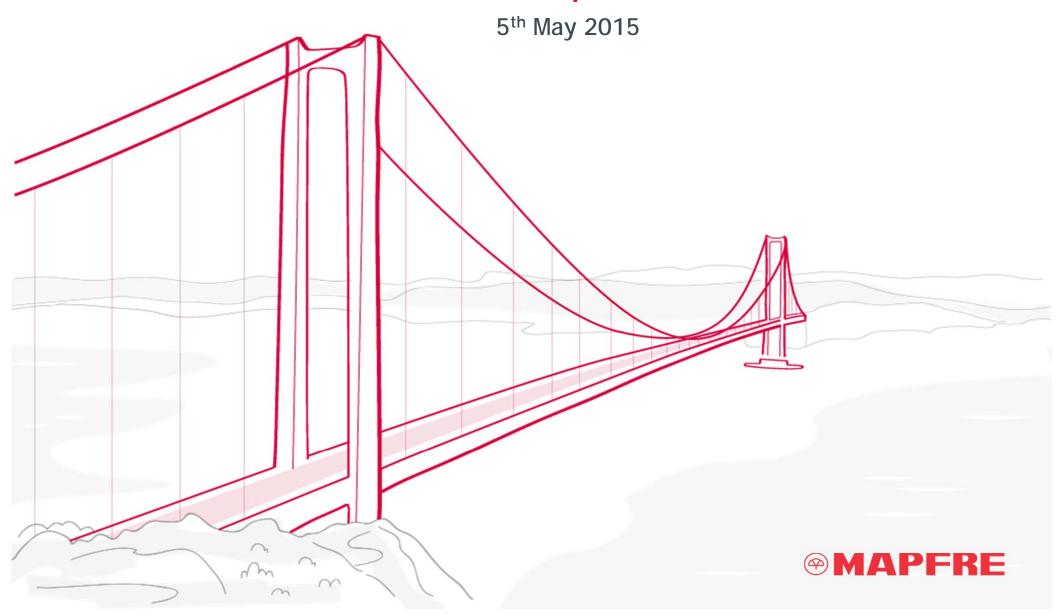
# **European Embedded Value 2014**





# Contents

- **EEV** analysis
- Towers Watson opinion letter
- 3 Methodological appendix
- Statistical appendix
- **5** Glossary



### Development of the EEV in 2014

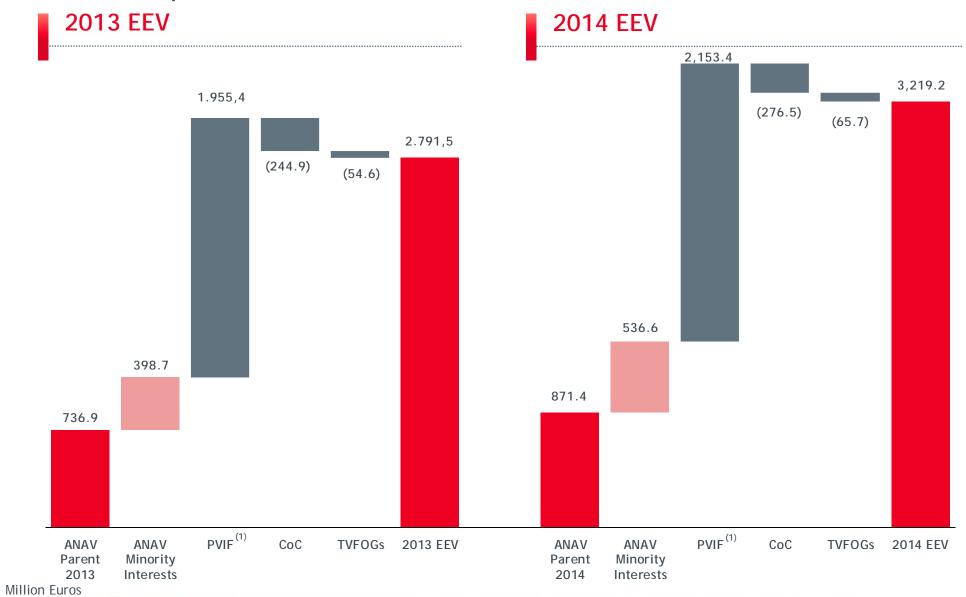
		2014	△ %
Value of In-force Business (VIF) <sup>(1)</sup>		1,811.2	9.4%
European Embedded Value (EEV) <sup>(1)</sup>		3,219.2	15.3%
	Attributable to the Parent Company	2,178.8	11.2%
	Attributable to Minority Interests	1,040.4	24.9%
Return on Embedded Value (RoEV)		12.7%	4.2 p.p.
Present Value of New Business Inc	ome (PVNBI) <sup>(1)</sup>	4,523.4	25.0%
Value added by new business <sup>(1)</sup>		182.3	21.6%
New business margin		4.0%	-0.1 p.p.

