

Market Consistent Embedded Value 2017

May 2018

MAPFRE, S.A.

Carretera de Pozuelo 52
28222 Majadahonda
(Madrid)

www.mapfre.com



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Development of the MCEV in 2017

	2017	△ %
Adjusted Net Asset Value (ANAV) ⁽¹⁾	2,596.3	30.0%
Value of In-force Business (VIF) ⁽¹⁾	4,754.3	86.3%
Market Consistent Embedded Value (MCEV) ⁽¹⁾	7,350.6	61.6%
Attributable to the Parent Company	4,785.1	30.6%
Attributable to Minority Interests	2,565.5	190.2%
Return on Embedded Value (RoEV)	18.5%	8.1 p.p.
Present Value of New Business Income (PVNBI) ⁽¹⁾	6,803.2	38.1%
Value added by new business ⁽¹⁾	489.7	214.9%
New business margin	7.2%	4.0 p.p.

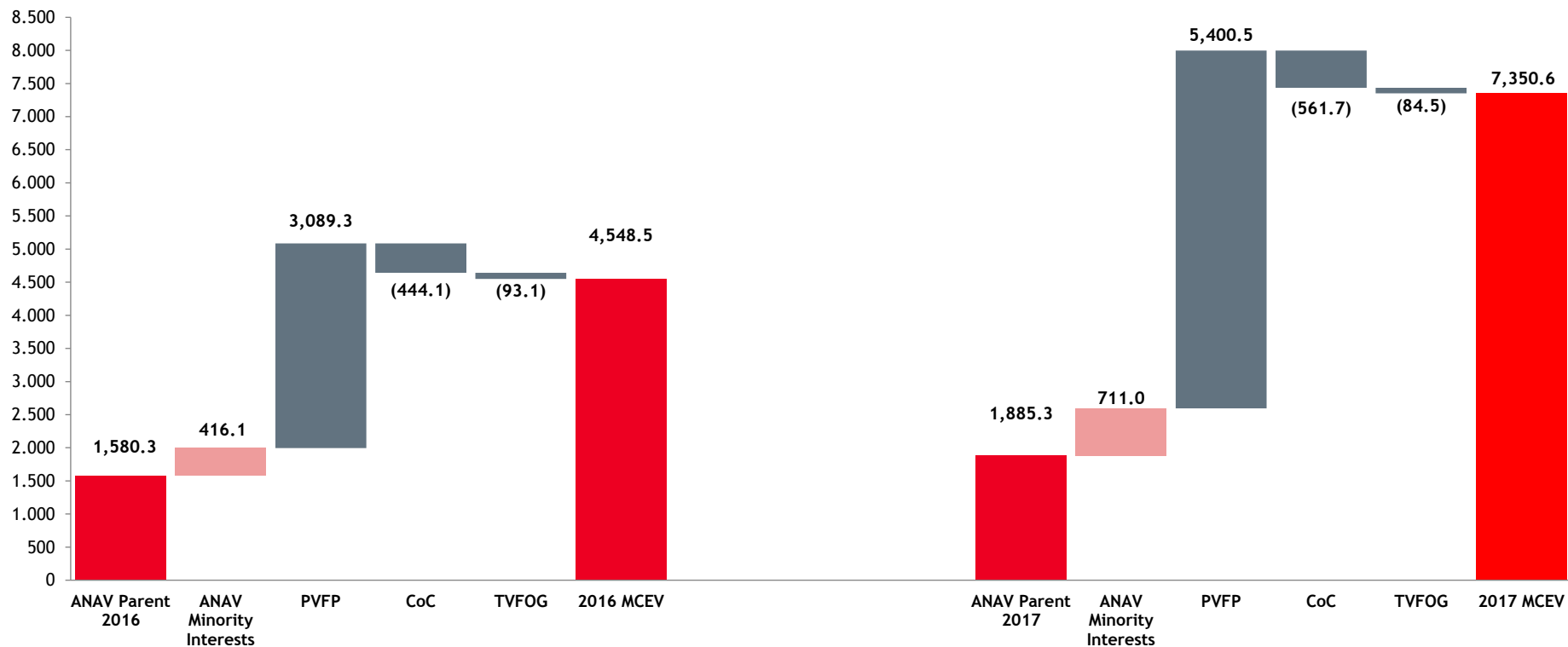
Key highlights

- Incorporation of the Life and Burial businesses of MAPFRE PERU Vida and the Life businesses of the MAPFRE Group in Brazil (MAPFRE Previdencia, BB MAPFRE SH1 Participações and MAPFRE BB SH2 Participações SA).
- Improvement of the net financial margins in Spanish life savings products.

MCEV components and their variation in 2017

MCEV 2016

MCEV 2017



Breakdown of the 2016 MCEV

By business line

	€ mill.	%	Δ %
Adjusted Net Asset Value	2,596.3	35.3%	30.0%
Net PVFP ⁽¹⁾ - Life Assurance ⁽²⁾	3,405.9	46.3%	143.7%
- PVFP	3,908.4	0.0%	116.7%
- CoC	(502.5)	0.0%	23.8%
Net PVFP ⁽¹⁾ - Burial Assurance	970.3	13.2%	9.3%
- PVFP	1,018.2	0.0%	11.1%
- CoC	(47.9)	0.0%	66.5%
Net PVFP ⁽¹⁾ - Mutual Funds	233.3	3.2%	19.4%
- PVFP	235.6	0.0%	19.2%
- CoC	(2.3)	0.0%	2.8%
Net PVFP ⁽¹⁾ - Pension Funds	229.4	3.1%	39.1%
- PVFP	238.3	0.0%	38.6%
- CoC	(8.9)	0.0%	26.0%
TVFOG	(84.5)	-1.1%	-9.2%
MCEV 2017	7,350.6	100.0%	61.6%
Initial capital used to calculate the CoC ⁽³⁾	1,676.1		33.7%

By distribution channel

	€ mill.	%	Δ %
Adjusted Net Asset Value	2,596.3	35.3%	30.0%
Net PVFP - Agents' channel	1,804.6	24.6%	6.5%
- PVFP	2,286.2	0.0%	18.5%
- CoC	(481.6)	0.0%	104.5%
Net PVFP - Bank channels	3,034.2	41.3%	219.2%
- PVFP	3,114.3	0.0%	168.6%
- CoC	(80.1)	0.0%	-61.6%
TVFOG	(84.5)	-1.1%	-9.2%
MCEV 2017	7,350.6	100.0%	61.6%
Initial capital used to calculate the CoC ⁽³⁾	1,676.1		33.7%

By undertaking

	Spain - Life	Spain - Burial	Portugal - Life	Malta - Life	Brasil - Life	Perú - Life	Total
Adjusted Net Asset Value	1,687.0	188.3	22.7	125.3	473.0	100.0	2,596.3
Net PVFP ⁽¹⁾	2,035.2	898.1	15.4	54.3	1,780.2	55.7	4,838.8
TVFOG	(81.4)	0.0	(1.3)	(1.9)	0.0	0.0	(84.5)
MCEV 2017	3,640.8	1,086.3	36.9	177.7	2,253.2	155.7	7,350.6
% on Total MCEV	49.5%	14.8%	0.5%	2.4%	30.7%	2.1%	100.0%

