



Insuring  
a more  
open world

# Market-Consistent Embedded Value Report

31 december 2020





# SUMMARY

## 1

### INTRODUCTION

11	Preparation bases & Key principles	6
12	Content and perimeter	7

## 2

### GROUP RESULTS AT 31 DECEMBER 2020

2.1	Introduction	10
2.1.1	Main events in the year	10
2.1.2	Overall results	11
2.2	Value of New Business	12
2.3	MCEV© at 31 december 2020	15
2.3.1	Adjusted Net Asset Value	16
2.3.2	Analysis of change in MCEV©	17
2.3.3	Analysis of change in Free Surplus	19
2.4	Implied Discount Rate	20
2.5	Sensitivities	21

## 3

### RESULTS DETAILED BY GEOGRAPHIC AREA

3.1	Overview	25
3.2	France	27
3.2.1	Value of New Business	27
3.2.2	MCEV© at 31 december 2020	29
3.3	Latin America	32
3.3.1	Value of New Business	32
3.3.2	MCEV© at 31 december 2020	34
3.4	Europe excluding France	36
3.4.1	Value of New Business	36
3.4.2	MCEV© at 31 december 2020	38

## 4

### METHOD

4.1	Adjusted Net Asset Value	42
4.1.1	Required Capital	42
4.1.2	Free Surplus	42
4.2	Value of In-Force (VIF)	43
4.2.1	Present Value of Future Profits (PVFP)	43
4.2.2	Time Value of Options and Guarantees TVOG	43
4.2.3	Frictional Cost of Required Capital (FCRC)	44
4.2.4	Cost of Residual Non-hedgeable Risks (CRNHR)	44
4.3	Value of New Business (VNB)	45
4.3.1	Definition of New Business	45
4.3.2	Valuation Method	45

## 5

### ASSUMPTIONS

5.1	Economic Assumptions	48
5.1.1	Interest rate reference curve	48
5.1.2	Calibrating the rate model	49
5.1.3	Calibrating the equity model	50
5.1.4	Calibrating the other diversified index	50
5.1.5	Calibrating the corporate credit spread model	50
5.1.6	Exchange rate	51
5.1.7	Tax rate	51
5.1.8	Cost of capital allocated to residual non-hedgeable risks	51
5.1.9	Subordinated Securities finance rate	51
5.2	Non economic Assumptions	52
5.2.1	Expenses assumptions	52
5.2.2	Claims and persistence assumptions	52
5.2.3	Future management decisions	52

## 6

### CHANGES IN MCEV© SINCE 2015

6.1	VNB history	55
6.2	MCEV© history	56

## 7

### EXTERNAL OPINION ON MARKET-CONSISTENT EMBEDDED VALUE

59

## 8

### APPENDICES

Appendix A: Glossary	62
Appendix B: Perimeter	64



# 1

## Introduction

11	Preparation bases & Key principles	6
12	Content and perimeter	7

## 1.1 PREPARATION BASES & KEY PRINCIPLES

### Presentation of the report

This report presents the results, methods and assumptions used to determine the Embedded Value of the CNP Assurances Group (the "Group") at 31 december 2020. The Embedded Value (referred to variously by the terms "Market- Consistent Embedded Value", "MCEV©", "Embedded Value" or "EV") is established in accordance with the "European Insurance CFO Forum Market-Consistent Embedded Value© Principles" (the "MCEV© principles") published in June 2008, amended in October 2009 then updated in April 2016.

The report contains a reconciliation between the Group's IFRS equity and the Group's EV at 31 december 2020. However, the information contained in this report is not directly comparable to the financial information produced in accordance with the IFRS standards. Nor it is a valuation of the Group or of a part of the Group as might be established in the context of an acquisition: other valuation methods could then be used.

The Group nevertheless considers that the information on Embedded Value is such as to provide valuable components to analyse the Group's economic performance in the financial year. The different terms used in this report to analyse the Group's activities may differ from the definition used by other insurance companies or groups. A glossary at the end of the document (Appendix A) gives details on the definition of the main terms used in this report.

The methodology, assumptions and results of the 2020 MCEV© have been reviewed jointly by auditors PwC and Mazars, which also audit CNP Assurances's financial reports and whose opinion is appended at the end of the report.

### Presentation of MCEV©

The Market-Consistent Embedded Value is a measure of the economic value of life insurance activities and related activities, on the basis of a fair value valuation of assets and liabilities. It comprises on the one hand the adjusted value of shareholders' equity and on the other hand the value of the portfolio of policies at the financial year-end. This last component is estimated using projection models and is the present value of future distributable profits after making sufficient allowance for risks and constraints related to insurance activities in a market-consistent financial environment. In particular, it takes into account:

- The Cost of Time Value of Options and Financial Guarantees given to policyholders ("TVOG") in addition to their embedded value;
- The Frictional Cost of Required Capital ("FCRC"), arising from the obligation to permanently maintain the Required Capital;
- The Cost of Residual Non-hedgeable Risks not fully valued elsewhere (CRNHR).

The Adjusted Net Asset Value ("ANAV") breaks down into Required Capital and Free Surplus. The Required Capital is the market value of the assets that the insurer must hold in respect of its business, whose distribution to shareholders is restricted. The Free Surplus refers to the surpluses available. The "Operating Free Cash-Flow" indicator (OFCF) shows the release of Free Surplus related to operating activities. This release can be used to pay dividends and develop business via marketing New Business or through external growth operations.

The contribution to MCEV© from new policies in the current year (referred to variously by the terms "Value of New Business" or "VNB") is analysed specifically, and is a measure of the performance of the Group's underwriting activity.

The MCEV© and VNB are calculated net of minority interests, net of reinsurance and net of tax.

## 1.2 CONTENT AND PERIMETER

---

### Description of the report

This report presents the results, methods and assumptions used to calculate the Group's Embedded Value at 31 december 2020. It is structured around the following sections:

**Section 1**: Preparation bases & key principles

**Section 2**: Group results at 31 december 2020

**Section 3**: Results detailed by geographic area

**Section 4**: Methodology

**Section 5**: Assumptions

**Section 6**: Changes in MCEV© since 2015

**Section 7**: External opinion on Market-Consistent Embedded Value

**Appendices**

### Scope

The Group's business is concentrated on life insurance in the three geographic areas: France, Latin America and Europe excluding France. The main products are:

- Individual Traditional Savings and unit linked accounts;
- Capital accumulation products;
- Pension products including immediate and deferred annuities;
- Credit Insurance (Consumer Credit and Mortgage);
- Protection and health products;
- Other products linked to the above products.

The business covered by MCEV© concerns all Group entities' life insurance business and related business that contributes significantly to the value. The scope covered and changes to it compared to the MCEV© scope at 31 december 2019 are detailed in Appendix B.



# 2

## Results at 31 December 2020

2.1	<b>Introduction</b>	<b>10</b>
2.1.1	<b>Main events in the year</b>	<b>10</b>
2.1.2	<b>Overall results</b>	<b>11</b>
2.2	<b>Value of New Business</b>	<b>12</b>
2.3.	<b>MCEV© at 31 december 2020</b>	<b>15</b>
2.3.1	<b>Adjusted Net Asset Value</b>	<b>16</b>
2.3.2	<b>Analysis of change in MCEV©</b>	<b>17</b>
2.3.3	<b>Analysis of change in Free Surplus</b>	<b>19</b>
2.4	<b>Implied Discount Rate</b>	<b>20</b>
2.5	<b>Sensitivities</b>	<b>21</b>

## 2.1 INTRODUCTION

---

### 2.1.1 Main events in the year

The year 2020 was notably marked by the takeover of the CNP Assurances Group by la Banque Postale, through a majority ownership of 62.1%. The activities related to the constitution of this large public financial pole have been finalized on march 04, 2020. Other significant events occurred during the year:

#### Health context

The year 2020 was affected by the health crisis linked to the Covid-19 pandemic, whose technical and financial impacts differ depending on the risks and the geographical areas of the Group's subsidiaries. In general, the impacts remain limited at Group level, despite an outflow observed in particular on Traditional Savings in France. The impacts on claims are modest and the related adjustments on prospective metrics are measured at Group level.

#### Negative rates in the euro zone

The low rate environment in the euro zone has a significant impact on the profitability of Savings-Pensions business, and consequently on the value of MCEV© metrics. In order to mitigate these effects, the diversification strategy put in place by CNP Assurances lead to an increase of unit linked rates at Group level from 27 % to 37 % (APE basis).

Following rates stuck in negative territory, CNP Assurances has adapted its financial strategy, and to be consistent, its future management actions in modelling. Modelling tools have also been adjusted in order to conform to the persistent low rates environment and better reflect reality.

#### The conclusion of agreement in Brazil

CNP Assurances has payed in december 2020 the up-front of R\$ 7.0 billion concerning the new exclusive distribution agreement in the Caixa Econômica Federal network in Brazil (CEF) over 25 years (from the 1<sup>st</sup> january 2021 to the 13 february 2046) on the Risk, Credit Insurance (Consumer Credit) and Pensions (CVP). CNP Assurances will keep the majority of the voting rights (51 % vs 49 %) while the economic share will be from now of 40 % (versus 60 %).

## 2.1.2 Overall results

The value of the Group's New Business comes to + € 284 M in 2020, down of 48 % compared to 2019, or - € 259 M (- € 204 M at constant exchange rate, or - 38%). The decrease in VNB was mainly driven by France (- € 200 M, - 76 %), impacted by unfavorable economic effects (lower rates - € 129 M) as well as a decrease in sales. In Europe excluding France, where the share of Unit-Linked is up to 85 %, the VNB is down of € 19 M, notably due to the restatement and the APE volume update. Volumes have decreased, despite a favourable Segments and Products mix following the termination of the marketing of mono-support products in Spain and the general increase in the Unit-Linked rate. In Latin America, the increase in VNB at constant exchange rate (+ 8 %) and the increase in margin rate, linked to the increased sales in the Credit Insurance segment, were offset by the exchange rate effect (VNB - € 56 M).

The Group's Embedded Value comes to + € 16,256 M, or a decrease of € 4,306 M (- 21%) over the period including - € 28 M for opening adjustments detailed in section 2.3.2, + € 1,673 M for operational contribution, - € 5,223 M for economic effects excluding exchange rates, - € 128 M due to the update in corporation tax rates, and - € 600 M due to foreign exchange rate.

The main vectors for the change in VNB and MCEV are given in the following sections, and components detailed by geographic area are given in Section 3 of the report.

(€M, %)		2020	2019
<b>VNB</b>	<b>VALUE OF NEW BUSINESS</b>	<b>284</b>	<b>543</b>
APE	Annual Premium Equivalent	2,332	3,186
PVNBP	Present Value of New Business Premiums	20,463	26,829
	<b>Margin rate</b>	<b>12.2 %</b>	<b>17.1 %</b>
	PVNBP ratio	14%	2.0%

The following table gives the main results in terms of VNB and MCEV:

(€M, %)		2020	2019
<b>MCEV©</b>	<b>Market-Consistent EMBEDDED VALUE</b>	<b>16,256</b>	<b>20,562</b>
VIF	Value of In-Force	1,671	6,921
ANAV	Adjusted Net Asset Value	14,586	13,641
	Return on MCEV©	8.1 %	10.3 %
IDR	Implied Discount Rate	7.2 %	9.7 %
<b>OFCF</b>	<b>Operating Free Cash Flow</b>	<b>1,834</b>	<b>2,402</b>
	Of which subordinated debt <sup>(1)</sup>	500	1,052

(1) Subordinated debts issued during the financial year, net of return

NB. The ministerial decree relating to surplus funds in life insurance published in the Official Journal of december 28, 2019 allows insurance companies to recognize a part of the Profit Sharing Reserve (PPE) as elements eligible for SCR coverage in the form of surplus funds, thus making it possible to improve their coverage rate. Among the methods proposed by the ACPR, the so-called full method has been used by CNP Assurances in the context of Solvency 2 calculations. However, no modification has applied for the MCEV calculation, either for the estimation of the value of In Force, Required Capital or New Business.

## 2.2 VALUE OF NEW BUSINESS

The following table gives a detailed breakdown of Group VNB. VNB is valued using a marginal method that takes account of interactions between new products and stock of existing contracts (see Section 4.3.2). It is valued on the basis of assumptions reviewed at the year-end, after including taxes and minority shareholdings.

