Market Consistent Embedded Value Report 2016

Allianz

CONTENT

Introduction

1.1 Basis of preparation

Market consistent embedded value ("MCEV") represents shareholders' economic value of the in-force life and pension business of an insurance company. Future new business is not included. The MCEV of Allianz Group as of 31 December 2016 is disclosed in this report.

Since 2008 Allianz Group has disclosed its MCEV in line with the European Insurance CFO Forum Market Consistent Embedded Value Principles © ("MCEV Principles"), which were launched in June 2008 and amended in October 2009 and most recently in May 2016 for alignment with Solvency II. The projection of assets and liabilities applying market consistent economic assumptions ensures a consistent valuation among them. In addition, an explicit allowance is made for residual non-hedgeable risks, reflected in the calculation of the Solvency II risk margin.

Due to the similarities between the methodology and assumptions used to determine the Solvency II balance sheet and those employed under EV reporting, the latest amendment of the "MCEV Principles" permits (but does not require), the use of projection methods and assumptions applied for market consistent solvency regimes. From 2015 onwards, Allianz has been using a balance sheet approach to calculate and publish its MCEV results as it is further explained in Appendix A.

This document presents the results, methodology and underlying assumptions used to calculate the 2016 MCEV 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 in the development of our value of new business ("VNB"), as we would like to retain a clear split between the segments in line with our primary IFRS accounts.

The methodology and assumptions used to determine the 2016 MCEV for the Allianz Group were reviewed by KPMG and can be found in appendices A and B. An accompanying glossary of definitions and abbreviations is given in appendix C.

1.2 Covered business

The business covered in the MCEV results 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

The value of reinsurance accepted by Allianz Re is reflected in the Holding results. 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.

Entities that are not consolidated into Allianz IFRS accounts, i.e. entities where Allianz only holds a minority, are not included in the 2016 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.

Overview of results

2.1 Introduction

2016 was a year in which market conditions considerably worsened, leading to the lowest interest rates and extremely high volatilities we have seen in the Eurozone, as well as in the USA.

In most markets, interest rates slightly recovered towards the end of the year, although they stayed lower than in 2015. Spreads narrowed in general but widened in the Italian and French portfolios. Equity had a positive evolution along the year in almost all markets.

At 31 December 2016, Allianz Group's Life & Health MCEV amounted to EUR 31,777mn. Operating MCEV Earnings were EUR 7,804mn. Total MCEV Earnings were reduced to EUR 4,319mn after tax, including a negative economic impact mainly coming from low interest rates. The amount of dividends paid in 2016 was EUR 2.4bn.

The VNB written in 2016 was EUR 1,448mn. In a challenging environment with very low interest rates and high volatilities, management actions on product design and new business steering towards more profitable product lines, have kept VNB at a high level during the entire year. The introduction of a new cash flow model in Germany, that better reflects the features of capital efficient products, also contributed to keep the high VNB. The new business margin (NBM) was above 2.6% during the four quarters of 2016, reaching its highest level (2.9%) in the last quarter when interest rates and volatilities were at their lowest level (VNB is valued at point of sale, therefore, economics used in the fourth quarter of 2016, were as of September 2016).

The drivers of the changes in MCEV and VNB will be described in detail in the subsequent sections and chapters.

2.2 Embedded value results

Exhibit 1 shows the development of Allianz MCEV in 2016 with a split into the components net asset value ("NAV") and value of in-force ("VIF").

MCEV — Exhibit 1

€MN	2016	2015	Change in 2016(%)
Net asset value	17,411	17,546	-1%
Value of Inforce	14,365	11,191	28%
MCEV	31,777	**28,737**	**11%**

The MCEV has increased by 11% to EUR 31,777mn driven by the positive effect of the divestment of the South Korean business. Excluding South Korea from the starting value, the MCEV increased by 6% from EUR 30,102mn.

The NAV is calculated from statutory equity and reflects the market value, after tax, of the assets not backing the liabilities. The NAV decreases by 1%. Excluding the effect of South Korea the value increased by 5% from EUR 16,603mn.

The ViF is defined as the difference between the MCEV and the NAV. The highest impact of the divestment of the South Korean business is seen in this component, which increased its value by 28%, as Allianz is no longer having these negative profits in its portfolio. Excluding the effect of Korea, ViF increases by 6% from EUR 13,499mn driven by German Speaking Countries.

The positive development in the shareholders' economic value of the life in-force business was primarily based on the following factors:

- The contribution of the new business driven by a more profitable business mix due to management actions carried out during the year such as: reducing average guarantees from 0.8% to 0.7%, which also impacted the average guarantees of the in-force portfolio that went from 2.2% in 2015 (excluding Korea) to 2.1%; lowering interest rate sensitivity for new business; increasing pricing agility and extension of the asset duration.
- Narrowing of credit spreads mainly in the USA;
- Expected over-returns during the period, especially in Germany Life.

The only significant negative driver is the lower interest rates across all regions that affected the old in-force blocks.

More granular drivers of the change in MCEV during the year are explained in detail in section 2.4.

2.3 New business

Exhibit 2 shows the value of new business ("VNB") at point of sale on an after-tax basis, calculated as the sum of quarterly disclosed values. Values are calculated using assumptions as of the start of the quarter in which the business was sold. As such, the overall 2016 VNB reflects economic movements throughout the year. Appendix A.5 contains a description of the VNB methodology.

The VNB in 2016 was EUR 1,448mn, 22% higher than in 2015. The NBM increased from 2.2% to 2.7%.

2015 values in the table are shown without Korea.

VALUE OF NEW BUSINESS — Exhibit 2

€MN

	2016	2015	Change in 2016 (%)
Value of New Business	1,448	1,190	22%
(not included: look-through profits)	*104*	*91*	*15%*
New Business Margin[1] (in %)	2.7%	2.2%	0.5%-p
Present value of new business premiums	53,591	54,852	-2%
APE Margin[2] (in %)	18.9%	15.6%	3.3%-p
Single premium[3]	32,204	34,077	-5%
Recurrent Premium	4,454	4,244	5%
Recurrent premium multiplier[4]	5	5	-2%

1—NMB= VNB / Present value of future new business premiums
2—APE margin = VNB / (recurrent premium + single premium / 10)
3—In Germany, single premium excludes Parkdepot (EUR 1,753mn)
4—Recurent Premium Multiplier = (PVNBP - single premium) / recurrent premium

After a very challenging 2015 with respect to financial markets, all regions faced 2016 with some lessons learned on managing and quickly reacting to the markets. The financial market situation has repeated in 2016, with even more extreme conditions, like negative interest rates in the short end for EUR and CHF, reaching the lowest level in September. All regions were prepared to withstand the pressure and the management actions already started in 2015 have been carried out and further developed. New business steering towards profitable products, has been driven forward across the Group, keeping NBM at a stable level during the entire year.

Successful management actions include:

- New business mix steering away from traditional savings towards capital efficient products;
- Lowering average guarantees in new traditional business;
- Re-pricing measures and introduction of new less market sensitive products;
- Introduction of new cash flow model in Germany that better reflects the features of capital efficient products.

The slight decrease of 2% in the present value of new business premiums ("PVNBP") reflects a combination of a drop of 5% in single premium and a gain of 5% in recurring premium business.

Single premiums went down in Italy and Taiwan due to lower sales of unit linked products, offset by an increase of fixed-indexed annuities in the USA and capital efficient products in Germany. Recurring premiums increased in almost all regions, slightly offset by a drop in Slovakia and Italy due to lower sales of traditional business.

Exhibit 3 summarizes the development of VNB and NBM from 2015 to 2016 on the basis of its main drivers.

DEVELOPMENT OF VALUE OF NEW BUSINESS — Exhibit 3

€ MN

	Value of New Business	New Business Margin (%)	Present Value of NB Premium
Value as at 31 December 2015	**1,190**	**2.2%**	**54,852**
Change in Foreign Exchange	-12	0.0%	-63
Change in Allianz interest	0	0.0%	16
Adjusted Value as at 31 December 2015	**1,178**	**2.1%**	**54,805**
Change in volume	10	0.1%	-1,407
Change in business mix	269	0.5%	27
Change in assumptions	-8	0.0%	166
Value as at 31 December 2016	**1,448**	**2.7%**	**53,591**

Foreign exchange adjustment on VNB was a decreased of EUR 12mn, mainly from Turkey, due to a stronger Euro.

The volume impact of EUR 10mn was mainly based on higher sales of fixed-indexed products in the USA during the first half of the year (EUR 40mn) as well as the increase in production of capital efficient products in Germany (EUR 27mn). Market turbulences have negative impact on unit linked sales in Taiwan (EUR -30mn), Italy (EUR -15mn) and Turkey (EUR -8mn).

The strong VNB and NBM gains of EUR 269mn and +0.5%-p. respectively, are due to business mix and reflect the ongoing management actions on repricing, new business steering towards more profitable product lines and lowering guarantee levels in traditional new business. For almost all entities there was a positive VNB contribution from business mix changes, including the USA

(EUR 101mn), Italy (EUR 49mn), AZAP (EUR 37mn), Germany Life (EUR 30mn), and Spain (EUR 15mn).

Repricing measures were for example taken in the Netherlands and Spain on savings and annuities, in Malaysia on unit linked business. In the USA by making variable annuity products less market sensitive and by repricing fixed-annuity business.

The new business share of the less profitable traditional guaranteed savings and annuity business was lowered by 8%-p. to the benefit of more profitable protection and capital efficient products, like e.g. in Germany Life, Switzerland and the USA. New capital efficient products were also introduced in France through Global Life.

In Italy, despite the lower volumes in unit linked business, there was an increase of 5%-p. due to the strong decrease of traditional business. Spain introduced sales of unit linked product through the agent channel. The contribution of Spain, Turkey and France, increased the share of protection products by 2%-p. to 15% in total business mix.

Guarantees for new traditional business were lowered in Belgium, Switzerland and Italy, leading to an overall drop in the average guarantee level by 7bps to 0.7% on new business.

Changes in assumptions of EUR -8mn reflect the lower interest rate environment, counterbalanced by non-economic assumptions updates.

Further details on the drivers for the change in each region can be found in the regional analyses in chapter 3.

2.4 Analysis of MCEV earnings

Exhibit 4 presents the change in MCEV from the restated published value for 2015 to the value as of 31 December 2016. The value of new business is considered pre-tax in the MCEV movement.

ANALYSIS OF EARNINGS OF EMBEDDED VALUE — Exhibit 4

€MN

	Earnings on MCEV analysis		
	Assets	Liabilities	MCEV
Opening MCEV as at 31 December 2015	**608,630**	**579,893**	**28,737**
Foreign Exchange Variance	3,773	3,688	85
Acquired / Divested business	-14,694	-15,761	1,067
Others	0	0	0
Adjusted Opening MCEV as at 31 December 2015	**597,709**	**567,820**	**29,889**
Value of new business at point of sale (pre-tax)			1,992
Expected existing business contribution			
reference rate			1,278
in excess of reference rate			1,841
other: transfer from VIF			8
Non-economic assumption changes			916
Operating variances			1,770
Operating MCEV earnings			**7,804**
Economic variances			-1,802
Other non-operating variance			0
Tax			-1,683
Total MCEV earnings	**50,421**	**46,103**	**4,319**
Net capital movements	-2,337	94	-2,430
Closing MCEV as at 31 December 2016	**645,793**	**614,016**	**31,777**

The initial adjustments included the following changes:

- Foreign exchange variance of EUR 85mn was driven by the weakening of the Euro against the US Dollar and the Swiss Franc at valuation date.
- Acquired / Divested business of EUR 1,067mn reflects:
  - Divested business in South Korea (EUR 1,365mn);
  - Acquired business in Czech Republic (EUR 13mn);
  - Merger from France (EUR -306mn) and Spain (EUR 25mn);
  - Transfer Internal Life Reinsurance business in Ireland to Global Life (EUR -30mn).

The key components of the change in 2016 were as follows:

- Value of new business at point of sale (pre-tax) of EUR 1,992mn saw main contributions from Germany Life, AZ Life US and Italy.

The contribution is higher than in 2015 and is based on a more favorable business mix across all regions. The value takes into account all expenses with respect to new business written during 2016, including acquisition expense over- and underruns. The value contains tax of EUR 543mn.

- Expected existing business contribution comprises:
  - Expected existing business contribution on reference rate of EUR 1,278mn shows the unwinding of the discount on MCEV with reference rates used in the market consistent projection. The VIF increases as all future profits now require one year less discounting. For new business, the value reflects the progression from point of sale to end of year. The margin for the year built into the valuation for uncertainty (options and guarantees) with regard to asymmetric financial risk and non-financial risk is released in this step;
  - Existing business contribution in excess of reference rates of EUR 1,841mn shows the additional earnings in MCEV consistent with management expectations and mainly reflects overreturns. Biggest impact is from Germany Life (EUR 762mn), Germany Health (EUR 231mn) and from the realization of spreads in Spain (EUR 208mn). In this step, based on normalized real-world assumptions provided in appendix B, risk premiums on corporate bonds, equity and real estate are expected to materialize;
  - Other transfer from VIF of EUR 8mn shows the effect of the realization of projected net profits to the NAV. This step is not material for the MCEV development.
- Non-economic assumption changes of EUR 916mn reflect changes in assumptions such as those for lapses, mortality and expenses. The main drivers for the change in 2016 were the update of the switching option between traditional and unit linked, and the update on expense assumption in France (EUR 360mn) as well as changes in expenses in the USA (EUR 345mn)
- Operating variances of EUR 1,770mn contain experience variances of EUR -464mn and other operating variances of EUR 2,233mn. Experience variances reflect the deviations of actual experience from expectations during the year with respect to non-economic factors. The largest impact came from Germany Life (EUR -372mn). Other operating variances incorporate management reactions to economic developments. Management may, for example, react by changing crediting and investment strategies like in France. It also includes updates on risk drivers (Germany Health and Slovakia) and updates on the underlying longevity risk for the calculation of risk margin (Germany Life and Switzerland).
- Operating MCEV earnings of EUR 7,804mn reflect the change of the adjusted opening MCEV due to all operating drivers described above. The 2016 operating MCEV earnings amounts to 26% of the adjusted opening MCEV.
- Economic variances of EUR -1,802mn include the impacts of changes in interest rates, actual development of financial markets and of actual performance of the assets in the portfolio. For 2016, the negative sign is almost exclusively driven by the low interest rate environment in all regions, and mainly in the Eurozone (EUR -2.8bn). This change in interest rates is partially offset by the narrowing of credit spreads in the USA with an impact of EUR 1.6bn.
- Other non-operating variances (EUR 0mn) may for example reflect changes in government regulations that are not included in other operating variances.
- Tax of EUR -1,683mn reflects the bottom-up tax calculation on the Solvency II balance sheet. The effect is in line with the overall gain in the life portfolio.
- Total MCEV earnings of EUR 4,319mn summarize the movements during the year due to all drivers investigated. The 2016 MCEV earnings resulted in an increase of the adjusted opening MCEV of 14%, after adjustment and before dividends, due to the large impact of operating earnings, offset by economic variances and taxes described above.
- Net capital movements of EUR -2,430mn reflect the net dividends and capital injections from/to our life companies.

