

# EMBEDDED VALUE REPORT AS AT 31 DECEMBER 2015



# CONTENTS

|           |  |           |
|-----------|--|-----------|
| <b>1.</b> | <b>Introduction .....</b>                                      | <b>3</b>  |
| 1.1       | <i>Covered business.....</i>                                   | 3         |
| 1.2       | <i>Discussions at CFO Forum level.....</i>                     | 4         |
| <b>2.</b> | <b>Results .....</b>   | <b>5</b>  |
| 2.1       | <i>Value of New business (VNB) as at 31 December 2015.....</i> | 5         |
| 2.2       | <i>MCEV<sup>®</sup> at 31 December 2015 .....</i>              | 6         |
| 2.3       | <i>Adjusted Net Asset Value .....</i>                          | 7         |
| 2.4       | <i>Sensitivities .....</i>                                     | 7         |
| 2.5       | <i>Group analysis of changes.....</i>                          | 8         |
| 2.6       | <i>Operating Free Cash Flow.....</i>                           | 10        |
| 2.7       | <i>Analysis of changes of Group Free Surplus .....</i>         | 11        |
| 2.8       | <i>IDR (Implied Discount Rate) .....</i>                       | 11        |
| <b>3.</b> | <b>Results detailed by geographic area.....</b>                | <b>12</b> |
| 3.1       | <i>VNB.....</i>  | 12        |
| 3.2       | <i>VIF.....</i>  | 14        |
| 3.3       | <i>Sensitivities .....</i>                                     | 15        |
| 3.4       | <i>Analysis of variances by geographic area .....</i>          | 16        |
| 3.5       | <i>Assumptions.....</i>  | 19        |
| 3.6       | <i>Tax rate .....</i>  | 21        |
| 3.7       | <i>Cost of capital for residual non-hedgeable risks.....</i>   | 21        |
| 3.8       | <i>Non-economic assumptions.....</i>                           | 21        |
| <b>4.</b> | <b>Methodology .....</b>                                       | <b>22</b> |
| 4.1       | <i>Adjusted Net Asset Value .....</i>                          | 22        |
| 4.2       | <i>Value of In-Force.....</i>                                  | 23        |
| 4.3       | <i>New Business Value .....</i>                                | 25        |
| 4.4       | <i>Sensitivities .....</i>                                     | 26        |
| <b>5.</b> | <b>MCEV<sup>®</sup> trend since 2009 .....</b>                 | <b>28</b> |
| 5.1       | <i>VNB history (in € M and APE ratio as a percentage).....</i> | 28        |
| 5.2       | <i>MCEV<sup>®</sup> history (in € M) .....</i>                 | 28        |
| <b>6.</b> | <b>Report on Embedded Value .....</b>                          | <b>29</b> |

## 1. Introduction

CNP Assurances Group (the “Group”) discloses the intrinsic value of its life insurance portfolios (“Embedded Value” or “EV”) at the end of each financial year and the Value of New Business (“VNB”) added during the year. Disclosed values are in line with European Insurance CFO Forum “Market Consistent Embedded Value Principles”<sup>1</sup> (“MCEV principles”<sup>1</sup> or “MCEV Standards”) which were launched by the CFO Forum in June 2008 and amended in October 2009, except for the valuation of Latin America, which remains based on a traditional Embedded Value method.

Embedded Value and VNB represent respectively the shareholders’ economic value of the existing business and of the new business added during the year. They are determined using a market-consistent valuation method of assets and liabilities. All calculations are made as Group’s share, net of reinsurance and external coinsurance. The different definitions related to the MCEV principles are mentioned in appendix.

This report presents the results, methods and assumptions used to calculate the Group’s Embedded Value as at 31 December 2015. These items have been externally reviewed by PwC and Mazars. Their opinion is included in section 6.

### 1.1 Covered business

The Group’s business is mainly concentrated on life assurance:

- Individual savings in euros and unit linked accounts
- Individual and collective retirement savings
- Individual and collective protection
- Credit insurance.

The covered business concerns all Group entities contributing significantly to the value on the three geographic areas in which Group entities operate: France, Latin America and Europe excluding France.

| Geographical area       | Countries     | Entities                      | Shares Owned         |
|-------------------------|---------------|-------------------------------|----------------------|
| France                  | France        | CNP Assurances                | Consolidating entity |
|                         |               | CNP Caution                   | 100%                 |
|                         |               | Préviposte                    | 100%                 |
|                         |               | ITV                           | 100%                 |
|                         |               | La Banque Postale Prévoyance  | 50%                  |
|                         |               | MFPrévoyance                  | 65%                  |
| Latin America           | Brazil        | Caixa Seguradora              | 51.75%               |
|                         | Argentina     | CNP Argentina                 | 76.47%               |
| Europe excluding France | Italy         | CNP Unicredit Vita            | 57.50%               |
|                         | Spain         | CNP Partners                  | 99.5%                |
|                         | Cyprus/Greece | CNP Cyprus Insurance Holdings | 50.10%               |
|                         | Ireland       | CNP Santander Insurance       | 51%                  |

The main changes in the covered business as at 2015 are:

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- The disposal of CNP BVP: in accordance with the press release published on 22 December 2014 and with the agreement of the competition authorities and Spain's insurance regulator, the Group sold its 50% holding in the Spanish company CNP BVP (CNP Barclays Vida y Pensiones) for a total amount of €453M, including exceptional dividends in April 2015. The value of BVP is no longer included in the MCEV<sup>®</sup> as at 31 December 2015;
- The integration of CNP Santander: following the announcement on the 10<sup>th</sup> July 2015 of a strategic agreement with the Banco Santander Group, after obtaining the necessary regulatory approvals, the Group finalised the acquisition of 51% of Santander Consumer Finance's life and non-life insurance subsidiaries and the conclusion of an exclusive long term distribution agreement for all protection insurance products in 10 European countries. This new entity was included in the covered business as at 1<sup>st</sup> January 2015.

Not covered entities have been valued on the basis of their IFRS equity.

## *1.2 Discussions at CFO Forum level*

The Solvency 2 directive came into effect on the 1<sup>st</sup> January 2016. The CFO Forum had not issued particular requirements for the MCEV<sup>®</sup> publication as at the end of 2015. Nevertheless it is possible to use the methods required by the new prudential regulation, in particular as regards reference interest rates curve used.

In 2015, the Group initiated discussions on changes to be applied to the Embedded Value calculations in a Solvency 2 environment. In that regard, an additional sensitivity has been performed on the required capital. The methodology retained as at the end of 2015 is detailed in the report.

## 2. Results

### 2.1 Value of New business (VNB) as at 31 December 2015

| MCEV© Standards |  | 2015       |             | 2014       |             | Change    |              |
|-----------------|--|------------|-------------|------------|-------------|-----------|--------------|
|                 |  | €m         | € per share | €m         | € per share | €m        | %            |
| PVFP            | Present Value of Future Profits              | 779        | 1.1         | 764        | 1.1         | 15        | 2.0%         |
| TVOG            | Time Value of Options and Guarantees         | -195       | -0.3        | -247       | -0.4        | 52        | -21.0%       |
| FCRC            | Frictional Costs of Required Capital         | -44        | -0.1        | -47        | -0.1        | 4         | -7.8%        |
| CNHR            | Costs of Non-Hedgeable Risks                 | -77        | -0.1        | -58        | -0.1        | -19       | 32.9%        |
| <b>VNB</b>      | <b>Value of New Business</b>                 | <b>463</b> | <b>0.7</b>  | <b>412</b> | <b>0.6</b>  | <b>52</b> | <b>12.6%</b> |
| APE             | APE (Annual Premium Equivalent) <sup>3</sup> | 3,195      |             | 2,998      |             | 197       | 6.6%         |
| VAP             | PVNBP <sup>4</sup>                           | 27,741     |             | 26,513     |             | 1,228     | 4.6%         |
| Ratio APE       | APE ratio                                    | 14.5%      | 0.0%        | 13.7%      | 0.0%        | 0.8%      | 5.6%         |
| Ratio VAP       | PVNBP ratio                                  | 1.7%       | 0.0%        | 1.6%       | 0.0%        | 0.1%      | 7.6%         |

<sup>2</sup> Number of actions as at 31/12/2014 and 31/12/2015 : 686 618 477

<sup>3</sup> APE, a sales volume indicator, equals to one tenth of the sum of single premiums and flexible premiums written during a given year plus the annualized amount of regular premiums written during that same year.

<sup>4</sup> PVNBP is the present value of new business premiums.

The 2015 Group's VNB is €463M, 12.6% higher than in 2014 (€412M following the marginal methodology and €357M following the stand alone methodology). Most of the increase in VNB comes from France and Europe excluding France:

- In France, it is mainly explained by the increase in unit-linked savings products (+3 pts) and an increase in credit insurance (+42%);
- In Europe excluding France, it is explained by the inclusion of CNP Santander and the good performance of the Italian business with the increase in unit-linked savings as well as the increase in profitability of euro-savings products.

The Group's APE (Annual Premium Equivalent) ratio increases by 5.6% and is equal to 14.5% in 2015 vs 13.7% in 2014.

Detailed changes by geographic area are presented in section 3.1.2. of the report.

The following table gives a detailed analysis of the main changes in the value of new business:

| MCEV© standards - €m                  | VNB        | Change    | APE Ratio    |
|---------------------------------------|------------|-----------|--------------|
| <b>Value of New Business 2014</b>     | <b>412</b> |           | <b>13.7%</b> |
| Updated model                         | 377        | -34       | 12.7%        |
| Change in the APE volume              | 416        | 39        | 12.7%        |
| Change in the product mix             | 492        | 76        | 15.0%        |
| Change in the experience              | 599        | 107       | 18.2%        |
| Change in financial market conditions | 498        | -101      | 15.1%        |
| Updated taxation                      | 489        | -10       | 14.8%        |
| Change in the foreign exchange rate   | 463        | -25       | 14.5%        |
| <b>Value of New Business 2015</b>     | <b>463</b> | <b>52</b> | <b>14.5%</b> |

The "updated model" mainly contains a change in the methodology of the reference interest rates curve that includes a "credit risk adjustment" and a "volatility adjustment", in order to be compliant with the Solvency 2 standards.

The change in the product mix is mainly explained by French business, with an increased sales on distribution networks and products having higher profitability, as well as by the decrease in sales of products with guaranteed rates.

The change in economic assumptions resulted in a €89M decrease in the VNB of France. This decrease is concentrated on the savings and pension lines of business. The widening of the spreads and the new asset allocation have a negative impact on the return of new investments.

The credit spread gap as well as the new asset allocation had a negative impact on the new investment returns taken into account in the value of new business (money investment without capital gains).