		2020		2019		Change	
		€M	€ per share <sup>1</sup>	€M	€ per share <sup>1</sup>	€M	%
PVFP	Present Value of Future Profits	609	0.9	935	14	(326)	(34.9 %)
TVOG	Time Value of Options and Guarantees	(193)	(0.3)	(222)	(0.3)	30	(13.3 %)
FCRC	Frictional Cost of Required Capital	(19)	(0.0)	(23)	(0.0)	4	(16.4 %)
CRNHR	Cost of Non-Hedgeable Risks	(113)	(0.2)	(146)	(0.2)	34	(23.0 %)
<b>VNB</b>	<b>Value of New Business</b>	<b>284</b>	<b>0.4</b>	<b>543</b>	<b>0.8</b>	<b>(259)</b>	<b>(47.7 %)</b>
APE	Annual Premium Equivalent		2,332		3,186	(854)	(26.8 %)
PVNBP	Present Value of New Business Premiums		20,463		26,829	(6,366)	(23.7 %)
	<b>Margin rate</b>		<b>12.2%</b>		<b>17.1%</b>	<b>(4.9 %)</b>	<b>(28.6 %)</b>
	PVNBP ratio		14%		2.0 %	(0.6 %)	(31.5 %)

(1) Number of shares at 31 december 2019 and at 31 december 2020: 686,618,477

The group VNB is down - € 259 M (- 48 %). The decrease is due to changes in the following components:

- The Present Value of Future Profits (PVFP) is down (- 35 %) compared to 2019. This is mainly due to France and it is linked to the volumes decrease and deteriorated economic conditions linked to lower rates. In Latin America, the positive impact related to the good growth in Credit Insurance contracts with high profitability, was offset by the exchange rate effect. In Europe excluding France, the negative effects linked to model changes, in particular within CNP Santander, are partially offset by the review of expense and lapse assumptions.
- The Time Value of Options and Guarantees (TVOG) goes from - € 222 M in 2019 to - € 193 M in 2020. Due to the persistency of rates in negative territory, the ability to generate incomes is affected from the central scenario.
- The Frictional Cost of Required Capital (FCRC) comes to - € 19 M and has a low impact on the New Business Value.
- The Cost of Residual Non-Hedgeable Risks (CRNHR) comes to - € 113 M due to the standardization in 2020 of the quantiles and parameters used to evaluate these risks.

The Group APE volume (€ 2,332 M) is down 26.8 % compared to 2019, due to:

- Lower sales across all segments in France, especially in the Traditional Savings (- 40 %) and Credit Insurance (- 18 %) segments;
- Lower sales in the Latin America perimeter (- 10 % at constant exchange rate) due to the single/recurrent premium mix in the Pensions segment, despite strong growth in Credit Insurance contracts;
- Lower sales in Europe excluding France, mainly on the Traditional Savings segment in Italy and Spain, following termination of the marketing of mono-support products in Spain.

The Group's margin rate comes to + 12.2 % in 2020 versus + 17.1 % in 2019, down - 4.9 points. The fall in margin rate is essentially due to lower rates and lower sales across most perimeters.

The following table gives a detailed analysis of the main factors in the change in Value of New Business:

(€M, %)	VNB	Change	Margin rate
<b>Value of New Business 2020</b>	<b>543</b>		<b>17.1 %</b>
Updated model and scope	495	(48)	15.9 %
Change in the APE volume	403	(93)	15.9 %
Change in the segment mix	474	71	18.6 %
Change in experience	494	21	19.9 %
Change in financial market conditions	341	(153)	13.7 %
Updated taxation	340	(2)	13.6 %
Change in the foreign exchange rate	284	(56)	12.2 %
<b>Value of New Business 2020</b>	<b>284</b>	<b>(259)</b>	<b>12.2 %</b>
<b>Change</b>	<b>(259)</b>		<b>(4.9 %)</b>

The VNB comes to + € 284 M at end 2020 against + € 543 M in 2019, the main items explaining the change are as follows:

- Updated model and scope (- € 48 M) is basically explained by France with the withdrawal of the technique of path freezing (PPF) (- € 22 M), Covid-19 exceptional claims paid in 2020 in the projected results of the Group Protection for the business underwritten in 2019 (- € 22 M: these claims not being renewed in the projection of the VNB calculated in 2020) and the improved modelling of Savings commissions in the event of adverse scenarios (+ € 13 M). For Traditional Savings in France, the share of unrealized capital gains or losses allocated to new business has been increased, due to the decrease in volumes, resulting in more In-Force financing. The review of the cost of capital for all the perimeters and of customer satisfaction costs in CNP Santander has a negative impact on the value in Europe excluding France (- € 13 M).
- Change in the APE volume (- € 93 M) basically represents the effects of change in the overall volume of premiums received by Group companies, without including changes in the distribution per segment and per product. The volumes taken into account are the APE volumes and are established from premiums written in accordance with local accounting standards.
- Change in the segment mix (+ € 71 M) takes into account the difference in the distribution of sales between different segments. It is mainly caused by the favourable effect of the Country Mix.
- Change in experience (+ € 21 M) reflects the impacts in non-economic assumptions, basically assumptions on claims, behavioural assumptions, a decrease in over-commissions based on the 2020 sales performance and a favourable Protection/Credit Insurance product mix in Latin America (+ € 16 M).
- Change in financial markets conditions (- € 153 M) mainly reflects impacts from the fall in interest rates which increase the cost of capital guarantee on Traditional Savings products.
- Updated taxation and Frictional Cost of Required Capital (- € 2 M) mainly reflect the impact of the unrealized gains or losses variation on the assets benefiting from reduced rates.
- Change in foreign exchange rate (- € 56 M) reflects changes in average exchange rates for the Brazil Real and Argentina Pesos against the Euro since the last VNB reference calculations.

The following table gives the duration of New Business:

Duration (years)	2020	2019
Savings & Pensions	14.0	14.3
Risk & Protection	6.3	6.2

## 2.3 MCEV© AT 31 DECEMBER 2020

The following table gives a breakdown of the various components of Group MCEV© at 31 december 2020 and a comparison with the MCEV© at 31 december 2019:

	MCEV© 2020 before payment of 2020 dividend		MCEV© 2019 after payment of 2019 dividend		Change before payment of 2020 dividend		MCEV© 2019 before payment of 2019 dividend	
	€M	€ per share *	€M	€ per share *	€M	%	€M	€ per share *
<b>ANAV – Adjusted Net Asset Value</b>	<b>14,586</b>	<b>21.2</b>	<b>13,641</b>	<b>19.9</b>	<b>945</b>	<b>7%</b>	<b>13,641</b>	<b>19.9</b>
Required Capital	10,628	15.5	4,978	7.3	5,650	113 %	4,978	7.3
Free Surplus	3,958	5.8	8,662	12.6	(4,705)	(54 %)	8,662	12.6
<b>VIF – Value of In Force</b>	<b>1,671</b>	<b>2.4</b>	<b>6,921</b>	<b>10.1</b>	<b>(5,251)</b>	<b>(76 %)</b>	<b>6,921</b>	<b>10.1</b>
Present Value of Future Profits	9,875	14.4	13,768	20.1	(3,893)	(28 %)	13,768	20.1
Time Value of Options & Guarantees	(6,078)	(8.9)	(4,590)	(6.7)	(1,488)	32 %	(4,590)	(6.7)
Frictional Cost of Required Capital	(575)	(0.8)	(544)	(0.8)	(31)	6 %	(544)	(0.8)
Cost of Residual Non-Hedgeable Risks	(1,552)	(2.3)	(1,713)	(2.5)	162	(9 %)	(1,713)	(2.5)
<b>MCEV© - Market-Consistent Embedded Value</b>	<b>16,256</b>	<b>23.7</b>	<b>20,562</b>	<b>29.9</b>	<b>(4,306)</b>	<b>(21 %)</b>	<b>20,562</b>	<b>29.9</b>

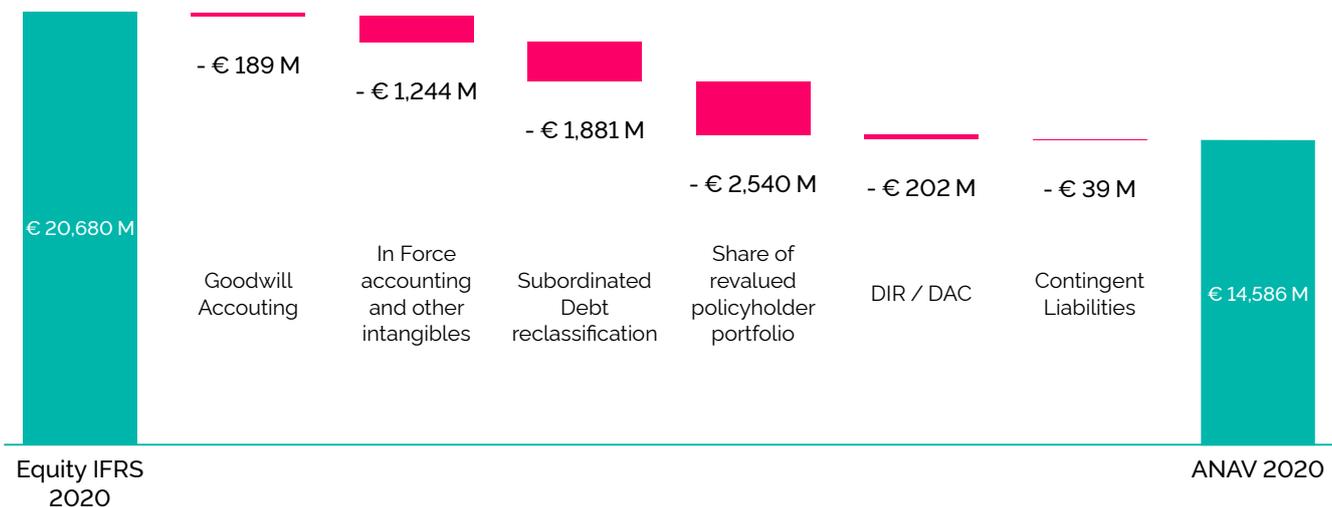
\* Number of shares at 31 december 2019 and at 31 december 2020: 686,618,477

The MCEV© consists of (i) Adjusted Net Asset Value ("ANAV"), in other words the market value of assets not backing insurance liabilities, and (ii) the Value of In-Force ("VIF"), in other words the value of future profits emerging from insurance liabilities and back assets less by the time value of options and guarantees and costs relating to non-hedgeable risks and capital required.

### 2.3.1 Adjusted Net Asset Value

Adjusted Net Asset Value ("ANAV") is the market value of assets that do not back insurance liabilities. It is derived from the IFRS shareholders' book equity after deducting intangible assets, subordinated liabilities and the share of revalued policyholder portfolio. The ANAV is determined at the valuation date at consolidated level, excluding minority interests and breaks down into the Required Capital and the Free Surplus.

The following diagram gives the reconciliation of the IFRS shareholders' book equity with the ANAV at 31 december 2020:



The ANAV is reconciled with the IFRS shareholders' equity as follows:

- Cancellation of intangible assets:** the various intangible assets whose amortisation is not projected in the VIF are restated. These intangible assets do not have a commercial value and they are assigned a nil value for the needs of determining the ANAV.  
It concerns:
  - Accounting goodwills which represents a book entry in accordance with the IFRS standards related to the acquisition cost of an entity;
  - Value of business acquired representing the VIF crystallised on the acquisition date of an external portfolio and amortised over time. The € 1,244 M amount is notably made up of the value of sales agreements recognised as part of the conclusion of agreements with Caixa Seguridade.
- Share of revalued policyholder portfolio:** fraction of the unrealized gains or losses on financial assets is deemed to belong to the shareholders under the IFRS standards in accordance with specific keys whereas the residual part is deemed to belong to the policyholders. Modelling in MCEV© results in a more accurate approach in determining the part due to shareholders, which is reincorporated into the portfolio value modelling.
- Deferred acquisition costs (DIR/DAC)** being the non-amortized part of acquisition costs incurred at inception of insurance policies;
- Contingent Liabilities:** CNP Assurances considers that anticipation of the payment relative to the renewal of Brazil agreements in the Consorcios perimeter cannot be incorporated into available surpluses, as such payment represents a firm commitment by the Group and is not an insurance commitment. Consequently, such early payment is deducted from the ANAV as at 31 december 2020.

## 2.3.2 Analysis of change in MCEV©

The following table gives an analysis of variances, distinguishing VIF and ANAV, itself broken down between Free Surplus and Required Capital.

(€M)	ANAV	Free Surplus	Required Capital	VIF	MCEV©
<b>MCEV© 2019</b>	<b>13,641</b>	<b>8,662</b>	<b>4,978</b>	<b>6,921</b>	<b>20,562</b>
Opening adjustments	178	841	(663)	(205)	(28)
<b>Adjusted opening MCEV© 2019</b>	<b>13,818</b>	<b>9,503</b>	<b>4,315</b>	<b>6,716</b>	<b>20,534</b>
Value of New Business	(110)	(934)	823	394	284
Expected existing business contribution	169	169	0	922	1,091
Transfers from the VIF and required capital to free Surplus	1,298	2,028	(730)	(1,298)	0
Experience variances	80	17	63	180	260
Changes in assumptions relating to operating activities	0	53	(53)	38	38
Other operating variance	0	500	(500)	0	0
<b>Operating MCEV© Earnings</b>	<b>1,437</b>	<b>1,834</b>	<b>(397)</b>	<b>236</b>	<b>1,673</b>
Economic variances	(255)	(7,063)	6,808	(4,968)	(5,223)
Other non-operating variance	(122)	(123)	1	(6)	(128)
<b>Total MCEV© earnings</b>	<b>1,060</b>	<b>(5,352)</b>	<b>6,412</b>	<b>(4,738)</b>	<b>(3,678)</b>
Closing adjustments	(293)	(193)	(100)	(307)	(600)
<b>MCEV© 2020</b>	<b>14,586</b>	<b>3,958</b>	<b>10,628</b>	<b>1,671</b>	<b>16,256</b>

The MCEV© opening adjustments cover:

- The increase in ANAV (+ € 178 M) mainly corresponds to the recognition of a deferred tax asset (+ € 175 M) following the conclusion of the agreements with Caixa Seguridade;
- The decrease in VIF of - € 205 M, mainly due to the withdrawal of the technique of path freezing (PPF), the standardisation of the cost of capital and the tax rate valuation methods, was offset through a better recognition of the commissioning rules in France.