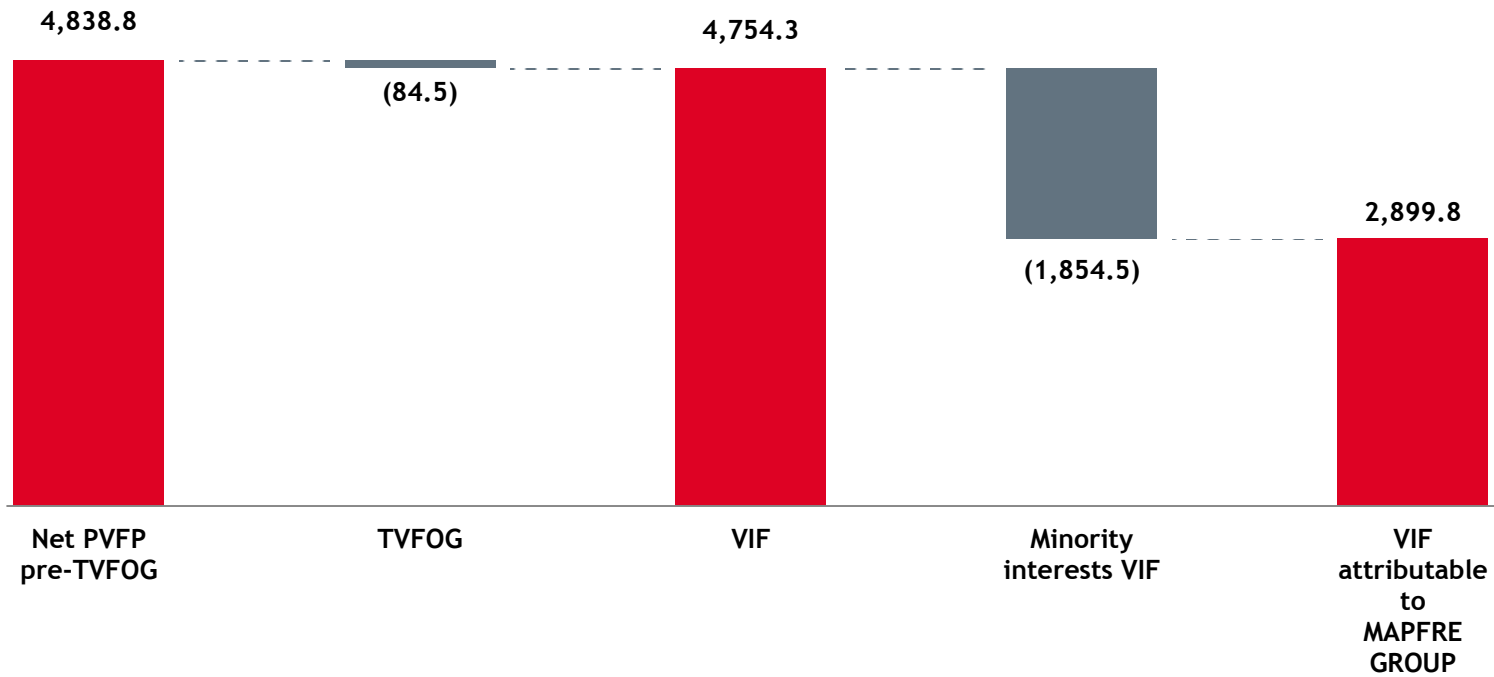
Million Euros

(1) Net PVFP = PVFP - CoC

(2) Includes the in-force values of the Life assurance and Accidental Death insurance businesses.

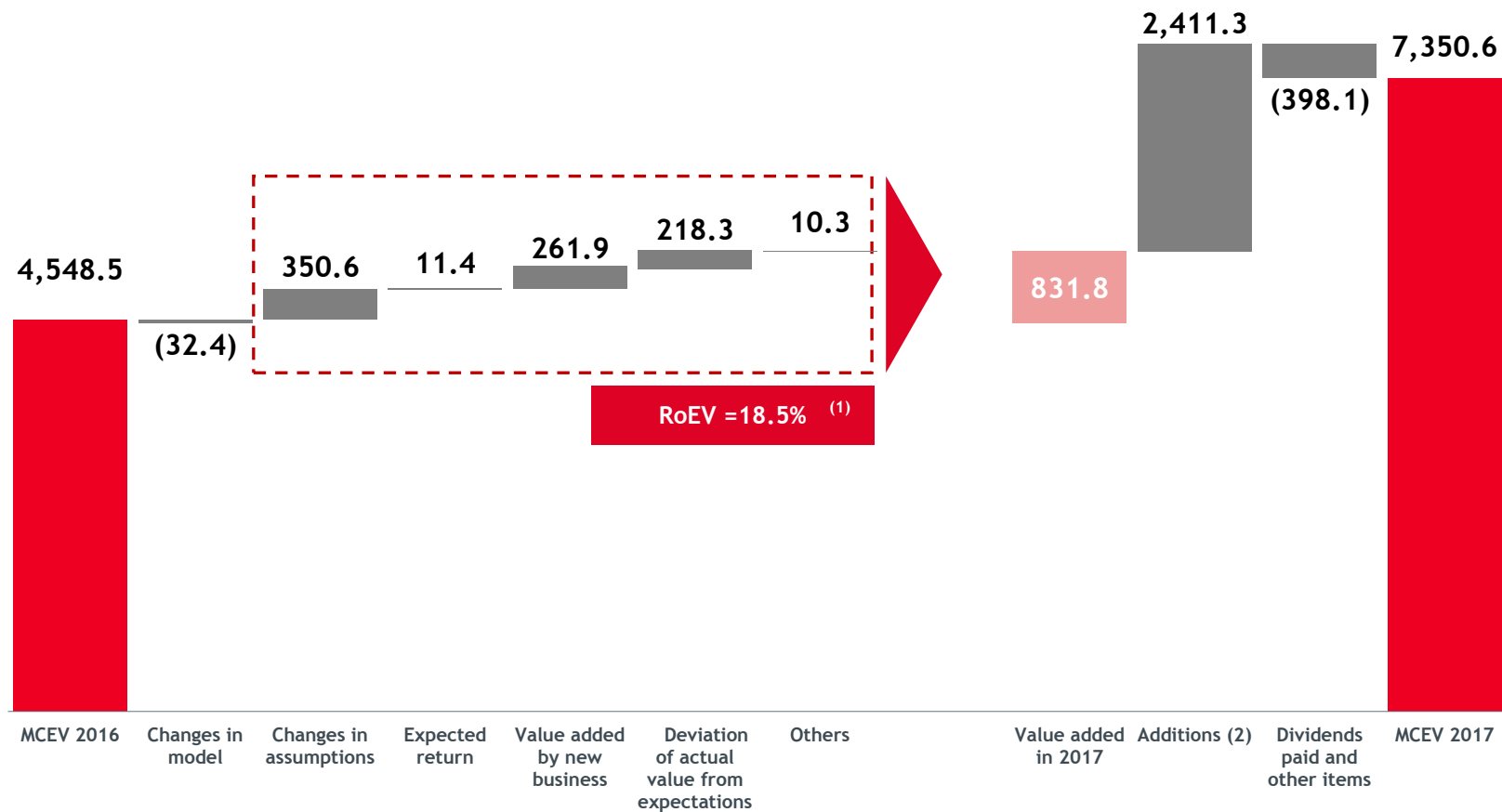
(3) CoC calculations based on an amount of capital equal to 100% of the solvency capital requirement, applying the new rules of Solvency II. Brazil's business is considered by third country equivalence.