The average exchange rate for Brazil for 2015 was 3.7038 BRL/€ against 4.3117 BRL/€ spot rate for the end of December. The method applied for 2015 VNB uses an average exchange rate for the year instead of a spot exchange rate as at the date of valuation. The impact of this methodology change on the 2014 VNB is €4M (the average exchange rate in 2014 was 3.1211 BRL/€ against 3.2207 BRL/€ for the closure rate) and €20M on the 2015 VNB.

## 2.2 MCEV<sup>®</sup> at 31 December 2015

| MCEV <sup>®</sup> Standards                                | MCEV 2015<br>before payment of 2015<br>dividends |                          | MCEV 2014<br>after payment of 2014<br>dividends |                          | Change<br>before payment of 2015<br>dividends |            | MCEV 2014<br>before payment of 2014<br>dividends |                          |
|--|--|--------------------------|---|--------------------------|---|------------|--|--------------------------|
|  | €m   | € per share <sup>2</sup> | €m  | € per share <sup>2</sup> | €m  | %          | €m   | € per share <sup>2</sup> |
| <b>ANAV – Adjusted Net Asset Value</b>                     | <b>12,558</b>                                    | <b>18.3</b>              | <b>11,121</b>                                   | <b>16.2</b>              | <b>1,437</b>                                  | <b>13%</b> | <b>11,649</b>                                    | <b>17.0</b>              |
| Required Capital   | 6,722  | 9.8                      | 7,766   | 11.3                     | -1,044  | -13%       | 7,766  | 11.3                     |
| Free Surplus   | 5,836  | 8.5                      | 3,355   | 4.9                      | 2,481   | 74%        | 3,883  | 5.7                      |
| <b>VIF – Value of In Force</b>                             | <b>6,685</b>                                     | <b>9.7</b>               | <b>5,881</b>                                    | <b>8.6</b>               | <b>804</b>                                    | <b>14%</b> | <b>5,881</b>                                     | <b>8.6</b>               |
| Present Value of Future Profits                            | 11,206   | 16.3                     | 10,376  | 15.1                     | 830   | 8%         | 10,376   | 15.1                     |
| Time Value of Options and Guarantees                       | -2,960   | -4.3                     | -3,040  | -4.4                     | 80  | -3%        | -3,040   | -4.4                     |
| Frictional Costs of Required Capital                       | -811   | -1.2                     | -896  | -1.3                     | 85  | -9%        | -896   | -1.3                     |
| Costs of Non-Hedgeable Risks                               | -750   | -1.1                     | -559  | -0.8                     | -191  | 34%        | -559   | -0.8                     |
| <b>MCEV<sup>®</sup> - Market Consistent Embedded Value</b> | <b>19,243</b>                                    | <b>28.0</b>              | <b>17,001</b>                                   | <b>24.8</b>              | <b>2,242</b>                                  | <b>13%</b> | <b>17,530</b>                                    | <b>25.5</b>              |

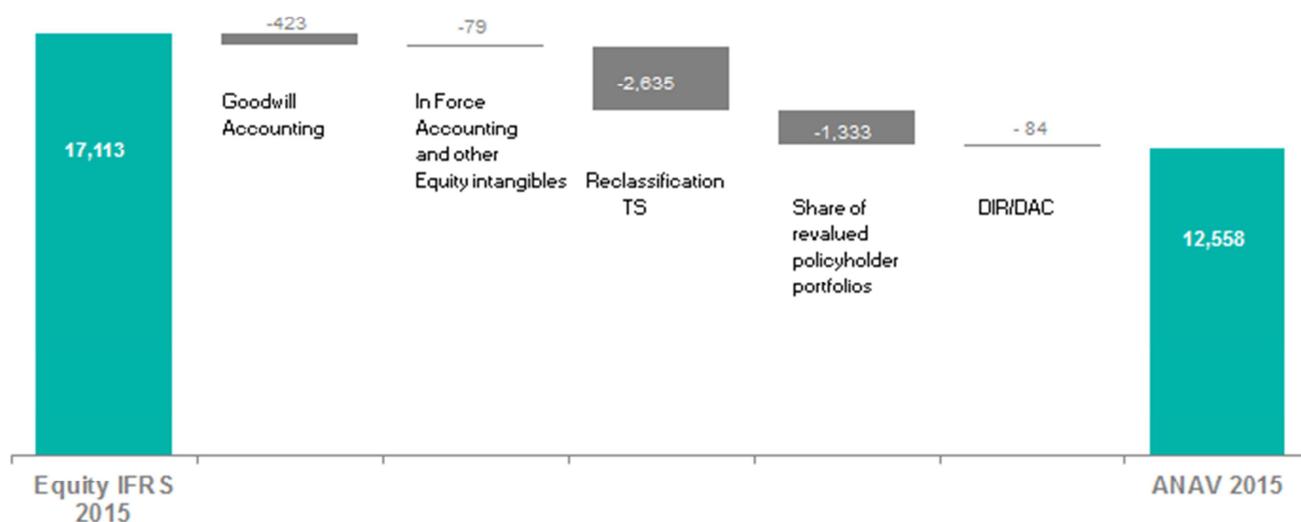
(2) Number of shares as at 31/12/2014 and 31/12/2015: 686 618 477.

The Group's 2015 Embedded Value amounted to €19,243M, €2,242M higher compared to the 2014 Embedded Value after dividends (i.e. 13% higher compared to 2014). This change comes from a 14% increase in the VIF and a 13% increase in the ANAV.

A detailed analysis of the main factors underlying the changes is provided in the following sections. Section 3.2 in particular gives a breakdown of the Embedded Value by geographic area.

## 2.3 Adjusted Net Asset Value

The ANAV can be reconciled with IFRS shareholders' equity as described in section 4.1. The following graph shows the reconciliation between the IFRS shareholders' equity and the ANAV as at 31 December 2015 (€M):



## 2.4 Sensitivities

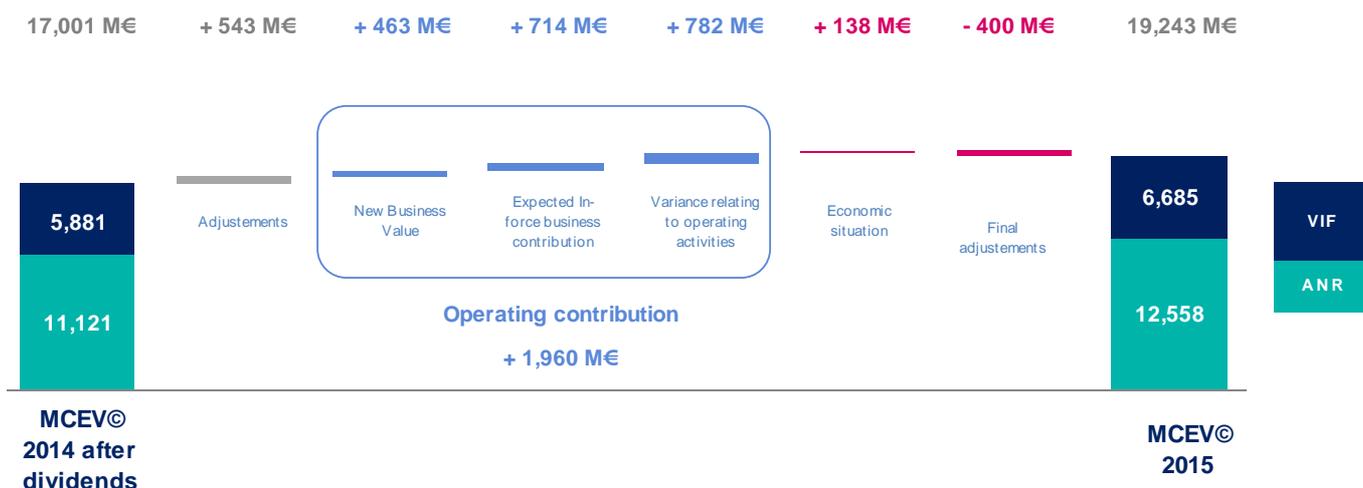
The sensitivities required by the MCEV© principles are presented below, together with an additional sensitivity on the required capital :

| MCEV© standards   | ANAV<br>€m    | VIF<br>€m    | MCEV<br>€m    | VNB<br>€m  |
|---|---------------|--------------|---------------|------------|
| <b>MCEV - Market Consistent Embedded Value</b>              | <b>12,558</b> | <b>6,685</b> | <b>19,243</b> | <b>463</b> |
| +100 bp change p.a. in the interest rate environment        | -416          | 1,386        | 970           | 74         |
| - 100 bp change p.a. in the interest rate environment       | 411           | -1,900       | -1,489        | -142       |
| +10 bp change in the VA                                     |               | 234          | 234           | 34         |
| VA = 0  |               | -598         | -598          | -52        |
| 10% decrease in equity/property capital values              | -377          | -809         | -1,185        |            |
| 10% proportionate decrease in lapse rates                   |               | 218          | 218           | 29         |
| 10% decrease in maintenance expenses                        |               | 382          | 382           | 29         |
| Required Capital equal to regulatory solvency margin        |               | 73           | 73            | 6          |
| Required Capital equal to S2 solvency margin <sup>(a)</sup> |               | 138          | 138           | 8          |
| Claims rates - 5% - Risk of longevity                       |               | -106         | -106          | -1         |
| Claims rates - 5% - Risk of mortality & disability          |               | 188          | 188           | 69         |
| 25% increase in swaption implied volatilities               |               | -201         | -201          | -27        |
| 25% increase in equity/property implied volatilities        |               | -686         | -686          | -18        |

(a) Additional sensibility included at 31/12/2015

The method for determining sensitivities is detailed in section 4.4 of the report

## 2.5 Group analysis of changes



The following table gives an analysis of changes distinguishing the VIF and the ANAV which itself is broken down into the Required Capital and the Free Surplus:

| MCEV© standards - €M  | ANAV          | Free Surplus | Required Capital | VIF          | MCEV          |
|---|---------------|--------------|------------------|--------------|---------------|
| <b>MCEV 2014</b>  | <b>11,649</b> | <b>3,883</b> | <b>7,766</b>     | <b>5,881</b> | <b>17,530</b> |
| Opening adjustments   | -175          | 16           | -191             | 189          | 15            |
| <b>Adjusted MCEV 2014</b>                                   | <b>11,474</b> | <b>3,899</b> | <b>7,575</b>     | <b>6,070</b> | <b>17,544</b> |
| New business value  | -38           | -779         | 740              | 502          | 463           |
| Expected existing business contribution                     | 79            | 79           | 0                | 635          | 714           |
| Transfers from the VIF and required capital to free surplus | 1,036         | 1,705        | -669             | -1,036       | 0             |
| Experience variances  | -8            | -50          | 42               | 618          | 610           |
| Changes in assumptions relating to operating activities     | 0             | 0            | 0                | 95           | 95            |
| Other operating variance                                    | 0             | 750          | -750             | 77           | 77            |
| <b>Operating MCEV Earnings</b>                              | <b>1,069</b>  | <b>1,706</b> | <b>-637</b>      | <b>891</b>   | <b>1,960</b>  |
| Economic variances  | 212           | 369          | -157             | -73          | 140           |
| Other non-operating variance                                | 27            | 16           | 11               | -28          | -1            |
| <b>Total MCEV earnings</b>                                  | <b>1,308</b>  | <b>2,091</b> | <b>-783</b>      | <b>790</b>   | <b>2,098</b>  |
| Closing adjustments   | -225          | -155         | -70              | -175         | -400          |
| <b>MCEV 2015</b>  | <b>12,558</b> | <b>5,836</b> | <b>6,722</b>     | <b>6,685</b> | <b>19,243</b> |

Key events in the financial year are:

- renewal of the BPCE agreements;
- implementation of a partnership with AG2R La Mondiale in France, with no impact on the value;
- inclusion of CNP IAM business in CNP Assurances and CNP Caution;
- removal of regulatory uncertainty as to the revaluation at the minimum guaranteed rates of future payments;
- inclusion of CNP Santander in the opening value of Europe excluding France;
- disposal of BVP in Europe excluding France;
- inclusion of CNP Argentina in the opening value of Latin America.