The impact of Opening adjustments on Required Capital (- € 663 M) is due to restatement effects on VIF and Solvency 2 Required Capital.

The Value of New Business to the change in MCEV© is + € 284 M. This value includes the net profit generated in 2020 by New Business of - € 110 M allocated to ANAV and the contribution to year-end VIF. The corresponding increase in Required Capital comes to + € 823 M.

The expected existing business contribution (+ € 1,091 M) results from capitalisation of the VIF (+ € 922 M) calculated as at 31 december 2019 and the projected yield on the Free Surplus (+ € 169 M) as at 31 december 2019.

Furthermore, the 2020 result attached to the 31 december 2019 VIF is transferred to the ANAV without impact on the MCEV© and increases the Free Surplus both because of externalised profits from the VIF and the reduction in Required Capital.

Other operating variance correspond to subordinated debts of an amount of + € 500 M issued in 2020.

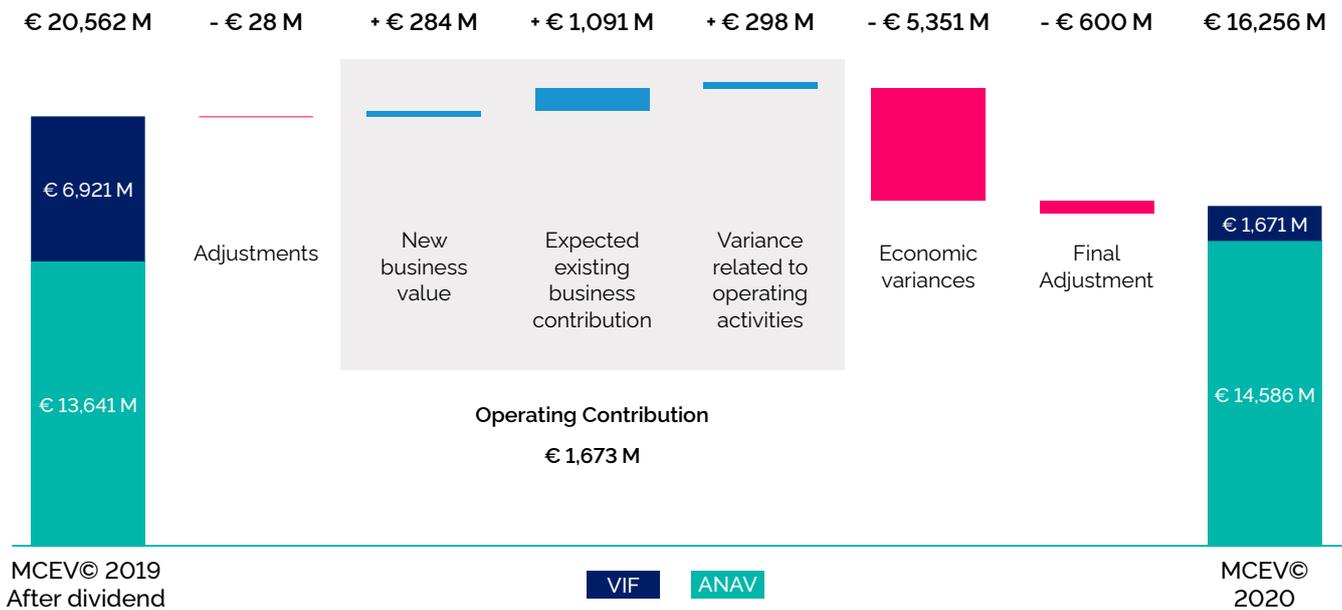
It results in a contribution from operational activity of + € 1,673 M on the MCEV©.

As regards Free Surplus, the available Cash-flow of + € 1,334 M (excluding Subordinated Debts -SD-) freed up by operational activities is the "Operating Free Cash-Flow" indicator. Its interpretation and details of changes in it are given in paragraph 2.3.3.

The economic situation includes:

- **Economic variances** had an impact on the VIF of - € 4,968 M which is mainly due to the change in rates over the year, partially offset by the increase in equity volatility. The increase in Required Capital (+ € 6,808 M) is partially explained by the increase in Solvency 2 Required Capital due to the economic assumptions updates but also with the decrease in the VIF, because the VIF is a component of the eligible own funds for covering regulatory requirements.
  - **Other non-operating variances** (- € 128 M) are linked to tax differences.
  - **Closing adjustments** (- € 600 M) are due to exchange rates, essentially those of the Brazil Real (BRL).
- A detailed analysis by geographic area is given in Section 3.

The following graph details the change in value between MCEV© and its components (VIF and ANAV) for 31 december 2019 and 31 december 2020 grouping the different impacts together:



### 2.3.3 Analysis of change in Free Surplus

The following graph shows the change in Free Surplus for 31 december 2020 and 31 december 2019, grouping the different impacts together:



The Free Surplus comes to + € 3,958 M, down - € 4,705 M compared to 2019.

**The opening adjustment** of + € 841 M is mainly explained by the effects of restatement (+ € 663 M), due to a decrease in Capital Required. Added to this is the recognition of a deferred tax asset (+ € 175 M) following the conclusion of the agreements with Caixa Seguridade.

**The operational contribution** comes to + € 1,834 M (+ € 1,334 M excluding SD):

- A 2020 operating profit of + € 1,437 M, down - 1% compared to 2019;
- A change in the Required Capital of - € 103 M, breaking down into a requirement of - € 823 linked to New Business, up compared to 2019, and a release of Required Capital of + € 720 M more than in 2019;
- Subordinated debts of + € 500 M.

**The OCF** shows the Group's ability to generate the Free Surplus to pay its dividends and develop through commercialization of New Business or external growth operations.

**The economic contribution** is - € 7,186 M results mainly of lower rates which have a negative impact on Required Capital, and more specifically on the VIF.

**The final adjustment** is mainly due to exchange rate effects.

The following table gives an analysis of the OFCF, distinguishing its different components at 31 december 2020 and 31 december 2019:

(€M)	2020	2019
VIF transfers to Free Surplus	1,298	1,251
Financial income from Free Surplus	169	221
Release of required capital to Free Surplus	730	556
Experience variances	571	1,126
<b>Expected contribution of In-Force</b>	<b>2,767</b>	<b>3,154</b>
Capital required for New Business	(823)	(641)
Earnings attributable to New Business	(110)	(110)
<b>Capital required for New Business</b>	<b>(934)</b>	<b>(752)</b>
<b>OPERATING FREE CASH FLOW</b>	<b>1,834</b>	<b>2,402</b>
of which subordinated debt	500	1,052

At 31 december 2020, Operating Free Cash Flow is € 1,834 M (€ 1,334 M excluding SD).

## 2.4 IMPLIED DISCOUNT RATE

In an alternative way to the traditional approach in which the VIF and VNB result from an update of future distributable revenue with a discount rate, the MCEV© approach can also be used to deduce an implied discount rate to directly value the VIF. The implied discount rate (IDR), is defined as the discount rate as such, when used with a traditional model of embedded value, the values produced are equal to those that result from a market-consistent valuation. This IDR is thus a result of the valuation work rather than a basic MCEV© assumption. The IDR calculation requires a deterministic projection of future profits resulting from stock of existing contracts on a "real world" basis as for a traditional embedded value.

At 31 december 2020, the IDR for the Group's subsidiaries is calculated on the basis of a spread of 20 bps. Shares and property benefit from a risk premium of 310 bps and 230 bps (the same as at 31 december 2019) respectively.

The IDR is +7.2% for the Group at 31 december 2020 against +9.7% at 31 december 2019. This decrease in the IDR is mainly explained by the strongest contribution of Risk/Credit in VIF.

## 2.5 SENSITIVITIES

MCEV© sensitivities are based both on the economic and underlying non-economic assumptions. It should be noted that sensitivities are often correlated, so it is unlikely that the impact of two events occurring simultaneously would be equal to the

sum of the individual sensitivities for each event. For events whose impact is considered symmetrical, only sensitivities in one sense are presented.

The meaning of the different sensitivities is described in the comments beneath the table below which gives the results of sensitivities:

(€M)	ANAV	VIF	MCEV©	VNB
<b>MCEV© - Market-Consistent Embedded Value</b>	<b>14,586</b>	<b>1,671</b>	<b>16,256</b>	<b>284</b>
Interest rate curve +50 bps	(406)	2,983	2,577	133
Interest rate curve -50 bps	409	(3,529)	(3,120)	(165)
No volatility adjustment (VA = 0)		(699)	(699)	(24)
25% decrease in equity capital values	(968)	(2,297)	(3,265)	
Surrenders -10%		3	3	24
Costs -10%		504	504	34
Regulatory minimum Capital		23	23	1
Claims rates - 5% - Risk of longevity		(242)	(242)	(1)
Claims rates - 5% - Risk of mortality & disability		142	142	56
25% increase in swaption implied volatilities		(1,299)	(1,299)	(62)
25% increase in equity implied volatilities		(1,043)	(1,043)	(33)

In each of the sensitivity calculations, all other assumptions remain unchanged. For the - 50 bp rate sensitivity on the France perimeter, a management action has been implemented: this involves the 20 % decrease of the equity component of the main savings portfolios. This has an impact on the realised gains/losses. Reinvestment durations have also been extended. No specific additional action by management has been included in the other sensitivities above.

### Interest rate curve +/- 50 bps:

This sensitivity is a translation of the swap rate curve by 50 bps up or down. In particular, it results in:

- A revaluation of the market value of bonds;
- An adjustment of reinvestment rates for all classes of assets of 50 bps;
- And an update of the discount rate.

The impact on the initial mathematical provisions for Unit- Linked policies is not valued. Only the liquid part of the yield curve is subject to translation with a stable ultimate forward rate (UFR), in line with its definition under Solvency 2.

For the -50 bps rate sensitivity on the France perimeter, a management action has been implemented: this involves the 20% decrease of the equity component of the main savings portfolios. This has an impact on the realised gains/losses. Reinvestment durations have also been extended.

Because of the asymmetrical, non-linear impact of options and financial guarantees on MCEV©, the drop in financial markets usually has a bigger impact on MCEV© than the rise in interest rates, the impact gets greater with every additional drop. In the new method used, yield rates are no longer floored at 0.

### No volatility adjustment (VA):

This sensitivity is used to value the impact where there is no correction for volatility ("volatility adjustment") on activities where such a correction is used.

### 25 % decrease in equity capital values:

This sensitivity makes it possible to assess the impact on the value of immediate 25% in equity indices. This shock results in a 25% fall in the market value of financial assets in equity, and a decrease in the mathematical provisions on Unit-Linked policies for their share invested in those assets.

### 25 % increase in swaption/equity implied volatilities:

These sensitivities are used to value the impact on Time Value of Options and financial Guarantees of the 25% increase in swaption and equity volatility.

### Surrenders - 10 %:

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

### Costs - 10 %:

This sensitivity is used to value the impact of a 10% decrease in all costs: acquisition, management, claim and structure costs.

### Claims - 5 %:

This sensitivity measures the impact of a fall in claims: the incidence rate, loss ratios, disability and incapacity rate and mortality tables have been reduced by 5%. Sensitivities to longevity risk, mortality risk and long term disability risk are measured separately.

### Regulatory minimum Required Capital:

This sensitivity consists of defining Required Capital as 100% of the required regulatory solvency margin, considering as stable the share of subordinated securities, and of measuring the impact of this change of assumption on value.



# 3

## Results detailed by geographic area

3.1	Overview	25
3.2	France	27
3.2.1	Value of New Business	27
3.2.2	MCEV© at 31 december 2020	29
3.3	Latin America	32
3.3.1	Value of New Business	32
3.3.2	MCEV© at 31 december 2020	34
3.4	Europe excluding France	36
3.4.1	Value of New Business	36
3.4.2	MCEV© at 31 december 2020	38

## 3.1 OVERVIEW

The following section gives an analysis of the main indicators and main vectors for change by geographic area.

The following tables give the overall results and the contribution of the different geographic areas to the CNP Group's MCEV© and VNB results. Detailed analyses for each area follow.