Further details on the drivers for the change in each region can be found in the regional analyses in chapter 3.

2.5 Projected profits

To present the timing of release of profits, Exhibit 5 shows the expected maturity profile of the present value of future profits ("PVFP") used for MCEV. The table shows discounted risk-neutral profits with respect to the current in-force portfolio. Future new business is not considered.

REMAINING PRESENT VALUE OF FUTURE PROFITS — Exhibit 5

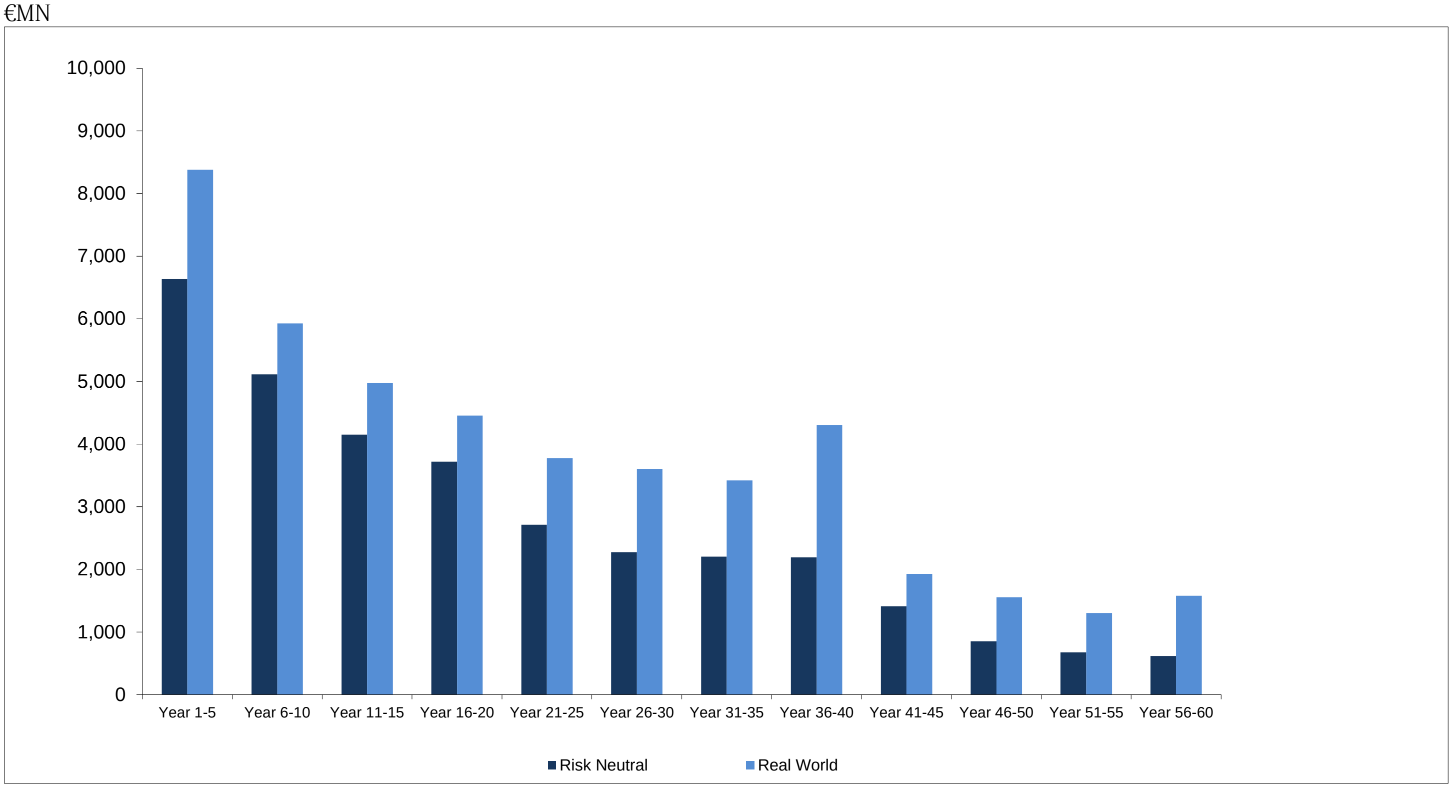
€MN End of year	PVFP	% of initial PVFP
year 5	17,159	75%
year 10	13,538	59%
year 15	10,737	47%
year 20	8,045	35%
year 25	6,506	28%
year 30	5,337	23%
year 35	4,085	18%
year 40	2,616	11%
year 45	1,667	7%
year 50	1,113	5%

Timing of the cash-flows depends very much on the underlying portfolio, and varies over the Group. Within Allianz there are short term portfolios, such as short term saving or protection, as well as long term portfolios, for example annuities. The overall length of the duration of the liabilities is mainly driven by the block of long term traditional business in Germany. The projection of future profits shows a stable earnings release and return on capital over the entire projection period.

The following graph represents the pattern of risk neutral and real world profits grouped by 5 year time buckets. Risk-neutral profits divided by average reserves over the entire projection period were 0.30% and the corresponding real-world ratio was 0.38%. This is at the same level as last year.

PATTERN OF RISK NEUTRAL AND REAL WORLD PROFITS

€MN

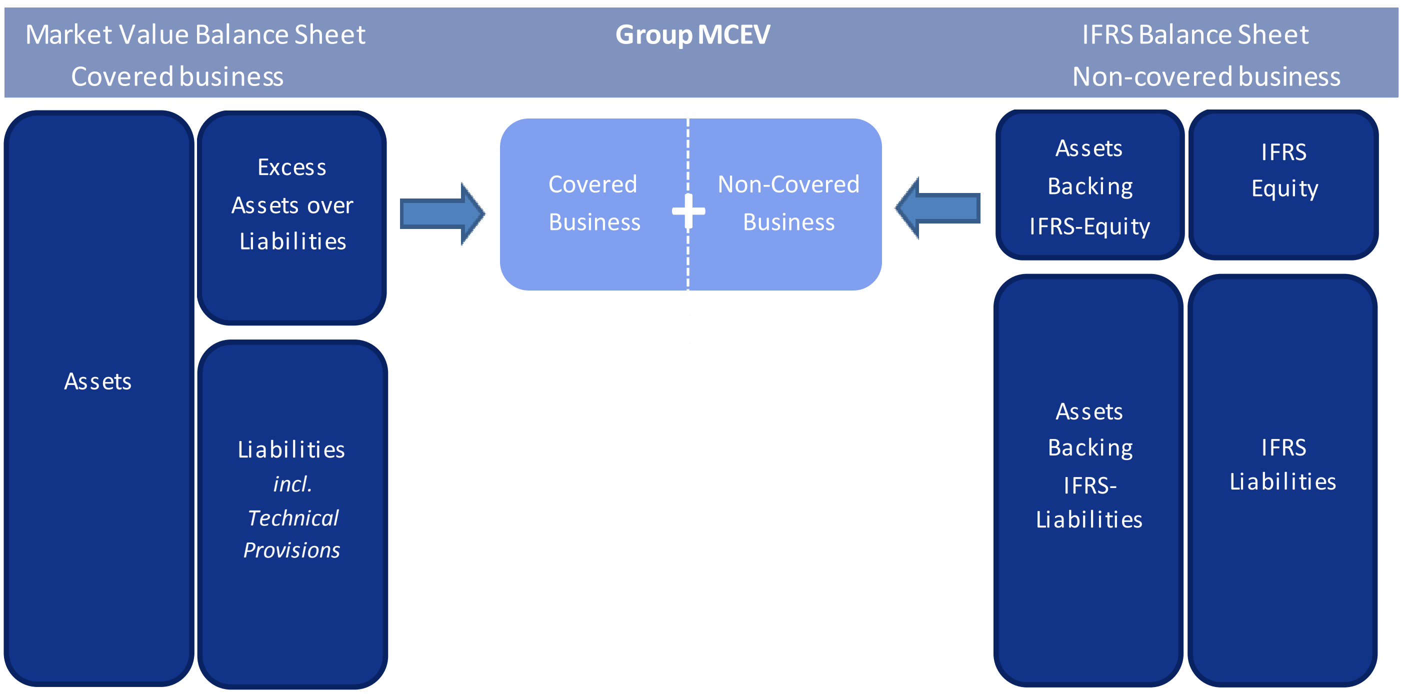


2.6 Group MCEV

Allianz MCEV reflects the value of assets in excess of liabilities derived from the Market Value Balance Sheet under Solvency II. The result of these calculations is a balance sheet reflecting the shareholder value of the in-force business.

The definition of MCEV determines the split of the total MCEV into NAV, i.e. the value of the assets not backing liabilities, which can also be interpreted as the equity component of the MCEV, and VIF, 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. As the impact of future new business is not included in the MCEV, we compare it to the IFRS equity for covered business excluding any goodwill.



The Group MCEV as of 31 December 2016 was EUR 69,925mn, 10% higher than the value for 2015 of EUR 63,840mn. The increase was after a dividend payment to shareholders of EUR 3,320mn.

Exhibit 6 shows the analysis of earnings of Group MCEV. "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.

ANALYSIS OF EARNINGS OF GROUP MCEV — Exhibit 6

€ MN

	Covered business MCEV	Non covered business & financing adj. IFRS	Total group MCEV
Opening Group MCEV as at 31 December 2015	**28,737**	**35,103**	**63,840**
Opening adjustments	1,151	-40	1,111
Adjusted Opening MCEV as at 31 December 2015	**29,889**	**35,063**	**64,951**
Operating MCEV earnings [1]	7,804	6,685	not meaningful
Non-operating MCEV earnings [2]	-1,802	-794	not meaningful
Non-covered: OCI and other equity changes		-330	
Other non-operating earnings	-1,802	-464	
Tax	-1,683	-1,915	
Total MCEV earnings	**4,319**	**3,975**	**8,294**
Net capital movements/ other	-2,430	-890	-3,320
Closing MCEV as at 31 December 2016	**31,777**	**38,149**	**69,925**

1 —For the non-covered business, IFRS Operating Profit of the Allianz Group excluding the Life/Health Segment was used as Operating MCEV earnings.
2— For the covered business, other non-operating earnings reflect economic variances. For the non-covered business, the non-operating MCEV earnings were calculated as follows:
- Changes in OCI (Unrealized Gains / Losses and DBP) and other equity changes of the Allianz Group attributable to shareholders not included in covered business;
- IFRS non-operating earnings of the Allianz Group attributable to shareholders not included in covered business.

Group MCEV increased by EUR 6,085mn, driven by the increase in covered as well as in non-covered business MCEV. The opening adjustment of the non-covered business reflects FX effects. The operating profit of the non-covered business, amounting to EUR 6,685mn, was mainly due to P&C business. The increase in covered business MCEV is described in detail in the remainder of this report. The total movement of Group MCEV was reduced by net capital movements of EUR 3,320mn essentially comprising dividends paid from Allianz SE to shareholders.

2.7 Sensitivities

Sensitivity testing with respect to the underlying best estimate assumptions is an important part of MCEV calculations. Both economic and non-economic factors are tested. The same management rules and policyholder behavior have been assumed in the sensitivities as for the base case. It should be noted that the sensitivities are usually correlated so that the impact of two events occurring simultaneously is unlikely 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 sensitivities presented in Exhibit 7 below correspond to the primary economic and non-economic factors specified in the MCEV Principles. The magnitude of the assumption shifts are not indicative of what may or may not actually occur.

SENSITIVITIES Exhibit 7

€ MN

	Inforce MCEV		New Business VNB	
	EUR mn	%	EUR mn	%
Central Assumptions	**31,777**	**100%**	**1,448**	**100%**
EV change by economic factors				
Risk Free Rate – 50bp	-1,242	-4%	-158	-11%
Risk Free Rate +50bp	469	1%	74	5%
Equity values – 20 %	-2,134	-7%	-86	-6%
Swaption volatilities +25 %	-838	-3%	40	3%
Equity option volatilities +25 %	-1,152	-4%	-54	-4%
EV change by non-economic factors				
Lapse Rates – 10 %	1	0%	173	12%
Maintenance Expenses – 10 %	1,309	4%	89	6%
Mortality + 15 % for products with death risk	-512	-2%	-66	-5%
Mortality – 20 % for products with longevity risk	-3,887	-12%	-51	-3%

A description of the disclosed sensitivities follows. Details of the sensitivities by region are provided in chapter 3.

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

This sensitivity shows by how much the MCEV would change if market interest rates in the different economies were to fall/rise. The sensitivity is designed to indicate the impact of a sudden 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.

Yield-curve extrapolation is applied in sensitivities to interest rate shifts. This means that only the deep and liquid part of yield-curves are subject to parallel shifts with the ultimate forward rate ("UFR") being kept stable, in line with its design under Solvency II.

Due to the asymmetric and non-linear impact of embedded financial options and guarantees, falling market rates usually have a higher impact on MCEV than rising interest rates and the impact increases for each further step down.