#### Key highlights

- Significant 15.3% increase in the EEV, reflecting:
  - the downward shift in the yield curve used for discounting
  - the decrease in the tax rate from 30% in 2014 to 28% in 2015 and 25% in future years
  - larger new business volumes
  - the increase in the market value of the investment portfolio
  - the inclusion of the portfolio from the former network of Bancaja (Aseval) and Laietana into the new agreement signed with Bankia



### EEV components and their variation in 2014





#### Breakdown of the 2014 EEV

### By business line

	€ mill.	%	△ %
Adjusted Net Asset Value	1,408.0	43.7%	24.0%
Net PVIF <sup>(1)</sup> - Life Assurance <sup>(2)</sup>	1,610.8	50.0%	16.7%
- PVIF	1,866.6		15.9%
- CoC	(255.8)		11.5%
Net PVIF <sup>(1)</sup> - Mutual Funds	128.5	4.0%	-13.4%
- PVIF	130.2		-13.1%
- CoC	(1.7)		6.3%
Net PVIF <sup>(1)</sup> - Pension Funds	137.6	4.3%	-24.1%
- PVIF	156.6		-19.8%
- CoC	(19.0)		37.7%
TVFOGs	(65.7)	-2.0%	20.3%
EEV 2014	3,219.2	100.0%	15.3%
Initial capital used to calculate the CoC <sup>(3)</sup>	817.8		1.7%

### By distribution channel

	€ mill.	%	Δ %
Adjusted Net Asset Value	1,408.0	43.7%	24.0%
Net PVIF - Agents' channel	852.1	26.5%	3.3%
- PVIF	1,000.4		4.5%
- CoC	(148.3)		12.4%
Net PVIF - Bank channels	1,024.8	31.8%	15.8%
- PVIF	1,153.0		15.5%
- CoC	(128.2)		13.4%
TVFOGs	(65.7)	-2.0%	20.3%
EEV 2014	3,219.2	100.0%	15.3%
Initial capital used to calculate the CoC <sup>(3)</sup>	817.8		1.7%

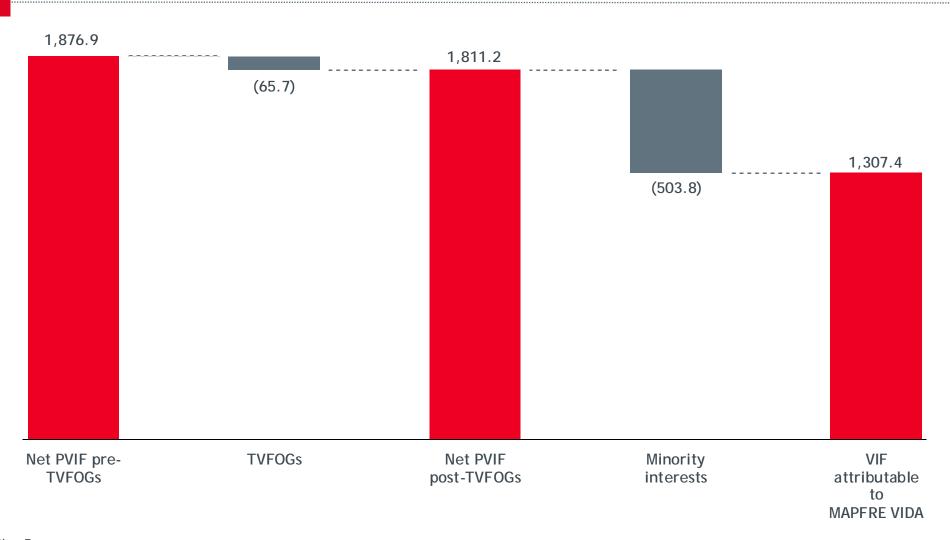
<sup>1)</sup> PVIF = "Present Value of In-Force business"

<sup>2)</sup> Includes the in-force values of the Life assurance and accidental death insurance businesses

<sup>3)</sup> EEV calculations based on an amount of capital equal to 100% of the minimum required solvency margin as at 31/12/2014



