high in both the number of contracts as well as the value of contracts, resulting in an increase of the value of new business.

### Expected return / unwind

This consists of:

- ⊙ The unwinding of the discount rate on the value of in-force business at the beginning of the year and of new business written during the year;
- ⊙ The expected return on adjusted net asset value.

The increase of the expected return is due to the fact that Zwitserleven has been added to the EEV of SNS REAAL's Insurance activities at the end of 2008.

### Transfer net result

The expected profits at year-end 2008 included in the present value of future profits realized from in-force business and transferred to free surplus under the net asset value are recorded under this heading.

### Operational experience

This represents the operational variance of 2009 (€ 24.6 million), the difference between actual and modelled experience, and the change in operational assumptions. The operational assumptions have been adjusted as a result of new studies concerning expenses, mortality and lapses. These adjustments result in an increase of the value in force of € 116.4 million. This amount can be split into the following categories:

- ⊙ Changes due to adapting the asset mix of Zwitserleven (negative impact € 75.4 million);
- ⊙ Changes in mortality frequencies and lapses (€ 126.5 million);
- ⊙ Redefined assumptions within the former Winterthur portfolio (€ 42.6 million);
- ⊙ Changes due to expenses (€ 22.7 million).

### Economic experience variances

Economic experience variances in the ANAV consist of the change in the market value of bonds and the value of equities (€ 308.2 million) and the difference between the expected investment return and the realised investment return (negative impact € 143.6 million) Part of the economic variances in the VIF is the change (€ 161.8 million) in the cost of capital reduction as a result of treating the surplus value in the Wft liability adequacy test as solvency capital.

### Economic assumption changes

Economic assumptions changes have decreased the VIF by € 221.8 million. The primary drivers are as follows:

- ⊙ Change in risk discount rate from 2008 to 2009, including changes made to the weighting of the debt financing and after-tax cost of debt financing in determining the risk discount rate (negative impact € 117.5 million);
- ⊙ Decreases in bond yields over 2009 (negative impact € 83.9 million);
- ⊙ Changes in inflation assumptions (€ 6.0 million);
- ⊙ Miscellaneous economic changes (€ 14.4 million).

### New Capital life business less dividend paid

The changes have decreased the VIF by € 360.5 million. The drivers are as follows:

- ⊙ SNS REAAL increased the shareholders' equity of the Insurance activities by € 107 million;
- ⊙ The repurchase of core tier 1 capital securities to the Dutch State and the 'Stichting Beheer SNS REAAL' (total negative impact € 250 million);
- ⊙ The coupon payments on the core tier 1 capital securities (negative impact € 7.5 million);
- ⊙ The dividend upstream over to SNS REAAL (negative impact € 210 million).

### Goodwill related to acquisitions

The goodwill presented is the change in the goodwill shown in the IFRS balance sheet. The total amount of goodwill didn't change and remains € 554.4 million, including € 110.1 million for Non-Life.

### Miscellaneous impacts

The impact especially consists of the 'brandname' Zwitserleven (ANAV € 126.0 million negative) which has been transferred from the balance sheet of the Group activities of SNS REAAL to that of the Insurance activities in 2009. Furthermore the miscellaneous impacts consists of the change in the reserves made for transparency issues (VIF € 28.3 million negative).

### Change in value of Non-Life and other activities

This figure consists of the profit of the Non-Life business (€ 53.7 million) and the change in the value of other activities such as costs of off balance mortgages and administrations of employee benefits for SNS REAAL's employees who are insured with parties that do not belong to SNS REAAL (€ 32.1 million). This change is due to a realignment of expenses.

## 3.6 Sensitivity analysis

EV calculations rely upon several best estimate assumptions with respect to future investment income, mortality rates, lapse rates, and other variables. Sensitivity results for the Life insurance EV and new business are provided in the tables below.

