

CNP Assurances

Embedded Value Report

31/12/2009

Presentation of results for 2009

24th of February, 2010

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1. Introduction

Since 1999, CNP Group's financial reporting includes the publication of the embedded value, which takes into account the value of the existing portfolio of contracts, as well as the publication of the New Business value. The scope is that of all the group's entities that have a significant impact on to the value of the CNP Assurance group and of its subsidiaries in France and abroad.

These indicators provide a picture of the present value of future profits that the insurer may expect from his stock portfolio. The New Business value offers a more detailed view of the New Business sold during the last year.

The published values stem from a "Market Consistent" approach. The calculations carried out by CNP group comply with the $MCEV^{\odot 1}$ standards, as stated in the "The European Insurance CFO Forum Market Consistent Embedded Value Principles", with the exception of the valuation of Caixa Seguros, which is based on the traditional embedded value method.

These valuations are methodologically reviewed and the coherence of the results is verified. The verifications lead to the certification by the Milliman firm.

Furthermore, the $MCEV^{\odot}$ sensitivities have been integrated in Appendices IFRS 7, and as such are subject to review by the auditors.

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2. <u>Results</u>

2.1 $MCEV^{\odot}$ as of the 31st of December 2009

	MCEV [©] 2009 before payment of 09 dividends		MCEV [©] 2008 after payment of 08 dividends		MCEV [®] 2008 before payment of 08 dividends		Variation before payment of 09 dividends	
	M€	€/ Share ²	M€	€/ Share	M€	€/ Share	M€	%
ANAV – Adjusted Net Asset Value	8,956	60.3	7,648	51.5	8,071	54.3	1,307	17%
Required capital	7,496	50.5	6,618	44.6	6,618	44.6	877	13%
Free Surplus	1,460	9.8	1,030	6.9	1,453	9.8	430	42%
VIF – Value of In-Force	2,760	18.6	2,369	15.9	2,369	15.9	391	16%
Present value of future profits	5,748	38.7	4,723	31.8	4,723	31.8	1,026	22%
Time value of options and guarantees	-1,419	-9.6	-1,012	-6.8	-1,012	-6.8	-407	40%
Frictional costs of Required Capital	-1,132	-7.6	-943	-6.4	-943	-6.4	-188	20%
Costs of non-hedgeable risks	-438	-2.9	-398	-2.7	-398	-2.7	-40	10%
MCEV [©] - Market Consistent Embedded Value	11,715	78.9	10,017	67.4	10,440	70.3	1,698	17%

The MCEV[©] of CNP Assurances at 31 December 2009 is 11,715 M€, which represents a 17% increase from its 2008 value. This evolution stems from the 16% increase of the value of In-Force and from the 17% increase of the Adjusted Net Asset Value.

The 9.6% rise in mathematical reserves, combined with the upward trend of financial markets, created a 22% increase on the present value of future profits. The significant increase in the cost of financial options and guarantees, in the highly volatile context of current financial markets, dampened the increase in the VIF to 16%.

The increase of 17% in the ANAV is explained by the results for the 2009 financial year and the increase in unrealised capital gains on the shareholders' equity.

A more detailed analysis of the main factors of change is given in the following sections. Section 3 provides a break-down of Values of In-Force per country.

2.1.1 Adjusted Net Asset Value

The Adjusted Net Asset Value is calculated on the basis of IFRS Equity, after adjusting for the following elements:

- Elimination of intangible assets on the IFRS balance sheet such as Goodwill, Values of In-Force and DAC
- Deduction of the unrealized capital gains and losses already accounted for in the Value of In-Force, and reintegration of shareholders' interest in unrealised gains not accounted for in the IFRS Framework (real estate and HTM)
- Reintegration of the deferred tax deducted on the "Réserve de Capitalisation" in the IFRS Framework,
- Adjustment for the subordinated debt

² Number of shares: 148,537,823

The following diagram shows the reconciliation between the IFRS Equity and the Adjusted Net Asset Value:



2.2 VNB as of the 31st of December 2009

Standards of MCEV [©]	2009			2008	Variation	
	M€	€/ Share	M€	€/ Share	M€	%
Present value of future profits	663	4.5	590	4.0	73	12%
Time value of options and guarantees	-150	-1.0	-86	-0.6	-64	75%
Frictional costs of Required Capital	-116	-0.8	-114	-0.8	-2	2%
Costs of non-hedgeable risks	-37	-0.2	-48	-0.3	12	-24%
New Business Value	360	2.4	342	2.3	18	5%
APE (Annual Premium Equivalent)		3,143	2,753		390	14%
PVNBP (Present Value of New Business Premiums)	28,309		2	24,664	3,645	15%
APE ratio	11.5%		12.4%		-1.0%	-8%
PVNBP ratio		1.3%	1.4%		-0 .1%	-8%

The recovery in sales volumes in 2009 translates into a 14% increase of the APE volume. The detail by country is presented in section 3.2.1 of this report.

The New Business APE ratio stands at 11.5%, which represents a 1 percentage point decrease explained by the fall in sales volumes of unit-linked savings and credit insurance contracts. The higher level of volatility creates an increase of the cost of financial options and guarantees.