		FRANCE	LATIN AMERICA	EUROPE EXCLUDING FRANCE	GROUP
VNB (€M)	2019	263	206	74	543
	2020	63	165	55	284
	change	(200)	(40)	(19)	(259)
Share in Group VNB (%)	2019	48 %	38 %	14 %	100 %
	2020	22 %	58 %	19 %	100 %
APE (€M)	2019	2,146	692	348	3,186
	2020	1,544	466	322	2,332
	change	(603)	(226)	(26)	(854)
Margin rate (%)	2019	12.3 %	29.7 %	21.4 %	17.1 %
	2020	4.1 %	35.5 %	17.2 %	12.2 %
	change	(8.2 %)	5.8 %	(4.2 %)	(4.9 %)

		FRANCE	LATIN AMERICA	EUROPE EXCLUDING FRANCE	GROUP
MCEV© (€M)	2019	17,299	1,899	1,364	20,562
	2020	13,446	1,418	1,393	16,256
	change	(3,854)	(481)	29	(4,306)
Share in Group MCEV© (%)	2019	84 %	9 %	7 %	100 %
	2020	83 %	9 %	9 %	100 %
VIF (€M)	2019	5,534	1,005	382	6,921
	2020	534	803	333	1,671
	change	(5,000)	(202)	(49)	(5,251)
ANAV (€M)	2019	11,766	893	982	13,641
	2020	12,912	614	1,059	14,586
	change	1,146	(279)	78	945

The following table gives VIF sensitivities by geographic area:

(€M)	FRANCE	LATIN AMERICA	EUROPE EXCLUDING FRANCE	GROUP
<b>VIF 2020</b>	<b>534</b>	<b>803</b>	<b>333</b>	<b>1,671</b>
Interest rate curve +50 bps	2,962	(12)	33	2,983
Interest rate curve -50 bps	(3,500)	12	(41)	(3,529)
No volatility adjustment (VA = 0)	(687)	0	(12)	(699)
25% decrease in equity capital values	(2,234)	0	(63)	(2,297)
Surrenders -10%	(60)	46	17	3
Costs -10%	472	12	20	504
Regulatory minimum Required Capital	23	0	0	23
Claims rates - 5% - Risk of longevity	(239)	0	(4)	(242)
Claims rates - 5% - Risk of mortality & disability	106	26	10	142
25% increase in swaption implied volatilities	(1,295)	0	(4)	(1,299)
25% increase in equity implied volatilities	(1,040)	0	(3)	(1,043)

The following table gives VNB sensitivities by geographic area:

(€M)	FRANCE	AMÉRIQUE LATINE	EUROPE HORS FRANCE	GROUP
<b>VNB 2020</b>	<b>63</b>	<b>165</b>	<b>55</b>	<b>284</b>
Interest rate curve +50 bps	129	(2)	6	133
Interest rate curve -50 bps	(160)	2	(7)	(165)
No volatility adjustment (VA = 0)	(21)	0	(3)	(24)
Surrenders -10%	7	13	4	24
Costs -10%	24	5	5	34
Regulatory minimum Required Capital	1	0	(0)	1
Claims rates - 5% - Risk of longevity	(1)	0	0	(1)
Claims rates - 5% - Risk of mortality & disability	44	6	6	56
25% increase in swaption implied volatilities	(61)	0	(0)	(62)
25% increase in equity implied volatilities	(32)	0	(1)	(33)

For the - 50 bps rate sensitivity on the France perimeter, a management action has been implemented: this involves the 20 % decrease of the equity component of the main savings portfolios. This has an impact on the realised gains/losses. Reinvestment durations have also been extended.

## 3.2 FRANCE

Business in France is split into several segments: Savings-Pensions, Credit Insurance and Protection products.

2020 is characterized by the fall in rates that greatly affected value.

There is also a negative operational contribution caused by lower sales.

**€ 63 M** VNB 2020  
**4.1 %** MARGIN RATE ON NEW BUSINESS  
**22.3 %** OF GROUP VNB

### 3.2.1 Value of New Business

The following table gives the breakdown of VNB:

		2020	2019	Change	
(€M , %)				€M	%
PVFP	Present Value of Future Profits	348	616	(268)	(43 %)
TVOG	Time Value of Options and Guarantees	(191)	(218)	28	(13 %)
FCRC	Frictional Cost of Required Capital	(11)	(12)	1	(9 %)
CRNHR	Cost of Non-Hedgeable Risks	(83)	(122)	39	(32 %)
<b>VNB</b>	<b>Value of New Business</b>	<b>63</b>	<b>263</b>	<b>(200)</b>	<b>(76 %)</b>
APE	Annual Premium Equivalent	1,544	2,146	(603)	(28 %)
PVNBP	Present Value of New Business Premiums	14,570	20,283	(5,714)	(28 %)
	<b>Margin Rate</b>	<b>4.1 %</b>	<b>12.3 %</b>	<b>(8.2 %)</b>	<b>(67 %)</b>
	PVNBP ratio	0.4 %	1.3 %	(0.9 %)	(67 %)

The APE volume in France (+ €1,544 M), down compared to 2019, is characterized by a decrease in Traditional Savings and Credit Insurance volumes, offset by a stability in Unit-Linked Savings and Collective Risk volumes.

The Value of New Business comes to + € 63 M at end 2020 against + € 263 M in 2019 or a decrease of 76 %.

The following table gives a detailed analysis of the main factors of changes in the Value of New Business:

(€M, %)	VNB	Change	Margin rate
<b>Value of New Business 2019</b>	<b>263</b>		<b>12.3 %</b>
Updated model and scope	230	(34)	11.1 %
Change in the APE volume	177	(53)	11.1 %
Change in the segment mix	213	36	13.4 %
Change in experience	214	1	13.9 %
Change in financial market conditions	65	(149)	4.2 %
Updated taxation	63	(2)	4.1 %
Change in the foreign exchange rate	63	0	4.1 %
<b>Value of New Business 2020</b>	<b>63</b>	<b>(200)</b>	<b>4.1 %</b>
Change	(200)		(8.2 %)

- Updated model and scope (- € 34 M) is mainly explained by the withdrawal of technique of path freezing (PPF), Covid-19 exceptional claims paid in 2020 in the projected results of the Group Protection for the business underwritten in 2019 (- € 22 M: these claims not being renewed in the projection of the VNB calculated in 2020) as well as the integration of an unrealised capital gains or losses share of the inforce business reflecting the pooling of financial margins in Collective Protection, the change in the CNHR calculation method and the improved modelling of Savings commissions in the event of adverse scenarios. For Traditional Savings, the share of unrealized capital gains or losses allocated to new business has been increased, due to the decrease in volumes, resulting in more In-Force financing.
- Without including changes in the distribution per segment and per product, the drop in the APE volume (- € 53 M) can be explained by a decrease in Traditional Savings and Credit Insurance volumes, offset by a stability in Unit-linked Savings and Collective Protection volumes.
- Change in the segment mix (+ € 36 M) includes the difference in the distribution of sales between different segments. It is affected by the smaller decline in volumes on Unit-Linked Savings, Collective Protection, Pensions, and Credit Insurance.
- Change in experience (+ € 1 M) is due to decreased Traditional Savings costs, a favourable Group Pensions product mix (increasing the weight of L441 and positive ACA product mix), and the absence of elements requiring the exceptional loss experience relating to Covid-19 during 2020 to be reflected in forward-looking elements. This is offset by a more unfavourable change in Collective Protection claims, which is reduced by the update of rate margin in unit linked products.
- Change in financial market conditions (- € 149 M) reflects lower rates which increase, in a growing number of scenarios, the cost of capital guarantee on Traditional Savings products.
- Updated taxation and frictional cost of required capital has a negative impact (- € 2 M).

The following table gives the duration of New Business:

Duration (years)	2020	2019
Savings & Pensions	14.1	14.3
Risk & Protection	6.5	6.4

### 3.2.2 MCEV© at 31 december 2020

The following table gives a breakdown of In-Force values for France perimeter, excluding Subordinated Debt cost:

	2020		2019		Change	
	€M	€/share	€M	€/share	€M	%
<b>Value of In-Force</b>	<b>534</b>	<b>0.8</b>	<b>5 534</b>	<b>8.1</b>	<b>(5,000)</b>	<b>(90.4 %)</b>
Present Value of Future Profits	8,516	12.4	12,142	17.7	(3,626)	(29.9 %)
Time Value of Options and Guarantees	(6,036)	(8.8)	(4,556)	(6.6)	(1,480)	32.5 %
Frictional Cost of Required Capital	(543)	(0.8)	(498)	(0.7)	(45)	8.9 %
Cost of Non-Hedgeable Risks	(1,403)	(2.0)	(1,555)	(2.3)	151	(9.7 %)

The VIF of France (+ € 534 M) is down 90.4% compared to 2019 because of the unfavourable economic environment (- € 4,962 M), offset by a positive operational contribution (+ € 146 M).

The following table gives an analysis of variances, distinguishing VIF and ANAV, itself broken down into Free Surplus and Required Capital:

(€M)	ANAV	Free Surplus	Required Capital	VIF	MCEV©
<b>MCEV© 2019</b>	<b>11,766</b>	<b>7,564</b>	<b>4,201</b>	<b>5,534</b>	<b>17,299</b>
Opening adjustments	598	1,224	(626)	(180)	417
<b>Adjusted opening MCEV© 2019</b>	<b>12,363</b>	<b>8,788</b>	<b>3,575</b>	<b>5,353</b>	<b>17,716</b>
Value of New Business	(27)	(678)	650	91	63
Expected existing business contribution	161	161	0	844	1,005
Transfers from the VIF and required capital to free Surplus	988	1,557	(569)	(988)	0
Experience variances	(42)	(92)	50	169	127
Changes in assumptions relating to operating activities	0	55	(55)	30	30
Other operating variance	0	500	(500)	0	0
<b>Operating MCEV Earnings</b>	<b>1,079</b>	<b>1,503</b>	<b>(424)</b>	<b>146</b>	<b>1,226</b>
Economic variances	(259)	(7,019)	6,760	(4,962)	(5,222)
Other non-operating variance	(125)	(126)	1	(3)	(128)
<b>Total MCEV© earnings</b>	<b>695</b>	<b>(5,642)</b>	<b>6,337</b>	<b>(4,819)</b>	<b>(4,124)</b>
Closing adjustments	(146)	(146)	0	0	(146)
<b>MCEV© 2020</b>	<b>12,912</b>	<b>3,000</b>	<b>9,912</b>	<b>534</b>	<b>13,446</b>

**Opening adjustments** affect the MCEV© (+ € 417 M) consisting of:

- The increase in ANAV (+ € 598 M) mainly corresponds to the payment of Brazil and CNP Partners dividends not yet paid;
- The impact on the VIF of - € 180 M was due to several changes in modelling (the review of the cost of capital method offset by the review of taxation costs and removing the extension of forward scattering, as well as the review of the modelling of Savings commissions in the event of adverse scenarios).

Opening adjustments affect the Required Capital downwards (- € 626 M) due to the restatement effects on the VIF and the Solvency 2 Required Capital.

**The Value from new business** is + € 63 M. This value includes the net income generated in 2020 by New Business for - € 27 added to ANAV. The corresponding increase in Required Capital is up to + € 650 M.

**The Expected existing business contribution** (+ € 1,005 M) results from the capitalisation of the VIF (+ € 844 M) and the projected yield on the Free Surplus (+ € 161 M). For transfers of the VIF and Required Capital to Free Surplus, the 2020 result for the 31 december 2019 VIF is transferred to the ANAV with no impact on the MCEV©.

**The operational activity experience variances** affect the MCEV© in the amount of + € 127 M.

**The changes in assumptions relating to operational activity** have an impact of + € 30 M on the VIF.

**The contribution from operating activities** is + € 1,226 M on the MCEV© results (Operating MCEV Return of + 6.9 %).

France	2020	2019
Adjusted opening MCEV© n-1	17,716	18,535
Operating MCEV Earnings	1,226	1,710
Operating MCEV Return	6.9 %	9.2 %

As regards the Free Surplus, the Available Cash-flow of + € 1,503 M (+ € 1,003 M excluding SD) produced by operational activities correspond to the "Operating Free Cash-Flow" indicator.

**Economic Variances** result in a - € 5,222 M decrease in MCEV© mainly because of lower rates which has an unfavourable impact on the VIF, partially offset by the decrease in rate volatility.

The increase in Required Capital (+ € 5,711 M) is partly explained by the increase in Solvency 2 Required Capital following the update of the economic assumptions by the decrease in the VIF, since the VIF is an eligible capital item to cover regulatory requirements.

**Other non-operating variances** (- € 128 M) result from variances in taxation.

**Closing adjustments** are an exchange rate effect change on the ANAV.

## 3.3 LATIN AMERICA

The Latin America area covers the activities of Caixa Seguradora Group in Brazil and CNP Assurances Compañía de Seguros in Argentina.

The year 2020 was marked by strong growth in business volume in the Brazilian Credit Insurance segment, offset by the unfavourable currency effect and a shift in sales towards Unit-Linked Pension products.

**€ 165 M** VNB 2020  
**35.5 %** MARGIN RATE ON NEW BUSINESS  
**58.3 %** OF GROUP VNB

### 3.3.1 Value of New Business

The following table gives a breakdown of VNB and the main volume and profitability indicators:

		2020	2019	Change	
(€M. %)				€M	%
PVFP	Present Value of Future Profits	194	237	(43)	(18 %)
TVOG	Time Value of Options and Guarantees	0	0	0	0 %
FCRC	Frictional Cost of Required Capital	(8)	(11)	2	(20 %)
CRNHR	Cost of Non-Hedgeable Risks	(20)	(20)	0	(2 %)
<b>VNB</b>	<b>Value of New Business</b>	<b>165</b>	<b>206</b>	<b>(40)</b>	<b>(20 %)</b>
APE	Annual Premium Equivalent	466	692	(226)	(33 %)
PVNBP	Present Value of New Business Premiums	2,969	3,991	(1,022)	(26 %)
	<b>Margin rate</b>	<b>35.5 %</b>	<b>29.7 %</b>	<b>5.8 %</b>	<b>19 %</b>
	PVNBP ratio	5.6 %	5.2 %	0.4 %	8 %

The APE volume is down in Latin America (- 10 % at constant exchange rate), driven mainly by the Savings/Pensions, Individual Protection and Consorcios segments, despite a good dynamic in Credit Insurance contracts with an high profitability.

The Value of New Business is up by 7.5 %, at constant exchange rate, at + € 15 M.