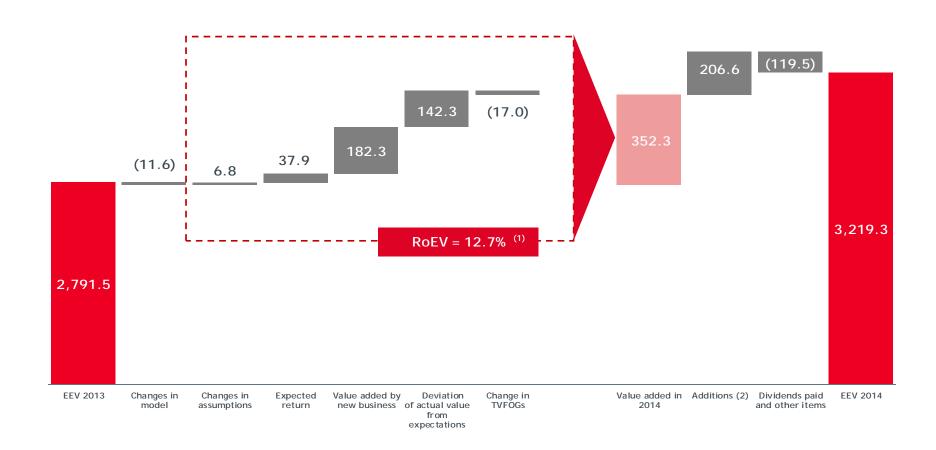
## Share of the parent company in the 2014 VIF





#### Value added in 2014

### Change in Embedded Value



<sup>1)</sup> Return on Embedded Value = Value added in the year / Embedded Value 2013, adjusted for changes in model

<sup>2)</sup> Inclusion of the portfolio from the former network of Bancaja (Aseval) and Laietana into the new agreement signed with Bankia



#### Analysis of the main variations in EEV

#### Change

#### **Description**

# Changes in model

 Mainly reflects the inclusion of more detailed information regarding the pricing of Group Life-Protection policies in the agents' channel (-€12.5 million)

# Changes in assumptions

- Reflects the positive impact of the downward shift in the swap curve (+€128.4 million) and the decrease in the future tax rate (+€115.5 million)
- This was offset by: changes in the commission ladder, which resulted in higher costs (-€109.4 million), lower fee-related revenues from pension plans and mutual funds (-€85.7 million) and a decline in financial returns (-€21.0 million)

#### **Expected return**

 Includes the impact of the unwinding of the discount rate (+€34.8 million), and the expected after-tax investment return on the adjusted net asset value at the beginning of the year, net of the cost of capital (+€3.2 million)



### Analysis of the main variations in EEV (contd.)

#### Change

### **Description**

Deviation of actual value from expectations

 Reflects primarily the positive impact on the net asset value of the increase in the market value of financial investments

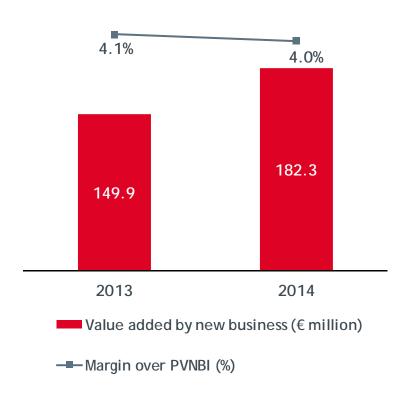
**TVFOGs** 

• The increase in costs of the TVFOGs is due to the downturn in the yield curve



### Value added by new business

#### Development of the value added



#### Key highlights

Larger margins in the agents' network, due to the greater weight of lifeprotection insurance



Strong increase in new business volumes of pension plans in both channels, as well as of mutual funds in the agents' channel