The New Business value increased by 5% to 360M€ (333M€ at a constant exchange rate).

Standards of MCEV [®]	VNB	Variation	Ratio APE
New Business 2008	342		12.4%
Change in scope of modelling	344	2	12.4%
Change in the APE volume	381	37	12.4%
Change in the Product Mix	348	-33	11.3%
Change in the experience	330	-17	10.8%
Change in the financial market conditions	333	3	10.8%
Change in the foreign exchange rate	360	27	11.5%
New Business 2009	360	18	11.5%

The following table shows the detail of the evolution of the Value of New Business:

The APE volume, which shows an upward trend in every country, contributes 37M€ to the increase of New Business value.

The 33M€ effect of the product mix in 2009 is explained by the decrease of the share of unit-linked savings contracts, and by a decrease of the production of credit insurance contracts in France. In Brazil however, this sector of activity was marked by a sharp increase.

The update of experience data reveals a rise in the claims' rate for 2009 with regard to some group protection contracts in France, and a slight decrease in margins due to advertising campaigns.

The impact of financial markets is relatively neutral in terms of value. This is explained by the "stand alone" approach on which the assessment of New Business is based. The Brazilian exchange rate has a 27M€ positive effect on the value. It should be noted that, following the recommendations of the CFO Forum, Brazilian values are based on a spot exchange rate observed on the 31 December 2009.

2.3 Sensitivities

The sensitivities presented below are in compliance with the requirements of the CFO Forum. Furthermore, since 2008, some MCEV financial sensitivities are integrated in IFRS 7 appendices.

M€	ANAV	VIF	MCEV [©]	VNB
MCEV - Market Consistent Embedded Value	8,956	2,760	11,715	360
+ 100 bp change p.a. in the interest rate environment	-127	181	54	-11
- 100 bp change p.a. in the interest rate environment	131	-353	-223	-100
10% decrease in equity/property capital values	-215	-168	-383	
10% proportionate decrease in lapse rates		119	119	27
10% decrease in maintenance expenses		375	375	41
Required Capital equal to regulatory solvency margin		100	100	10
5% proportionate decrease in base mortality/morbidity rates - longevity risk		-43	-43	0
5% proportionate decrease in base mortality/morbidity rates - Mortality and disability risk		113	113	49
25% increase in swaption implied volatilities		-162	-162	-24
25% increase in equity/property implied volatilities		-405	-405	-47

2.4 Analysis of Earnings



The analysis of earnings highlights the significant contribution of **operating earnings** in the increase in MCEV from 2008 to 2009, remaining sturdy at 1,051 M€. It breaks down as follows:

- 333 M€ (360M€ including exchange rate effects) of New Business value,
- 698 M€ derived from the portfolio existing at 31 December 2008
- 20 M€ of operational experience variances and changes in operational assumptions

The evolution of financial markets in 2009 translates into a 594M€ increase taken into account in **"Economic Variances" item**. The effects of the financial situation has also been evidenced by:

- a significant increase of the time value of financial options and guarantees; and
- an increase in unrealised capital gains in the policyholder and shareholders' funds

The other elements leading to a MCEV[©] of 11,715M are essentially the variations in the Brazilian exchange rate, which added 208M, and the recognition of goodwill paid on the acquisition of Barclays Vida y Pensiones (BVP) in the amount of 164M. At this point, the Value of In-Force of this company has not been included in the current valuation.

The following table shows the analysis of earnings split between the Value of In-Force and the ANAV, the latter being broken down into Required Capital and Free Surplus. These two concepts result from the publication standards for the $MCEV^{\odot}$, as defined by the CFO Forum. The Required Capital corresponds to the capital that is required for the insurance activity according to each insurer's criteria. CNP Assurances has established its capital requirement as 110% of the regulatory solvency margin requirement (as per Solvency I), this capital requirement being covered up to 37% by subordinated debt. The Free Surplus is the remaining capital once the Required Capital has been deducted.

	ANAV	Including Free Surplus	Including Required Capital	VIF	MCEV®
MCEV [©] 2008	8,071	1,453	6,618	2,369	10,440
Opening adjustments	-422	-448	26	-34	-456
Adjusted MCEV [©] 2008	7,648	1,005	6,644	2,335	9,984
New business value	24	-922	947	309	333
Expected existing business contribution	40	40	0	658	698
Transfers from the VIF and required capital to free surplus	711	1,146	-434	-711	0
Experience variances	54	-263	317	-39	15
Assumption changes	0	2	-2	5	5
Other operating variance	0	0	0	0	0
Operating MCEV [©] Earnings	830	3	827	222	1,051
Economic variances	475	475	0	109	583
Other non-operating variance	10	11	0	0	11
Total MCEV [©] earnings	1,315	488	827	331	1,645
Closing adjustments	-8	-33	25	94	86
MCEV [©] 2009	8,956	1,460	7,496	2,760	11,715

The value of the New Business contributes 333 M€ to the increase in the MCEV. This creation of value includes 24M€ in the form of 2009 net profit. The increase of required capital pertaining to this New Business is 947 M€.

The expected contribution of existing business (+698M \in) consists in the combined effects of the capitalisation of the Value of In-Force (+658 M \in) and of the expected return on the Free Surplus (+40M \in). Furthermore, the 2009 expected profits generated in the VIF as at 31/12/2008 is transferred to the ANAV.