The agreements with LBP have not been taken into account in the 2015 Embedded Value.

The initial adjustments affect the ANAV (-€175M) mainly because of the payment of 2014 dividends (-€528M) and the inclusion of CNP Santander. The positive adjustment on the VIF (€189M) is mainly due to restated items in French model.

The value of new business contributed €463M to the change in the EV. This value includes the 2015 new business strain amounting to -€38M. The increase in Required Capital relative to this new production amounts to €740M.

The contribution from the in-force contracts (€714M) results from the effect of moving forward on the VIF (+€635M) and the projected return on the Free Surplus (+€79M). In addition, the 2015 projected surplus arising from the VIF as at 31 December 2014 is transferred to the ANAV with no effect on the EV.

Effects of deviations during the period impact the VIF for an amount of €618M and mainly come from the increases in technical reserves and surplus reserves which were unanticipated in the 2014 projections. These additional reserves improve the future margins and reduce the time value of financial options and guarantees.

Change in prospective non-economic assumptions led to an increase of the VIF by €95M. Other non-operating variance corresponds to the issuance of subordinated debt for an amount of €750M.

Changes in the economic environment cover:

- the effects of the disposal of BVP
- an increase in the discount rate in Latin America
- an increase in the unrecognized gains on assets, with an impact on both the ANAV and the VIF.

The final adjustments mainly correspond to the changes in the exchange rates.

A detailed analysis by geographic area is provided in section 3.4.

## 2.6 Operating Free Cash Flow

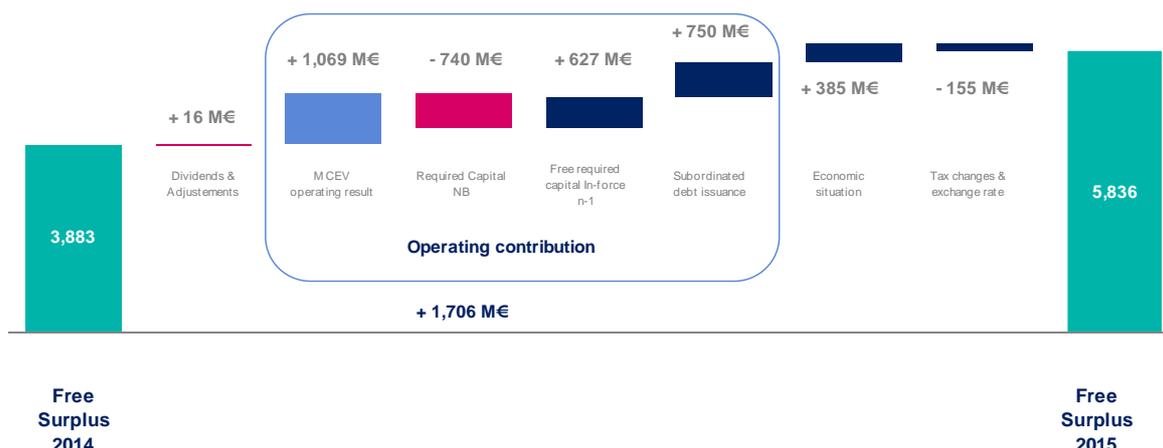
The “Operating Free Cash-Flow” indicator, or Cash flow available from operational activities, shows the Group’s ability to pay its dividends and grow by selling new business or through external growth operations.

| - €m -                                      | Group<br>2014 | Group<br>2015 |
|---|---------------|---------------|
| VIF transfers to Free Surplus               | 1,103         | 1,036         |
| Financial income from Free Surplus          | 74            | 79            |
| Release of required capital to Free Surplus | 820           | 669           |
| Experience variances                        | 703           | 700           |
| <b>Expected contribution of In-Force</b>    | <b>2,700</b>  | <b>2,485</b>  |
| Capital required for new business           | -787          | -740          |
| Earnings attributable to new business       | -31           | -38           |
| <b>Capital required for new business</b>    | <b>-818</b>   | <b>-779</b>   |
| <b>Operating Free Cash Flow</b>             | <b>1,882</b>  | <b>1,706</b>  |
| <i>of which subordinated debt</i>           | <i>1,000</i>  | <i>750</i>    |

The Operating Free Cash Flow has slightly decreased at €1,706M, or €955M excluding subordinated debt funding capital.

| - €m - 2015                                 | Group        | France       | Latin<br>America | Europe<br>excluding<br>France |
|---|--------------|--------------|------------------|-------------------------------|
| VIF transfers to Free Surplus               | 1,036        | 804          | 176              | 55                            |
| Financial income from Free Surplus          | 79           | 44           | 28               | 8                             |
| Release of required capital to Free Surplus | 669          | 598          | 35               | 37                            |
| Experience variances                        | 700          | 653          | 43               | 4                             |
| <b>Expected contribution of In-Force</b>    | <b>2,485</b> | <b>2,099</b> | <b>281</b>       | <b>104</b>                    |
| Capital required for new business           | -740         | -592         | -64              | -84                           |
| Earnings attributable to new business       | -38          | -24          | 9                | -23                           |
| <b>Capital required for new business</b>    | <b>-779</b>  | <b>-616</b>  | <b>-54</b>       | <b>-108</b>                   |
| <b>Operating Free Cash Flow</b>             | <b>1,706</b> | <b>1,483</b> | <b>227</b>       | <b>-4</b>                     |

## 2.7 Analysis of changes of Group Free Surplus



Free Surplus amounts to €5,836M and is €1,953M higher than in 2014. The opening adjustment (+€16M) mainly consists of:

- the payment of dividends;
- the consolidation of CNP Santander;
- the recognition of the ceded part of BPCE in-force business.

The operational contribution amounts to +€1,706M:

- 2015 operational result of €1,069M;
- change in required capital of €113M consisting in an allocation of €740M linked to new business and a release of capital of €627M on the in-force portfolio as at 31 December 2014;
- the issuance of subordinated debt for an amount of € 750M.

The economic contribution is +€385M and is mainly due to the ANAV capital gains increase.

The final adjustment is mainly due to the effects from the exchange rate.

## 2.8 IDR (Implied Discount Rate)

The IDR comes to 5.6% for the Group as at 31 December 2015 against 6.02% as at 31 December 2014. As at 31 December 2015, the IDR was calculated on the basis of a spread of 0 bps on the reference rate curve and a spread of 20 bps on corporate bonds. Equity and property have a risk premium of 310 bps and 230 bps respectively (the same as at 31 December 2014).

### 3. Results detailed by geographic area

This section presents an analysis of the main indicators and main reasons for change by geographic area.

#### 3.1 VNB

##### 3.1.1 APE volume

| - €m -                      | Group         | France        | Latin America | Europe excluding France |
|-----------------------------|---------------|---------------|---------------|-------------------------|
| <b>IFRS 2015 Revenue</b>    | <b>31,434</b> | <b>24,777</b> | <b>3,226</b>  | <b>3,431</b>            |
| IFRS 2014 Revenue           | 30,733        | 24,503        | 2,874         | 3,356                   |
| Revenue progression rate    | 2.3%          | 1.1%          | 12.3%         | 2.2%                    |
| <b>APE 2015</b>             | <b>3,195</b>  | <b>2,369</b>  | <b>529</b>    | <b>297</b>              |
| APE 2014                    | 2,998         | 2,311         | 441           | 245                     |
| APE evolution rate          | 6.6%          | 2.5%          | 19.9%         | 21.0%                   |
| <b>PVNBP 2015</b>           | <b>27,741</b> | <b>23,421</b> | <b>2,086</b>  | <b>2,234</b>            |
| PVNBP 2014                  | 26,513        | 22,754        | 1,841         | 1,918                   |
| Evolution rate of the PVNBP | 4.6%          | 2.9%          | 13.3%         | 16.5%                   |

- **France**

The APE volume in France (€2,369M), up by 2.5% compared to 2014, is explained by an increase in written premium on credit insurance (+42%), unit-linked savings (+16%) and pension (+60%). Written premiums on euro-savings policies decrease with an APE volume down 6%. APE of risk products decreases to 11%.

- **Latin America**

Latin America covers the activities of the Caixa Seguradora Group and CNP Argentina. Volumes of premium increase significantly (APE +37% at constant exchange rate) with an increase in pension activity and a decrease in credit insurance.

- **Europe excluding France**

Europe excluding France covers the activities of CNP Unicredit Vita, CNP Santander, CNP Partners and CNP Cyprus Insurance Holdings. Written premium increased significantly and amount to €297M (APE +21%), headed by CNP Unicredit Vita with an increase in unit-linked savings products and CNP Santander which is consolidated for 2015. At constant perimeter, the APE comes to €273M.