Share of the parent company in the 2017 VIF



Value added in 2017

Change in Embedded Value



Million Euros

(1) Return on Embedded Value = value added in the year / Embedded Value 2016, adjusted for changes in model

(2) Inclusion of Burial and life business of MAPFRE PERU Vida, Life businesses of the MAPFRE Group in Brazil (MAPFRE Previdencia, BB MAPFRE SH1 Participações and MAPFRE BB SH2 Participações SA).

Analysis of the main variations in MCEV

Change

Changes in model

- Changes due to improvements in the modeling of Spain Burial business (-21.99 million euros) and Spain Life (-3.5 million euros).

Changes in assumptions

- Most of the increase in value (+263 million euros) comes from the improvement in financial margins, due to the decrease in market spreads in Spain Life entities. The reduction of the expenses and lapse assumptions in the business of pension plans and funds (+36 million euros) have also been positive.

Expected return

- It contains the effect on the current value of the expected flows of the one-year advance, and the expected return after taxes of ANAV at the beginning of the year, net of the cost of capital (+11 million euros).

Analysis of the main variations in MCEV (contd.)

Change

Description

Value of New Business

- The increase in value comes mainly from the savings business in Spain Life Vida, whose financial margins have increased, and from the group risk business, whose ratio has increased, due to the most favorable assumptions, and the highest number of policies sold.

Deviation of actual value from expectations

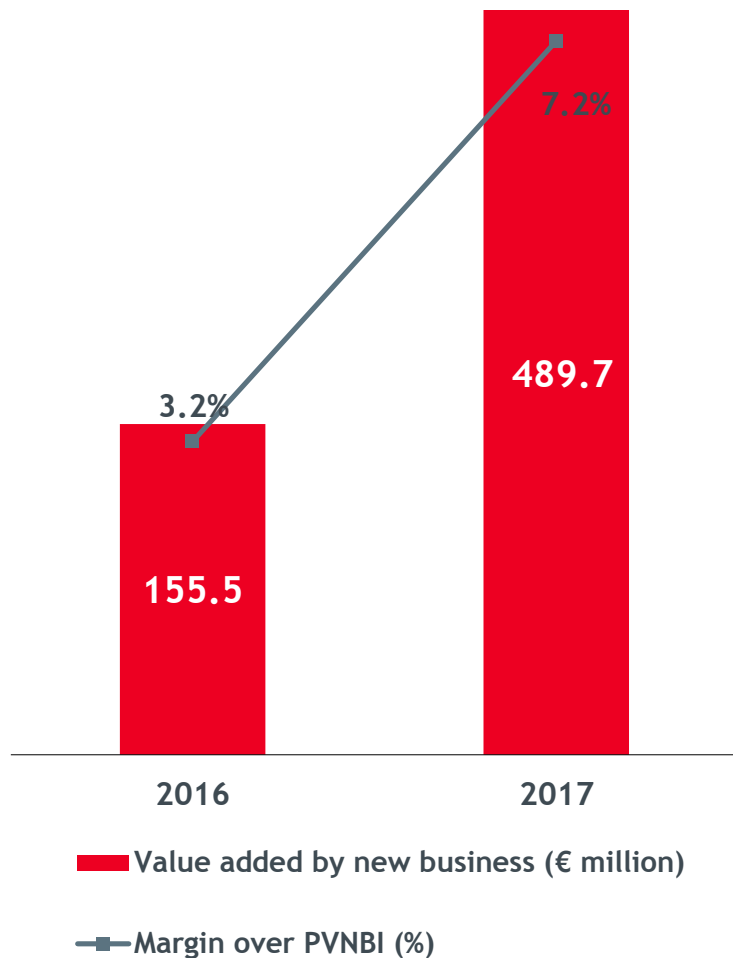
- It mainly reflects the effect on ANAV of the valuation adjustments of financial investments.

Inclusions and exclusions

- Incorporation of the Life and Burial business of MAPFRE PERU Vida (155.7 million euros) and of MAPFRE BRASIL (2,253.2 million euros).

Value added by new business (VNB)

Development of the value added



Key highlights

1

Inclusion of MAPFRE PERU Life and Burial business, and business of MAPFRE Group in Brazil (+268 million).

2

Increase in the value of the saving business in MAPFRE VIDA and BANKIA MAPFRE VIDA due to the improvement in net financial margins.