There are $54M \in$ of experience variances from operational activities affecting the ANAV. These are generally the result of non-recurrent items that create a difference between the actual result and the expected result.

The difference between the expected amount of Required Capital and the observed amount is mainly due to the redemption of subordinated debt, which reduces the proportional amount of Required Capital that is financed by subordinated debt from 40% to 37%. This also translates to an additional cost in the VIF.

The changes of assumptions associated with the operational activities is limited to 5M€, as the control of expenses offsets the increase of claim rates observed on some group portfolios.

A detailed analysis per country is presented in the following section.

2.5 IDR Implied Discount Rate

The IDR rate is calculated on the basis of a 40 bp spread on long term interest rates, and a 2% equity risk premium. It stands at 8.0% at the level of the CNP group as of 31 December 2009 and 8.2% on the 31 December 2008. The increase of the cost of financial options and guarantees is offset by the diminution of the reference rate, stemming from Euro SWAP rate decrease on short maturities.

3. Detail of results per country

The following chapter provides an analysis of the main indicators and evolution factors per country.

3.1 VIF per country as of the 31st of December 2009

The table presented hereunder provides a break-down of In-Force values per country:

		Group	France	International	including Brazil	including Italy
	Present value of future profits	4,723	4,395	327	243	85
	Time value of options & guarantees	-1,012	-1,011	-2	0	-2
MCEV [®] 2008	Frictional costs of Required Capital	-943	-930	-13	-11	-2
2000	Costs of non-hedgeable risks	-398	-396	-2	0	-2
	Value of In-Force	2,369	2,059	310	232	78
	Present value of future profits	5,748	5,171	577	423	130
	Time value of options & guarantees	-1,419	-1,400	-19	0	-19
2000	Frictional costs of Required Capital	-1,132	-1,104	-28	-19	-7
2003	Costs of non-hedgeable risks	-438	-433	-5	0	-3
	Value of In-Force	2,760	2,235	525	404	102
Evoluti	M€	391	175	215	173	24
on	%	16%	9%	70%	75%	30%

The movements of financial markets, along with an increase in premium volumes and a strong contribution from existing business enabled CNP France to resume its growth, with the VIF increasing by 9%. Furthermore, a strong contribution of international entities has been observed, mainly due to Brazilian operations, for which the VIF has shown a 75% increase (+29% at fixed exchange rates). The Italian operations have resumed their increase, largely due to Euro savings contracts.

3.2 VNB as of the 31st of December 2009

3.2.1 APE Volume

	Group	France	International	including Brazil	including Italy
IFRS 2009 Revenue	32,120	26,107	6,014	1,879	3,541
IFRS 2008 Revenue	27,728	24,979	2,750	1,522	1,228
Revenue progression rate	16%	5%	119%	23%	188%
APE 2009	3,143	2,537	607	322	251
APE 2008	2,753	2,399	354	226	128
APE evolution rate	14%	6%	71%	42%	97%
PVNBP 2009	28,309	24,216	4,093	1,576	2,236
PVNBP 2008	24,664	22,595	2,069	1,028	1,041
Evolution rate of the PVNBP	15%	7%	98%	53%	115%

• France

The APE volume has shown a 6% increase in relation to 2008, and stands at 2,537 M€.

• Brazil

The APE of Caixa Seguros has increased by 42%, whereas the IFRS revenue has increased by 23%. The difference in evolution between the APE and the IFRS revenue is partly explained by differences in the exchange rates used for these two indicators: the average exchange rate used to determine the IFRS revenue is of 2.81R for 1 \in , the exchange rate used to determine the APE is as observed on the

31 December 2009 (2.51R\$ for 1 \in). Furthermore, the Consorcio operations, which are not included in the IFRS revenue, are taken into account for the APE calculation, which also helps explain the difference between these two indicators.

• Italy

In 2009, the operations of CNP Vita resumed their growth. The combined APE volume of the subsidiary and of the Italian branch has grown by $123M\in$ in 2009. This success is largely explained by the successful "Unigarantito" Euro savings product. This subsidiary now exceeds the level of APE in 2007.

3.2.2 VNB per country as of the 31st of December 2009

	G	roup	France		International		including Brazil		including Italy	
	NB	Ratio APE	NB	Ratio APE	NB	Ratio APE	NB	Ratio APE	NB	Ratio APE
New Business 2008	342	12.4%	261	10.9%	81	22.8%	64	28.4%	17	13.0%
Change in scope of modelling	344	12.4%	261	10.9%	83	22.2%	64	28.4%	17	13.0%
Change in the APE volume	381	12.4%	276	10.9%	105	19.7%	70	28.4%	33	13.0%
Change in the Product Mix	348	11.3%	231	9.1%	116	21.8%	84	33.9%	32	12.8%
Change in the experience	330	10.8%	215	8.5%	115	21.7%	90	36.5%	23	9.3%
Change in the financial market conditions	333	10.8%	212	8.3%	121	22.8%	90	36.4%	30	11.8%
Change in the foreign exchange rate	360	11.5%	212	8.3%	148	24.5%	117	36.4%	30	11.8%
New Business 2009	360	11.5%	212	8.3%	148	24.5%	117	36.4%	30	11.8%
Evolution	16	-1.0%	-49	-2.5%	65	1.6%	53	8.0%	13	-1.2%

• France

The growth of the APE has induced a +15M€ increase of the VNB. The 2009 product mix has reduced the APE ratio by 1.8 percentage points, with the proportion of unit-linked business falling from 8% in 2008 to 3% in 2009. The increase of disability/incapacity claim rates on the group portfolio has caused a 0.7 point drop of the APE ratio.