### 3.1.2 VNB

|                                       | Group      |              | France     |              | Latin America |              | Europe excluding France |              |
|---------------------------------------|------------|--------------|------------|--------------|---------------|--------------|-------------------------|--------------|
|                                       | VAN        | Ratio APE    | VAN        | Ratio APE    | VAN           | Ratio APE    | VAN                     | Ratio APE    |
| <b>Value of New Business 2014</b>     | <b>412</b> | <b>13.7%</b> | <b>256</b> | <b>11.1%</b> | <b>142</b>    | <b>32.1%</b> | <b>14</b>               | <b>5.8%</b>  |
| Updated model                         | 377        | 12.7%        | 208        | 9.2%         | 150           | 31.4%        | 19                      | 7.8%         |
| Change in the APE volume              | 416        | 12.7%        | 218        | 9.2%         | 196           | 31.4%        | 23                      | 7.8%         |
| Change in the product mix             | 492        | 15.0%        | 288        | 12.2%        | 153           | 24.5%        | 51                      | 17.1%        |
| Change in the experience              | 599        | 18.2%        | 360        | 15.2%        | 181           | 28.9%        | 58                      | 19.6%        |
| Change in financial market conditions | 498        | 15.1%        | 271        | 11.4%        | 173           | 27.6%        | 54                      | 18.4%        |
| Updated taxation                      | 489        | 14.8%        | 271        | 11.4%        | 163           | 26.1%        | 54                      | 18.4%        |
| Change in the foreign exchange rate   | 463        | 14.5%        | 271        | 11.4%        | 138           | 26.1%        | 54                      | 18.3%        |
| <b>Value of New Business 2015</b>     | <b>463</b> | <b>14.5%</b> | <b>271</b> | <b>11.4%</b> | <b>138</b>    | <b>26.1%</b> | <b>54</b>               | <b>18.3%</b> |
| <b>Evolution</b>                      | <b>52</b>  | <b>0.8%</b>  | <b>15</b>  | <b>0.4%</b>  | <b>-4</b>     | <b>-6.0%</b> | <b>40</b>               | <b>12.6%</b> |

- **France**

With an APE ratio of 11.4%, France benefits from a more favourable change in written premium on distribution networks and products with better margins as well as a fall in minimum guaranteed rates. The VNB France saw its product mix improve in 2015, the rise in written premium on unit-linked products together with higher volumes on credit insurance. The change in experience were favourable in 2015 and resulted in a 3pts increase in the APE ratio. The unfavourable situation with financial markets is the main reason for the decrease of €89M in the VAN and the 3.8 pts fall in the APE ratio.

- **Latin America**

The Group decided to use an average exchange rate for the VNB in 2015. Establishing a value for new business in 2014 with the same methodology would have given a result of € 118M instead of € 138M. The VNB for Latin America (€138M) is 3% down at the current exchange rate but up 8% at constant exchange rate because of strong pension business. The APE ratio is lower because of the combined effects of higher taxation in Brazil, the rise in discount rates and an increase in costs for some lines of business.

- **Europe excluding France**

The VNB in Europe excluding France increases significantly compared to 2014, at €54M. The increase is mainly due to the inclusion of CNP Santander and its credit insurance business, to substantial sales of unit-linked savings products in Italy and to improved profitability of euro-savings products in Italy (at constant perimeter, the value of new business rose from €14M to €25M due to the strong performance of Italy). The APE ratio is up 5.8% at 18.3% for the same reasons.

The following table gives a breakdown of indicators on VNB by geographic area:

| MCEV© Standards |                                      | Group       | France      | Latin America | Europe excluding France |
|-----------------|--------------------------------------|-------------|-------------|---------------|-------------------------|
| 2015            | Present Value of Future Profits      | 779         | 573         | 147           | 59                      |
|                 | Time Value of Options and Guarantees | -195        | -193        | 0             | -1                      |
|                 | Frictional Costs of Required Capital | -44         | -34         | -9            | -1                      |
|                 | Costs of Non-Hedgeable Risks         | -77         | -75         | 0             | -2                      |
|                 | <b>Value of New Business</b>         | <b>463</b>  | <b>271</b>  | <b>138</b>    | <b>54</b>               |
|                 | APE                                  | 3,195       | 2,369       | 529           | 297                     |
|                 | PVNB                                 | 27,741      | 23,421      | 2,086         | 2,234                   |
|                 | VNB/APE Ratio                        | 14.5%       | 11.4%       | 26.1%         | 18.3%                   |
| 2014            | Present Value of Future Profits      | 764         | 586         | 152           | 26                      |
|                 | Time Value of Options and Guarantees | -247        | -241        | 0             | -6                      |
|                 | Frictional Costs of Required Capital | -47         | -34         | -11           | -2                      |
|                 | Costs of Non-Hedgeable Risks         | -58         | -54         | 0             | -4                      |
|                 | <b>Value of New Business</b>         | <b>412</b>  | <b>256</b>  | <b>142</b>    | <b>14</b>               |
|                 | APE                                  | 2,998       | 2,311       | 441           | 245                     |
|                 | PVNB                                 | 26,513      | 22,754      | 1,841         | 1,918                   |
|                 | VNB/APE Ratio                        | 13.7%       | 11.1%       | 32.1%         | 5.8%                    |
| Evolution       | <b>VNB</b>                           | <b>52</b>   | <b>15</b>   | <b>-4</b>     | <b>40</b>               |
|                 | APE                                  | 197         | 58          | 88            | 52                      |
|                 | PVNB                                 | 1,228       | 667         | 245           | 316                     |
|                 | VNB                                  | 12.6%       | 5.9%        | -2.6%         | 286.0%                  |
|                 | <b>VNB / APE Ratio</b>               | <b>0.8%</b> | <b>0.4%</b> | <b>-6.0%</b>  | <b>12.6%</b>            |
|                 | VNB / PVNB Ratio                     | 0.1%        | 0.0%        | -1.1%         | 1.7%                    |

### 3.1.3 Duration

The following table gives the durations of new business by geographic area:

|                    | Group | France | Latin America | Europe excluding France |
|--------------------|-------|--------|---------------|-------------------------|
| Savings & Pensions | 13.1  | 13.6   | 4.9           | 5.8                     |
| Risk & Protection  | 9.4   | 10.9   | 3.4           | 3.0                     |

### 3.2 VIF

The following table gives a breakdown of In-Force values by geographic area:

| MCEV© Standards |                                      | Group  |             | France |             | Latin America |             | Europe excluding France |             |
|-----------------|--------------------------------------|--------|-------------|--------|-------------|---------------|-------------|-------------------------|-------------|
|                 |                                      | €m     | € per share | €m     | € per share | €m            | € per share | €m                      | € per share |
| MCEV 2015       | <b>Value of In-Force</b>             | 6,685  | 9.7         | 5,916  | 8.6         | 543           | 0.8         | 225                     | 0.3         |
|                 | Present Value of Future Profits      | 11,206 | 16.3        | 10,368 | 15.1        | 587           | 0.9         | 252                     | 0.4         |
|                 | Time Value of Options and Guarantees | -2,960 | -4.3        | -2,951 | -4.3        | 0             | 0.0         | -10                     | 0.0         |
|                 | Frictional Costs of Required Capital | -811   | -1.2        | -762   | -1.1        | -44           | -0.1        | -5                      | 0.0         |
|                 | Costs of Non-Hedgeable Risks         | -750   | -1.1        | -738   | -1.1        | 0             | 0.0         | -12                     | 0.0         |
| MCEV 2014       | <b>Value of In-Force</b>             | 5,881  | 8.6         | 5,005  | 7.3         | 628           | 0.9         | 248                     | 0.4         |
|                 | Present Value of Future Profits      | 10,376 | 15.1        | 9,420  | 13.7        | 666           | 1.0         | 290                     | 0.4         |
|                 | Time Value of Options and Guarantees | -3,040 | -4.4        | -3,019 | -4.4        | 0             | 0.0         | -22                     | 0.0         |
|                 | Frictional Costs of Required Capital | -896   | -1.3        | -852   | -1.2        | -38           | -0.1        | -6                      | 0.0         |
|                 | Costs of Non-Hedgeable Risks         | -559   | -0.8        | -544   | -0.8        | 0             | 0.0         | -15                     | 0.0         |
| Change          | M€                                   | 804    | 1.2         | 911    | 1.3         | -85           | -0.1        | -22                     | 0.0         |
|                 | %                                    | 13.7%  | 13.7%       | 18.2%  | 18.2%       | -13.5%        | -13.5%      | -9.0%                   | -9.0%       |

The Group's VIF (€6,685M), which is up 13.7% compared to 2014, benefiting from the effects of restatement in France on Euro-savings, and operational effects due to the change in technical reserves and surplus reserves in France.

### 3.3 Sensitivities

#### 3.3.1 VIF sensitivities

| MCEV© Standards                                       | Group        | France       | Latin America | Europe excluding France |
|---|--------------|--------------|---------------|-------------------------|
| <b>MCEV 2015</b>                                      | <b>6,685</b> | <b>5,916</b> | <b>543</b>    | <b>225</b>              |
| +100 bp change p.a. in the interest rate environment  | 1,386        | 1,366        | 2             | 17                      |
| - 100 bp change p.a. in the interest rate environment | -1,900       | -1,877       | -3            | -21                     |
| +10 bp change in the VA                               | 234          | 230          | 0             | 5                       |
| VA = 0  | -598         | -585         | 0             | -13                     |
| 10% decrease in equity/property capital values        | -809         | -797         | 0             | -11                     |
| 10% proportionate decrease in lapse rates             | 218          | 190          | 22            | 6                       |
| 10% decrease in maintenance expenses                  | 382          | 365          | 7             | 10                      |
| Required Capital equal to regulatory solvency margin  | 73           | 72           | 0             | 0                       |
| Required Capital equal to S2 solvency margin          | 138          | 156          | -18           | 0                       |
| Claims rates - 5% - Risk of longevity                 | -106         | -103         | 0             | -3                      |
| Claims rates - 5% - Risk of mortality & disability    | 188          | 159          | 22            | 7                       |
| 25% increase in swaption implied volatilities         | -201         | -202         | 0             | 1                       |
| 25% increase in equity/property implied volatilities  | -686         | -682         | 0             | -3                      |

#### 3.3.2 VNB sensitivities

| MCEV© Standards                                       | Group      | France     | Latin America | Europe excluding France |
|---|------------|------------|---------------|-------------------------|
| <b>VNB 2015</b>                                       | <b>463</b> | <b>271</b> | <b>138</b>    | <b>54</b>               |
| +100 bp change p.a. in the interest rate environment  | 74         | 64         | 1             | 9                       |
| - 100 bp change p.a. in the interest rate environment | -142       | -132       | -1            | -9                      |
| +10 bp change in the VA                               | 34         | 33         | 0             | 0                       |
| VA = 0  | -52        | -51        | 0             | -1                      |
| 10% proportionate decrease in lapse rates             | 29         | 20         | 9             | 1                       |
| 10% decrease in maintenance expenses                  | 29         | 25         | 2             | 2                       |
| Required Capital equal to regulatory solvency margin  | 6          | 6          | 0             | 0                       |
| Required Capital equal to S2 solvency margin          | 8          | 12         | -4            | 0                       |
| Claims rates - 5% - Risk of longevity                 | -1         | -2         | 0             | 0                       |
| Claims rates - 5% - Risk of mortality & disability    | 69         | 60         | 5             | 4                       |
| 25% increase in swaption implied volatilities         | -27        | -25        | 0             | -1                      |
| 25% increase in equity/property implied volatilities  | -18        | -17        | 0             | -1                      |