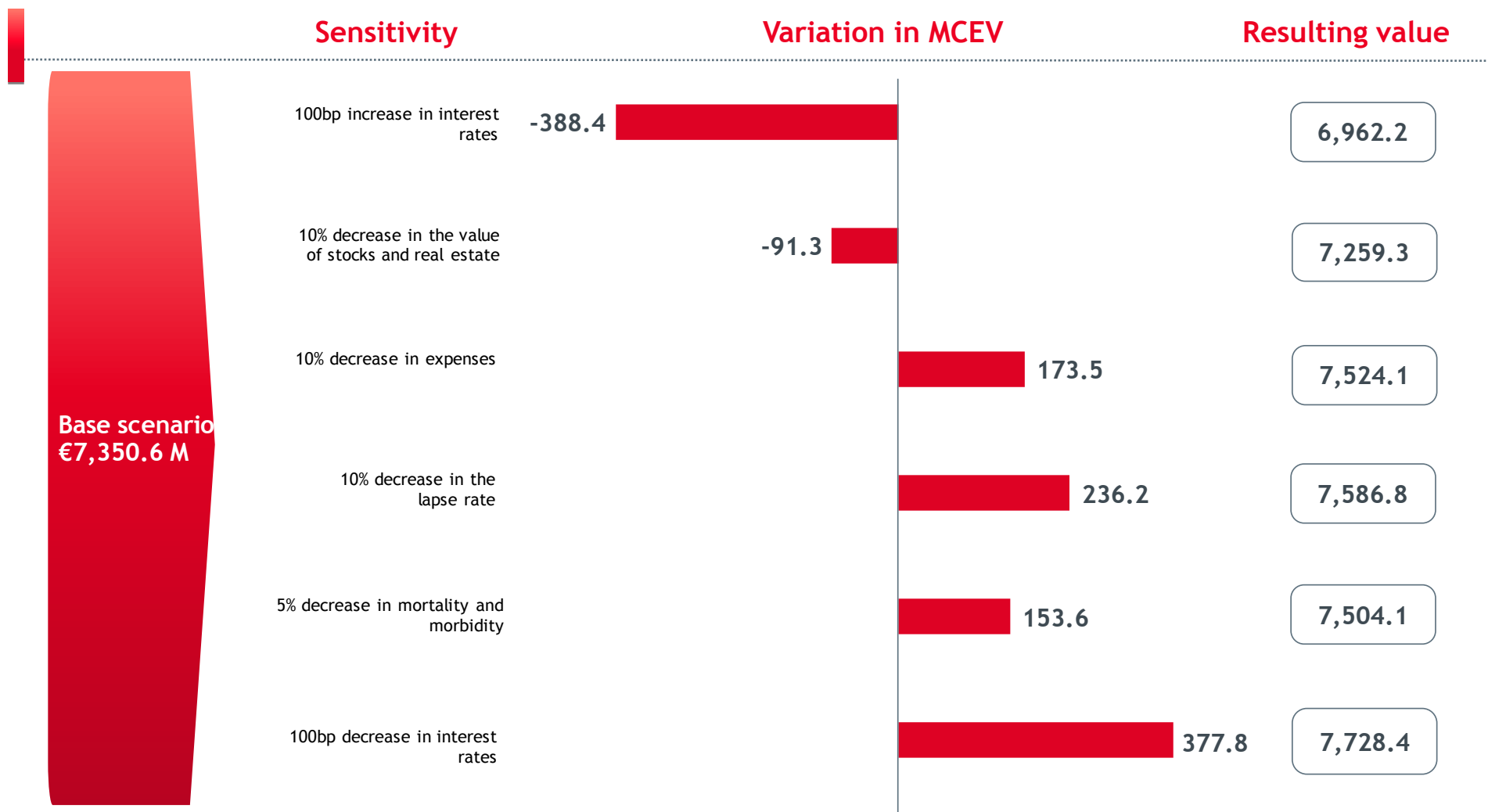
3

Excellent behavior of the business of Pension Plans and Investment Funds in Spain during 2017.

4

Reduction of global expenses and increase of financial margins in the Bankinter Vida business.

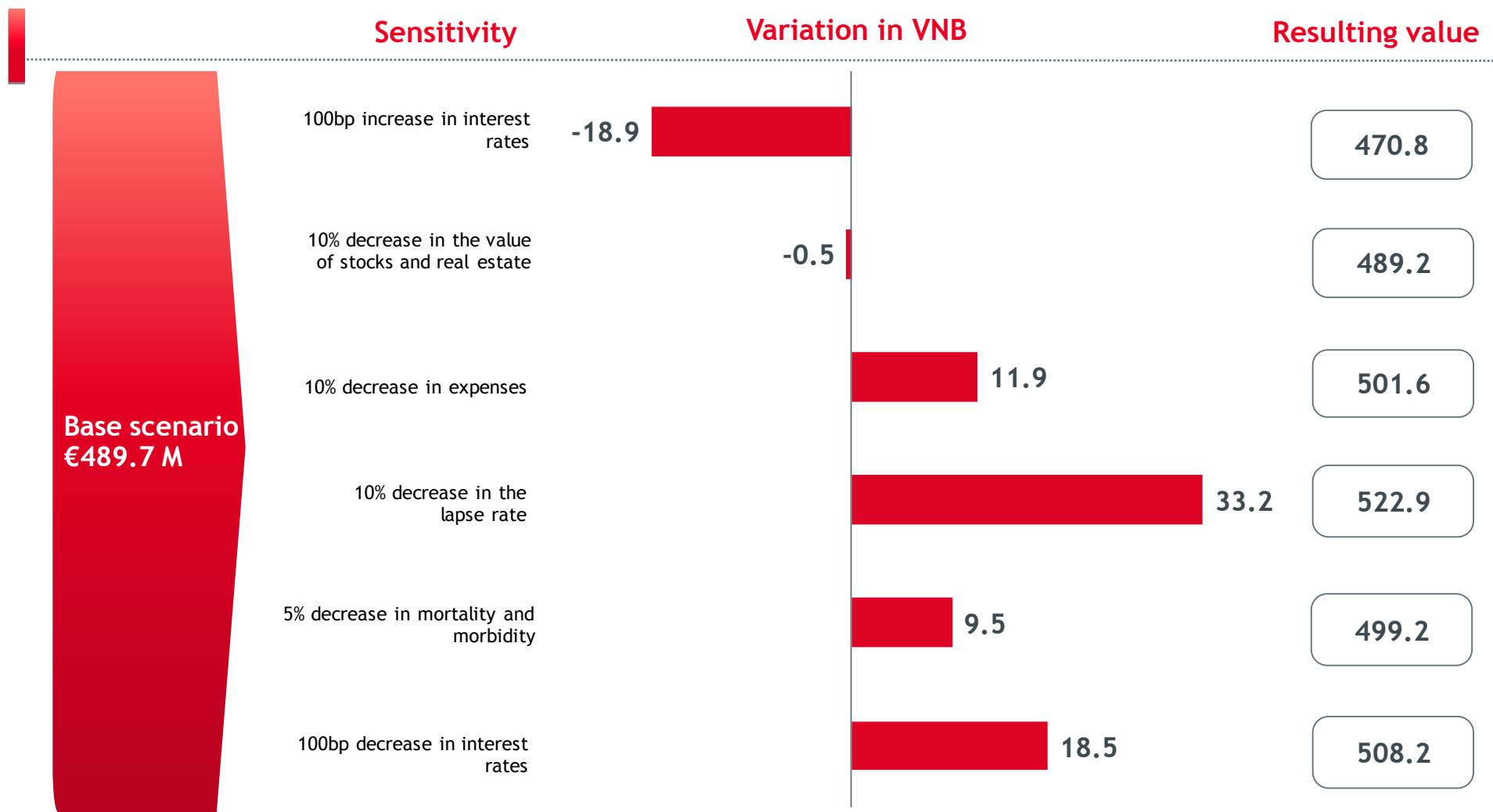
Sensitivity analysis of the Market Consistent Embedded Value (MCEV)⁽¹⁾



Million Euros

(1) MCEV = ANAV + VIF

Sensitivity analysis of the value added by new business (VNB)



Million Euros

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Willis Towers Watson 

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17 May 2018

Mapfre S.A.
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Dear Sirs,

Opinion letter – MCEV results of certain subsidiaries of Mapfre, S.A. as at 31 December 2017