• Brazil

At fixed exchange rates, the VNB of Caixa Seguros has increased by 40%, driven by a 10% rise of the volume of New Business and by a favourable product mix. The effects pertaining to the exchange rate have a positive 27M€ impact on value.

• Italy

The VNB increases by $13M \in$ due to a highly dynamic sales volume. The APE ratio shows a slight decrease compared with 2008. This is the result of the evolution in product mix with a premium transfer towards Euro savings contracts, and the review of the expense assumptions.

The following table shows the Value of New Business per country:

		Group	France	International	including Brazil	including Italy
	PVFP	590	501	89	69	20
2008	TVOG	-86	-84	-2	0	-2
	FCRC	-114	-109	-5	-5	-1
	CNHR	-48	-48	-1	0	-1
	VNB	342	261	81	64	17
	VNB/APE ratio	12.4%	10.9%	22.8%	28.4%	13.0%
	VNP/PVNBP ratio	1.4%	1.2%	3.9%	6.2%	1.6%
	PVFP	663	485	178	125	51
	TVOG	-150	-134	-16	0	-16
	FCRC	-116	-104	-12	-8	-4
2009	CNHR	-37	-35	-2	0	-1
	VNB	360	212	148	117	30
	VNB/APE ratio	11.5%	8.3%	24.5%	36.4%	11.8%
	VNP/PVNBP ratio	1.3%	0.9%	3.6%	7.4%	1.3%

3.3 Sensitivities

3.3.1 VIF Sensitivities

M€	Group	France	International	including Brazil	including Italy
VIF – Value of In-Force	2,760	2,235	525	404	102
+ 100 bp change p.a. in the interest rate environment	181	207	-26	-18.9	-7.3
- 100 bp change p.a. in the interest rate environment	-353	-361	8	11.4	-2.2
10% decrease in equity/property capital values	-168	-164	-4	0.0	-4.2
10% proportionate decrease in lapse rates	119	104	16	10.4	3.3
10% decrease in maintenance expenses	375	363	12	3.0	6.1
Required Capital equal to regulatory solvency margin	100	99	1.5	0.0	0.6
5% proportionate decrease in base mortality/morbidity rates - longevity risk	-43	-41	-3	0.0	0.0
5% proportionate decrease in base mortality/morbidity rates - Mortality and disability risk	113	98	16	12.1	2.8
25% increase in swaption implied volatilities	-162	-155	-6	nd	-6.1
25% increase in equity/property implied volatilities	-405	-402	-3	nd	-2.5

3.3.2 VNB Sensitivities

M€	Group	France	International	including Brazil	including Italy
Value of New Business	360	212	148	117	30
+ 100 bp change p.a. in the interest rate environment	-11	5	-17	-4.6	-12.2
- 100 bp change p.a. in the interest rate environment	-100	-111	11	5.3	5.7
10% proportionate decrease in lapse rates	27	19	8	5.6	2.5
10% decrease in maintenance expenses	41	36	5	3.1	2.0
Required Capital equal to regulatory solvency margin	10	9	0	0.0	0.4
5% proportionate decrease in base mortality/morbidity rates - longevity risk	0	0	0	0.0	0.0
5% proportionate decrease in base mortality/morbidity rates - Mortality and disability risk	49	41	8	6.6	1.2
25% increase in swaption implied volatilities	-24	-18	-5	nd	-5.2
25% increase in equity/property implied volatilities	-47	-45	-2	nd	-2.1

3.4 Analysis of Earnings

• France

	ANAV	Including Free Surplus	Including Required Capital	VIF	MCEV [©]
MCEV [©] 2008	7,591	1,107	6,484	2,059	9,650
Opening adjustments	-465	-434	-30	-52	-517
Adjusted MCEV [©] 2008	7,127	673	6,453	2,007	9,133
New business value	30	-828	858	182	212
Expected existing business contribution	19	19		596	614
Transfers from the VIF and required capital to free surplus	621	1,022	-402	-621	0
Experience variances	36	-272	308	-48	-12
Assumption changes	0	0	0	3	3
Other operating variance	0	0	0	0	0
Operating MCEV [©] Earnings	705	-59	764	112	817
Economic variances	509	509	0	115	624
Other pen operating variance	0	000	0	1	1
Other hon-operating variance	U	U	0	1	I
Total MCEV [©] earnings	1,215	451	764	228	1,443
Closing adjustments	-200	-200	0	0	-200
MCEV [©] 2009	8,141	923	7,218	2,235	10,376

Opening adjustments include the payment of a 422M€ dividend to CNP Group shareholders and an inflow representing the dividends from the subsidiaries paid for 2008 financial year. Moreover, the net asset value of Marfin Insurance Holding and CNP Vita has been deducted from France ANAV, these subsidiaries being now valued explicitly. Model evolutions and the removing of liquidity premium in the valuation of the non financial portfolios amount to -52M€.