Under the current methodology, if a sensitivity produces a negative interest rate, the interest rate is floored at 0%. Due to the current low interest rate environment, the sensitivities for -100bps were no longer meaningful as the movement no longer represented a full -100bps shift. The interest rate shifts in the sensitivity tables now only show -50bps/+50bps levels to ensure the movements disclosed are a complete representation of the sensitivity.

A shift of -50bps in interest rates results in a reduction of the MCEV of EUR 1,242mn or 4%. This is less than the corresponding impact shown for 2015 of -8%, driven by the successful lowering of guarantee levels in the in-force book. VNB would decrease by EUR 158mn or 11%.

We ran additional sensitivities to test the sensitivity of the UFR. In contrast to the sensitivities in which the deep and liquid part of the yield-curves are shocked, in these additional sensitivities we shock the UFR by -200bps and keep the deep and liquid part of the yield-curves unchanged. Reducing the UFR by 200bps reduces the MCEV by EUR 4,202mn. Similarly, the VNB reduces by EUR 302mn.

– Sensitivity to a decrease in equity values at the valuation date by 20%

This sensitivity is designed to indicate the impact of a sudden change in the market values of equity 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 20% reduces MCEV by EUR 2,134mn or by 7%. This is slightly lower than last year, as no significant changes have been performed in the underlying asset portfolio.

– Sensitivities to increases in volatilities for fixed income and equity by 25%

This sensitivities show the effect of increasing all volatilities, i.e. swaption implied volatilities, equity option implied volatilities and real estate volatility, by 25% of the assumed rate. An increase in volatilities leads to a higher O&G for traditional participating business.

MCEV decreases by EUR 838mn or 3% for an increase in swaption implied volatility, which is higher than last year due to higher market volatilities.

MCEV decreases by EUR 1,152mn or 4% for an increase in equity option implied volatility and VNB decreases by EUR 54mn or 4%, similarly to last year.

– Sensitivity to a decrease in lapse rates by 10%

The impact of a 10% proportionate decrease in projected lapse rates is an increase in MCEV of EUR 1mn or 0% due to offsetting effects across the different countries.

– Sensitivity to a decrease in maintenance expenses by 10%

The impact of a 10% decrease in the projected expenses on MCEV is EUR 1,309mn or 4%. This sensitivity is similar to last year's.

– Sensitivity to changes in mortality and morbidity rates

These sensitivities show the impact of an increase in mortality rates by 15% for products with death risk and a decrease in mortality rates of 20% for products exposed to longevity risk. Since the future experience for the different insured populations in the two product groups might vary significantly, the impacts of this sensitivity are shown separately.

For products with death risks the impact of an increase in mortality rates by 15% leads to a decrease in MCEV of EUR 512mn or 2%. The impact of a decrease in mortality rates by 20% on products exposed to longevity risk would lead to a decrease in MCEV of EUR 3,887mn or 12%. This is higher than last year, among others due to GMWB options included in the USA portfolio, which are more expensive in the lower interest rate environment in the USA at valuation date compared to 2015.

The impact of non-economic shocks are in general low as they are mitigated by the ability to share technical profits and losses with policyholders, particularly in Germany.

Regional analysis of embedded value

3.1 Overview

The following tables provide overviews of the contribution of the various regions and operating entities to the MCEV and VNB results of the Allianz Group. Detailed analyses for each region follow. The regional distribution consists in:

German Speaking Countries
- Germany Life includes Allianz Lebensversicherungs-AG AG and German variable annuity business. Its subsidiaries are included at equity.
- Germany Health is Allianz's health business Allianz Private Krankenversicherungs AG.
- Life operations in Switzerland and Austria.

Western & Southern Europe, Middle East, Africa
- Life operations in France including partnerships and French variable annuity business.
- Italy includes Italian and Irish life subsidiaries and Italian variable annuity business.
- Life operations in Belgium, Netherlands, Luxemburg, Greece, Turkey, Egypt and Lebanon.
- The non-consolidated life operation in India is not included.

Iberia & Latin America
Life operations in Spain, Portugal and Mexico.

Central and Eastern Europe
Life operations in Slovakia, Czech Republic, Poland, Hungary, Croatia, Bulgaria and Romania.

Asia Pacific
- Life operations in Taiwan, Thailand, China, Indonesia, Malaysia, Japan and Philippines.
- Allianz Global Life, excluding continental European branches.

USA
Allianz Life US.

Holding
Internal life reinsurance.

In the following chapters, the analysis is presented for each material region, with specific focus on our larger life operations in Germany, France, Italy and USA.

VALUE OF NEW BUSINESS AT POINT OF SALE BY REGION — Exhibit 8

€ MN

	German Speaking Countries	Germany Life	Western & Southern Europe	France	Italy	Iberia and Latin America	CEE	Asia Pacific	USA	Holding	Total
Value of New Business	589	542	270	59	131	88	33	177	273	17	1,448
in % total VNB	41%	37%	19%	4%	9%	6%	2%	12%	19%	1%	100%
New Business Margin in %	3.1%	3.4%	1.6%	0.8%	1.9%	4.4%	6.0%	4.7%	2.4%	n/a	2.7%
Present value of NB premium	18,952	16,143	16,667	7,256	7,050	2,004	556	3,785	11,627	0	53,591
APE Margin [1] in %	38.9%	40.8%	7.2%	2.6%	13.2%	33.2%	13.5%	27.1%	21.5%	n/a	18.9%
APE Absolute	1,516	1,329	3,726	2,267	986	266	246	652	1,270	n/a	7,674
Single Premium [2]	7,264	7,023	11,371	4,730	5,273	999	77	1,454	11,040	0	32,204
Recurrent Premium	789	627	2,588	1,794	459	166	238	506	166	0	4,454
Recurrent premium multiplier [3]	15	15	2	1	4	6	2	5	4	0	5
IRR in %	14.5%	15.4%	9.9%	6.3%	12.4%	13.3%	17.3%	16.0%	12.9%		12.9%
Payback Period (in years)	7.09	6.64	5.98	9.58	4.90	6.13	2.83	5.27	5.57		5.77
Value of New Business by product type											
Capital Efficient	323	315	11	0	5	11	0	0	257	0	601
Guaranteed Savings & Annuities	122	121	55	51	-2	9	8	39	1	0	236
Protection & Health	144	106	65	7	27	54	24	52	16	17	371
Unit linked without Guarantees	0	0	139	0	101	15	1	85	0	0	241
New Business Margin by product type											
Capital Efficient in %	3.5%	3.5%	1.4%	2.0%	1.4%	2.2%	n/a	n/a	2.4%	n/a	2.9%
Guaranteed Savings & Annuities in %	1.8%	2.0%	0.9%	1.1%	-0.2%	1.3%	4.8%	3.5%	0.2%	n/a	1.5%
Protection & Health in %	4.9%	8.0%	2.1%	0.3%	13.8%	13.2%	9.2%	8.3%	2.6%	n/a	4.7%
Unit linked without Guarantees in %	1.2%	n/a	2.0%	n/a	1.9%	3.7%	1.0%	4.2%	n/a	n/a	2.6%

1—APE margin = Value of new business / (recurrent premium + single premium / 10)
2—In Germany, single premium excludes Parkdepot and Kapitalisierungsprodukt
3—Recurrent Premium Multiplier = (PVNBP - single premium) / recurrent premium

Exhibit 8 provides an overview of the 2016 VNB by region and a corresponding split by main product types. The highest NBM is seen in protection and health business with 4.7%, followed by capital efficient with 2.9%, unit linked with 2.6% and traditional savings and annuities with 1.5%. The share of capital efficient products increased by 9% to 39% and protection products increased from 13% to 15%, whilst guaranteed products and unit linked went from 36% and 22% in 2015 to 28% and 18% in 2016, respectively.

3.2 German Speaking Countries

3.2.1. Development Of Value Of New Business

The VNB written by the German Speaking Countries in 2016 was EUR 589mn, 63% higher than previous year. Exhibit 9 presents an analysis of the changes.

DEVELOPMENT OF VALUE OF NEW BUSINESS — Exhibit 9

€ MN

	Value of New Business	New Business Margin (%)	Present Value of NB Premium
Value as at 31 December 2015	**361**	**2.1%**	**17,439**
Change in Foreign Exchange	-1	0.0%	-40
Change in Allianz interest	0	0.0%	0
Adjusted Value as at 31 December 2015	**360**	**2.1%**	**17,399**
Change in volume	22	0.0%	897
Change in business mix	41	0.2%	0
Change in assumptions	166	0.8%	657
Value as at 31 December 2016	**589**	**3.1%**	**18,952**

The movement of VNB and NBM in the region is mainly driven by Germany Life, for which details can be found in the following section.

Fluctuations along the year of the Swiss Franc against the Euro had a small impact.

New business premium volumes increased driven by higher volumes of capital efficient products in Germany Life, supported by higher sales of full coverage insurance in Germany Health.

All entities contributed positively to the gain of EUR 41mn on VNB and 0.2%-p. on NBM due to changes in business mix. Apart from Germany Life, this includes impacts of:

- EUR 8mn from Switzerland due to the lower guarantees in recurring premium savings and higher sales of capital efficient products;
- EUR 2mn from Germany Health due to higher sales of full coverage insurance and dental tariffs with higher margin.
- EUR 1mn Austria driven by shift towards products with lower guarantees.

The high positive effect of change in assumptions (EUR 166mn) is mainly driven by the introduction of a new cash flow model in Germany Life (EUR 121mn) partly compensated by the impact from the lower interest rates in the Eurozone and in Switzerland (EUR -19mn), and the change of the last liquid point from 15 to 25 years in Switzerland, as requested by EIOPA (EUR -10mn).

3.2.2. Development Of Embedded Value

The MCEV for the German Speaking Countries increased from EUR 11,188mn to EUR 12,260mn after capital transfers of EUR 594mn. The analysis of earnings in Exhibit 10 presents the drivers of the change in MCEV.

ANALYSIS OF EARNINGS OF EMBEDDED VALUE — Exhibit 10

€MN

	Earnings on MCEV analysis		
	Assets	Liabilities	MCEV
Opening MCEV as at 31 December 2015	**281,297**	**270,109**	**11,188**
Foreign Exchange Variance	265	242	22
Acquired / Divested business	0	0	0
Others	0	0	0
Adjusted Opening MCEV as at 31 December 2015	**281,562**	**270,351**	**11,210**
Value of new business at point of sale (pre-tax)			851
Expected existing business contribution			
reference rate			194
in excess of reference rate			1,080
other : transfer from VIF			5
Non-economic assumption changes			31
Operating variances			1,953
Operating MCEV earnings			**4,114**
Economic variances			-1,954
Other non-operating variance			0
Tax			-516
Total MCEV earnings	**33,291**	**31,647**	**1,644**
Net capital movements	-501	94	-594
Closing MCEV as at 31 December 2016	**314,352**	**302,092**	**12,260**

Operating MCEV earnings contributed 37% offset by economic variance -17% of the adjusted opening MCEV. Germany Life was the main driver of the region's positive result and is analyzed separately in the next section.

MCEV of Germany Health increased considerably by 40%, due to an update on risk drivers to calculate risk margin, reflected in operating variances, and remained stable in Switzerland and Austria, gaining 2% and 3% respectively.

The opening foreign exchange gain of EUR 22mn reflects the weakening of the Euro against the Swiss Franc at valuation date.

The VNB at point of sale contributed EUR 851mn pre-tax, of which EUR 49mn from Germany Health and EUR 10mn from Switzerland. Earning the reference rate on the in-force portfolio increased MCEV by EUR 194mn, expected returns in excess of the reference rate added EUR 1,080mn.

Operating variances of EUR 1,953mn includes the update on longevity risk embedded in the calculation of risk margin in Germany Life and Switzerland (EUR 716mn) and the update on risk drives for the calculation of risk margin in Germany Health (EUR 427mn).

Economic variances of EUR -1,954mn reflects the negative impact of interest rates in the Eurozone and Switzerland, together with the negative effect of high volatilities in Germany Health.

Germany Life made a capital transfer of EUR 410mn, Germany Health of EUR 94mn and Switzerland of EUR 90mn.

3.2.3. SENSITIVITIES

Exhibit 11 shows the sensitivities for the German Speaking Countries' MCEV and VNB.

SENSITIVITIES Exhibit 11

	Inforce MCEV		New Business VNB	
	EUR mn	%	EUR mn	%
Central Assumptions	**12,260**	**100%**	**589**	**100%**
EV change by economic factors				
Risk Free Rate – 50bp	-751	-6%	-54	-9%
Risk Free Rate +50bp	580	5%	23	4%
Equity values – 20 %	-1,058	-9%	-24	-4%
Swaption volatilities +25 %	-97	-1%	61	10%
Equity option volatilities +25 %	-204	-2%	-45	-8%
EV change by non-economic factors				
Lapse Rates – 10 %	-45	0%	35	6%
Maintenance Expenses – 10 %	282	2%	26	4%
Mortality + 15 % for products with death risk	-62	-1%	-15	-3%
Mortality – 20 % for products with longevity risk	-1,461	-12%	-13	-2%

The portfolio is mostly participating business with long premium paying terms. Sensitivities to non-economic assumptions are relatively low because technical surplus is shared with policyholders. For the German health business, premiums are adjusted when assumptions change.

Due to the asymmetric nature of embedded options and guarantees, falling market rates have a higher impact on MCEV and VNB than rising rates. Interest rate sensitivities on MCEV in 2016 are overall lower than those of 2015 due to lower guarantees in the portfolio.

The sensitivities on a drop in equity values decreased from last year, due to slightly lower equity exposure in the portfolios. Shift of sign of swaption volatility sensitivity compared to last year, driven by extreme volatilities with high impact in Germany Health portfolio.

The non-economic sensitivities stayed roughly stable, with the exception of a higher exposure to longevity risks in 2016 in Germany Life.

3.3 Germany Life

3.3.1. Development Of Value Of New Business

The VNB written by Germany Life in 2016 was EUR 542mn, 78% higher than the value in 2015. The NBM changed from 2.1% to 3.4%. Exhibit 12 presents an analysis of the changes.