- Towers Watson de España, S.A. ("Willis Towers Watson") has been appointed by Mapfre, S.A. to provide an actuarial opinion on the calculation of the embedded value ("EV") results of certain subsidiaries of Mapfre, S.A. as at 31 December 2017 for external use.
- The EV results have been prepared by Mapfre, S.A. to comply with the Market Consistent Embedded Value Principles and Guidance issued by the CFO Forum dated April 2016 (the "MCEV Principles").
- The EV results of Mapfre, S.A. cover the business of the following companies:
 - Mapfre Vida, S.A. de Seguros y Reaseguros sobre la Vida Humana ("Mapfre Vida") and its subsidiaries:
 - a. Bankia Mapfre Vida, S.A. de Seguros y Reaseguros;
 - b. Mapfre Inversión S.V., S.A., consisting of Mapfre Inversión Dos, S.G.I.L.C., S.A. and Mapfre Vida Pensiones, E.G.F.P., S.A.;
 - c. Bankinter Seguros de Vida, SA de Seguros y Reaseguros;
 - d. CCM Vida y Pensiones S.A. de Seguros y Reaseguros
 - Mapfre Seguros de Vida, S.A. in Portugal;
 - Middlesea Valletta Life Assurance Co Ltd., business of Mapfre in Malta; and
 - Funeral business of the property and casualty company of Mapfre in Spain, Mapfre España, S.A.
 - Life and burial business for Mapfre Peru Vida
 - Life business for Mapfre in Brazil (MAPFRE Previdência, BB MAPFRE SH1 Participações and MAPFRE BB SH2 Participações SA).

Towers Watson de España, S.A. CIF A-29804144

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Willis Towers Watson 

Madrid

17 May 2018

This is referred to as the covered business. The non-covered business which is not included in the EV results consists of the remaining businesses of Mapfre i.e. general insurance business and the life insurance business sold in other countries which represents 4,8% of the total technical provisions of the life insurance of Mapfre as of 31 December 2017.

Scope

- The EV results have been prepared by Mapfre, S.A. and its subsidiaries and Willis Towers Watson has carried out a review of the methodology and assumptions used by Mapfre, S.A. to calculate the EV results against the requirements of the MCEV Principles. A summary of the key aspects of methodology and assumptions used by Mapfre, S.A. can be found in Section 3 Methodological Appendix of Mapfre MCEV 2017 presentation.
- Willis Towers Watson has also reviewed the 2017 EV and new business value results, the sensitivities and the EV earnings in 2017 prepared by Mapfre, S.A., as shown on pages 3-12 of Mapfre MCEV 2017 presentation.

Conclusions

- Willis Towers Watson has concluded that the methodology and assumptions used, together with the disclosure provided in this document, comply with the MCEV Principles and Guidance.
- This compliance has been achieved by aligning the MCEV basis to Mapfre, S.A. Solvency II methodology and assumptions, as permitted by the revised MCEV Principles and Guidance dated April 2016, except for the contract boundaries of the annual renewable products, where under MCEV methodology future renewals were projected, considering the assumed probability of cancellation, until the expiration of the contracts.
- Consistently with the above, the cost of capital was calculated on a theoretical required capital, which would correspond to applying that same limit of contract to the calculation of the risks.
- Further, based on a high-level review of the results of the calculations, but without undertaking detailed checks on the models and processes involved, Willis Towers Watson considers that any issues discovered do not have a material impact on the 2017 embedded value, analysis of embedded value earnings, value of new business and sensitivity tests.
- Our work and this letter are subject to the reliance and limitations contained in paragraphs 11 to 17 of this letter. The work is based on information received up to and including 9 May 2018.

Reliance and limitations

- The review was conducted on behalf of Mapfre, S.A. and designed according to the terms and requirements of the Directors of Mapfre, S.A. Our opinion is made solely to Mapfre, S.A. in accordance with the terms of Willis Towers Watson's engagement letter. To the fullest extent permitted by applicable law, Willis Towers Watson does not accept or assume any responsibility, duty of care or liability to anyone other than Mapfre, S.A. for or in connection with its review work, the opinions it has formed, or for any statement set forth in this letter.
- Willis Towers Watson has prepared this Opinion letter for its intended use by persons technically competent in financial and insurance matters and solely for the use of Mapfre, S.A. It should not be relied upon by any other party. No reference to Willis Towers Watson in any reports, accounts or other published documents is permitted without our prior written consent.
- In carrying out our review we have relied without independent verification upon the accuracy and completeness of the data and information provided to us, both in written and oral form, by Mapfre, S.A. and its subsidiaries and we have been informed that the Directors of Mapfre, S.A. know of no other information or data which ought to have been made available to Willis Towers Watson that would materially affect the opinion set out herein.

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WillisTowersWatson 

Mapfre
17 May 2018

14. We have not reviewed the compliance of Mapfre's Solvency II methodology and assumptions against Solvency II regulations and requirements.
15. Reliance has been placed upon, but not limited to, information regarding historic annual reports and accounts, life insurance and mutual and pension fund product characteristics and charges, asset allocations by product line, asset values, expense analyses, sales force commission scales, internal claim and discontinuance studies, levels of in-force premiums, number of policies, technical reserves, mutual and pension funds by product, terms of reinsurance agreements, electronic policy data bases, cash flow projections by product, analyses of movement and analyses of sensitivities.
16. We have not attempted to assess the suitability, quality or value of the assets of Mapfre, S.A. and its subsidiaries, or to provide any warranty as to the adequacy of the technical reserves. We have also not investigated any claims against Mapfre, S.A. and its subsidiaries, other than those made by policyholders or fund participants under the normal terms of insurance, mutual fund or pension fund business. In particular, no account has been taken of liabilities in respect of pension entitlements, service contracts, leases and breaches of legislation, regulatory rules or guidance.
17. Assumptions are made about future experience, including economic and investment experience, tax, expenses, lapse rates, mortality and reinsurance. These assumptions have been made on the basis of reasonable estimates. However, actual future experience is likely to differ from these assumptions, due to random fluctuations, changes in the operating environment and other factors. Such variations in experience could have a significant effect on the results and conclusions of this letter. No warranty is given by Willis Towers Watson that the assumptions made in this letter will be reflected in actual experience.

Yours sincerely,



Felipe Gómez

Director

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Covered business

- The 2017 Embedded Value of the Life and Burial business generated by the companies with the highest business volume (measured in provisions) of the MAPFRE Group has been determined, consisting of the following business blocks:
 - Life assurance (including complementary) and Accidental Death insurance businesses sold through the agent channel in the IBERIA region (MAPFRE VIDA in Spain and MAPFRE SEGUROS DE VIDA in Portugal).
 - Life assurance business (including complementary) and Accidental Death insurance businesses in BANKIA MAPFRE VIDA.
 - Life assurance (including complementary), Accidental Death insurance businesses and Pension Funds businesses of CCM VIDA Y PENSIONES and BANKINTER SEGUROS DE VIDA (including business in Spain and Portugal).
 - Mutual fund and pension fund businesses of MAPFRE INVERSIÓN S.V., S.A., MAPFRE INVERSIÓN DOS, S.G.I.I.C., S.A. and MAPFRE VIDA PENSIONES, E.G.F.P., S.A. de Seguros, S.A. ("MAPFRE INVERSIÓN Y PENSIONES").
 - Burial business of MAPFRE ESPAÑA.
 - Life business of MIDDLESEA VALLETA in Malta.
 - Life and Burial business of MAPFRE PERU Vida.
 - Life business in Brazil of MAPFRE Previdencia, BBMAPFRE SH1 Participações y MAPFRE BB SH2 Participações S.A.