In 2009, New Business contributed +182 M€ to the increase in the VIF. The increase of Required Capital linked to this New Business amounts to 858M€.

The difference between the expected amount of Required Capital and the observed amount is mainly due to the redemption of subordinated debt, which reduces the proportional amount of Required Capital that is financed by subordinated debt from 40% to 37%. This also translates to an additional cost in the VIF of 48M€.

The changes of assumptions associated with the operational activities has only a small effect on value, with a $3M\in$ increase, as improvements in expenses observed in 2009 offset the deterioration of claims rates on group portfolios.

The movements of financial markets has had a positive impact on value, as observed by an increase in unrealised capital gains in the policyholder and shareholder equity asset portfolios. However, the increase in the time value of financial options and guarantees has a dampening effect on the Value of In-Force.

The Free Surplus has mainly seen an increase in unrealised capital gains on the shareholder equity portfolio.

The 200M€ negative closing adjustment included in the ANAV, and therefore in the free surplus, corresponds to capital movements, namely due to the recognition of goodwill on the acquisition of Barclays Vida y Pensiones (BVP) in the amount of 164M€ and to an increase in the capital of CNP Vita.

	ANAV	Including Free Surplus	Including Required Capital	VIF	MCEV [©]
MCEV [©] 2008	347	285	62	232	579
Opening adjustments	-81	-81	0	0	-81
Adjusted MCEV [©] 2008	266	204	62	232	498
New business value	16	-16	32	74	91
Expected existing business contribution	17	17	0	50	66
Transfers from the VIF and required capital to free surplus	67	77	-10	-67	0
Experience variances	6	7	-1	6	12
Assumption changes	0	0	0	16	16
Other operating variance	0	0	0	0	0
Operating MCEV [©] Earnings	106	85	21	79	185
Economic variances	2	2	0	1	3
Other non-operating variance	8	8	0	0	8
Total MCEV [©] earnings	117	96	21	80	197
Closing adjustments	115	90	25	93	208
MCEV [©] 2009	498	391	107	404	903

• Brazil

The dividend paid by Caixa Seguros for the 2008 financial year is in the amount of 81M. Therefore, the adjusted MCEV[©] at the start of the year stands at 498M€.

The New Business contributes 91M€ at fixed exchange rates to the increase in the MCEV[©]. The main elements of the contribution:

- The 2009 profit on New Business increases the ANAV by 16M€ (-16M€ of Free Surplus and +32M€ of Required Capital);
- a 74 M€ increase of VIF.

The experience variances on operational activities are mainly due to lower than expect expenses and claims rates. This has led CNP group to revise its assumptions, which had a positive impact on the VIF of 16M€.

The impact of financial markets is relatively neutral in terms of the value of Caixa Seguros, better than expected results on the Brazilian activities were offset by a reduction in unrealised capital gains. The 8M€ amount included in the "other non-operating variance" corresponds to the difference between the real tax amount paid and the amount based on the standard tax rate.

The favourable movement in exchange rates has led to a 208M€ increase of the MCEV[©].

• Italy

	ANAV	Including Free Surplus	Including Required Capital	VIF	MCEV [©]
MCEV [©] 2008	133	60	72	78	211
Opening adjustments	0	0	0	0	0
Adjusted MCEV [©] 2008	133	60	72	78	211
New business value	-21	-74	53	51	30
Expected existing business contribution	3	3	0	10	13
Transfers from the VIF and required capital to free surplus	22	40	-18	-22	0
Experience variances	-4	-11	7	2	-2
Assumption changes	0	0	0	-16	-16
Other operating variance	0	0	0	0	0
Operating MCEV [©] Earnings	-1	-43	42	26	26
Economic variances	-42	-42	0	-4	-46
Other non-operating variance	1	1	0	0	1
Total MCEV [©] earnings	-42	-84	42	23	-19
Closing adjustments	77	77	0	1	78
MCEV [©] 2009	168	55	114	102	270

New business contributes 30M€ to the increase in the MCEV[©], made up of:

- a -21M€ decrease of the ANAV, explained by the 2009 result of New Business (due to the level of expenses and acquisition fees during the first year);
- a 51M€ increase of the VIF.

The observed -4M \in of operational experience variance has led CNP to review its assumptions concerning operating margins which decreases the Value of In-Force by 16M \in . In particular, the expense assumptions have been reviewed upwards.

The financial situation in 2009 is marked by an exceptional depreciation of specific assets in the amount of $33M \in$. However, it is associated with a guarantee mechanism on liabilities for CNP.

The ANAV increased due to a 77M€ capital injection.



The Embedded Value is the consolidated value of shareholders' interests generated by the portfolio's insurance activities as of the assessment date. This value does not take into account future New Business. The methodology chosen by CNP Assurances group is based on the MCEV^{© 3} calculation standards as set forth by the "The European Insurance CFO Forum Market Consistent Embedded Value Principles" in the month of October 2009. This chapter details the principles adopted by CNP group and the main definitions on which the publication is based.