DEVELOPMENT OF VALUE OF NEW BUSINESS Exhibit 12

€ MN

	Value of New Business	New Business Margin (%)	Present Value of NB Premium
Value as at 31 December 2015	**304**	**2.1%**	**14,376**
Change in Foreign Exchange	0	0.0%	0
Change in Allianz interest	0	0.0%	0
Adjusted Value as at 31 December 2015	**304**	**2.1%**	**14,376**
Change in volume	27	0.0%	1,301
Change in business mix	30	0.2%	0
Change in assumptions	181	1.1%	466
Value as at 31 December 2016	**542**	**3.4%**	**16,143**

The VNB of Germany Life is been strong for the whole year, keeping the values reached at the end of 2015 due to the introduction of new tariffs and significant growth on products with reduced and alternative guarantees. The introduction of a new cash flow model that better reflects capital efficient product features, gave an additional push to the margin in the second half of the year (81bps).

The volume effect of EUR 27mn on VNB is based on an increased of sales of capital efficient products that positively contributes to the overall profitability.

The positive VNB contribution of EUR 30mn on business mix leading to an increase in NBM of 0.2%-p. is based on the active move from savings to capital efficient products.

The VNB increase of EUR 181mn is driven by the new cash flow model introduced in the second half of the year, as explained above, supported by positive contribution of economics.

3.3.2. Development Of Embedded Value

The MCEV of Germany Life increased by 5% from EUR 7,680mn to EUR 8,085mn, including capital transfer of EUR 410mn. The analysis of earnings in Exhibit 13 presents the drivers of the change in MCEV.

ANALYSIS OF EARNINGS OF EMBEDDED VALUE Exhibit 13

€MN

	Earnings on MCEV analysis		
	Assets	Liabilities	MCEV
Opening MCEV as at 31 December 2015	**225,342**	**217,662**	**7,680**
Foreign Exchange Variance	0	0	0
Acquired / Divested business	0	0	0
Others	0	0	0
Adjusted Opening MCEV as at 31 December 2015	**225,342**	**217,662**	**7,680**
Value of new business at point of sale (pre-tax)			785
Expected existing business contribution			
reference rate			106
in excess of reference rate			762
other : transfer from VIF			5
Non-economic assumption changes			36
Operating variances			491
Operating MCEV earnings			**2,186**
Economic variances			-1,103
Other non-operating variance			0
Tax			-268
Total MCEV earnings	**30,558**	**29,743**	**815**
Net capital movements	-410	0	-410
Closing MCEV as at 31 December 2016	**255,489**	**247,405**	**8,085**

Operating MCEV earnings contributed EUR 2,186mn and were offset by a significant economic impact of EUR -1,103mn reflecting mainly lower interest rates.

The VNB at point of sale contributed EUR 785mn pre-tax. Earning the reference rate on the in-force portfolio increased MCEV by EUR 106mn. Expected returns in excess of the reference rate added a significant amount of EUR 762mn.

Non-economic assumptions of EUR 36mn and operating variances of EUR 491mn reflect the decrease of risk margin due to the update of the longevity risk embedded in the calculation.

Economic variances of EUR -1,103mn reflect the negative impact of lower interest rates in the Eurozone and a negative impact from equity.

There were also net capital movements of EUR 410mn in respect of the profit/loss transfer agreements.

3.3.3. SENSITIVITIES

Exhibit 14 shows the sensitivities for Germany Life's MCEV and VNB.

SENSITIVITIES — Exhibit 14

	Inforce MCEV		New Business VNB	
	EUR mn	%	EUR mn	%
Central Assumptions	**8,085**	**100%**	**542**	**100%**
EV change by economic factors				
Risk Free Rate – 50bp	-648	-8%	-42	-8%
Risk Free Rate +50bp	586	7%	23	4%
Equity values – 20 %	-775	-10%	-17	-3%
Swaption volatilities +25 %	239	3%	63	12%
Equity option volatilities +25 %	-184	-2%	-43	-8%
EV change by non-economic factors				
Lapse Rates – 10 %	-52	-1%	34	6%
Maintenance Expenses – 10 %	125	2%	24	4%
Mortality + 15 % for products with death risk	-10	0%	-8	-2%
Mortality – 20 % for products with longevity risk	-1,299	-16%	-17	-3%

Germany Life's portfolio is mostly traditional participating business with long premium paying terms. Sensitivities to non-economic assumptions are relatively low because technical surplus is shared with policyholders.

Due to the asymmetric nature of embedded options and guarantees, falling market rates have a higher impact than rising rates. Interest rate sensitivities on MCEV in 2016 were lower than in 2015 due to actions reducing interest rate risk and the contribution of lower guarantee level in new business. The VNB sensitivity on interest rates dropped compared to last year, because of the better reflection of capital efficient product features.

Equity sensitivity in line with the volume of the equity portfolio.

The non-economic sensitivities stayed roughly stable, only the VNB would benefit even more from higher policyholder persistency than last year.

High exposure to longevity sensitivity due to high share of annuities in the portfolio. MCEV sensitivity higher than last year due to significantly lower interest rates in combination with higher volatilities, while guarantees only reduced gradually with new business.

3.4 Western & Southern Europe

3.4.1. Development Of Value Of New Business

The VNB written in Western & Southern Europe in 2016 was EUR 270mn, 32% higher than the value in 2015. The NBM increased from 1.0% to 1.6%. Exhibit 15 presents an analysis of the changes.

DEVELOPMENT OF VALUE OF NEW BUSINESS — Exhibit 15

	Value of New Business	New Business Margin	Present Value of NB Premium
	EUR mn	%	EUR mn
Value as at 31 December 2015	**205**	**1.0%**	**19,544**
Change in Foreign Exchange	-5	0.0%	148
Change in Allianz interest	0	0.0%	0
Adjusted Value as at 31 December 2015	**199**	**1.0%**	**19,692**
Change in volume	-27	0.0%	-2,566
Change in business mix	68	0.4%	65
Change in assumptions	30	0.2%	-524
Value as at 31 December 2016	**270**	**1.6%**	**16,667**

The increase in VNB is mainly driven by France and Italy, explained in detail in the next sections, supported by Benelux and Turkey.

The losses in foreign exchange of EUR -5mn, are based on the weakening of Turkish Lira against the Euro.

The decrease in VNB of EUR -27mn on volume is mainly caused by Italy (EUR -15mn) and Turkey (EUR -8mn), due to lower sales of unit linked products in both countries.

The gain in VNB of EUR 68mn on a more profitable new business mix is caused by Italy (EUR 49mn), Benelux (EUR 11mn), and Turkey (EUR 7mn), due to close monitoring of annuities in the Netherlands to adjust to market movements and lower commissions on unit linked products to improve profitability in Turkey.

The change in assumptions of EUR 30mn includes the non-economic effect (EUR 35mn) from France (see following section) and Turkey due to regulatory change on pensions (EUR 5mn) and lower lapse rates (EUR 3mn), offset by the economic impact of extremely low interest rates in the Eurozone (EUR -13mn).

3.4.2. Development Of Embedded Value

The MCEV for Western & Southern Europe decreased from EUR 10,341mn to EUR 9,718mn which represents a decrement of 6%. The analysis of earnings in Exhibit 16 presents the drivers of the change in MCEV.

ANALYSIS OF EARNINGS OF EMBEDDED VALUE — Exhibit 16

€MN

	Earnings on MCEV analysis		
	Assets	Liabilities	MCEV
Opening MCEV as at 31 December 2015	**171,550**	**161,210**	**10,341**
Foreign Exchange Variance	-388	-293	-95
Acquired / Divested business	-377	-71	-306
Others	0	0	0
Adjusted Opening MCEV as at 31 December 2015	**170,785**	**160,846**	**9,939**
Value of new business at point of sale (pre-tax)			360
Expected existing business contribution			
reference rate			339
in excess of reference rate			225
other : transfer from VIF			2
Non-economic assumption changes			430
Operating variances			375
Operating MCEV earnings			**1,761**
Economic variances			-891
Other non-operating variance			0
Tax			-247
Total MCEV earnings	**7,253**	**6,630**	**624**
Net capital movements	-844	0	-844
Closing MCEV as at 31 December 2016	**177,194**	**167,476**	**9,718**

Operating MCEV earnings contributed 18%, the worsened economic conditions in the Eurozone compensate the increase by -9% of the adjusted opening MCEV. France and Italy were the main driving countries of the development and are analyzed separately. Slight decrease of MCEV in Benelux (-1%) and offsetting effect from the decreased in Greece and the increases in Egypt and Turkey.

The opening foreign exchange loss of EUR -95mn reflects the weakening of the Turkish Lira and Egyptian Pound against the Euro. Acquired and divested business reflects the consolidation effects from the merger into Allianz Vie of three other French entities.

The VNB at point of sale added EUR 360mn pre-tax, including a significant contribution from Turkey of EUR 65mn next to France and Italy. Earning the reference rate on the in-force portfolio increased MCEV by EUR 339mn; expected returns in excess of the reference rate added another EUR 225mn.

Operating variances of EUR 375mn are primarily based on contributions from France (EUR 346mn) as explained below.

The non-economic impact of EUR 430mn refers mainly to updates in France with minor impacts from assumption updates in all other countries.

The negative contribution of economic variances (EUR -891mn) were almost exclusively coming from France and Italy.

Dividends of overall EUR 844mn were paid in 2016, including France (540mn), Benelux (EUR 54mn), Turkey (EUR 21mn) and Lebanon (EUR 7mn).

3.4.3. SENSITIVITIES

Exhibit 17 presents the sensitivities for Western & Southern Europe's MCEV and VNB.

SENSITIVITIES Exhibit 17

€MN

	Inforce MCEV		New Business VNB	
	EUR mn	%	EUR mn	%
Central Assumptions	**9,718**	**100%**	**270**	**100%**
EV change by economic factors				
Risk Free Rate – 50bp	-402	-4%	-99	-37%
Risk Free Rate +50bp	100	1%	58	22%
Equity values – 20 %	-903	-9%	-54	-20
Swaption volatilities +25 %	-215	-2%	-6	-2%
Equity option volatilities +25 %	-408	-4%	-11	-4%
EV change by non-economic factors				
Lapse Rates – 10 %	46	0%	112	41%
Maintenance Expenses – 10 %	654	7%	33	12%
Mortality + 15 % for products with death risk	-180	-2%	-28	-10%
Mortality – 20 % for products with longevity risk	-841	-9%	-4	-2%

Due to the asymmetric nature of embedded options and guarantees, falling market rates have a higher impact on MCEV and VNB than rising rates. The interest rate sensitivity of the MCEV was slightly lowered in the region.

The higher equity sensitivity compared to last year is based on an overall increasing equity exposure in the SAAs, especially in the French portfolio.

The non-economic exposures remained on a relatively low level.

3.5 France

3.5.1. Development Of Value Of New Business

The VNB written in France in 2016 increased to EUR 59mn, 71% higher than the value in 2015. The NBM went up from 0.5% to 0.8%. Exhibit 18 presents an analysis of the changes.

DEVELOPMENT OF VALUE OF NEW BUSINESS — Exhibit 18

	Value of New Business	New Business Margin	Present Value of NB Premium
	EUR mn	%	EUR mn
Value as at 31 December 2015	**35**	**0.5%**	**7,269**
Change in Foreign Exchange	0	0.0%	0
Change in Allianz interest	0	0.0%	0
Adjusted Value as at 31 December 2015	**35**	**0.5%**	**7,269**
Change in volume	-4	-0.1%	466
Change in business mix	0	0.0%	0
Change in assumptions	28	0.4%	-478
Value as at 31 December 2016	**59**	**0.8%**	**7,256**

Successful steering of the new business since last year has driven the increase of VNB and NBM in France. Significant effort on improving combined ratios on health business and moving out from unprofitable saving product. The share of unit linked and protection products increased by 1%p. to 26% and 4%p. to 37% whereas the share of saving products decreased by 6%.p. to 36%. For the health and protection business margin improved from 0.2% in 2015 to 0.3% in 2016. Improvement of profitability also on savings from a negative value of -0.6% to a positive 0.2% in 2016 after re-pricing measures and reduction in sales of less profitable contracts.

The negative volume effect of EUR -4mn on VNB despite the increase of premiums, is based on an increase of group health and protection business that had not as good profitability as other lines of business in the last year.

Overall impact from business mix is zero, since positive effect of lower share of unprofitable savings was counterbalanced by reduced sales from Global Life French branch.

Change in assumptions (EUR 28mn) includes a positive impact of EUR 35mn from non-economic assumptions: better switching assumptions with higher switching rates towards unit linked, increased VNB for unit linked and savings; VNB for health and protection increased from improved combined ratios. Partially offset by a negative impact of EUR 7mn due to lower interest rates which mainly impacted the savings business.

3.5.2. Development Of Embedded Value

The MCEV of France decreased by 6% from EUR 5,816mn to EUR 5,487mn after dividend payments of EUR 540mn. The analysis of earnings in Exhibit 19 presents the drivers of the change in MCEV.

ANALYSIS OF EARNINGS OF EMBEDDED VALUE — Exhibit 19

€MN

	Earnings on MCEV analysis		
	Assets	Liabilities	MCEV
Opening MCEV as at 31 December 2015	**93,604**	**87,788**	**5,816**
Foreign Exchange Variance	0	0	0
Acquired / Divested business	-377	-71	-306
Others	0	0	0
Adjusted Opening MCEV as at 31 December 2015	**93,227**	**87,717**	**5,510**
Value of new business at point of sale (pre-tax)			82
Expected existing business contribution			
reference rate			210
in excess of reference rate			158
other : transfer from VIF			0
Non-economic assumption changes			382
Operating variances			346
Operating MCEV earnings			**1,178**
Economic variances			-441
Other non-operating variance			0
Tax			-220
Total MCEV earnings	**3,046**	**2,528**	**517**
Net capital movements	-540	0	-540
Closing MCEV as at 31 December 2016	**95,732**	**90,246**	**5,487**

Operating MCEV earnings contributed 21% of the adjusted opening MCEV, partially compensated by the negative economic variances -8%.

Acquired and divested business reflects capital consolidation effects due to the merge of Arcalis, Avip and Martin Maurel Vie into Allianz Vie.