Non-covered business

- The MAPFRE Group operates in the Life insurance business in other countries that have not been included in the calculation scope of the MCEV 2017. These entities, out of reach in this information, represent around 4.8% of the total technical provisions of the life insurance of the MAPFRE Group as of 12/31/2017.

Methodology

- **The embedded value of the Life assurance, Accidental Death insurance, Mutual funds and Pension funds businesses includes the adjusted net asset value and the value of in-force business, defined as follows:**
 - Embedded value = Adjusted Net Asset Value + Value of In-Force Business
 - Adjusted Net Asset Value (ANAV) = Shareholders' equity at market value, adjusted to obtain the economic value of capital
 - Value of the In-Force Business (VIF) = PVFP - TVFOG - CoC
 - **The calculation methodology for 2017 follows the Market Consistent Embedded Value (MCEV) criteria and principles.**
 - **According to the latest version of the MCEV principles, a methodology aligned with Solvency II criteria has been chosen, except for:**
 - Contract limits: in annual renewable products in which solvency II criterion establishes that the contract limit for valuation purposes is at the end of the current annuity, the criterion applied in the MCEV has been to project the successive renewals, considering the probability of cancellation, until the expiration of the contracts.
 - Consistent with the above, the cost of capital has been calculated on a theoretical required capital, which would correspond to applying that same limit of contract to the calculation of the risks.
- In particular, Solvency II criteria have been followed in:**
- Discount Curves: Risk-free reference rates published by EIOPA at the valuation date have been used, including volatility adjustments or matching adjustments (by product).
 - Risk Margin methodology has been followed for the cost of capital, including the factor of 6% per annum (before taxes).

Methodology (contd.)

- **Adjusted Net Asset Value (ANAV):**

- Adjusted Net Asset Value or "ANAV" is equal to equity in accordance with IFRS adjusted by: committed donations and dividends; goodwill; deferred expenses; and any other element necessary to obtain the economic value of capital.

- **Present Value of Future Profits (PVFP):**

- The Present Value of Future Profits or "PVFP" is equal to the present value of expected future accounting profits of the portfolio in force at the valuation date, after tax and discounted to the reference curve. The financial performance of the business in force has been calculated on the basis of interest rates on the reference curve, except for fixed interest rate assets related to Life-Savings insurance, where book yields have been used with an adjustment for credit risk based on the market value of the assets. The PVFP includes the "intrinsic value" of the FOG granted to the insured.
- The financial performance of future investments has been calculated based on interest rates of the reference curve.

Methodology (contd.)

▪ Time Value of Financial Options and Guarantees (TVFOG):

- Under MCEVP, FOG (Financial Options and Guarantees) are defined as those features of the covered business conferring potentially valuable underlying guarantees, or options to change, the level or nature of policyholders' benefits and exercisable at the discretion of policyholders, whose potential value is impacted by the performance of financial variables.
- The cost of FOG is valued through the measurement of two different elements:
 - intrinsic value: the cost of FOG under existing conditions at the valuation date
 - time value: the change in the cost of FOG resulting from potential changes in policyholders' benefits that may occur throughout the life of the policy
- The intrinsic value of FOG is already recognised implicitly in the calculation of the PVFP. It is therefore necessary to include the additional cost arising from the time value of FOG (TVFOG).
- TVFOG was calculated for the main FOG in the covered Life business. Specifically, the calculation focused on the TVFOG corresponding to the guaranteed interest rate in with-profits products, as well as in other products with variable interest rates and minimum guaranteed returns.
- The calculation of TVFOG assumed the realisation of gains/losses on equity and property investments to:
 - minimise the impact of profit sharing on the Company's results; and
 - keep the asset mix close to its breakdown as at 31.12.2017.
- TVFOG is based on stochastic simulations of market-consistent financial assumptions (between 1,000 and 2,000, depending on the entity) and is equal to the difference between the value of in-force business calculated under a deterministic approach and the average value of the in-force business calculated stochastically.

Methodology (contd.)

- **Cost of Capital (CoC):**
 - In line with the Risk Margin Solvency II calculation, the CoC used in the 2017 MCEV has been measured by applying a fixed rate of 6% (gross of taxes) to the required solvency capital, excluding market risks. The same criterion of contract limits has been considered as in the calculation of the PVFP.
 - It is an adjustment for frictional costs and non-hedgeable risks, not considered in the Present Value of Future Profits.
 - To calculate the CoC, the required capital has been projected into the future based on the most appropriate drivers for each line of business.
- **With-profits business:**
 - MAPFRE's with-profits in-force business in Spain comprises products with the following features that are common in the Spanish insurance market:
 - A minimum return guarantee, ranging between 0.5% and 6.0% in MAPFRE's case.
 - A profit-sharing mechanism defined as: X% of (Financial return - minimum guaranteed return - expense loadings) over the average mathematical reserve, which cannot be negative under any circumstance. X% varies by product, although it is equal to 90% in most cases. Financial returns and their volatility depend on the book returns of the assets backing the product, and is subject to some degree of discretion by management including, for instance, decisions on the realisation of gains/losses and on the asset mix.
 - The combination of a minimum return guarantee and a profit-sharing mechanism that cannot yield negative results generates asymmetric flows for shareholders and, as a consequence, a positive time value of FOG.
 - The profit-sharing business in Malta consists of products with flexible future discretionary participation with characteristics similar to those in the English market.
 - Peru's with-profits business functions similarly to the business in Spain.

Methodology (contd.)

▪ *Look through MCEVP:*

- In order to correctly assign revenues and expenses to the businesses that generate them and measure the value of each block of business more consistently with its economic reality, the following adjustments were made:
 - The Mutual Funds business, as well as a part of Pension Funds and Accidental Death businesses, are sold through the distribution network of MAPFRE VIDA. The MCEV and VNB of the aforementioned Mutual Funds, Pension Funds and Accidental Death businesses have been adjusted in order to include the net present value of the future profits/losses expected to arise in the distribution company from this business.
 - The assets of the Life assurance business are managed by MAPFRE INVERSIÓN Y PENSIONES. The MCEV and VNB of the aforementioned Life assurance business have been adjusted in order to include the net present value of the future profits/losses expected to arise in the asset management company from this business.