4.1 Coverage

The scope considered is that of all the group's entities that have a significant impact on to the value of the group CNP Assurance and of its branches in France and abroad.

Geographic area	Entities	Shares owned
	CNP Assurances	Consolidating entity
	CNP IAM	100%
France	Préviposte	100%
1 Turioo	ITV	100%
	CNP International	100%
	La Banque Postale Prévoyance	50%
Italy	CNP Vita	57.5%
nary	Italian branch of CNP Assurances	100%
Brazil	Caixa Seguros	51.75%
Spein	CNP Vida	94%
Spain	EstalVida	75.35%
Cyprus	Marfin Insurance Holding	50.1%

The other entities were valued in terms of their net asset value in compliance with IFRS principles. This valuation concerns Global and Global Vida, CNP Seguros de Vida, Fongépar and Filassistance.

³ Copyright © Stichting CFO Forum Foundation 2008

It should be noted that the open Life Insurance portfolio of Laikai Cyprialife (Marfin Insurance Holding) underwent an explicit assessment of its Value of In-Force. The non-life related entities contributed only in ANAV by the amount of their net assets.

CNP Assurances group primarily centres its activities on personal insurance:

- Individual Savings in Euros and Unit-linked
- Individual Retirement Savings
- Individual and Collective Protection
- Collective Retirement Savings
- Credit Life insurance

All these calculations were carried out net of external reinsurance and coinsurance.

4.2 Adjusted Net Asset Value

The Adjusted Net Asset Value (ANAV) reflects the market value of the assets backing the shareholders equity after deduction of intangible assets, subordinated liabilities and the other elements used in the valuation of the In-Force business.

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

4.2.1 Required Capital

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

The Required Capital is the level of capital a company defines to reach a targeted credit rating or to comply with its internal risk assessment. The capital level set by the CNP Assurances group to manage their risk corresponds to 110% of the regulatory solvency margin requirement net of all other sources of funding such as subordinated debt. Subordinated debt covers 37% of the margin requirement as at 31/12/2009 in Embedded Value calculations.

4.2.2 Free Surplus

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

4.3 Value of In-Force covered business

4.3.1 PVFP - Present value of future profits

The PVFP corresponds to the present value of future profits net of tax generated by the in-force covered business at the valuation date. This value is calculated using a Market Consistent methodology except for Caixa Seguros where the traditional methodology is maintained. According to this $MCEV^{\odot}$ methodology, no risk premium is included in the projected returns and in the discount rates. The reference discount curve is the SWAP yield curve.

This value reflects the intrinsic value of financial options and guarantees on In-Force covered business but does not include the time value of these financial options and guarantees.

4.3.2 Frictional cost of Required Capital

Frictional costs of Required Capital reflect the taxation and investment costs on assets backing Required Capital.

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

4.3.3 Time value of options and guarantees

CNP Assurances has chosen a Market Consistent approach to estimate the time value of financial options and guarantees. The main options and guarantees contained in the covered business are:

- Minimum guaranteed interest rate
- Profit sharing
- Guaranteed annuity option
- Guaranteed minimum death benefit within unit linked contracts
- Guarantee of technical rate for annuity business and guaranteed acquisition premium associated with the Préfon portfolio
- Guarantee on the surrender value, surrender options

The time value of options and guarantees (TVOG) is generated by the asymmetric nature of the distribution of profits between the shareholders and the insured according to the different movements of financial markets. Broadly speaking, a financial loss is entirely incurred by the shareholders, whereas the financial gains are shared according to the regulatory and contractual provisions governing the sharing of profits. On the basis of multiple simulations, the use of stochastic calculations enables to cover all possible evolutions of the financial markets and therefore to obtain the cost associated with unfavourable market deviations.

The assessment is therefore based on a stochastic model that rests on a risk neutral approach. This approach consists in defining the price of an asset as the expectancy of present value of future cash flows discounted at risk-free rate. The economic generator of CNP group generates 1000 equiprobable scenarios that forecast:

- The evolution of a stock index;
- The dividend rate of the shares;
- The inflation;
- The real rates' curve for maturities of between 1 and 30 years;
- The nominal rates' curve for maturities of between 1 and 30 years.

The interest rate curve is obtained with the Heath, Jarrow and Morton framework (HJM) with two sources of risk. The growth index of the shares is modelled with a modified geometric Brownian motion, in which the drift is equal to the short term rate generated by the HJM framework. The methods used by CNP teams in order to calibrate the economic generator are described in the "Assumptions" section of this report.

CNP group has also introduced in its projection model an economic surrender component; this additional component takes into account the tendency of the insured to surrender their contracts when their return is deteriorated compared to a market reference.

Given the economic and financial context in Brazil, CNP group has opted for a traditional approach for the valuation of Caixa Seguros. This decision is motivated by the difficulty to establish financial parameters that are sufficiently stable to be used in valuations consistent with the principles of the CFO Forum. The activities carried out by Caixa Seguros mainly consist in the coverage of insurance risks; the financial options are considered marginal relative to the scale of the CNP group.