The VNB at point of sale contributed EUR 82mn pre-tax. Earning the reference rate on the in-force portfolio increased MCEV by EUR 210mn. Expected returns in excess of the reference rate added another EUR 158mn.

Non-economic assumptions added EUR 382mn mainly due to the update on the switching assumption between savings and unit linked product.

Operating variances of EUR 346mn mainly consist of update on investment and crediting strategy (EUR 129mn) and refinement on the cash flow projection models.

Economic variances had negative impact of EUR -441mn driven by the low interest rates in the Eurozone and the widening of credit spreads included in the French portfolio.

Dividends of EUR 540mn were paid during 2016.

3.5.3. SENSITIVITIES

Exhibit 20 shows the sensitivities for France's MCEV and VNB.

SENSITIVITIES — Exhibit 20

€MN	Inforce MCEV		New Business VNB	
	EUR mn	%	EUR mn	%
Central Assumptions	5,487	100%	59	100%
EV change by economic factors				
Risk Free Rate – 50bp	-156	-3%	-83	-142%
Risk Free Rate +50bp	-84	-2%	48	82%
Equity values – 20 %	-615	-11%	-40	-68%
Swaption volatilities +25 %	-140	-3%	-2	-4%
Equity option volatilities +25 %	-380	-7%	-9	-16%
EV change by non-economic factors				
Lapse Rates – 10 %	22	0%	101	172%
Maintenance Expenses – 10 %	501	9%	22	37%
Mortality + 15 % for products with death risk	-129	-2%	-18	-31%
Mortality – 20 % for products with longevity risk	-763	-14%	-3	-5%

Due to the asymmetric nature of embedded options and guarantees, France shows exposure to both increase and decrease of interest rates, with falling market rates have a higher impact on MCEV and VNB than rising rates.

The higher equity sensitivity is based on an increasing equity exposure in the SAA of the French portfolio.

3.6 Italy

3.6.1. Development Of Value Of New Business

The VNB written in Italy in 2016 increased to EUR 131mn, 18% higher than the value in 2015. The NBM went up from 1.2% to 1.9%. Exhibit 21 presents an analysis of the changes.

DEVELOPMENT OF NEW BUSINESS VALUE — Exhibit 21

	Value of New Business	New Business Margin	Present Value of NB Premium
	EUR mn	%	EUR mn
Value as at 31 December 2015	**111**	**1.2%**	**9,538**
Change in Foreign Exchange	0	0.0%	10
Change in Allianz interest	0	0.0%	0
Adjusted Value as at 31 December 2015	**111**	**1.2%**	**9,548**
Change in volume	-15	0.2%	-2,446
Change in business mix	49	0.7%	0
Change in assumptions	-14	-0.2%	-53
Value as at 31 December 2016	**131**	**1.9%**	**7,050**

The overall increase is driven by Allianz SpA where the VNB increased in 2016 by EUR 36mn recovering the negative VNB of EUR -8mn in 2015. Credit RAS and DARTA VNB decreased by EUR -6mn (-13%) and EUR -16mn (-22%) respectively due to lower volumes.

Decrease of EUR -15mn is driven by lower volumes in unit linked sales in Credit RAS and DARTA in the first half of the year, due to fluctuations in the markets, and in Allianz SpA due to lower sales of savings products.

The main VNB impact is the shift of business mix which has a positive impact of EUR 49mn during 2016 motivated by management decisions on: moving away from less profitable group saving products, reducing guarantees and increasing production on capital efficient products.

VNB decreases by EUR -14mn due to lower interest rates and higher lapse rates assumed in the projection of saving products.

The new business margin has been over 1.7% along the year due to a successful new business steering that has compensated the negative development of the markets mainly in the second half of the year with active actions to improve the margins.

3.6.2. Development Of Embedded Value

The MCEV of Italy decreased by 8% from EUR 2,610mn to EUR 2,406mn. The analysis of earnings in Exhibit 22 presents the drivers of the change in MCEV.

ANALYSIS OF EARNINGS OF EMBEDDED VALUE — Exhibit 22

€MN	Earnings on MCEV analysis		
	Assets	Liabilities	MCEV
Opening MCEV as at 31 December 2015	**54,412**	**51,803**	**2,610**
Foreign Exchange Variance	0	0	0
Acquired / Divested business	0	0	0
Others	0	0	0
Adjusted Opening MCEV as at 31 December 2015	**54,412**	**51,803**	**2,610**
Value of new business at point of sale (pre-tax)			170
Expected existing business contribution			
reference rate			52
in excess of reference rate			71
other : transfer from VIF			2
Non-economic assumption changes			63
Operating variances			33
Operating MCEV earnings			**391**
Economic variances			-407
Other non-operating variance			0
Tax			34
Total MCEV earnings	**3,166**	**3,147**	**18**
Net capital movements	-222	0	-222
Closing MCEV as at 31 December 2016	**57,356**	**54,950**	**2,406**

Operating MCEV earnings contributed 15% of the adjusted opening MCEV, completely offset by the negative economic variances -16%.

The VNB at point of sale (pre-tax) contributed EUR 170mn as a result of the profitable new business written during the year. Earning the reference rate of the in-force portfolio increased MCEV by EUR 52mn. Expected returns in excess of the reference rate further increased MCEV by EUR 71mn.

Non-economic assumption changes added EUR 63mn driven by the DAS (Differimento Automatico a Scadenza) portfolio management regarding maturity extension option.

Operating variances of EUR 33mn includes the update on risk margin calculation following a clarification from EIOPA on using annual time steps of projection instead of monthly time steps.

All the positive movements described above, were offset by economic variances of EUR -407mn driven by the lower interest rates and high volatilities, with high impact on traditional business. For unit linked business the impact is not relevant and only affects the guaranteed fund of unit linked. Widening of government spreads negatively contribute to the value.

3.6.3. SENSITIVITIES

Exhibit 23 shows the sensitivities for Italy's MCEV and VNB.

SENSITIVITIES Exhibit 23

€MN	Inforce MCEV		New Business VNB	
	EUR mn	%	EUR mn	%
Central Assumptions	2,406	100%	131	100%
EV change by economic factors				
Risk Free Rate – 50bp	-170	-7%	-5	-4%
Risk Free Rate +50bp	125	5%	1	1%
Equity values – 20 %	-206	-9%	-18	-14%
Swaption volatilities +25 %	-56	-2%	-3	-3%
Equity option volatilities +25 %	-18	-1%	-1	-1%
EV change by non-economic factors				
Lapse Rates – 10 %	12	1%	9	7%
Maintenance Expenses – 10 %	69	3%	8	6%
Mortality + 15 % for products with death risk	-26	-1%	-8	-6%
Mortality – 20 % for products with longevity risk	-59	-2%	0	0%

The VNB exposure to changes in interest rates is similar to last year due to the shift in new business mix towards risk and unit linked products, as well as savings with lower guarantees. The corresponding MCEV exposure also dropped due to AL-duration mismatch reduction on segregated funds.

Equity sensitivity is driven by unit linked business in DARTA.

3.7 Iberia & Latin America

3.7.1. Development Of Value Of New Business

The VNB written in Iberia & Latin America in 2016 increased to EUR 88mn, 49% higher than the value in 2015. The NBM changed from 2.7% to 4.4%. Exhibit 24 presents an analysis of the changes.

DEVELOPMENT OF VALUE OF NEW BUSINESS — Exhibit 24

	Value of New Business	New Business Margin	Present Value of NB Premium
	EUR mn	%	EUR mn
Values as at 31 December 2015	**60**	**2.7%**	**2,233**
Change in Foreign Exchange	-1	0.0%	-51
Change in Allianz interest	0	0.0%	0
Adjusted Value as at 31 December 2015	**58**	**2.7%**	**2,182**
Change in volume	-5	0.0%	-176
Change in business mix	16	0.8%	0
Change in assumptions	20	1.0%	-3
Value as at 31 December 2016	**88**	**4.4%**	**2,004**

The increase of EUR 28mn in VNB was driven by active management of the portfolio in Spain and positive impact of contract boundaries in Portugal.

In Spain VNB increased by EUR 18mn in 2016 driven by actions taken to improve profitability, reducing guarantees to adapt to low interest environment. Premiums decreased due to lower volumes in tax incentivized saving product compared to 2015, which also has a positive impact in the margin as the share of protection products increased in the portfolio.

Increase of VNB in Portugal by EUR 10mn driven by higher volumes on risk products due to the first time consideration of renewals in credit protection line as new business.

In Mexico, VNB increased by EUR 1mn due to higher volumes.

3.7.2. Development Of Embedded Value

The MCEV for Iberia & Latin America increased from EUR 1,131mn to EUR 1,207mn after dividend payments of EUR 83mn. The analysis of earnings in Exhibit 25 presents the drivers of the change in MCEV.

ANALYSIS OF EARNINGS OF EMBEDDED VALUE — Exhibit 25

€MN	Earnings on MCEV analysis		
	Assets	Liabilities	MCEV
Opening MCEV as at 31 December 2015	**8,999**	**7,868**	**1,131**
Foreign Exchange Variance	-7	10	-17
Acquired / Divested business	134	109	25
Others	0	0	0
Adjusted Opening MCEV as at 31 December 2015	**9,126**	**7,987**	**1,139**
Value of new business at point of sale (pre-tax)			113
Expected existing business contribution			
reference rate			6
in excess of reference rate			221
other : transfer from VIF			0
Non-economic assumption changes			167
Operating variances			-243
Operating MCEV earnings			**264**
Economic variances			-81
Other non-operating variance			0
Tax			-32
Total MCEV earnings	**258**	**107**	**151**
Net capital movements	-83	0	-83
Closing MCEV as at 31 December 2016	**9,301**	**8,094**	**1,207**

Operating MCEV earnings added 23% to the adjusted opening MCEV. The change was mainly driven by new business added, realized spreads on investments and update of non-economic assumptions.

Opening FX variance reflects the strengthening of the Euro against the Mexican Peso, lowering the MCEV by EUR 17mn. Acquired business of EUR 25mn reflects the merge of Amaya into Allianz Seguros.

The VNB at point of sale (pre-tax) added EUR 113mn. Earning the reference rate on the in-force portfolio increased MCEV by EUR 6mn. Expected returns in excess of the reference rate added another EUR 221mn.

Non-economic assumptions of EUR 167mn driven by the changes in both lapse assumptions, after including a lump sum option for in force annuities, and mortality assumptions in Spain.

Operating variances of EUR -243mn reflect the change of renewals to be considered as new business in Portugal (EUR -190mn) and the higher than expected lapses on a portfolio of bank products in Spain (EUR -38mn).

Economic variances of EUR -81mn was mainly driven by lower interest rates partially offset by positive development of credit spreads in Spain.

In Spain and Portugal dividends of EUR 74mn and EUR 9mn were paid respectively.

3.7.3. SENSITIVITIES

Exhibit 26 presents the sensitivities for Iberia & Latin America's MCEV and VNB.

SENSITIVITIES Exhibit 26

€MN

	Inforce MCEV		New Business VNB	
	EUR mn	%	EUR mn	%
Central Assumptions	1,207	100%	88	100%
EV change by economic factors				
Risk Free Rate – 50bp	-7	-1%	0	0%
Risk Free Rate +50bp	-78	-6%	-3	-3%
Equity values – 20 %	-7	-1%	0	0%
Swaption volatilities +25 %	-40	-3%	-3	-4%
Equity option volatilities +25 %	-4	0%	0	0%
EV change by non-economic factors				
Lapse Rates – 10 %	77	6%	5	5%
Maintenance Expenses – 10 %	40	3%	1	1%
Mortality + 15 % for products with death risk	-81	-7%	-4	-4%
Mortality – 20 % for products with longevity risk	-228	-19%	-1	-1%

Interest rate sensitivity for the in-force blocks is dominated by the protection portfolios in Portugal and Spain and the unit linked portfolio in Mexico, where rising rates mainly affect PVFP discounting and therefore lower the value.

The in-force sensitivity to equity impacts results exclusively from Spain, the other companies don't have a corresponding exposure.

Non-economic sensitivities are relatively higher than in other entities, driven by the risk portfolios in Spain and Portugal.

The exposure to longevity risk relates to the existing pension portfolio in Spain and the annuity portfolio in Mexico.

3.8 Central and Eastern Europe

3.8.1. Development Of Value Of New Business

The VNB written in Central and Eastern Europe in 2016 increased to EUR 33mn, 3% higher than in 2015. The NBM increased from 5.1% to 6.0%. Exhibit 27 presents an analysis of the changes.

DEVELOPMENT OF VALUE OF NEW BUSINESS Exhibit 27

	Value of New Business	New Business Margin	Present Value of NB Premium
	EUR mn	%	EUR mn
Value as at 31 December 2015	**32**	**5.1%**	**630**
Change in Foreign Exchange	0	0.0%	-10
Change in Allianz interest	0	0.0%	0
Adjusted Value as at 31 December 2015	**32**	**5.1%**	**620**
Change in volume	-5	-0.1%	-101
Change in business mix	5	1.0%	1
Change in assumptions	2	-0.1%	36
Value as at 31 December 2016	**33**	**6.0%**	**556**

The growth of the VNB in the region reflects successful business steering towards more profitable product lines, most prominently in Slovakia, which compensates for the losses due to lower new business volumes from single premium unit linked in Poland. This is the major reason for the significant increase of the New Business Margin.

The region is overall less affected by the challenging economic environment, since corresponding losses in traditional business were leveled out by the nature of the risk riders which are highly weighted in the portfolio of Slovakia and Czech Republic.

Slovakia VNB, which accounts for about half of the region's VNB, improved by EUR 5mn due to the shift of traditional savings towards higher profitable unit linked products and riders.

The VNB in Czech Republic supports the increase adding EUR 2mn, reflecting larger new business share of protection rider products with significantly higher margins.

The VNB in Poland fell by EUR 3mn mainly due to the lack of sales of the single-premium unit linked business in the bancassurance channel.

3.8.2. Development Of Embedded Value

The MCEV for Central and Eastern Europe decreased from EUR 777mn to EUR 775mn after dividend payments of EUR 33mn. The analysis of earnings in Exhibit 28 presents the drivers of the change in MCEV.