▪ **Sensitivity:**

- In interest rates downward sensitivity, where the shift of 100 basis points drops rates below 0%, they are floored at zero according to the MCEV Guidance. Where the base rates are already negative they are not further reduced.

Methodology (contd.)

▪ Value added by New Business (VNB):

- In Life assurance and Burial insurance, new business is defined as single, extraordinary and regular premiums written in the year, as well as extraordinary contributions to existing policies not already considered in the valuation of the in-force business. In the Mutual Funds business, new business is defined as new contributions. In the Pension Funds business, new business is defined as single, extraordinary and regular contributions from new participants, as well as extraordinary contributions from existing participants.
- The value added by new business is the intrinsic value added by new business in the period, net of acquisition expenses, TVFOG and CoC, valued at year-end using the assumptions applicable at that point in time.

▪ Statement of Directors:

- The Board of Directors of MAPFRE, S.A. confirms that the results shown in this document have been prepared in all material respects in accordance with the Market Consistent Embedded Value Principles issued by the European Insurance CFO Forum in April 2016.
This document presents the results, methodology and underlying assumptions used to calculate the 2017 MCEV for all the covered business.
Willis Towers Watson has been engaged to review the calculation of the embedded value results. The scope and conclusions of this review are stated in the Willis Towers Watson opinion letter.

Assumptions

MCEV 2016

Discount rate	Risk free rates as 31/12/2016
	1 año -0.30%
	5 años -0.02%
	10 años 0.57%
	15 años 0.96%
	20 años 1.12%
Financial returns	
- Existing assets	Interest rates on the EIOPA curve ⁽¹⁾ , except for the existing fixed-income assets Saving, for which yields have been used in Books with a credit risk adjustment based on the market value of assets
- Reinvestment yield	Based on the risk-free curve Risk at 12/31/2016
Maintenance expenses	- Based on internal studies - Expressed in euros per policy - Indexed to inflation - There are no exceptional expenses to be excluded
Fees and comissions	In line with the existing fee structure
Mortality, disability, surrenders and turnovers	Tables based on the company's own experience
Cost of Capital	
- Capital requirement	100% SCR Solvency II (without limit of contract)
- Annual cost	6% per annum before taxes
Tax rate	The one corresponding to the country and year
Stochastic asset model (TVFOG)	Consistent with the market using implied volatilities in options on swaps as of 12/31/2016
Exchange rate	-

MCEV 2017

Discount rate	Risk free rates as 31/12/2017
	1 año -0.36%
	5 años 0.21%
	10 años 0.80%
	15 años 1.17%
	20 años 1.36%
Financial returns	
- Existing assets	Interest rates on the EIOPA curve ⁽¹⁾ , except for the existing fixed-income assets Saving, for which yields have been used in Books with a credit risk adjustment based on the market value of assets
- Reinvestment yield	Based on the risk-free curve Risk at 12/31/2017
Maintenance expenses	- Based on internal studies - Expressed in euros per policy - Indexed to inflation - There are no exceptional expenses to be excluded
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Cost of Capital	
- Capital requirement	100% SCR Solvency II (without limit of contract)
- Annual cost	6% per annum before taxes
Tax rate	The one corresponding to the country and year
Stochastic asset model (TVFOG)	Consistent with the market using implied volatilities in options on swaps as of 12/31/2017
Exchange rate	Brazilian Real (0.2515), Peruvian Sol (0.2573) to 12/31/2017

(1) With Volatility or Matching Adjustment for certain businesses, as applied under Solvency II.

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Breakdown of the value added by new business (VNB)

Breakdown by business line

	PVNBI ⁽¹⁾		VNB ⁽²⁾		VNB/PVNBI	
	2016	2017	2016	2017	2016	2017
Life Assurance:	2,540.7	3,975.5	85.5	391.0	3.4%	9.8%
- Agents' channel	1,564.6	1,467.0	0.6	27.5	0.0%	1.9%
- Bank channel	976.1	2,508.5	84.9	363.5	8.7%	14.5%
Burial Assurance	109.6	121.0	28.2	37.1	25.7%	30.7%
Mutual Funds	1,683.0	1,589.7	38.6	46.3	2.3%	2.9%
Pension Funds	593.9	1,117.1	3.3	15.4	0.6%	1.4%
- Agents' channel	346.4	588.8	0.3	2.9	0.1%	0.5%
- Bank channel	247.5	528.3	3.0	12.5	1.2%	2.4%
TOTAL	4,927.2	6,803.4	155.5	489.7	3.2%	7.2%

Breakdown by distribution channel

	PVNBI ⁽¹⁾		VNB ⁽²⁾		VNB/PVNBI	
	2016	2017	2016	2017	2016	2017
Agents' channel	3,703.6	3,766.5	67.6	113.7	1.8%	3.0%
Bank channels	1,223.7	3,036.7	87.9	375.9	7.2%	12.4%
TOTAL	4,927.2	6,803.2	155.5	489.7	3.2%	7.2%

Million Euros

(1) Present Value of New Business Incomes

(2) Value added by New Business.

Breakdown of 2017 change in MCEV between ANAV and VIF⁽¹⁾

	ANAV	Value of in-force business ⁽¹⁾	TOTAL
Value in 2016 - Attributable to MAPFRE Group	1,580.3	2,084.2	3,664.5
Minority interests	416.1	467.9	884.0
Value in 2016	1,996.4	2,552.1	4,548.5
Changes in assumptions	0.0	350.6	350.6
Expected return	0.9	10.5	11.4
Value added by new business	-32.0	293.9	261.9
Deviation of actual value from expectations	196.1	22.2	218.3
Others	258.0	-268.3	-10.3
Value added in 2017	423.0	408.8	831.8
Changes in the model	-6.0	-36.9	-42.9
Additions	581.0	1,830.3	2,411.3
Dividends paid and other items	-398.1	0.0	-398.1
Value in 2017	2,596.3	4,754.3	7,350.6
Minority interests	711.0	1,854.5	2,565.4
Value in 2017 - Attributable to MAPFRE Group	1,885.3	2,899.8	4,785.1
RoEV⁽²⁾	21.3%	16.3%	18.5%

Million Euros

(1) VIF = PVFP - TVFOG - CoC

(2) Return on Embedded Value» = Value added in the year / Previous Embedded Value, adjusted for changes in the model

Breakdown of the sensitivity analysis

Sensitivity of the Market Consistent Embedded Value

	LIFE SPAIN	BURIAL SPAIN	MALTA MSV	BRASIL LIFE	PERU LIFE	PORTUGAL LIFE
Impact of:						
- 100bp increase in interest rates	-178.2	-124.7	-4.8	-86.1	6.6	-1.2
- 10% decrease in the value of stocks and real estate	-81.0	0.0	-2.9	-0.2	-6.5	-0.7
- 10% decrease in expenses	60.1	80.3	3.0	26.3	2.9	0.9
- 10% decrease in the lapse rate	179.0	46.7	2.1	1.7	5.2	1.5
- 5% decrease in mortality and morbidity	9.4	78.9	2.2	63.0	-0.1	0.2
- 100bp decrease in interest rates	135.6	163.5	-3.8	93.1	-11.6	1.1