3 Decrease in the discount and tax rates



Increase in the distribution expenses of the mutual funds business

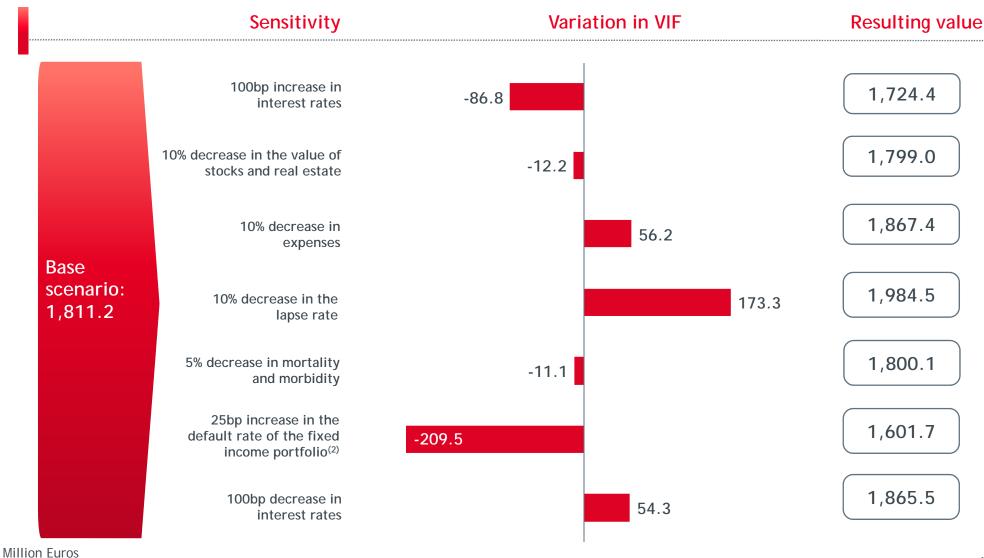


Greater weight of new pension fund business, whose margin is comparatively lower





## Sensitivity analysis of the value of in-force business<sup>(1)</sup>

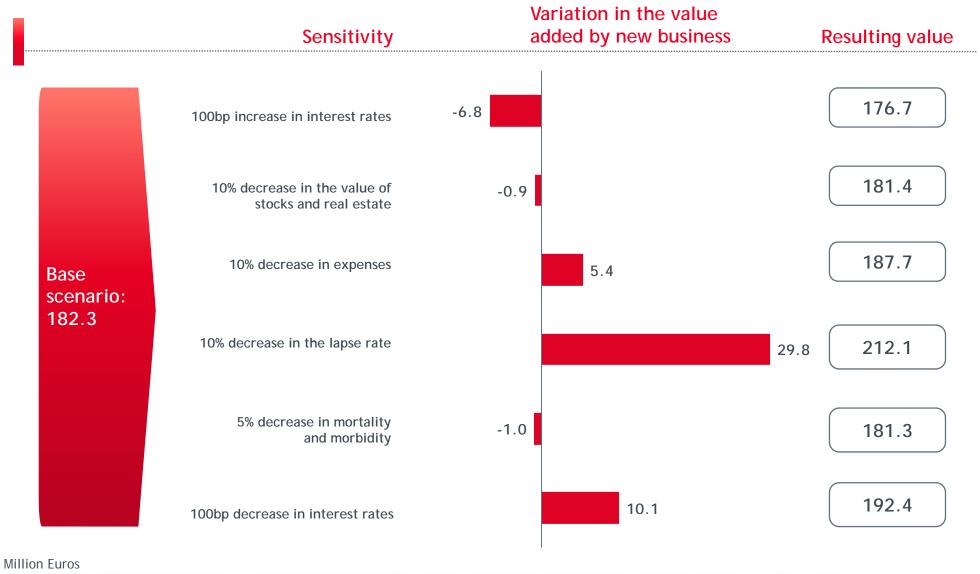


<sup>1)</sup> VIF = PVIF - TVFOGS - CoC

<sup>2)</sup> The 25bp increase represents a probability of default of 1.04 times that applied to the whole fixed income portfolio included in the credit risk adjustment to the VIF



### Sensitivity analysis of the value added by new business





# Contents

- **T** EEV analysis
- **7** Towers Watson opinion letter
- 3 Methodological appendix
- Statistical appendix
- **5** Glossary



TOWERS WATSON 🐪

Felipe Gómez

T +34 91 590 300

Suero de Quiflones, 40-Segunda Planta 28002 Medrid F +34 91 563 3115 Milpe gomen@towerswatson.com

24 April 2015

Mapfre S.A. Carretera de Pozuelo 52 Edificio 1 28222 Majadahonda (Madrid)

Dear Sirs.

Opinion letter - EEV results of certain subsidiaries of Mapfre, S.A. as at 31 December 2014

- 1 Towers Watson Risk Consulting (Spain), S.A. ("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 2014.
- 2 The EV results have been prepared by Mapfre, S.A. to comply with the European Embedded Value Principles and Guidance issued by the CFO Forum in May 2004 (the "EEV Principles").
- 3 The EV results of Mapfre, S.A. cover the business of Mapfre Vida, S.A. de Seguros y Reaseguros sobre la Vida Humana ("Mapfre Vida") and its subsidiaries:
  - Bankia Mapfre Vida, S.A de Seguros y Reaseguros;
  - Mapfre Inversión S.V., S.A., consisting of Mapfre Inversión Dos, S.G.I.I.C., S.A. and Mapfre Vida Pensiones, E.G.F.P., S.A.;
  - Bankinter Seguros de Vida, SA de Seguros y Reaseguros;
  - CatalunyaCaixa Vida, S.A de Seguros y Reaseguros;
  - CCM Vida y Pensiones S.A. de Seguros y Reaseguros;
  - Unión del Duero, Compañía de Seguros de Vida, S.A. ("Unión Duero Vida");
  - Duero Pensiones, entidad gestora de fondos de pensiones, S.A. ("Unión Duero Pensiones"); and
  - Aseguradora Valenciana de Seguros y Reaseguros, S.A. ("Aseval").

#### Scope

- 4 The EV results have been prepared by Mapfre S.A. and its subsidiaries.
- 5 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 EEV Principles.
- 8 Towers Watson has also reviewed the 2014 EV and new business value results, the sensitivities and the change in EV prepared by Mapfre S.A. as shown on pages 3, 11, 12 and 7 of the presentation.