4.3.4 Costs of residual non-hedgeable risks

In compliance with standards 6 and 9 of the Embedded Value publication standards, a cost must be allocated for non-hedgeable financial and non-financial risks. This cost results from:

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

In order to evaluate the residual non hedgeable risks CNP Assurances uses a capital cost approach. The allocated capital for these risks is consistent with a 99.5% confidence level over a one year time horizon (i.e a level of capital allowing to cover a potential loss generated by those risks 99.5% with a 99.5% confidence level).

• Risks not factored into the TVOG and PFVP modelling

The following is a list of non-valued risks:

- Default risk;
- Concentration risk;
- Operational risk;
- Catastrophe risk.
 - o Asymmetrical risks

The asymmetrical nature associated with the sharing of the risk between the insured and the shareholders, depending on the different evolutions of non-financial parameters, generates a cost that must be taken into account when determining the value of the portfolio. The asymmetrical impact of the mortality/longevity/morbidity risk is the result of contracts that include profit sharing clauses containing a component that is based on the technical result.

o Uncertainty

The Embedded Value calculations are based on several "best estimate" assumptions: claim rate, surrender risk, expenses risk. An additional cost, related to the underlying uncertainty inherent in the derivation of such assumptions has been integrated in the value.

4.4 Value of New Business

4.4.1 Definition of New Business

The projections used to estimate the value of New Business are based on the profile of the business written during 2009 with the volume of premiums.

• Individual Savings in Euros and Unit-linked

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

• Individual risk

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

• Group retirement savings

The New Business volumes of L.441 contracts include new policies and ad-hoc single premium contributions on existing contracts. Future regular premiums on existing contracts are included in the Value of In-Force.

• Group risk

As future premiums on existing policies are not valued in the Value of In-Force, New Business volumes are equal to the 2009 accounting premiums.

• Credit life insurance

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

4.4.2 Methodology

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

The New Business value is based on the cash-flow projection taken into account from the issue date. The economic assumptions are based on the market conditions existing at 31 December 2009.

In accordance with the "stand alone" methodology used by CNP Assurances, no unrealised gains are allocated to the New Business. The New Business premiums are invested in the new assets available at the valuation date following the acquisition strategy recorded during the year. Therefore there is no sharing unrealised gains and losses between the In-Force and the New Business.

4.4.3 APE Annual Premium Equivalent

The APE is a sales volume indicator that corresponds to one tenth of the sum of single premiums and flexible premium written during a given year plus the amount of regular premiums during that same

year. Unlike the IFRS revenue, the APE generated through New Business is defined on the basis of the premium written by CNP group net of reinsurance and coinsurance. Furthermore, the exchange rate corresponds to the rate at 31 December 2009 and not to the average rate used for the definition of the IFRS revenue.

4.5 Sensitivities

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

• +/- 100 bp change p.a. in the interest rate environment

This sensitivity corresponds to a parallel shift in the Swap curve 100 bp increase or decrease, which entails:

- revaluation of the market value of bonds;
- 100 bp adjustment of the reinvestment rate of all classes of assets;
- 100 bp movement of the discount rates.

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

• 10% decrease in equity/property capital values

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

• 10% proportionate decrease in lapse rates

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

• 10% decrease in maintenance expenses

This sensitivity enables to make an assessment of the impact of a 10% drop of all expenses: costs associated with acquisition, management, claims and overheads.

• 5% proportionate decrease in base mortality/morbidity rates

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

• 25% increase in swaption implied volatilities and equity/property implied volatilities

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

• Required Capital equal to regulatory solvency margin

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

5. Assumptions

5.1 Economic Assumptions

The Embedded Value calculations are based on economic conditions as at 31 December 2009.

5.1.1 Reference interest rate curve

According to the CFO Forum recommendations, the values used to determine the interest rate curve are taken from the swap curve as provided by Bloomberg at 31 December 2009. After stripping the coupons, the curve was smoothed using the Whittaker-Anderson method.



In compliance with Principle 14 of the MCEV^{\odot} principles, CNP Assurances integrates a liquidity premium based on the reference curve mentioned above for product groups for which the liabilities are deemed to be illiquid: Euros savings and retirement business and annuity portfolios. The liquidity premium was valued on the basis of corporate bond spreads, which is determined as the margin above the swap rate of the iBoxx Euro Corporates bond index. Only a third of this premium was included in the reference curve, i.e. 16bp. In 2008, the same liquidity premium stood at 70bp.



The illiquidity of the liabilities was determined by CNP group with regard to the following criteria:

- Importance of the financial risk in relation with other risks, such as underwriting risks
- Whether or not the cash flows are sufficiently predictable to enable the establishment of an assetliability matching
- Whether or not there exists dynamic policyholder behaviour based on changes in economic conditions

5.1.2 Calibration of the interest rate model

The volatility parameters used in the HJM model are based on the volatility structure of EUR one to 30 year swaptions as at 31 December 2009.

In compliance with CFO Forum Guidance G15.3, in 2008 CNP Assurances selected as level of volatility the average of implicit volatilities over one year on those same assets, considering that the market displayed exceptional characteristics from October 2008

Swaption 20 year maturity	1 year	5 years	10 years	15 years	20 years
MCEV [©] 31/12/08	16.96%	13.89%	13.33%	13.42%	13.46%
MCEV [©] 31/12/09	21.37%	17.35%	15.28%	16.05%	17.31%

5.1.3 Calibration of the equities model

A different level of volatility for each projection level between 1 and 20 years was used. This series of parameters was determined on the basis of the volatility implied on call options on the CAC40 index as at 31 December 2009.