ANALYSIS OF EARNINGS OF EMBEDDED VALUE Exhibit 28

€MN	Earnings on MCEV analysis		
	Assets	Liabilities	MCEV
Opening MCEV as at 31 December 2015	**3,929**	**3,152**	**777**
Foreign Exchange Variance	-9	-5	-4
Acquired / Divested business	57	44	13
Others	0	0	0
Adjusted Opening MCEV as at 31 December 2015	**3,977**	**3,191**	**786**
Value of new business at point of sale (pre-tax)			42
Expected existing business contribution			
reference rate			19
in excess of reference rate			53
other : transfer from VIF			0
Non-economic assumption changes			0
Operating variances			21
Operating MCEV earnings			**135**
Economic variances			-79
Other non-operating variance			0
Tax			-33
Total MCEV earnings	**106**	**83**	**23**
Net capital movements	-33	0	-33
Closing MCEV as at 31 December 2016	**4,050**	**3,275**	**775**

Total MCEV earnings added 3% to the adjusted opening MCEV. Contribution of new business is offset by economic movements and update of tax rate in Slovakia.

Opening FX mainly reflects the strength of the Euro against the Polish Zloty 2016, decreasing the MCEV by EUR -4mn. Acquired and divested business reflects the acquisition of Wüstenrot životní pojišťovna by Allianz Czech Republic at the beginning of 2016 and added EUR 13mn.

The VNB at point of sale (pre-tax) added EUR 42mn with biggest contribution from Slovakia and Poland. Earning the reference rate on the in-force portfolio increased MCEV by EUR 19mn, expected returns in excess of the reference rate added another EUR 53mn, mainly coming from over-return on management expectations in Slovakia.

Non-economic assumption changes with no impact on MCEV due to offset effects: negative impact from the update on risk drivers for the calculation of risk margin, together with update on morbidity assumptions in Slovakia; and positive impact of lowering lapse rates and update on expense assumptions in the rest of the region.

Operating variances of EUR 21mn due to lower lapses than expected in Czech Republic, Slovakia and Hungary, as well as improvement in mortality and morbidity experience in Czech Republic and Poland.

Economic variances of overall EUR -79mn essentially contain lower interest rate environment impacting Slovakia (EUR -42mn).

Net capital movement of EUR 33mn from Poland, Slovakia, and Hungary of EUR 12mn, EUR 11mn and EUR 10mn respectively.

3.8.3. SENSITIVITIES

Exhibit 29 presents the sensitivities for Central and Eastern Europe's MCEV and VNB.

SENSITIVITIES — Exhibit 29

€MN	Inforce MCEV		New Business VNB	
	EUR mn	%	EUR mn	%
Central Assumptions	775	100%	33	100%
EV change by economic factors				
Risk Free Rate – 50bp	-21	-3%	0	-1%
Risk Free Rate +50bp	10	1%	0	-1%
Equity values – 20 %	-9	-1%	0	0%
Swaption volatilities +25 %	-10	-1%	0	0%
Equity option volatilities +25 %	-1	0%	0	0%
EV change by non-economic factors				
Lapse Rates – 10 %	17	2%	3	10%
Maintenance Expenses – 10 %	28	4%	4	11%
Mortality + 15 % for products with death risk	-16	-2%	-4	-12%
Mortality – 20 % for products with longevity risk	-1	0%	0	0%

For the in-force blocks, interest rate sensitivity is dominated by Croatian traditional savings products with high guarantees. For rising interest rates, the effect on PVFP discounting leading to lower values for unit linked business in Poland and Hungary, offsets the corresponding positive contribution from Croatia.

For new business, the interest rate exposures reflect the sensitivity of saving products with guarantees in Slovakia.

The exposure to swaption volatilities is almost exclusively based on guarantee costs in Slovakia, the exposure to death risks relates to business in Slovakia, Czech Republic and Poland for in-force and new business.

3.9 Asia Pacific

3.9.1. Development Of Value Of New Business

The VNB written in Asia Pacific in 2016 was EUR 177mn, 6% lower than the value in 2015. The NBM increased from 4.1% to 4.7%. Exhibit 30 presents an analysis of the changes.
2015 values do not include South Korean VNB.

DEVELOPMENT OF VALUE OF NEW BUSINESS — Exhibit 30

	Value of New Business	New Business Margin	Present Value of NB Premium
	EUR mn	%	EUR mn
Value as at 31 December 2015	**188**	**4.1%**	**4,588**
Change in Foreign Exchange	-3	0.0%	-84
Change in Allianz interest	0	0.0%	16
Adjusted Value as at 31 December 2015	**185**	**4.1%**	**4,520**
Change in volume	-14	0.4%	-757
Change in business mix	37	1.0%	-39
Change in assumptions	-31	-0.9%	62
Value as at 31 December 2016	**177**	**4.7%**	**3,785**

The change in Foreign Exchange was driven by the appreciation of Chinese Yuan and Taiwan Dollar against the Euro. The long-term partnership with Philippine National Bank by which Allianz acquired 51% of PNB Life Insurance Inc. business in June 2016 added EUR 16mn premiums with small impact on VNB.

The decrease of the VNB by EUR -14mn is driven by lower new business volumes in unit linked products in Taiwan which slightly recovered at the end of the year.

Positive contribution of EUR 37mn due to new business steering in the region that has improved the profitability in almost all countries. For example, in Malaysia new products were launched and measures on repricing existing business on sale were taken.

Negative impact of assumptions of EUR -31mn driven by lower interest rates in Taiwan, Thailand and China.

3.9.2. Development Of Embedded Value

The MCEV for Asia Pacific increased from EUR -324mn to EUR 1,293n after net capital movements of EUR 69mn. The analysis of earnings in Exhibit 31 presents the drivers of the change in MCEV. Values in the table below include Allianz Global Life Dublin.

ANALYSIS OF EARNINGS OF EMBEDDED VALUE — Exhibit 31

€MN	Earnings on MCEV analysis		
	Assets	Liabilities	MCEV
Opening MCEV as at 31 December 2015	**24,752**	**25,076**	**-324**
Foreign Exchange Variance	453	426	27
Acquired / Divested business	-14,372	-15,737	1,365
Others	0	0	0
Adjusted Opening MCEV as at 31 December 2015	**10,834**	**9,765**	**1,069**
Value of new business at point of sale (pre-tax)			183
Expected existing business contribution			
reference rate			89
in excess of reference rate			80
other : transfer from VIF			0
Non-economic assumption changes			-17
Operating variances			-26
Operating MCEV earnings			**309**
Economic variances			14
Other non-operating variance			0
Tax			-30
Total MCEV earnings	**816**	**523**	**293**
Net capital movements	-69	0	-69
Closing MCEV as at 31 December 2016	**11,581**	**10,288**	**1,293**

Operating MCEV earnings contributed 29% to the adjusted opening value, mainly from the positive contribution of the new business.

The foreign exchange variance of EUR 27mn mainly reflects a weaker Euro against the Indonesian Rupiah, Thai Baht and Taiwan Dollar (negative impact due to MCEV in Taiwan) at valuation date. Divested business of Allianz South Korea increased the MCEV by 1,365mn.

The VNB at point of sale contributed EUR 183mn pre-tax. Earning the reference rate on the in-force portfolio increased MCEV by EUR

89mn. Expected returns in excess of the reference rate added another EUR 80mn.

Non-economic assumption changes (EUR -17mn) due to update of upfront fee on the agreement with Maybank in Indonesia partially offset by lower lapse rates in unit linked and riders in Taiwan.

Operating variances (EUR -26mn) driven by higher morbidity claims than expected in Thailand, lower lapses in the legacy block in Taiwan and business building costs across all region.

The overall economic impact of EUR 14mn is driven by higher interest rates in Indonesia and Malaysia, supported by positive development of equity markets mainly in Thailand.

Net capital movements of overall EUR 69mn comprises a net capital movement of EUR 44mn from Global Life and dividend paid in Thailand of EUR 25mn.

3.9.3. SENSITIVITIES

Exhibit 32 presents the sensitivities for Asia Pacific's MCEV and VNB.

SENSITIVITIES — Exhibit 32

€MN

	Inforce MCEV[1]		New Business VNB	
	EUR mn	%	EUR mn	%
Central Assumptions	1,293	100%	177	100%
EV change by economic factors				
Risk Free Rate – 50bp	-110	-8%	-13	-8%
Risk Free Rate +50bp	63	5%	9	5%
Equity values – 20 %	-57	-4%	-4	-2%
Swaption volatilities +25 %	-63	-5%	-7	-4%
Equity option volatilities +25 %	1	0%	0	0%
EV change by non-economic factors				
Lapse Rates – 10 %	52	4%	17	9%
Maintenance Expenses – 10 %	70	5%	10	5%
Mortality + 15 % for products with death risk	-116	-9%	-12	-7%
Mortality – 20 % for products with longevity risk	-40	-3%	0	0%

Sensitivities to interest rates are driven by the high guarantees in the old-block of traditional portfolios in Taiwan.

Based on the asymmetric nature of embedded options and guarantees, falling market rates have a higher impact on in-force block than rising rates.

The sensitivity to mortality is driven by Taiwan, Indonesia and Malaysia.

Taiwan drives the MCEV longevity sensitivity, due to the whole life health product from old block portfolios.

[1] The respective sign of the relative MCEV impact is due to the negative central assumption base.

3.10 USA

3.10.1. Development Of Value Of New Business

The VNB written in the USA in 2016 decreased to EUR 273mn, 14% lower than the value in 2015. The NBM went down from 3.1% to 2.4%. Exhibit 33 presents an analysis of the changes.

DEVELOPMENT OF VALUE OF NEW BUSINESS — Exhibit 33

	Value of New Business	New Business Margin	Present Value of NB Premium
	EUR mn	%	EUR mn
Value as at 31 December 2015	**318**	**3.1%**	**10,417**
Change in Foreign Exchange	-1	0.0%	-87
Change in Allianz interest	0	0.0%	0
Adjusted Value as at 31 December 2015	**316**	**3.1%**	**10,330**
Change in volume	40	0.0%	1,297
Change in business mix	101	0.9%	0
Change in assumptions	-184	-1.6%	0
Value as at 31 December 2016	**273**	**2.4%**	**11,627**

The VNB changed by EUR -1mn due to foreign exchange as a result of stronger Euro against the US dollar.

The drop in VNB was driven by the hit of interest rates since June that only started to slightly recover after the election in December.

Increase in volumes driven by fixed-indexed annuities due to special promotion activities in the first half of the year.

Management actions in variable annuities included repricing efforts and shift of sales towards products less market sensitive throughout 2016.

Additional efforts on repricing measures on fixed-indexed annuities, reacting to the difficult economic environment, were implemented in September, with very positive impact on profitability in the fourth quarter of 2016 (2.4%) compared to the quarter before (1.1%).

3.10.2. Development Of Embedded Value

The MCEV of the USA increased from EUR 5,322 to EUR 6,308mn after a dividend payment of EUR 848mn. The analysis of earnings in Exhibit 34 presents the drivers of the change in MCEV.

ANALYSIS OF EARNINGS OF EMBEDDED VALUE — Exhibit 34

€MN

	Earnings on MCEV analysis		
	Assets	Liabilities	MCEV
Opening MCEV as at 31 December 2015	**115,704**	**110,371**	**5,332**
Foreign Exchange Variance	3,461	3,301	160
Acquired / Divested business	0	0	0
Others	0	0	0
Adjusted Opening MCEV as at 31 December 2015	**119,165**	**113,673**	**5,492**
Value of new business at point of sale (pre-tax)			421
Expected existing business contribution			
reference rate			614
in excess of reference rate			91
other : transfer from VIF			0
Non-economic assumption changes			345
Operating variances			-163
Operating MCEV earnings			**1,308**
Economic variances			1,180
Other non-operating variance			0
Tax			-825
Total MCEV earnings	**9,488**	**7,823**	**1,664**
Net capital movements	-848	0	-848
Closing MCEV as at 31 December 2016	**127,805**	**121,496**	**6,308**

Operating MCEV earnings contributed 24% of the adjusted opening MCEV, supported by positive impact from narrowing of credit spreads.

The opening foreign exchange adjustment reflects the weakening of the Euro against the US Dollar at valuation date. The currency movement impacted MCEV by EUR 160mn.

The VNB at point of sale (pre-tax) contributed EUR 421mn. Earning the reference rate on the in-force portfolio added EUR 614mn to MCEV. Expected returns in excess of the reference rate, increased MCEV by EUR 91mn.

Non-economic assumption changes of overall EUR 345mn are due to lower expenses on variable annuities and modelling improvements on fixed-indexed annuities for higher consistency to IFRS.

Operating variances of EUR -163mn reflect consolidation of long term care ("LTC") model, partly offset by updates on crediting strategy towards a more defensive strategy due to low interest rate environment.

Economic variances of EUR 1,180mn resulted from narrowing credit spreads in the portfolio (EUR 1,661mn) partially offset by lower interest rates and development of equity markets (EUR -481mn)

Dividends of EUR 848mn were paid.

3.10.3. SENSITIVITIES

Exhibit 35 shows the sensitivities for the MCEV and VNB in the USA.

SENSITIVITIES — Exhibit 35

€MN

	Inforce MCEV		New Business VNB	
	EUR mn	%	EUR mn	%
Central Assumptions	6,308	100%	273	100%
EV change by economic factors				
Risk Free Rate – 50bp	48	1%	9	3%
Risk Free Rate +50bp	-204	-3%	-12	-5%
Equity values – 20 %	-98	-2%	-3	-1%
Swaption volatilities +25 %	-412	-7%	-4	-2%
Equity option volatilities +25 %	-536	-8%	1	1%
EV change by non-economic factors				
Lapse Rates – 10 %	-150	-2%	1	1%
Maintenance Expenses – 10 %	232	4%	15	6%
Mortality + 15 % for products with death risk	-38	-1%	1	0%
Mortality – 20 % for products with longevity risk	-1,312	-21%	-32	-12%

With the weight of fixed-index annuities in the in-force portfolio increasing, the exposure to interest upshifts again became predominant in terms of absolute values, same as for new business. Interest rate sensitivities have switched signs since 2014, as different lines of business respond differently to the development in rates. An interest rate up-shock on fixed-index annuities has a negative impact that is more significant for the 2016 results.