Towers Watson Risk Consulting (Spain) S.A. R.M. de Medrid Tomo 18265, folio 50, sección 8, hoja M-316524, inscripción 1. CIF A-63465187

X1Spain/Securce/Companies/Maphs securce/Grupo Maphs EV 2014/04 Deliverables/01 Opinion Latter/Letter/EV2014/Maphs.doc

TOWERS WATSON 🔼

Mapha S.A. 24 April 2015

#### Conclusions

- 7 Subject to the exception noted below, Towers Watson has concluded that the methodology and assumptions used to determine the 2014 EV and value of new business comply with the EEV Principles. The exception referred to above is that at year-end 2014 the basis may be considered to make insufficient allowance for the aggregate risks in relation to the savings business, and in particular the allowance made, directly and indirectly, for credit risk in respect of the existing fixed interest assets, as described on page 18 of this presentation. The impact on the 2014 EV results of a larger allowance for credit risk is shown in the sensitivity analysis.
- 8 Further, based on a high-level review of the results of the calculations, but without undertaking detailed checks on the models and processes involved. Towers Watson considers that any issues discovered do not have a material impact on the embedded value, analysis of embedded value earnings, value of new business and sensitivity tests.
- 9 Our work and this letter are subject to the reliances and limitations contained in paragraphs 10 to 15 of this letter. The work is based on information received up to and including 23 April 2015.

#### Reliances and limitations

- 10 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 Towers Watsons engagement letter. To the fullest extent permitted by applicable law, Towers Watson does not accept or assume any responsibility, duty of care or liability to anyone other than 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.
- 11 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 Towers Watson that would materially affect the opinion set out herein.
- 12 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, salesforce 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, lectronic policy data bases, cash flow projections by product, analyses of movement and analyses of sensitivities.
- 13 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 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.
- 14 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 Towers Watson that the assumptions made in this letter will be reflected in actual experience.
- 15 The results shown do not consider possible financial implications arising from the introduction of new regulatory reporting requirements which may, for example, increase the level of capital support required to sustain the business or constrain the way in which the assets are invested.

Yours sincerely

Felipe Gómez Rojas

X:Spain/Seguto/Compañies/Maphe seguto/Grupo Maphe EV2014/04\_Deliverables/01\_Opinion Later/Leter/EV2014/Maphe.doc



# Contents

- **T** EEV analysis
- Towers Watson opinion letter
- **?** Methodological appendix
- Statistical appendix
- **5** Glossary



#### Covered business

- The 2014 embedded value was calculated for all the domestic businesses issued by MAPFRE VIDA and its subsidiaries, which include the following blocks of business:
  - Life assurance (including complementary) and accidental death insurance businesses of MAPFRE VIDA, sold through the agents' channel
  - Life assurance (including complementary) and accidental death insurance businesses of BANKIA MAPFRE VIDA (formerly MAPFRE-CAJA MADRID VIDA) and ASEVAL
  - Life assurance (including complementary), accidental death insurance and pension funds businesses of CATALUNYACAIXA, CCM VIDA Y PENSIONES, BANKINTER SEGUROS DE VIDA, UNIÓN DUERO VIDA and DUERO PENSIONES
  - Mutual funds and pension funds 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")

#### Non-covered business

 The MAPFRE GROUP operates Life Assurance business in several geographies which have not been included in the FFV calculation



### 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) = PVIF TVFOGs CoC
- A bottom-up approach was followed to comply with EEVP, valuing separately each risk component in the business, since it was deemed that this methodology provides the most transparent information about shareholder value, better quantifies the risk in each product, differentiating between in-force and new business

#### Adjusted Net Asset Value:

 The Adjusted Net Asset Value or "ANAV" is equal to shareholders' equity as defined under IFRS, adjusted for: committed donations and dividends; goodwill; deferred expenses; and any other item needed to calculate the economic value of capital

#### Present Value of In-force Business:

- The Present Value of In-force Business or "PVIF" 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 euroswap curve. Investment returns for existing business have been calculated on the basis of the euroswap curve, except for existing fixed interest assets backing the Life-Savings business, where book returns adjusted for credit risk based on historical transition matrices and defaults rates have been used. Life-Savings business VIF represents 18.2% of the total EEV. PVIF includes the intrinsic value of financial options and guarantees granted to the insured.
- Financial returns on future investments have been calculated on the basis of the euroswap curve.