In compliance with CFO Forum Guidance G15.3, in 2008 CNP Assurances selected as level of volatility the average of implicit volatilities over one year on those same assets, considering that the market displayed exceptional characteristics from October 2008.

Maturity	1 year	5 years	10 years	15 years	20 years
MCEV [©] 31/12/08	27.08%	27.83%	29.60%	30.36%	30.17%
MCEV [©] 31/12/09	24.20%	26.28%	28.14%	29.03%	28.90%

The correlation coefficient between hazard on interest rate and hazard on equities stands at 14% and is based on a historical correlation analysis of these two factors.

5.1.4 Economic Assumptions for Brazil

		2010	2011	2012	2013	2014	2015	Post 2015
MCEV [©] 08	Discount rate	15.3%	13.3%	12.1%	11.8%	11.3%	11.3%	11.3%
	Yield of the assets	12.9%	11.3%	9.4%	8.8%	8.0%	8.0%	8.0%
	Inflation	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%
	Risk Premium	7.6%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%
	Discount rate	13.2%	12.3%	12.5%	12.2%	11.9%	11.6%	11.3%
MCEV [©] 09	Yield of the assets	9.4%	9.7%	10.0%	9.5%	9.0%	8.5%	8.0%
	Inflation	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%
	Risk Premium	7.6%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%

The € / Real exchange rate fell from 3.2590 at 31 December 2008 to 2.5084 at 31 December 2009.

5.2 Tax rate

The tax rate considered for the calculation of the Embedded value corresponds to the standard corporate tax rate applied in the countries where CNP Assurance is present:

	France	Italy	Brazil
MCEV [©] 31/12/08	34.43%	32.4%	40% (1)
MCEV [©] 31/12/09	34.43%	32.4%	40% (1)

(1) With the exception of Caixa Consorcio, for which the tax rate has been maintained at 34%.

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

5.3 Cost of capital for residual non-hedgeable risks

The rate applied to the capital of non-modelled risks and asymmetrical risks is fixed at 5% on the basis of the study of the remunerations offered during the latest mortality cat bond issuing. The capital required to account for uncertainty related to the establishment of assumptions is subject to the frictional costs of holding that capital.

The average rate applied to capital was 3.1% on the 31/12/08 and 2.9% on the 31/12/09.

5.4 Non-economic assumptions

5.4.1 Expenses

For each accounting year, CNP Assurances carries out an analysis of costs per destination: acquisition, management, claims, investment costs and other technical and non-technical expenses. The analysis is then considered in terms of the company, in terms of the product group, and in terms of the network. The expenses basis resulting from this analysis has been lowered by 10.4ME for exceptional expenses, as observed in the accounts on the 31/12/09.

Furthermore, there is a 2% inflation rate per annum on unit costs.

No productivity gains were valued, with the exception of CNP Vita, for which the forecasts are based on a stable level of expenses until 2014 and a subsequent return to growing expenses based on the inflation rate. The business plan from which this assumption has been derived has been approved and validated by the board of the subsidiary. The impact on the VIF is 5M€ and the impact on the VNB amounts to 1.6M€.

5.4.2 Claims and persistency assumptions

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

6. Milliman's Opinion

Milliman Paris, independent actuarial firm, has reviewed the Embedded Value figures of CNP Group as at 31 December 2009. In the course of our work, we have reviewed the methodology, the assumptions used and the calculations performed internally by the company according to the directives and under the management responsibility. Our review has covered the Embedded Value as at 31 December 2009, the 2009 New Business Value, the analysis of earnings between the Embedded Value as at 31 December 2008 and as at 31 December 2009 and the sensitivities.

Milliman has concluded that the methodology used complies with "The European Insurance CFO Forum Market Consistent Embedded Value Principles" and that the calculations have been made in conformity with this methodology. It should be noted that according to Principle 14, CNP Group added a 16 bp liquidity premium in excess of the swap rate to derive the reference rate for Individual Savings in Euros, Individual and Group Retirement Savings.

Moreover, the information disclosed in "CNP Assurances – Embedded Value report 31/12/2009" complies with the current CFO Forum European Embedded Value principles.

The calculations performed for the Brazilian subsidiary (Caixa Seguros) have been carried out according to a Traditional Embedded Value approach which allows for the risks through the use of a risk premium.

In arriving at these conclusions, we have relied on data and information provided by CNP Group without undertaking an exhaustive review of them. We have performed limited high-level checks and reconciliations as well as more detailed analysis on some specific portfolios. We have checked that all the issues brought forward during our review had no material impact at the group level.

The calculation of Embedded Values necessarily relies on numerous assumptions with respect to economic conditions, operating conditions, policyholders' behaviour, taxes and other matters, most of which are beyond the Company's control. Although the assumptions used represent estimates which CNP Group and Milliman believe are altogether reasonable, actual future experience may vary from that assumed in the calculation of the Embedded Value results.