The following table gives a detailed analysis of the main factors for change in the Value of New Business:

(€m. %)	VNB	Change	Margin rate
<b>Value of New Business 2019</b>	<b>206</b>		<b>29.7 %</b>
Updated model and scope	204	(1)	29.2 %
Change in the APE volume	182	(22)	29.2 %
Change in the segment mix	206	24	33.1 %
Change in experience	222	16	35.7 %
Change in financial market conditions	221	(1)	35.5 %
Updated taxation	221	0	35.5 %
Change in the foreign exchange rate	165	(56)	35.5 %
<b>Value of New Business 2020</b>	<b>165</b>	<b>(40)</b>	<b>35.5 %</b>
Change	(40)		5.8 %

- Updated model and scope (- € 1 M) is linked to several compensatory effects, notably:
  - Model improvements and corrections (+ € 3.5 M);
  - Change in the CNHR calculation method (- € 5.1 M).
- Without including changes in the distribution per segment and per product, the drop in the APE volume (- € 22 M) can be explained by a decrease in the Savings/Pensions, Individual Protection and Consorcios segments.
- The positive impact from the change in the segment mix (+ € 24 M) is primarily explained by the increase in Credit Insurance contract volumes, whose profitability is higher.
- Change in experience (+ € 16 M) is strong in 2020 and is primarily explained by favourable segment mix effects, driven in particular by the development of CVP in Collective Protection.
- Change in financial market conditions (- € 1 M) is low for this financial year and is linked to lower rates in 2020.
- In 2020, the average change in foreign exchange rate (- € 56 M) is unfavourable. The change in foreign exchange rate is 5.8943 BRL/€ and 81.0439 ARS/€ for Brazil and Argentina respectively, compared to 4.4134 BRL/€ and 53.8777 ARS/€ in 2019.

The following table gives the duration of New Business:

Duration (years)	2020	2019
Savings & Pensions	7.7	7.7
Risk & Protection	4.4	4.6

### 3.3.2 MCEV© at 31 december 2020

The following table gives the breakdown of Values In-Force:

	2020		2019		Change	
	€M	€/share	€M	€/share	€M	%
<b>Value of In-Force</b>	<b>803</b>	<b>1.2</b>	<b>1,005</b>	<b>1.5</b>	<b>(202)</b>	<b>(20.1%)</b>
Present Value of Future Profits	941	14	1,194	17	(253)	(21.2%)
Time Value of Options and Guarantees	(1)	(0.0)	(1)	(0.0)	1	(37.0%)
Frictional Cost of Required Capital	(34)	(0.0)	(44)	(0.1)	10	(23.4%)
Cost of Non-Hedgeable Risks	(103)	(0.2)	(143)	(0.2)	40	(27.7%)

The VIF (+ € 803 M) is down € 202 M (- 20.1%) compared to 2019, mainly due to currency effects (- € 307 M), despite a capitalisation of the VIF of + € 56 M.

The following table gives an analysis of variances, distinguishing VIF and ANAV, itself broken down into Free Surplus and Required Capital:

(€M)	ANAV	Free Surplus	Required Capital	VIF	MCEV©
<b>MCEV© 2019</b>	<b>893</b>	<b>524</b>	<b>369</b>	<b>1,005</b>	<b>1,899</b>
Opening adjustments	(400)	(360)	(40)	18	(382)
<b>Adjusted opening MCEV© 2019</b>	<b>493</b>	<b>163</b>	<b>330</b>	<b>1,024</b>	<b>1,517</b>
Value of New Business	(62)	(139)	77	227	165
Expected existing business contribution	3	3	0	56	59
Transfers from the VIF and required capital to Free Surplus	214	255	(41)	(214)	0
Experience variances	117	113	4	(0)	117
Changes in assumptions relating to operating activities	0	2	(2)	3	3
Other operating variance	0	0	0	0	0
<b>Operating MCEV Earnings</b>	<b>272</b>	<b>233</b>	<b>39</b>	<b>72</b>	<b>344</b>
Economic variances	(7)	(7)	1	14	7
Other non-operating variance	2	2	0	0	2
<b>Total MCEV© earnings</b>	<b>268</b>	<b>229</b>	<b>39</b>	<b>86</b>	<b>354</b>
Closing adjustments	(147)	(47)	(99)	(307)	(453)
<b>MCEV© 2020</b>	<b>614</b>	<b>345</b>	<b>270</b>	<b>803</b>	<b>1,418</b>

**Opening adjustments** affect the MCEV© (- € 382 M) mainly due to the payment of dividends (- € 596 M) and the tax gain resulting from the recognition of an asset differed tax linked to the conclusion of the agreements with Caixa Seguridade (+ € 175 M).

The improvement in projection models increases the MCEV© (€ 18 M).

**The Value of New Business** contributes up to + € 165 M to the increases in the MCEV©. This New Business requires a corresponding increase in Required Capital of + € 77 M.

**The expected existing business contribution** (+ € 59 M) results from capitalisation of the VIF (+ € 56 M) and the projected yield on the Free Surplus (+ € 3 M). For transfers of the VIF and Required Capital to Free Surplus, the 2020 result for the 31 december 2019 VIF is transferred to the ANAV with no impact on the MCEV©.

**The experience variances** affect the VIF of - € 0.1 M.

**Changes in assumptions relating to operating activities** result in an increase in VIF of + € 3 M due to the review of non-economic assumptions.

This results in a contribution from operational activity of € 344 M on the MCEV© (Operating MCEV Return of 22.7 %).

Latin America	2020	2019
Adjusted opening MCEV© n-1	1,517	1,525
Operating MCEV Earnings	344	341
Operating MCEV Return	22.7 %	22.3 %

As regards Free Surplus, the available Cash-flow of + € 233 M produced by operational activities is the "Operating Free Cash-Flow" indicator.

**Economic variances** have an impact of + € 7 M on the MCEV©. The impact is basically due to lower rates.

**Other non-operating variances** (+ € 2 M) are linked to tax differences.

**Closing adjustments** are for exchange rate effects, which are unfavourable in Latin America.

## 3.4 EUROPE EXCLUDING FRANCE

The Europe excluding France geographic area covers CNP UniCredit Vita, CNP Santander Insurance (with business in Germany, Italy, Spain, Poland, Belgium, the Scandinavian countries and Austria), CNP Luxembourg, CNP Partners and CNP Cyprus Insurance Holdings.

2020 is characterised by lower sales across all segments, which is more marked in the Traditional Savings segment in Spain and Italy and in Santander Credit Insurance segment.

€ 55 M

17.2 %

19.5 %

VNB 2020

MARGIN RATE ON  
NEW BUSINESS

OF GROUP VNB

### 3.4.1 Value of New Business

The following table gives a breakdown of the VNB :

		2020	2019	Change	
( <b>€M, %</b> )				<b>€M</b>	<b>%</b>
PVFP	Present Value of Future Profits	67	82	(16)	(19 %)
TVOG	Time Value of Options and Guarantees	(2)	(4)	2	(46 %)
FCRC	Frictional Cost of Required Capital	0	(0)	1	(173 %)
CRNHR	Cost of Non-Hedgeable Risks	(9)	(4)	(6)	162 %
<b>VNB</b>	<b>Value of New Business</b>	<b>55</b>	<b>74</b>	<b>(19)</b>	<b>(26 %)</b>
APE	Annual Premium Equivalent	322	348	(26)	(7 %)
PVNBP	Present Value of New Business Premiums	2,924	2,555	370	14 %
	<b>Margin rate</b>	<b>17.2 %</b>	<b>21.4 %</b>	<b>(4.2 %)</b>	<b>(20 %)</b>
	PVNBP ratio	1.9 %	2.9 %	(1.0 %)	(35 %)

The APE volume in Europe excluding France (+ € 322 M), down 7 %, is due to the drop in Traditional Savings sales from CNP UniCredit Vita and CNP Partners, in connection with a shift in sales towards multi-unit-linked products. CNP Santander volumes were lower.

The Value of New Business was down 26 %, or - € 19 M, at € 55 M.

The following table gives a detailed analysis of the main factors in the change in Value of New Business:

(€M, %)	VNB	Change	Margin rate
<b>Value of New Business 2019</b>	<b>74</b>		<b>21.4 %</b>
Updated model and scope	61	(13)	17.5 %
Change in the APE volume	55	(6)	17.1 %
Change in the segment mix	54	(1)	16.9 %
Change in experience	58	4	18.0 %
Change in financial market conditions	55	(3)	17.2 %
Updated taxation	55	0	17.2 %
Change in the foreign exchange rate	55	(0)	17.2 %
<b>Value of New Business 2020</b>	<b>55</b>	<b>(19)</b>	<b>17.2 %</b>
Change	(19)		(4.2 %)

- Updated model and scope (- € 13 M) is primarily explained by the improved modelling of costs related to customer satisfaction for CNP Santander (- € 5.9 M) and the review of the CNHR calculation method across all perimeters (- € 6.5 M).
- Without including changes in the distribution per segment and per product, the drop in the APE volume (- € 6 M) can be explained by a decrease in the sale of CNP Santander Credit Insurance products, linked to the Covid-19 crisis, and CNP Unicredit Vita Unit-Linked Savings products, explained by the fall of single premium underwritings for which duration is higher.
- The change in the segment mix (- € 1 M) was low during this financial year.
- There was a positive change in experience (+ € 4 M) primarily due to a good performance in Unit-Linked products in the Savings segment in Italy.
- The economic environment of low interest rates had a negative impact on the value of Traditional Savings products (- € 3 M).

The following table gives the duration of New Business:

Duration (years)	2020	2019
Savings & Pensions	6.7	7.4
Risk & Protection	2.8	2.5

### 3.4.2 MCEV© at 31 december 2020

The following table gives the breakdown in Values In-Force:

	2020		2019		Change	
	€M	€/share	€M	€/share	€M	%
<b>Value of In-Force</b>	<b>333</b>	<b>0.5</b>	<b>382</b>	<b>0.6</b>	<b>(49)</b>	<b>(12.8 %)</b>
Present Value of Future Profits	418	0.6	432	0.6	(14)	(3.2 %)
Time Value of Options and Guarantees	(41)	(0.1)	(33)	(0.0)	(9)	26.4 %
Frictional Cost of Required Capital	1	0.0	(1)	(0.0)	3	(195.2 %)
Cost of Non-Hedgeable Risks	(45)	(0.1)	(15)	(0.0)	(29)	189.9 %

VIF of Europe excluding France (€ 333 M) is down 12.8% compared to 2019. The TVOG is up because of the unfavourable economic environment. The cost of Non-Replicable Risks increased due to the update in the way in which parameters and quantiles are calculated.

The following table gives an analysis of variances, distinguishing VIF and ANAV, itself broken down into Free Surplus and Required Capital:

(€M)	ANAV	Free Surplus	Required Capital	VIF	MCEV©
<b>MCEV© 2019</b>	<b>982</b>	<b>574</b>	<b>408</b>	<b>382</b>	<b>1,364</b>
Opening adjustments	(20)	(22)	3	(43)	(63)
<b>Adjusted opening MCEV© 2019</b>	<b>962</b>	<b>552</b>	<b>410</b>	<b>339</b>	<b>1,301</b>
Value of New Business	(21)	(117)	96	76	55
Expected existing business contribution	5	5	0	22	27
Transfers from the VIF and required capital to Free Surplus	96	216	(120)	(96)	0
Experience variances	5	(4)	9	11	17
Changes in assumptions relating to operating activities	0	(4)	4	5	5
Other operating variance	0	0	0	0	0
<b>Operating MCEV Earnings</b>	<b>86</b>	<b>97</b>	<b>(12)</b>	<b>18</b>	<b>103</b>
Economic variances	11	(37)	48	(20)	(9)
Other non-operating variance	1	1	0	(3)	(2)
<b>Total MCEV© earnings</b>	<b>97</b>	<b>61</b>	<b>36</b>	<b>(5)</b>	<b>92</b>
Closing adjustments	0	0	(0)	(1)	(1)
<b>MCEV© 2020</b>	<b>1,059</b>	<b>613</b>	<b>446</b>	<b>333</b>	<b>1,393</b>

**Opening adjustments** affect the MCEV© (- € 63 M), consisting of:

- The decreased ANAV (- € 20 M) was due to changes in intangible assets (- € 3 M), as well as the payment of a dividend following the sale of Isalud (- € 16 M) in Spain.
- The decreased VIF (- € 43 M) was primarily due to the updated CNHR calculation methods across all perimeters and improved customer satisfaction cost modelling in Santander.

**The Value of New Business** in MCEV© is + € 55 M, mostly driven by the CNP Santander subsidiary (+ € 32 M) and the Italian subsidiary CNP UniCredit Vita (+ € 14 M). It includes the net result generated in 2020 by New Business of - € 21 M posted to ANAV. The corresponding increase in Required Capital is equal to € 96 M, mainly driven by the non-life business of CNP Santander.

**The expected existing business contribution** (+ € 27 M) results from capitalisation of the VIF (+ € 22 M) and the projected yield on the Free Surplus (+ € 5 M). Changes in the VIF enable - € 120 M to be released as regards Required Capital and + € 96 M to be transferred to ANAV, driven by the results on stock in the Italian subsidiary (+ € 55 M) and CNP Santander subsidiary (+ € 24 M). For transfers of VIF and Required Capital to Free Surplus, the 2020 result from the december 2019 VIF is transferred to the ANAV without impact on the MCEV©.