### 3.4 Analysis of variances by geographic area

- France

| MCEV© standards - €M  | ANAV          | Free Surplus | Required Capital | VIF          | MCEV          |
|---|---------------|--------------|------------------|--------------|---------------|
| <b>MCEV 2014</b>  | <b>10,161</b> | <b>2,906</b> | <b>7,255</b>     | <b>5,005</b> | <b>15,166</b> |
| Opening adjustments   | -116          | 131          | -247             | 163          | 46            |
| <b>Adjusted MCEV 2014</b>                                   | <b>10,045</b> | <b>3,037</b> | <b>7,008</b>     | <b>5,167</b> | <b>15,212</b> |
| New business value  | -24           | -616         | 592              | 295          | 271           |
| Expected existing business contribution                     | 44            | 44           | 0                | 512          | 556           |
| Transfers from the VIF and required capital to free surplus | 804           | 1,402        | -598             | -804         | 0             |
| Experience variances  | -60           | -97          | 37               | 569          | 509           |
| Changes in assumptions relating to operating activities     | 0             | 0            | 0                | 68           | 68            |
| Other operating variance                                    | 0             | 750          | -750             | 77           | 77            |
| <b>Operating MCEV Earnings</b>                              | <b>764</b>    | <b>1,483</b> | <b>-719</b>      | <b>718</b>   | <b>1,482</b>  |
| Economic variances  | 418           | 525          | -107             | 31           | 449           |
| Other non-operating variance                                | 21            | 21           | 0                | 0            | 21            |
| <b>Total MCEV earnings</b>                                  | <b>1,203</b>  | <b>2,029</b> | <b>-826</b>      | <b>749</b>   | <b>1,952</b>  |
| Closing adjustments   | -47           | -47          | 0                | 0            | -47           |
| <b>MCEV 2015</b>  | <b>11,201</b> | <b>5,019</b> | <b>6,182</b>     | <b>5,916</b> | <b>17,117</b> |

The EV for France increased by €1,952M from 2014 to 2015.

The initial adjustments affect the net asset value (-€116M) because of the payment of 2014 dividends (-€311M) and adjustments on the consolidation of CNP Santander (+€194M). The Required Capital is actually down subsequent to recognition of the disposal of BPCE in-force business.

The positive adjustment on the VIF (+€163M) is mainly due to improvements in the model for euro-savings products. The VNB contribution to the change in the EV is of +€271M. This value incorporates the new business strain generated in 2015 for -€24M. The related increase in Required Capital comes to €592M.

The contribution from the in-force business (+€556M) results from the effect of moving forward on the VIF (+€512M) and on the Free Surplus (+€44M). In addition, the 2015 projected surplus arising from the VIF as at 31 December 2014 is transferred to the ANAV with no effect on the EV.

Effects of deviations during the period impact the VIF for an amount of €569M and mainly come from the increases in technical reserves and surplus reserves which were unanticipated in the 2014 projections. These additional reserves improve the future margins and reduce the time value of financial options and guarantees.

Change in prospective non-economic assumptions led to increase of the VIF by €68M. Other non-operating variance corresponds to the issuance of subordinated debt for an amount of €750M.

Changes in the economic environment lead to an increase in the unrecognized gains on assets, with an impact both on the ANAV and the VIF.

The final adjustment is mainly due to the currency movements on the revaluation of intangible assets.

- Latin America

| MCEV© standards - €M  | ANAV       | Free Surplus | Required Capital | VIF        | MCEV         |
|---|------------|--------------|------------------|------------|--------------|
| <b>MCEV 2014</b>  | <b>820</b> | <b>594</b>   | <b>227</b>       | <b>628</b> | <b>1,448</b> |
| Opening adjustments   | -184       | -210         | 27               | 27         | -157         |
| <b>Adjusted MCEV 2014</b>                                   | <b>636</b> | <b>383</b>   | <b>253</b>       | <b>655</b> | <b>1,291</b> |
| New business value  | 9          | -54          | 64               | 129        | 138          |
| Expected existing business contribution                     | 28         | 28           | 0                | 108        | 135          |
| Transfers from the VIF and required capital to free surplus | 176        | 211          | -35              | -176       | 0            |
| Experience variances  | 51         | 43           | 8                | 43         | 94           |
| Changes in assumptions relating to operating activities     | 0          | 0            | 0                | 12         | 12           |
| Other operating variance                                    | 0          | 0            | 0                | 0          | 0            |
| <b>Operating MCEV Earnings</b>                              | <b>263</b> | <b>227</b>   | <b>36</b>        | <b>116</b> | <b>380</b>   |
| Economic variances  | -60        | -60          | 0                | -24        | -84          |
| Other non-operating variance                                | 13         | 2            | 11               | -28        | -15          |
| <b>Total MCEV earnings</b>                                  | <b>216</b> | <b>168</b>   | <b>48</b>        | <b>64</b>  | <b>280</b>   |
|   | 0          | 0            | 0                | 0          | 0            |
| Closing adjustments   | -178       | -108         | -70              | -175       | -353         |
| <b>MCEV 2015</b>  | <b>675</b> | <b>444</b>   | <b>231</b>       | <b>543</b> | <b>1,218</b> |

The EV for Latin America decreased by €230M from 2014 to 2015.

The initial adjustments affect the net asset value (-€184M) because of the payment of 2014 dividends (-€199M) and the consolidation of the Argentine subsidiary (€15M). The adjustment to Required Capital comes from recognition of the local solvency requirements in addition to the level of the Group requirement (+€16M) and the inclusion of the Argentine subsidiary (+€8M).

The positive adjustment on the VIF (+€27M) is mainly due to restated items, including in particular the modelling of the effective waiving by insured parties of their rights on a provision for Caixa Capitalização policies (+€16M) and the inclusion of the Argentine subsidiary (+€10M).

The value of new business contributes an amount of +€138M to the change in the EV. This value includes the new business strain generated in 2015 for +€9M. The increase in Required Capital relative to this new business comes to €64M.

The contribution from the in-force business (+€138M) results from the effect of moving forward on the VIF (+€108M) and on the Free Surplus (+€28M). In addition, the 2015 projected surplus arising from the VIF as at 31 December 2014 is transferred to the ANAV with no effect on the EV.

Effects of deviations during the period impact the VIF for an amount of €43M and mainly come from the overhaul of underlying databases. Recent experience has led the Caixa Seguradora Group to review certain assumptions linked to operational activity, such as expense assumptions and surrender assumptions generating an overall impact of +€12M.

The other changes, particularly the increase in discount rates and tax, resulted in 2015 in a €100M decrease in the MCEV©.

The final adjustments are mainly due to currency movements.

- **Europe excluding France**

| Normes MCEV© - M€  | ANR         | Free surplus | Capital requis | VIF        | MCEV         |
|--|-------------|--------------|----------------|------------|--------------|
| <b>MCEV 2014</b>   | <b>668</b>  | <b>384</b>   | <b>284</b>     | <b>248</b> | <b>916</b>   |
| Ajustements initiaux   | 125         | 96           | 29             | 0          | 126          |
| <b>MCEV 2014 ajustée</b>                                       | <b>793</b>  | <b>480</b>   | <b>313</b>     | <b>248</b> | <b>1 041</b> |
| Contribution de la nouvelle production                         | -23         | -108         | 84             | 78         | 54           |
| Contribution du stock de contrats                              | 8           | 8            | 0              | 15         | 23           |
| Transferts de la VIF et du capital requis vers le free surplus | 55          | 92           | -37            | -55        | 0            |
| Ecarts constatés liés à l'activité opérationnelle              | 2           | 4            | -2             | 5          | 7            |
| Changements d'hypothèses liées à l'activité opérationnelle     | 0           | 0            | 0              | 14         | 14           |
| Autres mouvements liés à l'activité opérationnelle             | 0           | 0            | 0              | 0          | 0            |
| <b>Contribution de l'activité opérationnelle</b>               | <b>41</b>   | <b>-4</b>    | <b>45</b>      | <b>57</b>  | <b>99</b>    |
| Mouvements liés à l'évolution de la conjoncture économique     | -145        | -95          | -50            | -80        | -225         |
| Autres mouvements non liés à l'activité opérationnelle         | -7          | -7           | 0              | 0          | -7           |
| <b>Total MCEV earnings</b>                                     | <b>-111</b> | <b>-106</b>  | <b>-4</b>      | <b>-22</b> | <b>-133</b>  |
| Ajustements finaux   | 0           | 0            | 0              | 0          | 0            |
| <b>MCEV 2015</b>   | <b>683</b>  | <b>374</b>   | <b>309</b>     | <b>225</b> | <b>908</b>   |

The MCEV© comes to €908M in 2015, against €916M in 2014.

Initial adjustments mostly affect the adjusted net asset value (+€125M), as the VIF remain stable:

- For the ANAV, they are mainly due to the inclusion of CNP Santander (+€87M), the increase in capital and the CNP Partners' share (+€55M) as well as the payment of dividends in Italy (-€11M) and Cyprus (-€5M)
- For the VIF, the CNP Santander valuation (+€18M) offsets the negative adjustments in Spain (-€11M) and Italy (-€6M), mainly due to improvement in the projection model and the inclusion of the new method of constructing the rate curve

The contribution from new production comes to €54M, headed by Ireland and Italy. The result from new business is negative by -€23M (including -€26M on Italy because of commissions) and needs an additional €84M in required capital.

The contribution from the in-force business is positive on the VIF (€15M), one year real world projection over 2015 leads to an increase of the profitability in the pension segment in Spain. The runoff of VIF leads to a release of €37M of required capital and a transfer of €55M to the adjusted net asset value, mainly due to Italian and CNP Santander contracts.

Effects of deviations are linked to the improvement in lapse rates on the "€ Savings" segment in Spain. The updating of lapse assumptions in Spain and the mortality assumptions on the Credit insurance business in Italy offsets the increase in expenses in the Spanish entity.

Economic variances are mainly due to the disposal of BVP in accordance with the French retreatment. This has a negative impact on ANR (-€131M). Variation linked to own funds unrealized gains are negative (-€14M), mainly in

Spain. VIF decreased to €80M due to the disposal of BVP (-€91M), partially offset by a decrease in TVOG (+€11M). The compensation of BVP disposal is taken into account in the French area.