#### Credit risk allowance:

- In 2014, the spread of Spanish fixed-income rates, both of the private and public sectors, with respect to the swap curve, has decreased in relation to previous years' levels, although it still remains at levels which are higher than the long-term historical mean. In our opinion this reflects the uncertainty concerning Spain's economic development, but not a manifest event with any of the Spanish State's outstanding debt instruments.
- Our Life-Savings business is covered in part by Spanish sovereign bonds and, in our opinion, it is not significantly exposed to spread widening, since in its vast majority is a business where:
  - assets and liabilities are matched
  - assets are held over the lifetime of the commitments to cover best estimate liabilities
  - surrender values (prior to maturity) are equal to the market value of assets at the moment of said surrender plus, in some cases, a fee
- In addition, our Spanish Life assurance technical reserves are backed by an investment grade fixed-income portfolio<sup>(1)</sup>, split by credit ratings as follows<sup>(2)</sup> as at 31.12.2014:

AAA: 1%AA : 3%A : 10%BBB : 86%

- Although this portfolio is exposed to default risk, calculating whether and how the spread can be broken down into credit risk factors and other factors is difficult using forward looking information (e.g. yields available on various bond markets, bid-ask spreads, turnover information, CDS prices, credit ratings) as well as retrospective information (e.g. actual defaults). Both techniques present significant weaknesses. Based on these considerations, and for consistency with the information released in previous years, we have taken a similar approach for credit risk as in previous years' EEV in relation to existing fixed-income assets backing Life-Savings business:
  - Book returns have been adjusted for the default risk based on the last 10-year average historical default rates published by the rating agency Standard and Poor's (hereafter <u>S&P</u>), stressed by a factor of 2.50x for year 2015 and 1.50x for 2016 to allow for a possible increase in default rates stemming from the global financial crisis. This represents an average annual probability of default equivalent to 24bp (29bp in the EEV 2013).
  - An implicit allowance for unexpected credit risk has been made in the CoC.
- In order to show the impact on the EEV results of a higher allowance for credit risk, we have provided a sensitivity analysis of a 25bp increase in the probability of default of the fixed income portfolio backing the Life-Savings business.



#### TVFOGs:

- Under EEVP, FOGs (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 FOGs is valued through the measurement of two different elements:
  - intrinsic value: the cost of FOGs under existing conditions at the valuation date
  - time value: the change in the cost of FOGs resulting from potential changes in policyholders' benefits that may occur throughout the life of the policy
- The intrinsic value of FOGs is already recognised implicitly in the calculation of the PVIF. It is therefore necessary to include the additional cost arising from the time value of FOGs (TVFOGs).
- TVFOGs was calculated for the main FOGs in the covered Life business. Specifically, the calculation focused on the TVFOGs corresponding to the guaranteed interest rate in with-profits products, as well as on other products with variable interest rates and minimum guaranteed returns.
- The calculation of TVFOGs 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 31.12.2014.
- TVFOGs is based on 2,000 stochastic simulations of market-consistent financial assumptions 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.



#### CoC:

- In line with Spanish market practices, the CoC used in the calculation of the 2014 EEV was measured by applying a 4% p.a. fixed rate to the minimum required solvency margin.
- This represents an allowance for frictional costs, non-hedgeable risks as well as unexpected credit risk which has not been considered in the present value of in-force business.

#### With-profits business:

- MAPFRE's with-profits in-force business comprises products with the following features that are common in the Spanish insurance market:
  - A minimum return guarantee, ranging between 0.75% and 6.0% in the case of MAPFRE.
  - A profit-sharing mechanism defined as: X% of (Financial return minimum guaranteed return expense loadings) on 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 FOGs.



#### Look through EEVP:

- In order to assign correctly 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 EEV 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 EEV 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.



#### Value added by new business:

- In Life assurance, 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, TVFOGs and CoC, valued at year-end using the assumptions applicable at that point in time.



### **Assumptions**

### Discount rate

Financial returns
- Existing assets

- Reinvestment yield

Maintenance expenses

Fees and commissions

Mortality, disability, surrenders and turnovers

#### Cost of capital

- Capital requirement

- Annual cost

Tax rate

Stochastic asset model (TVFOGs)

Average annual probability of default

#### **EEV 2013**

Euroswap zero-coupon curve as at 31/12/2013

1 year	0.40%
5 years	1.27%
10 years	2.22%
15 years	2.71%
20 years	2.85%

Euroswap curve rates except for existing fixed interest assets backing Life-Savings business, where book returns adjusted for credit risk based on historical transition matrices and defaults rates have been used

Based on the euroswap zero-coupon curve as at 31/12/2013

- Based on internal analyses

Expressed in Euros per policyIndexed to a 2.5% inflation

- There are no exceptional expenses to be excluded

In line with the existing fee structure

Tables based on the company's own experience

100% of the minimum solvency margin

4% p.a.

30%

Market-consistent using swaption implied

volatilities as at 31/12/2013

29 bp

#### **EEV 2014**

Euroswap zero-coupon curve as at 31/12/2014

1 year	0.16%
5 years	0.36%
10 years	0.82%
15 years	1.17%
20 years	1.36%

Euroswap curve rates except for existing fixed interest assets backing Life-Savings business, where book returns adjusted for credit risk based on historical transition matrices and defaults rates have been used

Based on the euroswap zero-coupon curve as at 31/12/2014

- Based on internal analyses

- Expressed in Euros per policy

- Indexed to a 2.5% inflation

- There are no exceptional expenses to be excluded

In line with the existing fee structure

Tables based on the company's own experience

100% of the minimum solvency margin 4% p.a.