**Experience Variances** affect the ANAV by + € 5 M. The VIF is affected up to + € 11 M.

**Changes in assumptions relating to operating activities** affect the VIF of + € 5 M.

The result is a contribution from operational activity of + € 103 M on the MCEV© (Operating MCEV Return of 7.9%). The OFCF is + € 97 M.

Europe excluding France	2020	2019
Adjusted opening MCEV© n-1	1,301	1,212
Operating MCEV Earnings	103	138
Operating MCEV Return	7.9 %	11.4 %

**Economic variances** have a - € 9 M impact on MCEV©, of which + € 11 M for ANAV, due to variations in unrealised gains and loss on the equity capital of all subsidiaries. The impact on VIF of - € 20 M is mainly driven by CNP Partners (- € 16 M) subsequent to expanding annuity modelling and the deterioration in market conditions which increase, in a growing number of scenarios, the cost of capital guarantee on Traditional Savings products.



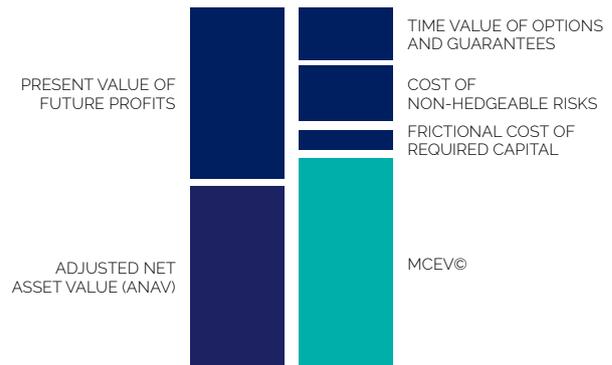
# 4

## Method

4.1	<b>Adjusted Net Asset Value</b>	42
4.1.1	<b>Required Capital</b>	42
4.1.2	<b>Free Surplus</b>	42
4.2	<b>Value of In-Force (VIF)</b>	43
4.2.1	<b>Present Value of Future Profits (PVFP)</b>	43
4.2.2	<b>Time Value of Options and Guarantees (TVOG)</b>	43
4.2.3	<b>Frictional Cost of Required Capital (FCRC)</b>	44
4.2.4	<b>Cost of Residual Non-hedgeable risks (CRNHR)</b>	44
4.3	<b>Value of New Business (VNB)</b>	45
4.3.1	<b>Definition of New Business</b>	45
4.3.2	<b>Valuation Method</b>	45

## 4.1 ADJUSTED NET ASSET VALUE

The Embedded Value represents the consolidated value of shareholders' interests generated by insurance business in portfolio on the date of valuation. It is calculated before the payment of dividends and taxes related to such dividends. This value excludes any incorporation of future business, in other words policies incepted after the valuation date (except for Group Protection). The method used by the CNP Assurances Group is based on the MCEV© principles. This chapter provides information on the way in which those principles are applied by the CNP Assurances Group.



Adjusted Net Asset Value ("ANAV") represents the fair value of assets that do not back insurance liabilities minus the fair value of liabilities other than insurance liabilities. The ANAV is reconciled with the IFRS shareholders' equity as follows

- The elimination of intangible assets especially acquisition variances, the value of sales agreements, portfolios acquired and deferred acquisition costs, except for acquisition costs that have already been amortised in the VIF;

- The reincorporation of the shareholders' portion in unrealized gains not included in IFRS (especially for property assets and securities in the books at amortised cost) and the deduction of the portion of revaluations of financial assets included in the portfolio value modelling;
- The restatement of subordinated securities.

The ANAV is determined at the date of valuation for consolidated figures and for each of the subsidiaries by excluding minority interests and is split into Required Capital and Free Surplus.

### 4.1.1 REQUIRED CAPITAL

The Required Capital corresponds to the market value of assets representing equity that the insurer must immobilize as regards its business and the distribution of which to shareholders is restricted.

The Required Capital reflects the level of capital that the Group sets to attain a target rating and control of its own risks as well as all other fixed components.

For European countries, the Required Capital is 110 % of the regulatory solvency Required Capital in accordance with the Solvency 2 standard, net of all other sources of funding such as subordinated securities and future profits on policies in stock valued in a Solvency 2 universe. The Required Capital for each entity is calculated on the basis of its individual SCR. The decree of 28 december 2019, which allows surplus funds to be taken into account in the solvency ratio, has no change on this assumption.

For Latin America, the Required Capital chosen by the CNP Assurances Group is 110 % of the solvency Required Capital under the local standard, which also includes a component linked to market risk.

### 4.1.2 FREE SURPLUS

The Free Surplus is the value of the ANAV minus the Required Capital.

## 4.2 VALUE OF IN-FORCE (VIF)

The VIF consists of the Present Value of Future Profits (PVFP) minus the following components:

- The Time Value of Options and Guarantees (TVOG);
- The Cost of Residual Non-Hedgeable Risks (CRNHR).
- The Frictional Cost of Required Capital (FCRC);

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

The PVFP is the present value of Future Profits net of tax generated by policies in portfolio at the date of valuation and with a central assumption of changes in financial markets aligned with the reference rate curve on the basis of a market-consistent method. The Group's choice as regards the reference rate curve is described in the "Assumptions" section of this report.

The PVFP included the intrinsic value of options and financial guarantees on policies in portfolio. The main options and financial guarantees included are as follows:

- Credited rate guarantees (Minimum Guaranteed Rate);
- Profit sharing options;
- Floor guarantees on Unit-Linked policies;
- Surrender options.
- Technical rate guarantees on annuities being paid and guarantees resulting from the point acquisition tariff for the Préfon portfolio and other L.441 products;

The Time Value of Options and Financial Guarantees is incorporated separately in the TVOG.

### 4.2.2 Time Value of Options and Guarantees (TVOG)

The Time Value of Options and Financial Guarantees ("TVOG") is generated by the asymmetry of risk sharing between shareholders and policyholders in accordance with the diverse changes on financial markets. Stochastic calculations are used, on the basis of multiple simulations, to scan the field of possibilities in terms of changes on financial markets and so capture the cost linked to financial options held by policyholders.

The valuation is based on a stochastic model itself based on a neutral-risk approach. This approach consists of setting the price of an asset as the expected future yield updated at the reference rate. The economic generator Moody's Analytics is used to generate 1,000 scenarios projecting:

- The change in equities indices;
- The nominal rate curve for whole maturities between 1 year and 50 years;
- The change in the property index;
- The corporate credit spread curves (AAA to CCC ratings) for whole maturities between 1 year and 50 years.
- The actual rate curves for whole maturities between 1 year and 50 years;

Inflation is obtained by the difference between actual rates and nominal rates for 1 year maturity. The share dividend rate and property rent rate are set at 2.5% of the fair value of shares and property assets respectively and are supposed constant.

The lack of market depth (in particular the interest rate option) introduce an uncertainty regarding the consistency of asset prices on financial markets. This situation led CNP Assurances to use in 2019 the technique of path freezing (PPF) on the most extremes downside scenarios. This adjustment has been disabled for the 2020 annual closing, in the line with the Solvency 2 calculations.

The techniques used by the Group to calibrate the economic generator are described in the "Assumptions" section of this report. In addition, the projection model incorporates a competitive surrender component that represents the propensity of policyholders to surrender their policies when the actual return deteriorates compared to a market reference.

---

### 4.2.3 Frictional Cost of Required Capital (FCRC)

The need to block the Required Capital in respect of business covered results in a carry cost to be allocated to the value of Embedded Value and New Business. In market-consistent modelling, Frictional Costs are the cost of taxation friction and financial costs related to backing that capital.

The cost of interest paid to holders of subordinated debt is included in the value of business in portfolio. The approach used is as follows: the reference value of subordinated securities is determined in reference to the method given in the article 75 of Solvency 2 directive and the 5th orientation paper by EIOPA. It consists of using a valuation of subordinated securities taking account of the spread on issue and the exact characteristics of the securities.

The Frictional Cost of Required Capital also includes the charge linked to funding a part of the Required Capital by subordinated securities; this charge is valued as the difference between the economic value of subordinated securities and their nominal. The CNP Assurances Group defines this economic value as being the present value net of future amounts paid to holders of securities calculated taking account, in the discount rate, of the spread on issue of each security. The Required Capital for new production is deemed to be funded by subordinated securities in the same proportions as the stock of policies; the funding is achieved by newly issued securities, for which the economic value is equal to the nominal.

### 4.2.4 Cost of Residual Non-Hedgeable Risks (CRNHR)

The cost allocated to non-hedgeable financial and non financial risks results from:

- The inclusion of risks also not valued in the PVFP or TVOG such as the counterparty default risks and operational risks.
- The asymmetrical impact of particular non-hedgeable risks on value and especially mortality, longevity and morbidity risks included in policyholders' with-profits clauses or the the uncertainty underlying the establishment of assumptions on non-hedgeable risks concerning claims, surrenders and costs, that are estimated using a "best estimate" approach.

The Group has used a cost of capital approach to value these residual non-hedgeable risks, whose quantile and parameters have been standardized in 2020. The capital allocated as regards these risks is defined as the contribution of each of the specified risks to a level of capital and according to Solvency 2.

## 4.3 VALUE OF NEW BUSINESS (VNB)

### 4.3.1 Definition of New Business

Projections made to estimate the value of a year's new production are based on the profile and volume of New Business done in 2020.

#### Individual traditional and Unit-Linked Savings and Pensions:

New production consists of new policies and unscheduled payments on existing policies, without assumption on the recurrence of premiums.

#### Collective Pensions:

New production of Collective Pension policies consists of new policies and unscheduled payments on existing policies. It concerns L.441 and corporate Pension policies in France and PGBL/VGBL policies (Unit-Linked Pensions) in Brazil.

#### Individual Protection:

New production consists only of new policies and future premiums attached to those policies. Future periodic premiums on existing policies are valued in the value of stock.

#### Collective Protection:

As Collective Protection policies are annual from 1<sup>st</sup> January to 31<sup>st</sup> december with a inception date prior to 1<sup>st</sup> January, new production in a year consists policies whose cover period is the year following the current year.

#### Credit Insurance:

New production consists of new policies and future premiums attached to those policies. Future periodic premiums on existing policies are valued in the value of stock.

#### Other Products:

New production consists only of new policies and future premiums attached to those policies, projected periodically and split as annual, monthly or one-off policies. Future periodic premiums on existing policies are valued in the value of stock for the year.

### 4.3.2 Valuation method

The approach retained for the valuation of New Business consists in determining aggregates identical to those of the value of stock: it is defined as the present value of projected results for policies written in the year after deducting of the Time Value of Financial Options and Guarantees, Frictional Cost of Required Capital, and the Cost of Residual Non-hedgeable Risks. The Value of New Business is based on a projection of its contribution to results as from the date of sales.

#### Traditionally, there are two methods of measuring its contribution:

- **The "stand alone" method:** the value of new business is measured without taking into account the pooling effect with policies in stock and a part of the unrealised gains or losses on assets representing stock;
- **The "marginal" method:** the value of new business is measured taking into account pooling between new policies and policies en stock, and taking into account part of the unrealised gains or losses on assets representing stock.

#### The Group uses a marginal method for valuing its VNB but that varies operationally depending on the product:

- For all portfolios excluding Traditional Savings and for Group Risk in France, no unrealized gains and losses is taken into account in determining the VNB, and premiums on New Business are deemed to be invested in new assets available at the date of valuation in accordance with the investment policy applied in the year; because there are no significant interactions between New Business and stock, using a "stand alone" is method equivalent for these products to using a "marginal" method and is preferred operationally;
- For Traditional Savings portfolios, in France, Italy and Spain, and for Group Risk in France since 2020, the revaluation of policies does not distinguish different generations of identical policies, and depends on the financial performance linked to financial assets representing generations overall without distinction: a "marginal" method is applied operationally. For those portfolios, the method consists of taking into account a fraction of the unrealised capital gains or losses of the assets to which the participatory contracts are backed and supposing that it is used for New Business alone.



# 5

## Assumptions

5.1	<b>Economic Assumptions</b>	<b>48</b>
5.1.1	Interest rate reference curve	48
5.1.2	Calibrating the rate model	49
5.1.3	Calibrating the equity model	50
5.1.4	Calibrating the other diversified index	50
5.1.5	Calibrating the corporate credit spread model	50
5.1.6	Exchange rate	51
5.1.7	Tax rate	51
5.1.8	Cost of capital allocated to residual non-hedgeable risks	51
5.1.9	Subordinated Securities finance rate	51
5.2	<b>Non economic Assumptions</b>	<b>52</b>
5.2.1	Expenses assumptions	52
5.2.2	Claims and persistence assumptions	52
5.2.3	Future management decisions	52

## 5.1 ECONOMIC ASSUMPTIONS

Embedded Value calculations are based on financial assumptions determined from market conditions at 31 december 2020:

### 5.1.1 Interest rate reference curve

The MCEV© principles state that the reference rate curve can be determined from the swap rate curve, potentially adjusted and especially to enable convergence with the Solvency 2 regulatory requirements.

The swap rate curves minus the "credit risk adjustment" in euros and Brazilian reals used for determining the reference rate curves for France, Europe excluding France and Latin America are given in the following table.