### 3.5 Assumptions

#### 3.5.1 Financial assumptions

The Embedded Value calculations are based on economic conditions as at 31 December 2015.

#### 3.5.2 Reference curve

| Maturity                                   | Swap rate<br>31/12/14 | Swap rate<br>31/12/15 |
|--|-----------------------|-----------------------|
| 1  | 0.16%                 | 0.06%                 |
| 2  | 0.18%                 | 0.09%                 |
| 5  | 0.36%                 | 0.45%                 |
| 10   | 0.83%                 | 1.14%                 |
| 15   | 1.18%                 | 1.56%                 |
| 20   | 1.38%                 | 1.75%                 |
| 30   | 2.01%                 | 2.27%                 |
| <b>Ultimate forward rate</b>               | 4.20%                 | 4.20%                 |
| <b>Point of entry of the extrapolation</b> | 20 years              | 20 years              |

The data used for all Group subsidiaries in the Eurozone to describe the initial state of the reference rates curve is taken from the smoothed and zero-coupon swap rate curve. The extrapolation method was adjusted in 2013 to be consistent with the approach currently developed in the Solvency 2 framework. The rate curve is extrapolated with a point of entry at 20 years converging over 40 years according to the Smith-Wilson technique towards an ultimate forward rate of 4.2%.

As allowed by MCEV<sup>®</sup> Principles, the reference interest rate curve is the swap rate curve plus a “credit risk adjustment” plus a “volatility adjustment” in order to be aligned with Solvency 2.

| Adjustments | 2015   |
|-------------|--------|
| CRA         | 10 bps |
| VA          | 22 bps |

#### 3.5.3 Calibration of the interest rate model

The economic scenario generator used for nominal rates is based on the Libor Market Model Plus (LMM+) with two factors. The at-the-money swaption market volatilities adopted for the calibration are as follows:

| Terms                        | 1 year | 2 years | 5 years | 10 years | 20 years |
|------------------------------|--------|---------|---------|----------|----------|
| MCEV <sup>®</sup> 31/12/2014 | 43.5%  | 41.2%   | 36.0%   | 32.5%    | 28.4%    |
| MCEV <sup>®</sup> 31/12/2015 | 52.5%  | 47.9%   | 38.4%   | 33.8%    | 42.4%    |

The real interest rates are generated using the Vasicek model with two factors, which has been calibrated on treasury inflation-linked bonds. The scenarios coming from the ESG have been modified in order to avoid any possibility of negative interest rate. As a consequence, the statistical tests performed on the scenarios are slightly weakened.

### 3.5.4 Calibration of the share model

A different level of volatility for each projection term between 1 and 10 years was used to generate the share index (deterministic volatility model). The resulting levels are given in the table below.

The volatility parameters are calibrated using implicit at-the-money forward volatilities on the Eurostoxx 50 index at 31 December 2015.

| Maturity         | 1 year | 2 years | 5 years | 10 years | 20 years |
|------------------|--------|---------|---------|----------|----------|
| MCEV© 31/12/2014 | 20.7%  | 20.8%   | 20.7%   | 20.8%    | 21.4%    |
| MCEV© 31/12/2015 | 21.4%  | 21.6%   | 21.6%   | 21.6%    | 22.0%    |

The correlation coefficient between the various factors (share, actual rates and nominal rates) is determined by Barrie & Hibbert on the basis of econometric tests and expert opinion. Likewise, property volatility is fixed at 12.77%.

### 3.5.5 Calibration of the corporate credit spread model

The Group adopted the Credit G2 (JLT) corporate credit spread model. Its parameters are calibrated so as to reproduce the spread of an A-rated bond maturing in 7 years (90bps at 31 December 2015) with the following historic transition matrix:

|                                 |         | Rating at the end of the period |       |       |       |       |       |       |         |
|---------------------------------|---------|---------------------------------|-------|-------|-------|-------|-------|-------|---------|
|                                 |         | AAA                             | AA    | A     | BBB   | BB    | B     | CCC   | Default |
| Rating at the end of the period | AAA     | 94.1%                           | 5.7%  | 0.2%  | 0.0%  | 0.0%  | 0.0%  | 0.0%  | 0.0%    |
|                                 | AA      | 2.3%                            | 89.5% | 7.1%  | 0.4%  | 0.3%  | 0.2%  | 0.0%  | 0.1%    |
|                                 | A       | 1.6%                            | 3.2%  | 89.4% | 4.8%  | 0.4%  | 0.4%  | 0.0%  | 0.2%    |
|                                 | BBB     | 1.5%                            | 1.5%  | 5.2%  | 88.3% | 1.9%  | 0.5%  | 0.5%  | 0.4%    |
|                                 | BB      | 0.1%                            | 0.6%  | 1.3%  | 6.7%  | 82.4% | 6.8%  | 0.6%  | 1.7%    |
|                                 | B       | 0.0%                            | 0.1%  | 1.3%  | 1.9%  | 6.3%  | 81.0% | 5.3%  | 4.2%    |
|                                 | CCC     | 0.0%                            | 0.0%  | 1.1%  | 1.4%  | 2.5%  | 8.6%  | 73.9% | 12.4%   |
|                                 | Default | 0.0%                            | 0.0%  | 0.0%  | 0.0%  | 0.0%  | 0.0%  | 0.0%  | 100.0%  |

### 3.5.6 Financial assumptions for Brazil

|                 |          | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  | Post 2020 |
|-----------------|----------|-------|-------|-------|-------|-------|-------|-----------|
| Discount rates  | MCEV© 14 | 14.0% | 13.5% | 12.9% | 12.5% | 11.9% | 11.9% | 11.9%     |
| Yield on assets |          | 12.5% | 11.7% | 10.6% | 10.0% | 9.0%  | 9.0%  | 9.0%      |
| Inflation       |          | 6.5%  | 5.7%  | 5.5%  | 5.5%  | 4.5%  | 4.5%  | 4.5%      |
| Risk premium    |          | 6.5%  | 6.5%  | 6.5%  | 6.5%  | 6.5%  | 6.5%  | 6.5%      |
| Discount rates  | MCEV© 15 | 15.7% | 16.2% | 14.6% | 14.6% | 14.3% | 14.6% | 14.6%     |
| Yield on assets |          | 13.6% | 14.4% | 12.2% | 11.0% | 10.6% | 10.3% | 10.0%     |
| Inflation       |          | 10.4% | 6.7%  | 5.2%  | 5.0%  | 4.8%  | 5.0%  | 5.0%      |
| Risk premium    |          | YY%       |

The average exchange rate for Brazil for 2015 was 3.7038 BRL/€ against 4.3117 BRL/€ spot rate for the end of December. The method used for 2015 uses an average exchange rate for the year instead of a spot exchange rate as at the date of valuation. The impact of this methodology change on the 2014 VNB is €4M (the average exchange rate in 2014 was 3.1211 BRL/€ against 3.2207 BRL/€ for the closure rate) and €20M on the 2015 VNB.

### **3.6 Tax rate**

The tax rate used to calculate Embedded Value is the standard corporate tax rate applied in countries where the CNP Assurances Group operates:

|                  | France | Italy | Spain | Cyprus | Brazil           | Argentina | Ireland |
|------------------|--------|-------|-------|--------|------------------|-----------|---------|
| MCEV© 31/12/2014 | 38.0%  | 34.3% | 30.0% | 12.5%  | 40.0%            | 35.0%     | 12.5%   |
| MCEV© 31/12/2015 | 34.43% | 34.3% | 25.0% | 12.5%  | 40% <sup>6</sup> | 35.0%     | 12.5%   |

<sup>6</sup> Exceptional surcharge of 5% on tax paid until 2018, afterwards the tax rate is back to 40%. With the exception of CAIXA Consorcios, for which the tax rate has been maintained at 34%

The tax credits observed in France that reduce the standard corporate tax rate are valued elsewhere.

### **3.7 Cost of capital for residual non-hedgeable risks**

A rate of 5% is applied to the capital relating to non-modelled and asymmetrical risks. The capital allocated for uncertainty in assumptions is subject to the frictional costs of holding that capital.

The average rate applied to the capital was 2.7% as at 31 December 2015 (2.5% as at 31 December 2014).

### **3.8 Non-economic assumptions**

#### **3.8.1 Expenses**

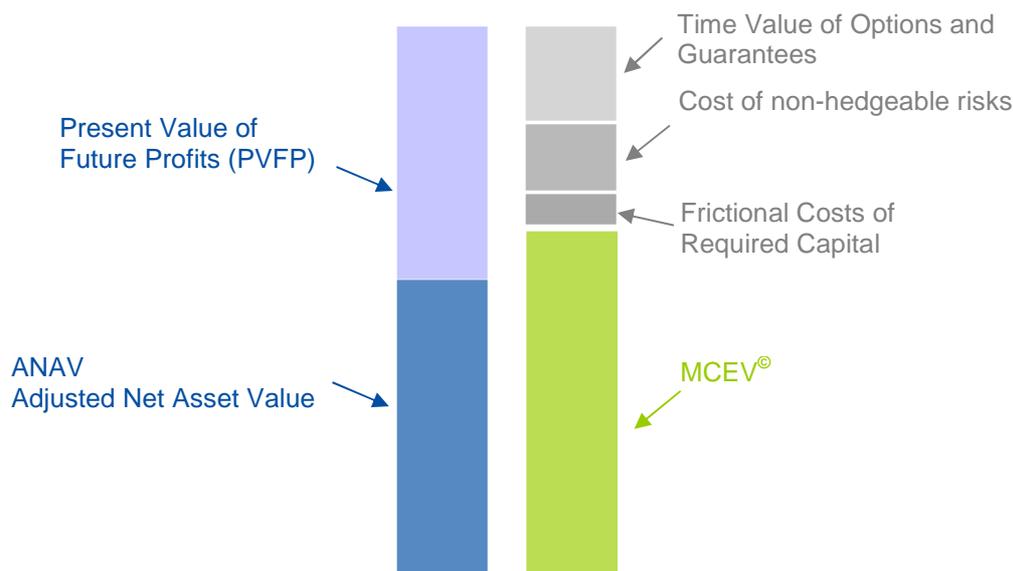
At each year-end closing, CNP Assurances carries out a functional cost analysis: acquisition, management, claims, investment costs and other technical and non-technical expenses, as well as a breakdown by company, product group and network.

An annual inflation rate of 1% is applied to unit costs for most of the European entities.

#### **3.8.2 Claims and persistency assumptions**

The non-economic assumptions, the experienced mortality and morbidity, the lapse rates and claim rate assumptions are determined by each entity on the basis of their best estimate at the date of valuation. They stem from an analysis of current and past experience observed in each valued portfolio.