On new business, the equity impacts on both value and volatility result almost exclusively from Variable Annuities.

Lower lapse rates would cut into the value of the in-force portfolio, while they are beneficial for the product mix currently on sale. The significant longevity exposure of both the in-force block and the new business is related to the GMWB options included, which are more expensive compared to last year due to lower US interest rate environment at valuation date. LTC business also contributes to the risk.

Independent Opinion

KPMG has been engaged to review the Market Consistent Embedded Value (MCEV) of Allianz Group, Munich, as at 31 December 2016 as stipulated in the MCEV Principles published by the CFO forum in June 2008 and amended in October 2009 and in May 2016, (MCEV Principles) as described in the accompanying MCEV Report of Allianz Group. Management is responsible for the preparation of the MCEV Report including the calculation of the MCEV. This includes particularly setting the operative and economic assumptions, the explanation concerning the determination of the MCEV and its roll forward, the implementation and the operativeness of the system which ensures the completeness and correctness of the data which are necessary for the calculation of the MCEV.

KPMG's responsibility is to express an opinion on the calculation of the MCEV based on review procedures. Assessment criteria for this opinion are the MCEV Principles.

We conducted our review of the MCEV in accordance with IDW PS 570. This standard requires that we plan and conduct the review so that we can preclude through critical evaluation, with a certain level of assurance, that the MCEV report – the methodology and assumptions used, the calculation and further information – has not been prepared in material aspects in accordance with the requirements of the MCEV Principles. A review is limited primarily to inquiries of company employees and analytical assessments and therefore does not provide the assurance attainable in a MCEV audit.

The calculation of the MCEV is subject to numerous assumptions on future conditions and events which are uncertain and beyond control of the company. Therefore the actual future cash-flows might differ significantly from those underlying the MCEV report.

Based on our review no matters have come to our attention that causes us to presume that the MCEV report has not been prepared in material respects in accordance with the MCEV Principles.

Munich, 10th March 2017

KPMG AG Wirtschaftsprüfungsgesellschaft

Peter Ott Ralf Goschnick

Dr. Peter Ott Ralf Goschnick

APPENDIX

Appendix A: Methodology

Allianz Group provides the operating entities with detailed guidelines in order to ensure consistency of MCEV and VNB 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 reviewed and approved by the local chief actuaries and CFOs.

A.1 MCEV definition

Allianz Group has decided to base and publish its MCEV results following a balance sheet approach, which is explicitly allowed for in the MCEV principles from the CFO forum, using the Solvency II Market Value Balance Sheet ("MVBS").

The MCEV is defined as the difference between market value of assets and market value of liabilities as of valuation date, excluding any item that is not considered shareholder interest. It is calculated on an after-tax basis taking into account current and known future changes in legislation.

Allianz disclosed MCEV is in alignment with Solvency II and the MCEV principles. Clarifications on specific points are listed below:

- MCEV components: net asset value ("NAV") and value of in-force ("VIF"). No further split of ViF is explicitly calculated compared to a distributable earnings approach.
- Frictional costs of holding required capital, arising from double taxation on investment earnings, additional investment management expenses and possibly profit sharing obligations are not part of the Solvency II concept and therefore as Allianz MCEV is aligned with Solvency II MVBS, are not calculated;
- Costs of non-hedgeable risks ("CNHR") has been replaced for the Risk Margin required by Solvency II that covers a similar purpose. A more detail section on Risk Margin can be found below;
- Application of Solvency II contract boundary definition;
- MCEV is disclosed on a net of tax basis using the full bottom-up tax calculations incorporated in the MVBS. The items of the balance sheet are on a before tax basis with a tax component separately. Movement steps are on a before tax basis and a tax item is disclosed separately.

A.2 Net asset value and Value of in-force covered business

The MCEV can be broken down into the NAV, i.e. the market value of the assets after tax not backing liabilities, and the VIF, i.e. the value of future profits emerging from operations and assets backing liabilities.

In order to perform this split, Allianz calculates the NAV on statutory basis, as the market value of the assets of a life company not backing local statutory reserves at 31 December 2016, net of an allowance for tax on unrealized capital gains. In case of a composite insurer only those assets are considered that are allocated to the company's life segment.

The VIF is calculated as the difference between the MCEV and the NAV and therefore not explicitly calculated.

A.3 Assets

Assets in Solvency II market value balance sheet consist of financial, non-financial and deferred tax assets as well as reinsurance recoverables. As required by the MCEV principles, the MCEV is reported net of reinsurance.

A.4 Liabilities

Liabilities in Solvency II market value balance sheet consist of the technical provisions ("TP") net of reinsurance as well as of other liabilities not belonging to TP such as tax and contingent liabilities, pension benefit obligations and reinsurance payables.

The technical provisions comprise the best estimate liabilities ("BEL"), the time value of option and guarantees and the risk margin, all explained in the following subsections.

A.4.1. BEST ESTIMATE LIABILITIES

The BEL is the market value before tax of the obligations of the company to policyholders and beneficiaries and it includes policyholder tax. In case of a composite insurer only those policies and riders that are allocated to the company's life segment are considered in these guidelines.

According to the Solvency II Directive the BEL is calculated gross of reinsurance and gross of any amounts recoverable from special purpose vehicles. The Solvency II Balance Sheet is constructed on a gross/gross basis with the assets grossed up for the recoveries and gross liabilities, rather than netted down by the recoveries.

Best Estimate liabilities are calculated for all in-force polices at the valuation date. The BEL represents the discounted cash flows that emerge over the term of the policy. In line with Level 2 Article 28 of the Solvency II directive, all relevant cash flows are included in the calculation:

- future benefits, such as maturity values, annuity payments, claims, surrender values;
- future expenses, such as maintenance, servicing, overhead, commission, investment management;
- future premiums, i.e. contracted premiums.

All future amounts are discounted to the valuation date at the valuation discount rate.

A.4.2. TIME VALUE OF OPTIONS AND GUARANTEES

The Solvency II Directive requires the calculation of the TP to take account of the value of financial guarantees and any contractual options included in insurance and reinsurance policies. It requires the BEL calculation to identify and take into account all factors which may materially affect the likelihood that policyholders will exercise contractual options or the value of the option or guarantee.

Contractual options are defined as a right to change the benefit, to be taken at the choice of its holder (generally the policyholder), on terms that are established in advance. Thus, in order to trigger an option, a deliberate decision of its holder is necessary.
A financial guarantee is present when there is the possibility to pass losses to the insurer or to receive additional benefits as a result of the evaluation of financial variables. In the case of guarantees, the trigger is generally automatic and not dependent of a deliberate decision of the policyholder / beneficiary.

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

O&G 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 the O&G.

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.

A.4.3. RISK MARGIN

The Solvency II Directive defines the RM as the cost of providing an amount of available financial resources (AFR) equal to the solvency capital requirement (SCR) necessary to support the insurance and reinsurance obligations over the lifetime of those obligations.

Solvency II requires an allowance for the cost of holding non-hedgeable risk capital but not for hedgeable financial risks as these may be removed through the capital markets. RM has replaced the calculation of CNHR and is required for non-hedgeable risks - the financial other than interest rate risk, insurance and operational risks that cannot be removed through the capital markets.

The cost of capital is the expected cost of transferring the non-hedgeable financial, insurance and operational risks to another insurer or reinsurer. Risk margin is calculated with 6% cost of capital rate (CoC), after tax and 100% capitalization of risk capital in line with Solvency II requirements.

A.5 New business

The value of new business ("VNB") arises from the sale of new contracts during the reporting period and the value from renewals and contractual alterations to renewal business acquired in prior periods. MCEV only reports in-force business, which excludes future new business. The VNB reflects the additional value to shareholders created through the activity of writing new business in the current period.

New business consist of individual and group policies. 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.

VNB is calculated following a distributable earnings approach, and has been aligned to Solvency II requirements including EIOPA specifications for valuation as well as the application of contract boundary definition and risk margin. This in particular allows to use the VNB as contribution of new business in the development of MCEV.
As such, the VNB is calculated as the present value of future profits after acquisition expense over- and underruns and tax ("PVFP") minus the time value of options and guarantees ("O&G") minus the risk margin ("RM"), all determined at issue date.

The values are point of sale values 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 business in the USA, 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 VNB. Premiums are before reinsurance.

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 in-force business. In Germany and France for example due to regulatory profit sharing rules initial expenses can be shared with all policyholders of the in-force fund, so the shareholder strain from new business is reduced significantly. Furthermore, in order to capture the impact on the O&G 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 in-force 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 in-force policies is applied.

Appendix B: Assumptions

B.1 Economic assumptions

The MCEV results for 2016 are based on economic market conditions as of 30 December 2016. 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 market implied volatilities for selected financial instruments at the valuation date. Stochastic economic scenarios are generated centrally by an in-house model.

As actual EIOPA curves are typically published too late for the in-house process of scenario generation, Allianz SE has used their own processes to generate the calibration yield curves. The methodology to derive these curves is fully aligned with EIOPA specification. Allianz SE has also set up a process to assess the differences between the curves generated in-house and the curves published by EIOPA. In case of material differences, the actual EIOPA curves would have been used. Material deviations were not observed.

Key economic assumptions for risk-neutral evaluation are for each economy

- the reference 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, Bloomberg and Tullett Prebon data. Market data used for calibration of volatilities have been taken from Reuters, Bloomberg and Tullett Prebon where available and markets are sufficiently liquid. Correlations and volatilities for real estate are based on historical data.

Reference rate yield-curves used in the certainty equivalent approach and the stochastic scenarios are based on swap rates as of 30 December 2016 with the following further adjustments.

In line with EIOPA technical documentation of the methodology to derive risk-free interest rate term structures for Solvency II a currency specific reduction to the swap rates is made to account for credit risk inherent in swaps. Allianz also includes a volatility adjustment in its MCEV assumptions following the recommendations of Solvency II. The dynamic credit risk adjustments and the volatility adjustments applied are in line with the EIOPA published technical information from 13th January 2016. Credit risk adjustments are shown in Table 1.

CREDIT RISK ADJUSTMENT — Table 1

Currency	Credit Risk Adjustment
EUR	-10bps
USD	-15bps
GBP	-17bps
CHF	-10bps
CZK	-10bps
HUF	-10bps
PLN	-10bps
TWD	-10bps
THB	-18bps

The application ratio for the volatility adjustment is 65%. Table 3 shows the development of the volatility adjustment for each currency. A country-specific exception is applied for Greece.

For application to products we apply a simplified bucketing approach. We apply no volatility adjustment to variable annuities and 65% of the volatility adjustment to all participating, unit linked and other businesses, including US fixed and fixed indexed annuities.

Allianz is using the approach for extrapolation of the risk-free curve as prescribed by EIOPA. This means that yield-curve extrapolation is done with a Smith Wilson approach along the forward curve with an ultimate forward rate and an entry point of extrapolations as prescribed. The entry points and ultimate forward rates for each currency are shown below in table 4.

For consistency, yield-curve extrapolation is applied in sensitivities to interest rate shifts. This means that only the deep and liquid part of the yield-curve is shifted in a fully parallel way with the ultimate forward rate being kept stable. Extrapolation parameters determine the actual shift of the extrapolated part of yield-curve, which is then a non-parallel shift.
Due to the introduction of the new underlying reference rate methodology as described above, the projected cash-flows may

not always be valued in line with the market prices of similar financial instruments that are traded on the capital markets, which is required by the MCEV Principles. We applied consistent reference rate assumptions to both the deterministic and stochastic runs, in order to improve the accuracy of the calculation of the intrinsic and time value of O&G's. This would not be feasible if the stochastic scenarios used to value O&G's were based on swap curves and calibrated to meet market prices while the deterministic runs used the reference rate that incorporated the new methodology.

For currencies where EIOPA requires valuation based on government bonds, government rates are used. The MCEV of these entities is less than 1% of the total MCEV.

Table 2 shows the swap rates used in the market consistent valuation. These already include the deduction for the credit risk adjustment.

SWAP RATES

Table 2

Currency	as of dd.mm.yyyy	1 year %	2 year %	5 year %	10 year %	20 year %
EUR	31.12.2015	0.01%	0.01%	0.23%	0.91%	1.52%
	31.03.2016	0.01%	0.01%	0.01%	0.46%	0.93%
	30.06.2016	0.01%	0.01%	0.01%	0.27%	0.70%
	30.09.2016	0.01%	0.01%	0.01%	0.19%	0.65%
	30.12.2016	0.01%	0.01%	0.01%	0.57%	1.11%
CHF	31.12.2015	0.01%	0.01%	0.01%	0.16%	0.66%
	31.03.2016	0.01%	0.01%	0.01%	0.01%	0.15%
	30.06.2016	0.01%	0.01%	0.01%	0.01%	0.01%
	30.09.2016	0.01%	0.01%	0.01%	0.01%	0.01%
	30.12.2016	0.01%	0.01%	0.01%	0.05%	0.46%
USD	31.12.2015	0.78%	1.09%	1.66%	2.15%	2.51%
	31.03.2016	0.64%	0.74%	1.07%	1.56%	1.98%
	30.06.2016	0.57%	0.63%	0.88%	1.28%	1.66%
	30.09.2016	0.81%	0.88%	1.05%	1.33%	1.61%
	30.12.2016	1.04%	1.30%	1.83%	2.20%	2.44%
CZK	31.12.2015	0.18%	0.31%	0.55%	0.91%	1.65%
	31.03.2016	0.03%	0.10%	0.19%	0.43%	1.18%
	30.06.2016	0.11%	0.13%	0.19%	0.38%	1.14%
	30.09.2016	0.14%	0.20%	0.25%	0.42%	1.21%
	30.12.2016	0.06%	0.13%	0.40%	0.77%	1.32%
HUF	31.12.2015	1.03%	1.75%	2.57%	3.36%	4.26%
	31.03.2016	1.00%	1.18%	1.84%	2.74%	3.55%
	30.06.2016	0.93%	1.26%	2.06%	2.80%	3.59%
	30.09.2016	0.56%	0.97%	1.67%	2.68%	3.33%
	30.12.2016	0.26%	0.62%	1.67%	2.98%	4.01%

SWAP RATES Table 2

Currency	as of dd.mm.yyyy	1 year %	2 year %	5 year %	10 year %	20 year %
PLN	31.12.2015	1.40%	1.54%	2.16%	2.95%	3.62%
	31.03.2016	1.25%	1.33%	2.06%	2.74%	3.37%
	30.06.2016	1.56%	1.54%	2.09%	2.84%	3.24%
	30.09.2016	1.40%	1.59%	2.20%	2.80%	3.23%
	30.12.2016	1.47%	1.95%	2.80%	3.49%	3.83%
TWD	31.12.2015	0.26%	0.34%	0.61%	1.03%	1.91%
	31.03.2016	0.09%	0.15%	0.35%	0.64%	1.57%
	30.06.2016	0.26%	0.32%	0.50%	0.82%	1.72%
	30.09.2016	0.22%	0.31%	0.49%	0.72%	1.62%
	30.12.2016	0.51%	0.61%	0.88%	1.19%	1.98%
JPY	31.12.2015	0.01%	0.01%	0.07%	0.33%	0.94%
	31.03.2016	0.01%	0.01%	0.01%	0.04%	0.40%
	30.06.2016	0.01%	0.01%	0.01%	0.01%	0.05%
	30.09.2016	0.01%	0.01%	0.01%	0.01%	0.27%
	30.12.2016	0.01%	0.01%	0.01%	0.12%	0.56%

Table 3 shows the development of the volatility adjustment using the application ratio of 65%.