Maturity	€ rate	€ rate	BRL rate	BRL rate
	31/12/2020	31/12/2019	31/12/2020	31/12/2019
1	-0.62 %	- 0.42 %	2.60 %	4.22 %
2	-0.62 %	- 0.39 %	3.92 %	4.92 %
5	-0.56 %	- 0.23 %	5.73 %	6.12 %
10	-0.37 %	0.11 %	7.01 %	6.63 %
15	-0.17 %	0.36 %	7.41 %	6.67 %
20	-0.09 %	0.50 %	7.34 %	6.58 %
30	0.69 %	1.20 %	6.97 %	6.35 %
Ultimate forward rate	3.75 %	3.90 %	5.50 %	5.50 %
Point of entry of the extrapolation	20 years	20 years	10 years	10 years
Convergence	40 years	40 years	50 years	50 years

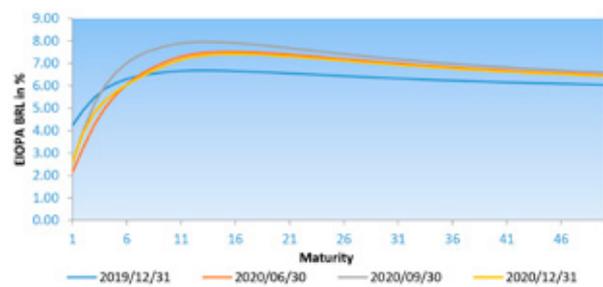
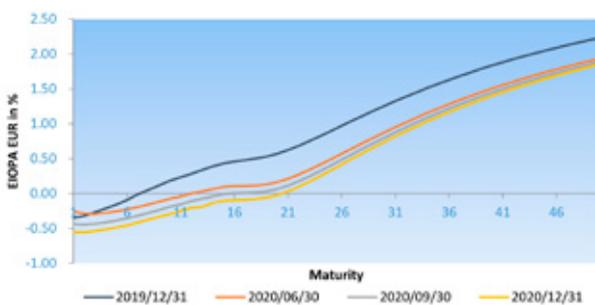
For the Eurozone, the rate curve is extrapolated with an entry point at 20 years which converges on 40 years according to the Smith-Wilson technique, to the ultimate forward rate which comes to 3.75 % (down 0.15 % from 31/12/2019). For Brazil, the entry point is at 10 years and the rate curve converges on 50 years to the ultimate forward rate of 5.50 %.

To determine the reference rate curve, the Group has chosen to align itself with the Solvency 2 prudential regulatory requirements, and to use EIOPA curves.

The levels of credit risk adjustment and volatility adjustment for the different zones within the Eurozone at 31/12/2020 are equals to 31/12/2019 and are given in the following table:

Adjustements (bps)	France	Italy	Spain	Ireland	Luxembourg	Cyprus	Brazil
CRA	10	10	10	10	10	10	35
VA	7	7	7	-	7	-	n.a

For operational reasons, the application of a "volatility adjustment" is not applied across the Group. This adjustment has not been taken into account for certain countries, in particular for those for which this application depends on the specificities of local supervisors.



### 5.1.2 Calibrating the rate model

The generation model used for nominal rates is based on the two factor Libor Market Model Plus (LMM+). The 10Y ATM swaption volatilities for markets used for calibration are as follows:

Terms	1 year	2 years	5 years	10 years	15 years	20 years	25 years	30 years
MCEV© 31/12/2019 (normal)	0.46 %	0.48 %	0.53 %	0.57 %	0.56 %	0.54 %	0.52 %	0.50 %
MCEV 31/12/2020 (normal)	0.37 %	0.41 %	0.49 %	0.53 %	0.53 %	0.52 %	0.50 %	0.48 %

Actual rates are generated by means of the two factor Vasicek mode, which has been calibrated on Treasury bonds indexed on the inflation.

### 5.1.3 Calibrating the equity model

A different level of volatility for each projection horizon between 1 and 10 years was used to generate the equity index (determinist volatility model). The levels used are given in the following table.

The volatility parameters were calibrated from implied ATM forward volatilities on the Eurostoxx 50 index at 31 december 2020.

Terms	1 year	2 years	5 years	10 years
MCEV 31/12/2019	15.0 %	15.9 %	17.2 %	18.2 %
MCEV 31/12/2020	19.2 %	19.4 %	19.9 %	20.5 %

The correlation coefficients between the different factors (equity, actual interest rates and nominal interest rates) are determined by Moody's Analytics from econometric analyses and experts' opinions.

### 5.1.4 Calibrating the other diversified index

Deux autres indices de diversifications sont calibrés dans le modèle de projection. Il s'agit de l'indice immobilier et de l'indice Equity Minimum Variance pour lesquels les volatilités considérées sont respectivement de 7 % et de 15,04 %.

La correction appelée "Moment Matching Adjustment" est appliquée sur l'ensemble des indices de diversification pour assurer une projection martingale.

### 5.1.5 Calibrating the corporate credit spread model

In 2015 the CNP Assurances Group added a corporate credit spread diffusion model, the Credit G2 (JLT) model. The model's parameters are calibrated so as to reproduce the spread of an

A rated bond of 7 years maturity (49 bps at 31 december 2020) with the following historic transition matrix:

	AAA	AA	A	BBB	BB	B	CCC	Default
AAA	94.2 %	5.6 %	0.2 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
AA	2.1 %	89.8 %	7.5 %	0.2 %	0.1 %	0.1 %	0.1 %	0.1 %
A	1.1 %	3.2 %	90.2 %	4.8 %	0.2 %	0.2 %	0.2 %	0.2 %
BBB	1.1 %	1.2 %	4.9 %	89.4 %	2.7 %	0.3 %	0.3 %	0.4 %
BB	0.4 %	0.4 %	0.8 %	6.9 %	82.6 %	7.0 %	0.3 %	1.5 %
B	0.4 %	0.4 %	0.8 %	1.6 %	5.9 %	80.8 %	6.4 %	3.9 %
CCC	0.3 %	0.4 %	0.8 %	1.5 %	2.5 %	7.8 %	77.4 %	9.4 %
Default	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	100.0 %

## 5.1.6 Exchange rate

The following table gives the exchange rates for the CNP Assurances Group business zones outside the Eurozone:

	Spot		Average	
	31/12/2020	31/12/2019	31/12/2020	31/12/2019
Brazil (BRL / €)	6.3735	4.5157	5.8943	4.4134
Argentina (ARS / €)	102.8603	67.1949	81.0439	53.8777
Norway (NOK / €)	10.4703	9.8638	n.a.	n.a.
Sweden (SEK / €)	10.0343	10.4468	n.a.	n.a.
Poland (PLN / €)	7.4409	4.2568	n.a.	n.a.
Denmark (DKK / €)	4.5597	7.4715	n.a.	n.a.

The spot rate is a period-end rate, it is applied to VIF calculations. The average rate is the average daily rate for the year, it is applied for VNB calculations.

## 5.1.7 Tax rate

The tax rate used in the Embedded Value is the standard rate in the country in which Group is operating. The tax rate is up in France following a methodological review: reduced tax rates, in particular on unlisted investments on its balance sheet, are treated elsewhere. Furthermore the tax rate goes to 25 % by 2022. The table below shows the tax rates of all the countries of the Group:

Terms	France	Italy	Luxembourg	Spain	Cyprus	Brazil	Argentina	Ireland
MCEV 31/12/2019	17.56 %	30.82 %	26.01 %	25 %	12.50 %	40 % <sup>(1)</sup>	30 % <sup>(2)</sup>	12.50 %
MCEV 31/12/2020	26.19 %	30.82 %	24.94 %	25 %	12.50 %	40 % <sup>(1)</sup>	30 % <sup>(2)</sup>	12.50 %

<sup>(1)</sup> Except for CAIXA Consorcios and Odonto whose tax rate is 34%.

<sup>(2)</sup> The tax rate goes to 25% in the second semester of 2021.

## 5.1.8 Cost of capital allocated to residual non-hedgeable risks

Following the methodological review of the CRNHR calculation, two groups of risks are included in the CRNHR calculation: all the risks that are not projected in the PVFP or in the TVOG and all of the risks that are uncertain and / or asymmetric, but which are considered in the calculation of the PVFP / TVOG. The same capital cost rate is applied to these two groups, set at 5% at the end of 2020.

## 5.1.9 Subordinated securities finance rate

Those cover 76 % (average for the Group) of the Solvency Required Capital at 31 december 2020 for the CNP Assurances entity.

## 5.2 NON ECONOMIC ASSUMPTIONS

---

### 5.2.1 Expenses assumptions

Every year-end, the Group produces an analysis of expenses by object: acquisition, management, claims, investment costs and other technical and non technical charges as well as a breakdown by company, product family and network. These expenses bases are then projected by means of relevant drivers. At 31 december 2020, an annual rate of inflation between 1 % and 1.5 % was used for European entities for the drivers not already containing implicit inflation. In Latin America an inflation curve is used in line with the local market situation.

### 5.2.2 Claims and persistence assumptions

Non-economic assumptions, mortality experience, surrender laws and claims assumptions are determined by each entity on the basis of their best estimate at the date of valuation. They derive from an analysis of actual and past experience seen on each of the portfolios valued.

### 5.2.3 Future management decisions

The calculation of MCEV<sup>©</sup> metrics needs the incorporation of future management actions. Enabling management of the company to be tailored according to the financial and economic situation, they are represented in particular by the strategies on investment and the revaluation of amounts outstanding and specific actions on liabilities.

Future management actions taken into account in the most unusual environments, such as long-term negative short and long interest rates, were updated in 2020. This new management decisions are based on investment and revaluation strategies applied during 2020, and are now considering a decrease in equity exposure in the event of a drop in rates of - 50 bps. This management action is applied to the only - 50 bps sensitivity. Reinvestment durations have also been extended.