## 4. Methodology



The Embedded Value is the consolidated value of shareholders' interests generated by the portfolio's insurance activities as of the date of measurement. It is measured before dividends and related taxes are paid out. This value does not take into account future New Business. The methodology adopted by the Group is based on the MCEV<sup>®</sup> calculation standards as set out in "The European Insurance CFO Forum Market Consistent Embedded Value Principles" launched in June 2008 and amended in October 2009. This chapter details the principles adopted by the Group.

### 4.1 Adjusted Net Asset Value

The Adjusted Net Asset Value (ANAV) reflects the market value of the assets not backing insurance liabilities after deduction of intangible assets, subordinated liabilities, other liabilities and other elements used to measure In-Force business.

The ANAV is calculated on the basis of IFRS equity after restating the following elements:

- elimination of intangible assets such as goodwill and distribution agreements, book in-force values and deferred acquisition costs (except the part backing insurance liabilities);
- deduction of unrealized capital gains and losses accounted for in the IFRS framework already accounted for in the VIF;
- addition of shareholders' interest in unrealized gains not accounted for in the IFRS Framework (property and held-to-maturity securities);
- and the reclassification of subordinated debt.

Analytically, the ANAV is determined as the consolidated group share at the date of valuation and it breaks down into Required Capital and Free Surplus.

#### 4.1.1 Required Capital

The Required Capital is the market value of assets, attributed to the covered business over and above that required to back liabilities for covered business, whose distribution to shareholders is restricted.

Required Capital is the level of capital a company sets itself to achieve a targeted credit rating and to control its own risks. The capital level set by the Group to manage its risk equals 110% of the regulatory solvency margin requirement (Solvency I standard) net of all other sources of funding such as subordinated debt. Subordinated debt covers 56.1% (average for the Group) of the CNP Assurances entity's solvency requirement as of 31/12/2015.

The interest paid on subordinated debt is explicitly taken into account in the VIF. The retained approach is based on the methodology presented in the final advice "CEIOPS' Advice for Level 2 Implementing Measures on Solvency II: Valuation of Assets and "Other Liabilities". It consists in using a valuation of subordinated debt based on the spread at issuance and the exact features of the debt. The cost of subordinated debt for the VNB has been set to zero.

The use of a Solvency 2 Required capital for the purpose of EV calculations will be considered as at 31 December 2016. However, the Group has already produced a sensitivity analysis based on the Solvency 2 required capital as at 31 December 2015.

#### **4.1.2 Free Surplus**

The Free Surplus is the market value of any assets allocated to, but not required to support in-force covered business at the valuation date.

### **4.2 Value of In-Force**

#### **4.2.1 Present Value of Future Profits (PVFP)**

The PVFP is the present value of future profits net of tax generated by in-force policies at the valuation date. PVFP is calculated using a Market Consistent methodology except for Latin America, for which the traditional methodology is maintained. The PVFP takes into account the intrinsic value of financial options and guarantees in the portfolio, their time value being accounted for separately in the TVOG to determine the VIF.

The MCEV<sup>®</sup> principles allow for adjustments to the reference interest rate curve. The Group has chosen to comply with the requirements of Solvency 2 and a the reference interest rate curve is based on the swap rate curve plus a "credit risk adjustment" plus a "volatility adjustment". No "matching adjustment" has been considered.

#### **4.2.2 Frictional Costs of Required Capital**

The need to back Required Capital for covered business entails allocating a frictional cost to the Embedded Value and to New Business Value. In a Market Consistent model, the frictional cost reflects the taxation and investment costs on assets backing Required Capital.

The frictional cost of Required Capital takes also into account the cost of financing a portion of Required Capital with subordinated debt; this cost is calculated as the difference between the economic value and the face value of subordinated debt. The CNP Assurances group defines this economic value as the net present value of the future cash flows paid to the debt's holders, based on a discount rate which takes into account every security's spread at inception. For New Business, Required Capital is assumed to be financed by subordinated debt to the same extent as for In-Force; this financing is ensured by newly issued subordinated debt, whose economic value is equal to the face value.

#### **4.2.3 Time Value of Options and Guarantees**

The main options and guarantees include:

- minimum guaranteed interest rate;
- profit sharing option;

- guaranteed annuity option;
- guaranteed minimum death benefits;
- guarantee of technical rate for annuity business and guaranteed acquisition premium associated with the L.441 contract portfolio;
- guarantee on the surrender values, surrender option.

The time value of financial options and guarantees (TVOG) is generated by the asymmetric nature of the distribution of profits between the shareholders and the insured according to the different movements of financial markets. Broadly speaking, a financial loss is fully incurred by the shareholders, whereas financial gains are shared out in accordance with regulatory and contractual profit-sharing rules. On the basis of multiple simulations, the use of stochastic calculations covers all possible trends in financial markets and therefore captures the cost associated with unfavorable market deviations.

#### **Method for calculating risk-neutral valuation**

Valuation implements a stochastic model based on a risk-neutral approach. This approach defines the price of an asset as the expectancy of present value of future cash flows discounted at the risk-free rate. The scenarios are taken from the generator developed by Barrie & Hibbert. This generates 1,000 scenarios that forecast:

- The trend on equities indexes;
- Changes in a property index;
- The real rates curve for full maturities between 1 and 50 years;
- The nominal rates curve for full maturities between 1 and 50 years;
- The corporate credit spreads curves (credit ratings AAA to CCC) for full maturities between 1 and 50 years.

Inflation is obtained as the difference between actual and nominal rates. Share and property dividend rates (set at 2.5%) are assumed to be constant.

The techniques the Group uses to calibrate this economic scenarios generator are described in the "Assumptions" section of this report.

In addition, the projection model includes a dynamic surrender component, which factors in the tendency of insured parties to surrender their contracts when their return underperforms compared with a market reference.

Given the economic and financial context in Brazil, the CNP Assurances group has opted for a traditional valuation method for its Brazilian subsidiary Caixa Seguradora. This approach is motivated by the lack of market parameters needed for a valuation consistent with the principles of the CFO Forum. Moreover, the activities of Caixa Seguradora mainly consist in hedging insurance risks; the financial options are considered marginal at Group level.

#### **4.2.4 Costs of residual non-hedgeable risks**

In accordance with principles 6 and 9 of the CFO Forum, a cost must be allocated for non-hedgeable financial and non-financial risks. This cost results from:

- risks not measured in the PVFP or in the TVOG;
- the asymmetrical effect of some non-hedgeable risks on the value;
- the underlying uncertainty inherent in "Best Estimate" assumptions for non-hedgeable risks.

CNP Assurances uses a cost-of-capital approach to measure residual non hedgeable risks. The capital allocated for these risks is the capitalization target CNP Assurances must achieve to comfortably absorb exceptional shocks, not included in other respects in the TVOG and the PVFP. It thus equals the level of capital required to reduce the probability of ruin to 0.5% within a one-year time frame on each of the specified risks.

- Risks not modelled in the TVOG and PFVP

The following is a list of non-valued risks:

- default risk;
- concentration risk;
- operational risk;
- catastrophe risk.

- Asymmetrical Risks

The asymmetrical nature associated with the sharing of risk by insured parties and shareholders, depending on various trends in non-financial parameters, generates a cost that must be factored into the valuation of the portfolio. The asymmetrical impact of the mortality/longevity/morbidity risk is the result of contracts that include profit sharing clauses containing a component that is based on the technical outcome.

- Uncertainty

Embedded Value calculations are based on several so-called "best estimate" assumptions: claims rate, surrender, expenses.

## **4.3 *New Business Value***

### **4.3.1 Definition of New Business**

The projections used to estimate the value of one year's New Business are based on the profile of the business and the volume of premiums written during 2015.

- Individual euro-savings and unit-linked savings

New business is defined as the business generated from the sale of new contracts and in some cases increases to existing contracts during the reported period. Without an assumption of premium recurrence over the periodic premiums, the later payments are considered as unique premiums.

- Group retirement savings:

The New Business volumes include new policies and ad hoc single premium contributions on existing contracts.

- Individual risk:

New Business only includes new policies. Future regular premiums on existing contracts are included in the Value of In-Force.

- Collective risk:

The already written premium that will be earned during the coming year are taken into account.

- Credit Life insurance:

New Business only includes new policies. Future regular premiums on existing contracts are included in the Value of In-Force.

### 4.3.2 Methodology

The approach used to value the New Business is identical to the one used for the valuation of the In-Force. The value of New Business is the present value of projected profits of policies written during the year less the frictional costs of required capital, the time value of financial options and guarantees and the cost of residual non-hedgeable risks.

The New Business value is based on projected cash flows from the date of issue. The economic assumptions are based on prevailing market conditions at 31 December 2015.

Two main approaches exist for determining the NBV:

- The “stand alone” approach: the NBV is calculated by considering the New Business premiums are invested in new assets available at valuation date according to the acquisition strategy defined during the year;
- the “marginal” approach: the NBV is calculated by considering that assets backing existing and new business liabilities cannot be differentiated. A fraction of the unrealized gains and losses on pre-existing assets is used in the calculation of the NBV.

The “marginal” approach is used for euro-savings portfolios in France, Italy and Spain. The “standalone” approach is used for the other portfolios.

### 4.3.3 APE (Annual Premium Equivalent)

The APE, a business volume indicator, equals one tenth of the sum of single premiums and flexible premiums written during a given year plus the annualized amount of regular premiums written during that same year. Unlike IFRS revenue, the APE revenue generated through New Business is defined as the Group share of written premiums net of reinsurance and co-insurance.

## 4.4 Sensitivities

The published sensitivities correspond to the sensitivities required by the CFO Forum standards:

- Rates curve +/- 100 bp:

This sensitivity corresponds to a parallel shift in the swap rates curve of plus or minus 100 bp (with a floor value of 0%). This among other things entails:

- a revaluation of the market value of bonds;
- a 100 bp adjustment of the reinvestment rate of all asset classes;
- an updated of the discount rates.

The impact on the initial mathematical provision for unit-linked business is not valued.

Given the low level of risk-free Eurozone rates at 31 December 2014 on initial maturities, the parallel translation for the falling 100 bps sensitivity is not fully adhered to on the whole curve. In that case the CFO Forum recommends using a floor value of 0% (see Guidance 17.8.1 in the MCEV<sup>®</sup> principles amended in October 2009). Furthermore, the UFR is not checked.

- Equities -10%:

This sensitivity measures the impact that an immediate 10% fall in equity and property indexes would have on the value. This shock implies a 10% fall in the market value of equities and property assets, as well as a decrease in the mathematical provisions of unit-linked business by the proportion invested in equity and property.

- Surrenders -10%:

This sensitivity measures the impact of a 10% decrease in total and partial surrender rates.