LONG TERM GUARANTEE MEASURAMENT Table 3

	31.12.2015	31.03.2016	30.06.2016	30.09.2016	30.12.2016
Currency	bps	bps	bps	bps	bps
EUR	22bps	22 bps	18 bps	10 bps	13 bps
EUR (Greece)	55bps	67 bps	66 bps	10 bps	13 bps
CHF	9bps	8 bps	5 bps	4 bps	5 bps
USD	78bps	78 bps	68 bps	59 bps	50 bps
CZK	6bps	7 bps	8 bps	2 bps	1 bps
HUF	19bps	19 bps	19 bps	20 bps	17 bps
PLN	8bps	7 bps	7 bps	15 bps	17 bps

Table 4 shows the ultimate forward rate and entry point parameters used when applying yield-curve extrapolations.

YIELD-CURVE EXTRAPOLATION Table 4

	Entry point	Ultimate forward rate
Currency		%
EUR	20	4.20%
CHF	25	3.20%
USD	50	4.20%
CZK	15	4.20%
HUF	15	4.20%
PLN	10	4.20%
THB	15	4.20%
TWD	10	4.20%
JPY	30	3.20%

Table 5 shows the development of swaption implied volatilities.

DEVELOPMENT OF SWAPTION IMPLIED VOLATILITIES Table 5

	31.12.2015	31.03.2016	30.06.2016	30.09.2016	30.12.2016
Currency	%	%	%	%	%
EUR	34.54%	55.56%	73.48%	71.00%	45.00%
CHF	71.27%	121.41%	121.41%	121.41%	163.80%
USD	22.88%	27.84%	33.48%	38.32%	25.47%

Market implied volatilities - 10 year options on 20 year swaps at the money (10 year swaps for CHF).

Table 6 shows the swaption implied volatilities at various terms for three main currencies.

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 2016 MCEV calculations were therefore based on 30 December 2016.

For similar reasons that yield-curve extrapolations were applied, for durations where no deep and liquid swaption markets exist, volatility anchoring is applied. For each currency the last liquid option maturities are determined. Market volatility quotes are used until the last liquid tenor. The historical volatility of the last liquid term node of the yield-curve is used as the long term target level for the swaption volatility surface. The volatility surface is then extrapolated from the last liquid option maturity terms to the long term target level.

SWAPTION IMPLIED VOLATILITIES Table 6

	Option term	1 year %	2 year %	5 year %	10 year %	20 year %
EUR	31.12.2015	42.69%	40.55%	36.11%	34.54%	24.57%
	30.12.2016	58.36%	55.04%	47.94%	45.00%	31.88%
CHF	31.12.2015	150.67%	120.75%	89.94%	71.27%	47.62%
	30.12.2016	219.60%	179.66%	138.80%	163.80%	102.62%
USD	31.12.2015	28.98%	28.35%	26.43%	22.88%	18.31%
	30.12.2016	33.06%	31.95%	29.26%	25.47%	20.49%

Market implied volatilities on 20 year swaps of money (10 year swaps for CHF).

Table 7 shows the starting points of the volatility extrapolation and long term target levels for each currency:

SWAPTION VOLATILITY ANCHORING Table 7

	Start of swaption volatility anchoring	Long term target level
Currency	Year	%
EUR	15	7.83%
CHF	15	8.32%
USD	15	15.25%
CZK	10	7.43%
HUF	10	11.54%
PLN	10	8.10%
THB	10	13.46%

For modelling fixed income stochastic scenarios, the Constant Elasticity Volatility Model, which is an extension of the Libor Market Model, is used.

For fixed income instruments, parameters are fitted to at-the-money swaption implied volatilities. When calibrating to swaption implied volatilities, different weight is given to different swap maturities and option tenors in order to optimize the fit to actual market data. Where a trade-off in the goodness of fit was necessary, the long term nature of the life business modelled has been considered appropriately.

A range of equity indices is considered. For modelling equity and real estate returns, an excess return 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 8 shows the equity option implied volatility for the main equity indices

EQUITY OPTION IMPLIED VOLATILITIES Table 8

	Index	31.12.2015 %	31.03.2016 %	30.06.2016 %	30.09.2016 %	30.12.2016 %
EUR	Eurostoxx 50	24.94%	22.26%	20.49%	21.00%	22.47%
	CAC	22.17%	20.23%	20.68%	19.27%	21.74%
	DAX	22.23%	20.67%	20.72%	20.27%	20.64%
CHF	SMI	16.74%	18.88%	18.15%	19.82%	17.68%
USD	S&P 500	26.56%	26.91%	27.59%	27.21%	27.24%

Volatilities implied in 10 year equity option at the money.

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.
Table 9 shows the real estate volatility for the main currencies:

REAL ESTATE VOLATILITIES Table 9

	30.12.2016	31.12.2015
Currency	%	%
EUR	15.00%	15.00%
CHF	8.00%	8.00%
USD	15.00%	15.00%

To show the impact of asset mixes and inter-economy relations, correlation assumptions were estimated from historic market data. Table 10 shows the correlation assumptions for 2016, the return period is on a quarterly basis.

1,000 stochastic paths are used for stochastic calculations of options and guarantees. Given the significance of the O&G of Germany Life, 5,000 paths were used by this entity. The higher number of paths further reduced Monte-Carlo errors. All scenario sets use antithetic random numbers in order to reduce Monte-Carlo errors.

CORRELATION ASSUMPTIONS Table 10

	Fixed income 1 year bond rate			Equity Indices				
	EUR	CHF	USD	CAC	HDAX	SPI	Eurotoxx50	S&P500
Fixed income 1 year bond rate								
EUR	1	0.49	0.42	0.17	0.17	0.18	0.14	0.25
CHF		1	0.39	0.42	0.42	0.40	0.41	0.45
USD			1	0.08	0.12	0.16	0.06	0.18
Equity Indices								
CAC				1	0.94	0.91	0.98	0.88
HDAX					1	0.88	0.95	0.90
SPI						1	0.88	0.86
Eurotoxx50							1	0.87
S&P500								1

B.2 Capital charge for risk margin

For 2016, the cost of capital (CoC) charge was set to 6% before tax in line with Solvency II market value balance sheet, for the calculation of the risk margin, using 100% capitalization level for risk capital.

B.3 Foreign currency exchange rates

EV results are calculated in local currencies and converted to Euro using the corresponding exchange rates at the valuation date. Exchange rates are consistent with the rates used in the balance sheet of our IFRS financial accounts. The exchange rates against the Euro are shown in table 11 below.

MAIN EXCHANGE RATES AGAINST EUR — Table 11

FX against 1.00 EUR	2016	2015
CHF	1.07	1.09
USD	1.05	1.09
CZK	27.02	27.02
HUF	308.87	316.01
PLN	4.40	4.29
THB	37.77	39.09
TWD	33.99	35.68

B.4 Non-economic assumptions

Non-economic assumptions such as mortality, morbidity, lapse rates and expenses are determined by the respective business units based on their best estimates 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

For MCEV, tax effects are aligned with the Solvency II market value balance sheet bottom-up calculation. Tax assumptions used for the calculation of VNB are set in line with accounting principles and 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. Table 12 shows the nominal tax rates applied for the VNB calculation.

TAX ASSUMPTIONS — Table 12

	2016	2015
	%	%
Germany	31%	31%
France	34%	34%
Italy	33%	33%
US	35%	35%
Switzerland	21%	21%

B.6 Real-world economic assumptions

The following assumptions are centrally provided:

- Risk-free yields
- Equity returns
- Real estate returns

Risk-free yield-curves are the same under real-world and risk-neutral assumptions.

Reinvestment rates for all asset classes are the forward rates implied in the initial yield-curve, which means yields do not stay constant over time, but dynamically follow the forward curve.

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 13.

ECONOMIC ASSUMPTIONS FOR REAL-WORLD PROJECTION — Table 13

	2016	2015
Equity risk premium	5.00%	5.00%
Real estate risk premium	20% × 10 year swap rate	

Appendix C: Glossary and Abbreviations

BEL

Best estimate liabilities. Market value of the obligations of a life company to policyholders and beneficiaries.

Contract Boundaries

Allianz calculates and publishes its MCEV results based on the Solvency II contract boundary definition. The boundary of a contract is the point at which the insurer has a unilateral contractual right to amend the premiums or the benefits payable under the contract in such a way that the premiums fully reflect the risks.

Covered business

The contracts to which the MCEV calculation has been applied, in line with the MCEV Principles.

DAC

Deferred acquisition costs. Expenses of an insurance company which are incurred in connection with the acquisition of new insurance policies or the renewal of existing policies. These typically include commissions paid and the costs of processing proposals.

Distributable earnings

The profits after tax plus changes in required capital plus interests on required capital, all based on real-world assumptions.

EIOPA

European Insurance and Occupational Pension Authority.

IFRS

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).

IRR

Internal rate of return. The discount rate which gives a zero value of new business under real-world projections after allowing for any acquisition expense overrun or underrun.

Look-through basis

A basis via which the impact of an action on the whole Group, rather than on a particular part of the Group, 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.

MCEV

Market consistent embedded value. A measure of the consolidated value of shareholders' interests in the covered business. It is defined as the excess of market value of assets over market value of liabilities as of valuation date. As such, MCEV excludes any item that is not considered shareholder interest like the Going Concern Reserve and Surplus Fund.

NAV

Net asset value. Market value of assets after tax, which are not backing liabilities, calculated from statutory equity.

NBM

New business margin. Value of new business divided by present value of new business premiums.

New business strain

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 the shareholder share in initial expenses.

O&G

Time value of financial options and guarantees. The allowance made in the MCEV for the potential impact on future shareholder cash flows of all financial options and guarantees within the in-force covered business.

Payback period

Payback period is the period from the point of sale of new business to the first point in time when the undiscounted sum of distributable earnings, under real world assumptions, is positive.

PVFP
Present value of future profits. Future (statutory) shareholder profits after tax projected to emerge from operations and assets backing liabilities, including value of unrealized gains on assets backing policy reserves.

PVNBP
Present value of new business premiums. The present value of future premiums on new business written during the year discounted at reference rate. It is the present value of projected new regular premiums, plus the total amount of single premiums received.

Reference rate
A proxy for a risk free rate appropriate to the currency term and liquidity of the liability cash flows. Based on swap rates, includes a swap credit adjustment and illiquidity premium.

RM
Risk Margin. The cost of providing an amount of available financial resources (AFR) equal to the solvency capital requirement (SCR) necessary to support the insurance and reinsurance obligations over the lifetime of those obligations. Risk margin is calculated with 6% cost of capital rate (CoC), after tax and 100% capitalization of risk capital in line with Solvency II requirements.

Total MCEV earnings
Change in MCEV after initial adjustments and after tax, but before capital movements.

TP
Technical Provisions. These reflect the amount that an insurer needs to hold in order to meet its expected future obligations on insurance contracts. They include stochastic best estimate liabilities and risk margin.

Ultimate forward rate
The estimate of the ultimate forward rate (UFR) is defined in line with the EIOPA methodology and guidelines. An extrapolation is needed past last available market data points. The UFR is determined for each currency using macro-economic methods, the most important factors being long term expected inflation and real interest rates. Although the UFR is subject to revision, it should be stable and only change when there are fundamental changes to long term expectations.

VIF
Value of in-force. It is defined as the difference between the MCEV and the NAV.

VNB
Value of new business. The additional value to shareholder created through the activity of writing new business. It is defined as present value of future profits (PVFP) after acquisition expense overrun or underrun, minus the time value of financial option and guarantees (O&G), minus the risk margin (RM), all determined at issue date.

Disclaimer

Forward-looking statements

The statements contained herein may include prospects, 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. Actual results, performance or events may differ materially from those expressed or implied in such forward-looking statements.

Such deviations may arise due to, without limitation, (i) changes of the general economic conditions and competitive situation, particularly in the Allianz Group's core business and core markets, (ii) performance of financial markets (particularly market volatility, liquidity and credit events), (iii) frequency and severity of insured loss events, including from natural catastrophes, and the development of loss expenses, (iv) mortality and morbidity levels and trends, (v) persistency levels, (vi) particularly in the banking business, the extent of credit defaults, (vii) interest rate levels, (viii) currency exchange rates including the EUR/USD Dollar exchange rate, (ix) changes in laws and regulations, including tax regulations, (x) the impact of acquisitions, including related integration issues, and reorganization measures, and (xi) 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.

No duty to update

The company assumes no obligation to update any information or forward-looking statement contained herein, save for any information required to be disclosed by law.