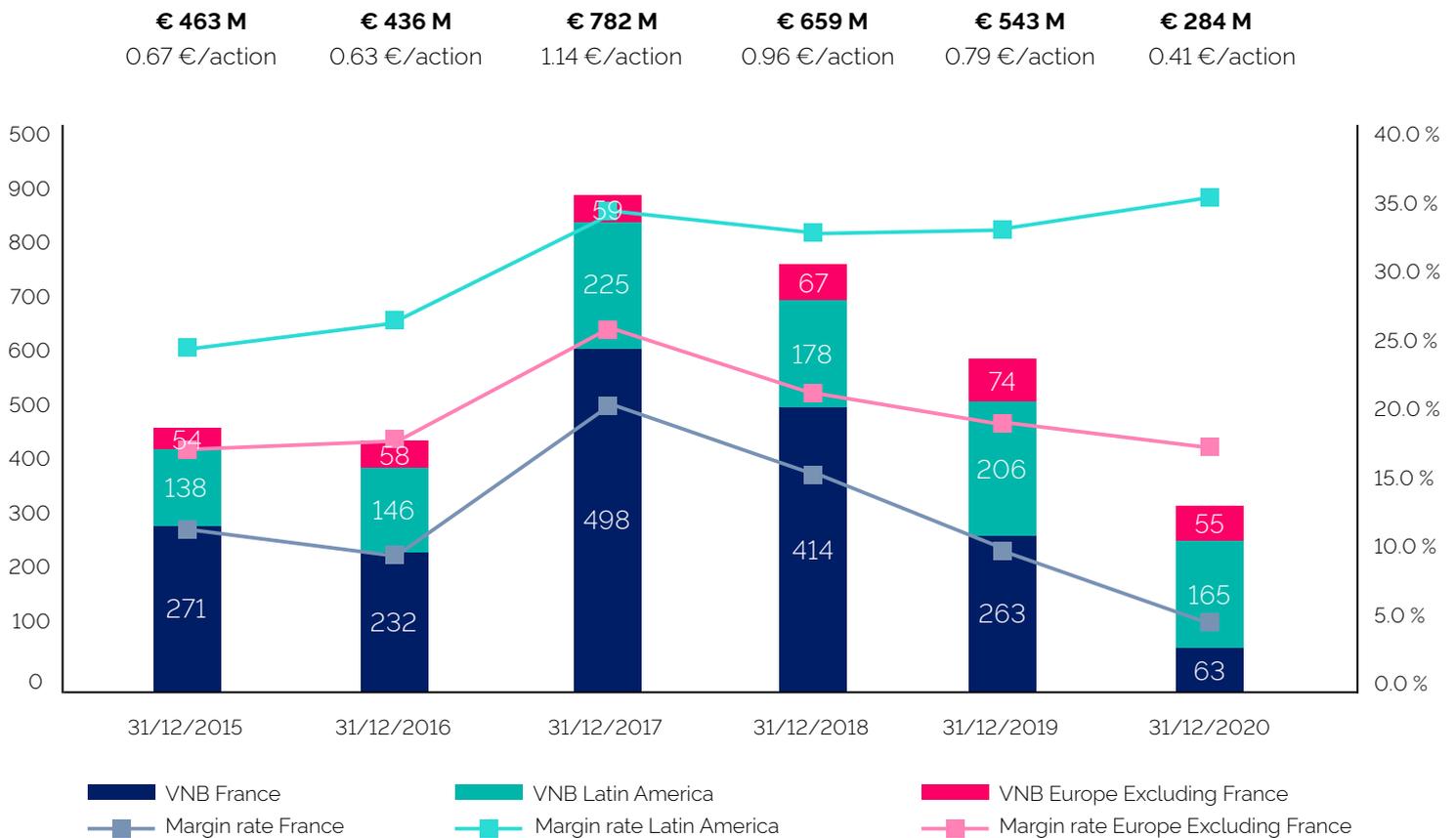
# 6

## Changes in MCEV© since 2015

6.1	VNB history (€m and margin rate as %)	55
6.2	MCEV© history (€m)	56

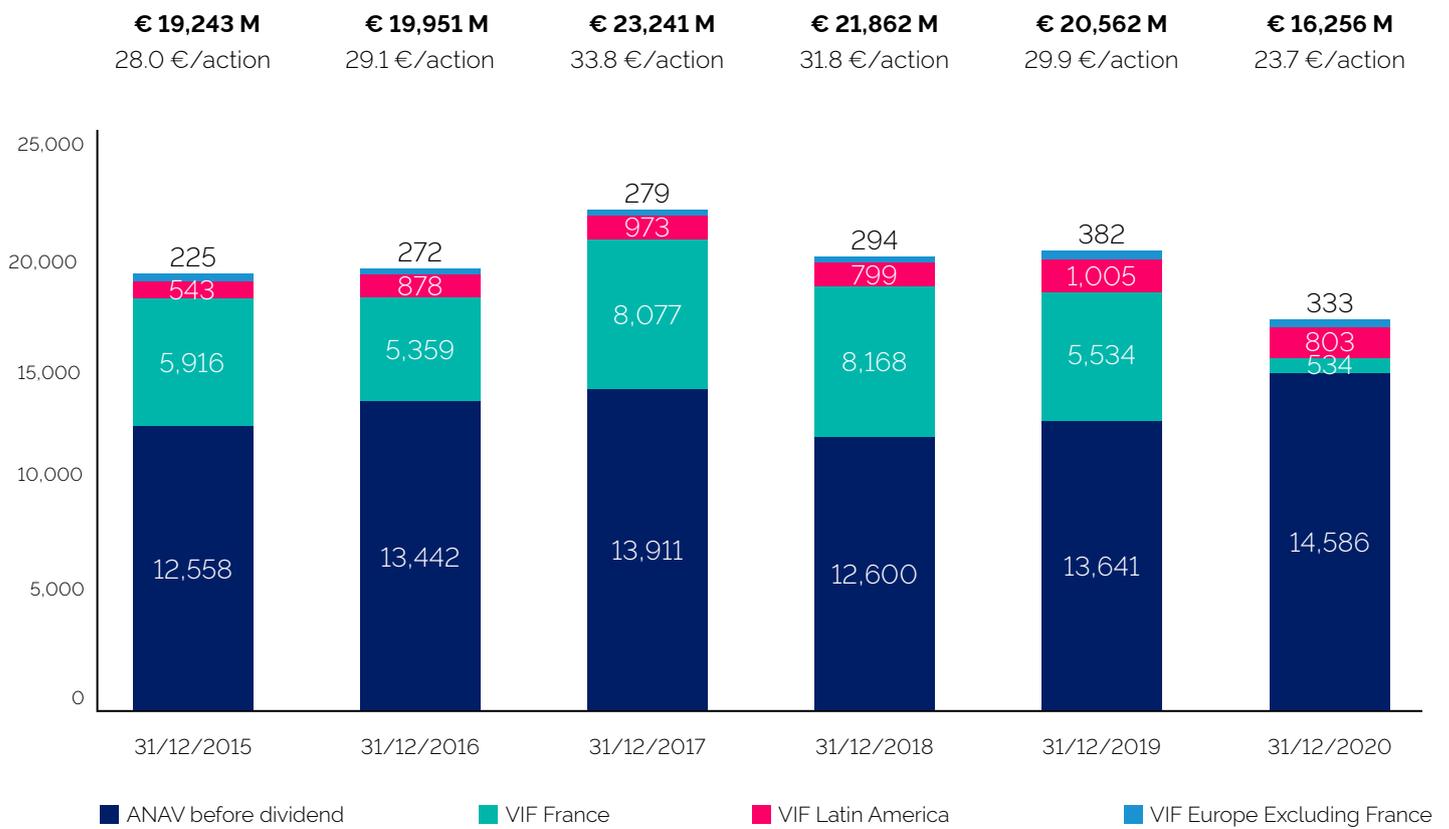


## 6.1 VNB HISTORY (€M and margin rate as %)



The above graph shows changes over time in the Group's VNB, compiled in accordance with the CFO Forum principles. Since 2014 the VNB has benefitted from pooling the unrealized gains in stock, with use of the marginal method.

## 6.2 MCEV© HISTORY (€M)





# 7

## **External opinion on Market-Consistent Embedded Value**

# EXTERNAL OPINION

CNP ASSURANCES  
4 PLACE RAOUL DAUTRY  
75716 PARIS CEDEX 15

## 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©) information regarding MCEV© and its components, the value of new business, the analysis of movements in MCEV© and MCEV© sensitivities at 31 december 2020 of the CNP Assurances Group (hereinafter referred to as "the MCEV© Information"), presented in the attached document ("Embedded Value Report at 31 december 2020", hereinafter referred to as "the EV Report").

The MCEV© Information and the underlying assumptions upon which the information relies have been established under the responsibility of management of CNP Assurances. 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© Information with the methodology and assumptions adopted by management, with the MCEV© principles and the guidance published by the CFO Forum in april 2016, as well as on the consistency of the accounting information used with the consolidated financial statements of CNP Assurances as at 31 december 2020.

Our work, which does not constitute an audit, nor a limited review, has been performed in accordance with the professional standards applicable in France and the professional guidance issued by the French Institute of statutory auditors, and aims at forming a conclusion based on appropriate procedures.

Our work included the following procedures:

- Understanding the process used by management to prepare the MCEV© Information;
- Checking the "market consistent" approach used by management and described in the EV Report, in respect of its consistency with the MCEV© principles and guidance published by the CFO Forum, revised in April 2016;
- Checking the compliance of the methodology applied to establish the MCEV© Information with that described in the EV Report;
- Checking the economic assumptions used and their consistency with observable market data;
- Checking the consistency of the operational assumptions used in respect of past, current and expected future experience;
- Checking the consistency of the results presented in the MCEV© Information with the methodology and assumptions described in the EV Report;

- Checking the consistency of the accounting data used in preparing the MCEV© Information with the annual consolidated financial statements and underlying accounting records at 31 december 2020;
- 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 expectations, notably regarding future management actions and policyholder's behavior, thus by nature includes an element of uncertainty and might evolve in accordance with the changes of environment. As a result, actual outcomes may differ significantly from those expected in the MCEV© Information. We do not express any conclusion relating to the possibility of such outcomes.

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

- The consistency of the results of the MCEV© Information at 31 december 2020 as presented in the EV Report with the methodology and assumptions adopted by management, which are consistent with MCEV© principles 1 to 16, with the guidance published by the CFO Forum in april 2016;
- The consistency of the accounting information used with the CNP Assurances Group's consolidated financial statements at 31 december 2020, upon which we expect to issue our audit report by early march 2021.

This report is governed by the French law.

Neuilly-sur-Seine and Courbevoie, 17 February 2021  
PricewaterhouseCoopers Audit / Mazars

Bénédicte Vignon - Eric Demerlé - Olivier Leclerc - Grégory Boutier



# 8

## Appendices

Appendix A: **Glossary**  
Appendix B: **Perimeter**

62  
64

# ANNEXE A: GLOSSARY

---

## Adjusted Net Asset Value (ANAV)

Calculated by subtracting from the Group shareholders' equity the subordinated debt classed as shareholders' equity, intangible assets and other components also valued in the Value of In-Force. This indicator is net of minority interests. The Adjusted Net Assets Value are composed of Required Capital and Free Surplus.

## Annual Premium Equivalent (APE)

Indicator of production volume in the period, being one tenth of the sum of unique premiums and unscheduled payments to which is added the amount of periodic premiums subscribed in the year. This indicator is net of minority interests and net of reinsurance.

## Frictional Cost of Required Capital (FCRC)

The need to block the Required Capital results in a carry cost to be allocated to the value of the Embedded Value and New Business. In market-consistent modelling, the Frictional Costs are the cost of taxation friction and financial costs related to blocking that capital.

## Cost of Residual Non-Hedgeable Risks (CRNHR)

The cost allocated as regards non-hedgeable financial and non financial risks results from:

- The inclusion of non valued risks in addition in the PVFP or TVOG such as counterparty default risks and operational risks.
- The asymmetrical impact of certain non-hedgeable risks on value and especially mortality, longevity and morbidity risks included in policyholders' with-profits clauses.
- The uncertainty underlying the establishment of assumptions on non-hedgeable risks concerning claims, surrenders and costs, that are estimated using a "best estimate" approach.

## EIOPA

European Insurance and Occupational Pension Authority.

## Change at constant exchange rates

In the comparison at constant exchange rates, the exchange rate for the previous period is applied to the current period. This indicator is used to measure changes in the main indicators excluding exchange rate effects.

## Change at constant perimeter

In the comparison at constant perimeter, the contribution from activities disposed of or ceased is removed from the perimeter of the previous period, and the contribution from new activities is removed from the perimeter of the current period. This indicator is used to measure changes in the main indicators on a comparable perimeter of activity.

## Free Surplus

Is the portion of the Adjusted Net Asset Value that can be freely used by management to pay dividends and develop activity through marketing New Business or by means of external growth operations. This indicator is net of minority interests.

## IFRS

International Financial Reporting Standards.

## Market-Consistent Embedded Value (MCEV<sup>©</sup>)

Method of valuing a life insurance company that is broken down into Adjusted Net Asset Value and the Value of In-Force, namely the value insurance policies in portfolio at the date of valuation, determined using a market-consistent asset and liability valuation method. This indicator is net of minority interests.

## Operating Free Cash-Flow (OFCF)

Measures the release of Free Surplus, which can be used to pay dividends and develop activity through marketing New Business or by means of external growth operations. This indicator is net of minority interests. The Operating Free Cash-Flow can be calculated gross or net of issues and repayments of subordinated debt.

## Return on MCEV<sup>©</sup>

Measures the weight of the operating income of the year divided by the adjusted opening MCEV<sup>©</sup> for the past year.

**Solvency Required Capital (SCR)**

Level of eligible equity enabling an insurer to absorb significant losses, and give reasonable assurance that commitments to policyholders and beneficiaries will be honoured when they are due. The SCR is defined by the Solvency 2 directive as the value-at-risk of the insurer's basic equity, with a 99.5% level of confidence at a one year horizon. CNP Assurances has opted to calculate its SCR in accordance with a standard formula without transitory measurements, except grandfathering subordinated debt issued before the entry in force of Solvency 2.

**Margin rate on New Business or APE ratio**

Is calculated by dividing the Value of New Business by the APE. This indicator is used to measure the future profitability of insurance policies written in the period.

**TVOG (Time Value of Options and Financial Guarantees)**

The time value of options and financial guarantees represents the additional cost of options and guarantees beyond their intrinsic value that is included in the determinist scenario. The time value of costs of options and financial guarantees is calculated by the difference between the average value of future Cash-flows updated using stochastic and determinist scenarios.

**Ultimate Forward Rate (UFR)**

Used to update insurers' long term liabilities (Pensions, death, life assurance, public liability, etc.) in the absence of relevant market data. Beyond the last liquid point (LLP) (20 years in the Eurozone) market rates are extrapolated and converge over a 40 year period on an ultimate rate (the UFR).

**Value of New Business (VNB)**

Assessment of the value of insurance policies written in the period, determined in accordance with a market-consistent asset and liabilities valuation method. It is calculated as the Present Value of Future Profits estimated on insurance policies written in the period, minus the time value of options and financial guarantees, frictional cost of capital and the cost of non-hedgeable risks. This indicator is net of minority interests and tax on profits.

**Value of In-Force (VIF)**

Assessment of the value of insurance policies in portfolio at the date of valuation, determined in accordance with a market-consistent assets and liabilities valuation method. It is calculated as the estimated present value of future profits on insurance policies in portfolio at the date of valuation, minus the time value of options and financial guarantees, frictional cost of capital and the cost of non-hedgeable risks. This indicator is net of minority interests and tax on profits.

## APPENDIX B: PERIMETER

Geographical Area	Country	Entity	Shares Owned
France	France	CNP Assurances	Consolidating Entity
	France	CNP Caution	100.00 %
	France	MFPrévoyance	65.00 %
	France	Arial CNP Assurances	40.00 %
Latin America	Brazil	CVP	40.00 %
	Brazil	Other perimeters	51.75 %
	Argentina	CNP Assurances Compañía de Seguros	76.47 %
Europe excluding France	Italy	CNP Unicredit Vita	57.50 %
	Italy	CNP Assurances Italian Branch	100.00 %
	Spain	CNP Partners	100.00 %
	Luxembourg	CNP Luxembourg	100.00 %
	Cyprus / Greece	CNP Cyprus Insurance Holdings	100.00 %
	Ireland	CNP Santander Insurance	51.00 %

A change of share impacted some perimeters of the Brazil entity (Vida, Prestamista and Previdência) due to the conclusion of a commitment agreement: the share goes from 51.75 % to 40 % at the 1<sup>st</sup> January 2021. For the remaining perimeter, the share of 51.75 % is kept.

Entities not covered have been valued on the basis of their ANAV.