- Costs -10%:

This sensitivity measures the impact of a 10% drop in all expenses: acquisition, management, claims and overheads costs.

- Claims rate -5%:

This sensitivity measures the impact of a decrease in the claims rate: incidence rates, loss ratios, disability rates, and mortality rates are reduced proportionately by 5%. The risks of longevity and mortality/disability are measured separately.

- Swaption implied volatility +25% / Equity implied volatility +25%:

This sensitivity measures the impact of a 25% increase in the volatility of interest rates and equities on the time value of financial options and guarantees.

- Required Capital:

This sensitivity consists in defining a required capital equal to the regulatory solvency margin assuming the proportion of subordinated debt remains constant, and in measuring the impact of this change on the value.

- Volatility adjustment (VA) +10 bp:

This sensitivity measures the impact of 10 bp increase on volatility adjustment.

- Volatility adjustment (VA) = 0 :

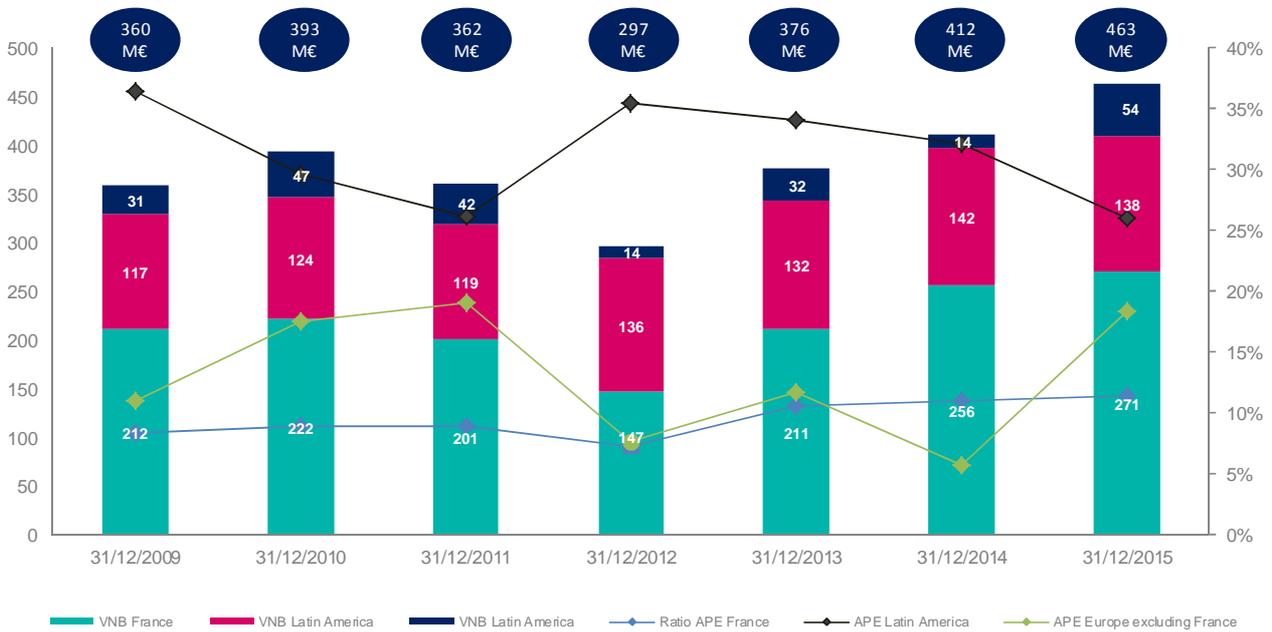
This sensitivity measures the impact of volatility adjustment equal to zero.

- Solvency 2 Required Capital :

This sensitivity measures the impact of a Required Capital based on Solvency 2.

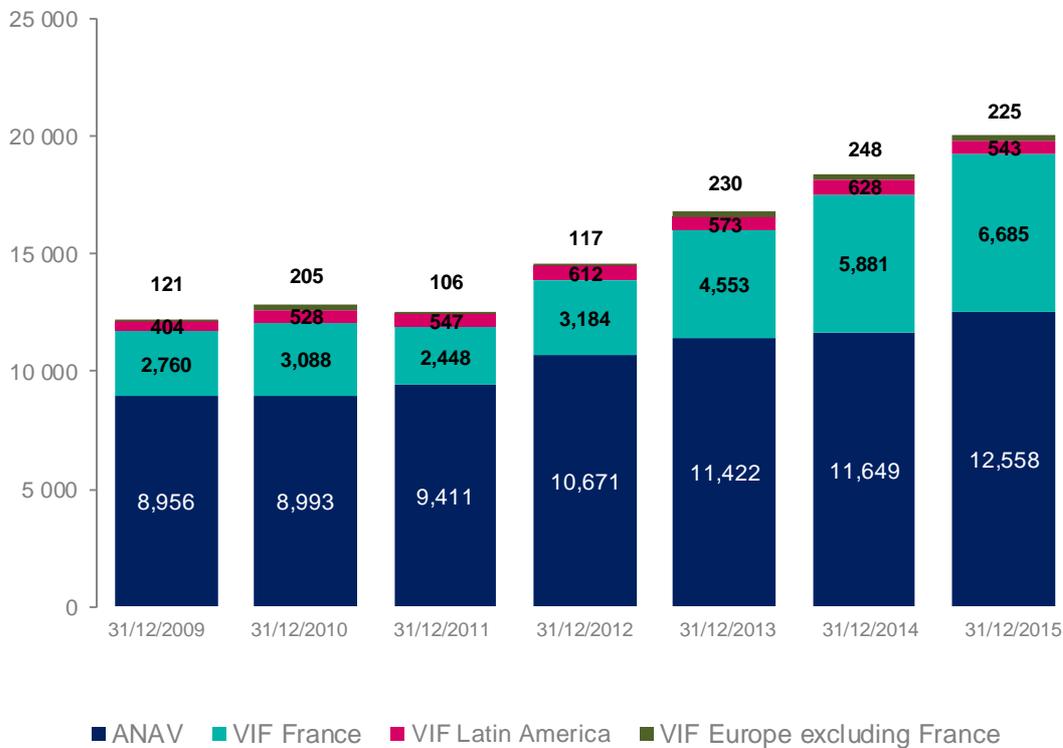
## 5. MCEV<sup>®</sup> trend since 2009

### 5.1 VNB history (in €M and APE ratio as a percentage)



The VNB history, prepared in accordance with the CFO Forum principles, shows the resilience of the CNP Assurances group's MCEV<sup>®</sup> over time. Since 2014, the value of new business has benefitted from pooling of the value of the policies in stock, through use of the marginal method.

### 5.2 MCEV<sup>®</sup> history (in €M)



The MCEV<sup>®</sup> history, prepared in accordance with the principles of CFO Forum, shows the resilience of the CNP Assurances Group's MCEV<sup>®</sup> to various shocks.

## *6. Report on Embedded Value*

To the Group Financial Director of CNP Assurances

As Statutory Auditors of CNP Assurances and in accordance with your request, we have examined the Market Consistent Embedded Value (MCEV<sup>©</sup>) information regarding MCEV<sup>©</sup> and its components, the value of new business, the analysis of movements in MCEV<sup>©</sup> and MCEV<sup>©</sup> sensitivities (hereinafter referred to as “the MCEV<sup>©</sup> Information”) at 31 December 2015 of the CNP Assurances Group, presented in the attached document (“Embedded Value Report at 31 December 2015”, hereinafter referred to as “the EV Report”).

The MCEV<sup>©</sup> Information and the underlying assumptions upon which the information relies have been established under the responsibility of management. The methods and significant assumptions adopted are detailed in the EV Report. We are required, based on our work, to express a conclusion on the consistency of the results of the MCEV<sup>©</sup> Information with the methodology and assumptions adopted by management, with the MCEV<sup>©</sup> principles, with the guidance published by the CFO Forum in October 2009 and with the additional guidance issued in October 2015, as well as on the consistency of the accounting information used with the consolidated financial statements as at 31 December 2015.

Our work, which does not constitute an audit, has been performed in accordance with professional standards, and aims to form a conclusion based on appropriate procedures.

Our work included the following procedures:

- Understanding the process used by management to prepare the MCEV<sup>©</sup> Information;
- Reviewing the “market consistent” approach used by management and described in the EV Report, with regards to its consistency with the MCEV<sup>©</sup> principles and guidance published by the CFO Forum;
- Reviewing the consistency of the methodology applied with that described in the EV Report;
- Reviewing the economic assumptions used and their consistency with observable market data;
- Reviewing the consistency of the operational assumptions used with regards to past, current and expected future experience;
- Checking the consistency of the results presented in the MCEV<sup>©</sup> Information with the methodology and assumptions described in the EV Report;
- Checking the consistency of the accounting information and other relevant underlying data used in preparing the MCEV<sup>©</sup> Information with the annual financial statements and underlying accounting records at 31 December 2015;
- Obtaining the information and explanations deemed necessary to deliver our conclusion.

We note that the Embedded Value calculation is based on a number of assumptions and thus by nature includes an element of uncertainty. As a result, actual outcomes may differ significantly from those expected in the MCEV<sup>©</sup> Information. We do not express any conclusion relating to the possibility of such outcomes.

With respect to Caixa Seguros, we note that the Embedded Value has been calculated using a traditional approach, under which the risks are measured by adding a risk premium to the discount rate. Regarding the partnership with BPCE, the final agreements, effective in 2016, have been taken into account in the Embedded Value at end 2015. Regarding the partnership with LBP, we note that the final agreements have not been taken into account in the Embedded Value at end 2015 since they were concluded after the end of the reporting period.

We also note that our opinion does not cover the sensitivity to Required Capital, in anticipation of the application of Solvency II at 1 January 2016, as presented in the EV Report.

Based on our work, we do not have any observations regarding:

- The consistency of the results of the MCEV<sup>©</sup> Information at 31 December 2015 as presented in the EV Report with the methodology and assumptions adopted by management, which are consistent with MCEV<sup>©</sup> principles 1 to 16, with the guidance published by the CFO Forum in October 2009 and with the additional guidance issued in October 2015 relating to Solvency II, effective in 2016;
- The consistency of the accounting information used with the CNP Assurances Group’s consolidated financial statements at 31 December 2015, upon which we expect to issue our audit report on 22 February 2016.

Without modifying our opinion expressed above, we draw attention to section 3.5.3 in the EV Report which explains that the negative interest rates issued from the stochastic scenarios generator used by CNP Assurances were adjusted prior to use in the calculation kernel.

Neuilly-sur-Seine and Courbevoie, 17 February 2016

PricewaterhouseCoopers Audit  
Eric Dupont      Eric Demerlé

Mazars  
Olivier Leclerc    Grégory Boutier