Sensitivity of the value added by new business

	LIFE SPAIN	BURIAL SPAIN	MALTA MSV	BRASIL LIFE	PERU LIFE	PORTUGAL LIFE
Impact of:						
- 100bp increase in interest rates	-9.9	-4.5	-0.3	-5.2	0.9	0.2
- 10% decrease in the value of stocks and real estate	0.0	0.0	-0.5	0.0	0.0	0.0
- 10% decrease in expenses	7.6	0.6	0.4	2.9	0.2	0.2
- 10% decrease in the lapse rate	29.9	2.2	0.3	0.4	0.8	-0.2
- 5% decrease in mortality and morbidity	4.9	0.5	0.4	5.1	-0.6	-0.6
- 100bp decrease in interest rates	9.9	5.7	-1.2	5.7	-1.3	-0.2

Million Euros

Reconciliation of the Adjusted Net Asset Value (ANAV)

Consolidated shareholders equity for MAPFRE Group⁽¹⁾ as at 31/12/2016 (IFRS)	3.118,9
Unrealised gains (losses)	-44,8
- of which: property	79,3
- of which: financial assets	-124,1
Donations and dividends	-12,3
Intangible assets	-462,6
Commissions and other acquisition costs net of taxes	-0,5
Other	-2,4
Consolidated Adjusted Net Asset Value for MAPFRE Group as at 31/12/17⁽²⁾	2.596,3
Minority interests	-711,0
Consolidated adjusted shareholders' equity for MAPFRE Group as at 31/12/17	1.885,3

Million Euros

1) It refers to the Own Funds of the covered business included in the MCEV, not to the total of Own Funds of the MAPFRE Group.

2) Amount used in Market Consistent Embedded Value calculations. It only includes ANAV of covered business.

Share of the parent company in the MCEV

	MAPFRE Group	Minority interests
ANAV		
ANAV	1,885.3	711.0
NET PVFP ⁽¹⁾		
AGENTS' CHANNEL	1,993.4	0.0
BANK CHANNELS	976.4	1,869.1
TOTAL	2,969.8	1,869.1
TVFOG		
AGENTS' CHANNEL	-56.0	0.0
BANK CHANNELS	-14.0	-14.6
TOTAL	-70.0	-14.6
MCEV 2017	4,785.1	2,565.5

Million Euros

1) NET PVFP = PVFP - CoC

Share of the parent company in the Value added by New Business (VNB)

	MAPFRE Group	Minority interests
Value added by new business		
AGENTS' CHANNEL	113.7	0.0
BANK CHANNELS	122.7	253.2
VNB 2017	236.4	253.3

Content

1 EEV analysis

2 Willis Towers Watson opinion letter

3 Methodological appendix

4 Statistical appendix

5 Glossary

- The **Market Consistent Embedded Value Principles** or “**MCEVP**” are the principles that establish the methodology that must be applied in order to calculate the Market Consistent Embedded Value. The MCEVP were agreed upon by the CFOs of the multinational European insurers belonging to the “CFO Forum” in order to increase the comparability and transparency of the embedded value calculations carried out by insurance companies. The document that contains the MCEVP can be obtained at the following Internet address: www.cfoforum.nl.
- The **Adjusted Net Asset Value** or “**ANAV**” is equal to the shareholders’ equity as defined under IFRS adjusted for: unrealised gains or losses belonging to shareholders; committed donations and dividends; goodwill; deferred expenses; and any other item needed to calculate the economic capital.
- **Financial Options and Guarantees** or “**FOG**” are those features of the covered business conferring potentially valuable guarantees underlying, or options to change, the level or nature of policyholders’ benefits and exercisable at the discretion of policyholders, whose potential value is impacted by the performance of financial variables.
- The **Value of an Option** is composed of two elements: the **Intrinsic Value** and the **Time Value**. In the case of a call option, the intrinsic value is equal to the difference between the price of the underlying asset and the strike price of the option (in the case of a put option the order of the difference is inverted). The intrinsic value cannot be less than zero. The time value is equal to the difference between the total value and the intrinsic value and it is ascribed to the potential for benefits under the option to increase in value prior to expiry.
- The **Present Value of Future Profits** or “**PVFP**” is determined as the present value of future statutory profits which are expected to be generated from the existing business in force at the valuation date, after tax and discounted using the risk free curve. Investment returns for existing business have been calculated on the basis of the risk free curve, except for existing fixed interest assets backing Life-Savings business, where book returns adjusted for credit risk and defaults rates have been used. PVFP includes the intrinsic value of financial options and guarantees granted to the insured.

- The **Cost of Capital** or “**CoC**” represents an allowance for frictional costs, non-hedgeable risks as well as unexpected credit risk which has not been considered in the value of in-force business. The CoC used in the calculation of the MCEV was measured on the basis of an amount of capital equal to 100% of the minimum regulatory requirement.
- The **Value of In-force Business** or “**VIF**” is equal to: $PVFP - TVFOG - CoC$
- The **Market Consistent Embedded Value** or “**MCEV**” is the embedded value calculated in accordance with “Market Consistent Embedded Value Principles”. MCEV is equal to: $ANAV + VIF$
- **Changes in Assumptions** are changes in the future experience assumed in the calculation of the present value of in-force business, including economic, expense, lapse and mortality assumptions.
- The **Expected Return on the Beginning of the Year Embedded Value** is equal to the actual after-tax investment return on the beginning-of-the-year adjusted net asset value less the cost of capital, plus the return, at the discount rate, on the beginning-of-the-year value of the in-force business and capital.
- The **Deviation of Actual Value from Expectations** arises mainly from the variance between the actual experience and the assumed experience used to calculate the beginning-of-the-year embedded value.
- The **Return on Embedded Value** or “**RoEV**” is obtained by dividing the value added in the year by the embedded value at the close of the previous year, adjusted for changes in the model.

- **New Business** is defined as: in the case of Life assurance, single, extraordinary and regular premiums from policies written in the year, as well as extraordinary contributions to existing policies not already considered in the valuation of the in-force business; in the case of mutual funds, new contributions; in the case of pension funds, single, extraordinary and regular contributions from new participants, as well as extraordinary contributions from existing participants.
- The **Present Value of New Business Income** or “**PVNBI**” corresponds to: in the case of Life assurance, the present value of received and expected premiums from new business; in the case of mutual funds, contributions received in the year; and in the case of pension funds, contributions received in the year and expected from new business.
- The **Value added by New Business** or “**VNB**” is the intrinsic value added by new business in the period, net of acquisition expenses, TVFOG and CoC, valued at year-end using the assumptions applicable at that point in time.

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It is possible that for reasons of rounding there is some mismatch in the first decimal between different tables or graphs throughout the presentation.

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