28% in 2015 and 25% in future years

Market-consistent using swaption implied volatilities as at 31/12/2014

24 bp



# Contents

- **T** EEV analysis
- **Towers Watson opinion letter**
- 3 Methodological appendix
- 4 Statistical appendix
- **5** Glossary



## Breakdown of the value added by new business

### Breakdown by business line

	PVNB	BI <sup>(1)</sup>	VNI	B <sup>(2)</sup>	VNB/P	VNBI
	2013	2014	2013	2014	2013	2014
Life Assurance:	2,301.0	2,477.5	121.8	153.8	5.3%	6.2%
- Agents' channel	1,199.4	1,160.0	27.3	42.8	2.3%	3.7%
- Bank channel	1,101.6	1,317.5	94.5	111.0	8.6%	8.4%
Mutual Funds	914.9	1,101.0	24.4	18.2	2.7%	1.7%
Pension Funds	401.5	944.9	3.7	10.3	0.9%	1.1%
- Agents' channel	209.6	551.6	1.6	4.9	0.8%	0.9%
- Bank channel	191.9	393.3	2.1	5.4	1.1%	1.4%
TOTAL	3,617.4	4,523.4	149.9	182.3	4.1%	4.0%

#### Breakdown by distribution channel

	PVNI	BI <sup>(1)</sup>	VN	B <sup>(2)</sup>	VNB/F	PVNBI
	2013	2014	2013	2014	2013	2014
Agents' channel	2,323.9	2,812.6	53.3	65.9	2.3%	2.3%
Bank channels	1,293.5	1,710.8	96.6	116.4	7.5%	6.8%
TOTAL	3,617.4	4,523.4	149.9	182.3	4.1%	4.0%

<sup>1)</sup> Present Value of New Business Income

<sup>2)</sup> Value added by new business



# Breakdown of 2014 change in EEV between ANAV and value of in-force business<sup>(1)</sup>

	ANAV	Value of in-force business <sup>(1)</sup>	TOTAL
Value in 2013 - Attributable to MAPFRE VIDA	736.9	1,221.6	1,958.5
Minority interests	398.7	434.3	833.0
EEV 2013	1,135.6	1,655.9	2,791.5
Changes in assumptions	0.0	6.8	6.8
Expected return	185.2	-147.3	37.9
Value added by new business	-55.5	237.8	182.3
Deviation of actual value from expectations	136.5	5.8	142.3
Change in the TVFOGs <sup>(2)</sup>	0.0	-17.0	-17.0
Value added in 2014	266.2	86.1	352.3
Changes in the model	0.0	-11.6	-11.6
Additions	125.8	80.9	206.6
Dividends paid and other items	-119.5	0.0	-119.5
Value in 2014	1,408.0	1,811.3	3,219.3
Minority interests	536.6	503.8	1,040.4
Value in 2014 - Attributable to MAPFRE VIDA	871.4	1,307.5	2,178.9
RoEV <sup>(3)</sup>	23.4%	5.2%	12.7%

<sup>1)</sup> VIF = PVIF - TVFOGs - CoC

<sup>2)</sup> Not considering TVFOGs from new business, which are considered in the line "Value added by new business"

<sup>3)</sup> 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 value of in-force business

	Agents' channel	Bank channel
Impact of:		
- 100bp increase in interest rates	-37.6	-49.2
- 10% decrease in the value of stocks and real estate	-11.2	-1.0
- 10% decrease in expenses	28.7	27.5
- 10% decrease in the lapse rate	81.3	92.0
- 5% decrease in mortality and morbidity	-25.5	14.4
- 25bp increase in the defaut rates of the fixed income portfolio	-130.3	-79.2
- 100bp decrease in interest rates	18.7	35.6

### Sensitivity of the value added by new business

•	Agents' channel	Bank channel
Impact of:		
- 100bp increase in interest rates	-0.4	-6.4
- 10% decrease in the value of stocks and real estate	-0.8	-0.1
- 10% decrease in expenses	2.9	2.5
- 10% decrease in the lapse rate	16.3	13.6
- 5% decrease in mortality and morbidity	-2.1	1.2
- 100bp decrease in interest rates	5.1	5.0