The sensitivities that have been performed are as follows:

- ⊙ 100 basis point lower discount rate;
- ⊙ 100 basis point higher discount rate;
- ⊙ 100 basis point reduction in interest rates, including subsequent changes to assumed investment returns for all asset classes, market value of fixed interest assets and risk discount rates;
- ⊙ 100 basis point increase in interest rates, including subsequent changes to assumed investment returns for all asset classes, market value of fixed interest assets and risk discount rates;
- ⊙ 10% lower lapses: lapse assumptions are multiplied by 0.90;
- ⊙ 5% lower mortality and disability: mortality and disability assumptions are multiplied by 0.95. The result for the insurances with longevity risk is shown separately;
- ⊙ 10% lower maintenance expenses;
- ⊙ 10% instant downward change in value of equity;
- ⊙ Required capital equal to 100% of EU minimum solvency requirement rather than 150%;
- ⊙ Value excluding the expected synergy.

### 3.6.1 Life insurance embedded value sensitivities

The table below summarises the results of the sensitivity analysis of the life insurance embedded value as at 31 December 2009.

Table 14: Life insurance embedded value sensitivities

In € millions	Adjusted net asset value	Value of in-force business	Total
<b>As reported</b>	<b>2,595.1</b>	<b>1,605.9</b>	<b>4,201.0</b>
Impact of sensitivity on reported value:			
100 basis point reduction in the risk discount rate	--	278.4	278.4
100 basis point increase in the risk discount rate	--	(240.8)	(240.8)
100 basis point reduction in asset return and discount rate simultaneously	199.1	(426.6)	(227.6)
100 basis point increase in asset return and discount rate simultaneously	(167.7)	157.0	(10.7)
10% decrease in lapse rates	--	50.5	50.5
5% lower mortality and disability rates (Life)	--	37.9	37.9
5% lower mortality and disability rates (Annuity)	--	(35.8)	(35.8)
10% decrease in maintenance expenses	--	86.8	86.8
No synergy	--	(215.0)	(215.0)
Instant 10% downward change of value of equity	(101.4)	(22.2)	(123.6)
Required capital 100% of EU minimum	--	162.1	162.1

Changes in fixed interest returns generally coincide with changes in returns on other investment types and changes in risk discount rates. For this reason, we believe it is more appropriate to consider the changes in value resulting from simultaneous changes in fixed interest returns, equity and property yields and discount rates, than to consider these items independently.

The downward interest rate sensitivity has a larger impact on the value of in-force business than the upward sensitivity because of the impact from embedded interest rate guarantees in the policies.

The gain in case of 1% higher interest rates, is not as significant for profit-sharing business because part (or all) of these gains are passed on to policyholders. For unit-linked and non profit-sharing business, the main impact of changes in interest rates stems from the change in risk discount rate that accompanies a move in the underlying risk free rate.

Reductions in mortality and disability rates have a positive effect on the value, due to the mix of business in force (i.e. offsetting positions in mortality and longevity risk).

### 3.6.2 New Business sensitivities

The table provides a summary of the impact of the previously described sensitivities on the value added by 2009 new business.

Table 15: New business sensitivities

In € millions	
<b>As reported – value of new business</b>	<b>42.3</b>
Impact of sensitivity on reported value:	
100 basis point reduction in the risk discount rate	17.3
100 basis point increase in the risk discount rate	(15.3)
100 basis point reduction in interest rates <sup>1</sup>	(33.7)
100 basis point increase in interest rates <sup>1</sup>	24.3
10% decrease in lapse rates	3.6
5% lower mortality and disability rates (Life)	3.1
5% lower mortality and disability rates (Annuity)	(0.6)
10% decrease in maintenance expenses	7.4
10% decrease in initial costs	9.7
No synergy	(15.8)
Required capital 100% of EU minimum	11.3

<sup>1</sup>) 100 basis point change in interest rates, including subsequent changes to assumed investment returns for all asset classes and the risk discount rate.

The sensitivity to changes in interest rates is based on the premise that while capital markets move in line with the rise and fall of interest rates. Premiums received from policyholders, policyholder benefits, and guarantees provided to policyholders are assumed to not change with market movements. The sensitivity also assumes that new-money rates are applied to 2009 cash flows available for investment. This can explain the movement in the downward interest rate sensitivity relative to the reported value.





# Disclaimer

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