## Reconciliation of the adjusted net asset value

Consolidated shareholders' equity for MAPFRE VIDA as at 31/12/2014 (IFRS)	1,625.5	
Unrealised gains (losses)	-120.7	
- of which: property	48.8	
- of which: financial assets	-169.5	
Donations and dividends	0.0	
Intangible assets	-634.6	
Commissions and other acquisition costs net of taxes	0.0	
Other	1.2	
Consolidated adjusted shareholders' equity for MAPFRE VIDA as at 31/12/14 <sup>(1)</sup>	871.4	
Minority interests	536.6	
Consolidated adjusted net asset value for MAPFRE VIDA as at 31/12/14 <sup>(1)</sup>	1,408.0	



## Share of the parent company in the EEV

	Parent company - MAPFRE VIDA	Minority interests
ANAV		
ANAV	871.4	536.6
NET PVIF <sup>(1)</sup>		
AGENTS' CHANNEL	852.1	0.0
BANK CHANNELS	514.1	510.7
TOTAL	1,366.2	510.7
TVFOGS		
AGENTS' CHANNEL	-51.9	0.0
BANK CHANNELS	-6.9	-6.9
TOTAL	-58.8	-6.9
EEV 2014	2,178.8	1,040.4



## Share of the parent company in the value added by new business

	Parent company - MAPFRE VIDA	Minority interests
Value added by new business		
AGENTS' CHANNEL	65.9	
BANK CHANNELS	58.4	58.0
2014 Value added by new business	124.4	58.0



### Breakdown of the EEV 2014 attributable to the parent company - MAPFRE VIDA

#### By line of business

#### € mill. △ % Adjusted Net Asset Value 871.4 40.0% 18.2% Net PVIF<sup>(1)</sup> - Life Assurance<sup>(2)</sup> 1,127.3 16.2% 51.7% - PVIF 1,327.9 15.5% (200.6)- CoC 11.6% Net PVIF<sup>(1)</sup> - Mutual Funds 128.5 5.9% -13.4% - PVIF 130.2 -13.1% (1.7)- CoC 6.3% Net PVIF<sup>(1)</sup> - Pension Funds -27.0% 110.4 5.1% - PVIF 121.1 -23.8% - CoC (10.7)39.0% 22.0% **TVFOGs** (58.8)-2.7% **EEV 2014** 2.178.8 11.2% 100.0%

#### By distribution channel

	€ mill.	%	△ %
Adjusted Net Asset Value	871.4	40.0%	18.2%
Net PVIF - Agents' channel	852.1	39.1%	3.3%
- PVIF	1,000.4		4.5%
- CoC	(148.3)		12.4%
Net PVIF - Bank channels	514.1	23.6%	15.6%
- PVIF	578.9		15.4%
- CoC	(64.8)		13.4%
TVFOGs	(58.8)	-2.7%	22.0%
EEV 2014	2,178.8	100.0%	11.2%

<sup>1)</sup> PVIF = "Present Value of In-Force business"



# Content

- EEV analysis
- Towers Watson opinion letter
- Methodological appendix
- Statistical appendix
- **5** Glossary



- The European Embedded Value Principles or "EEVP" are the principles that establish the methodology that must be applied in order to calculate the European Embedded Value. The EEVP 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 EEVP 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 "FOGs" 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 In-force Business or "PVIF" 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 euroswap curve. Investment returns for existing business have been calculated on the basis of the euroswap curve, except for existing fixed interest assets backing Life-Savings business, where book returns adjusted for credit risk based on historical transition matrices and defaults rates have been used. PVIF 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 EEV 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: PVIF Time Value of FOGs ("TVFOGs") CoC.
- The European Embedded Value or "EEV" is the embedded value calculated in accordance with "European Embedded Value Principles". EEV 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, TVFOGs and CoC, valued at year-end using the assumptions applicable at that point in time.



#### Disclaimer

This document is purely informative. Its content does not constitute, nor can it be interpreted as, an offer or an invitation to sell, exchange or buy, and it is not binding on the issuer in any way. The information about the plans of the Company, its evolution, its results and its dividends represents a simple forecast whose formulation does not represent a guarantee with respect to the future performance of the Company or the achievement of its targets or estimated results. The recipients of this information must be aware that the preparation of these forecasts is based on assumptions and estimates, which are subject to a high degree of uncertainty, and that, due to multiple factors, future results may differ materially from expected results. Among such factors, the following are worth highlighting: the development of the insurance market and the general economic situation of those countries where the Group operates; circumstances which may affect the competitiveness of insurance products and services; changes in the basis of calculation of mortality and morbidity tables which may affect the insurance activities of the Life and Health segments; frequency and severity of claims covered; effectiveness of the Groups reinsurance policies and fluctuations in the cost and availability of covers offered by third party reinsurers; changes in the legal environment; adverse legal actions; changes in monetary policy; variations in interest rates and exchange rates; fluctuations in liquidity and the value and profitability of assets which make up the investment portfolio; restrictions in the access to third party financing.

MAPFRE S.A. does not undertake to update or revise periodically the content of this document.