188th year

2019 Own Funds & New Business Supplementary Information

Assicurazioni Generali

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Assicurazioni Generali

2019 Own Funds & New Business Supplementary Information

1 Introduction and key results

This document reports the main results, methodology and assumptions concerning the valuation of 2019 Group Own Funds (hereinafter, GOF) and New Business (hereinafter, NB).

GOF results presented in Section 2 are based on preliminary regulatory figures consistent with the Group's external disclosure of full year results: differences may arise in comparison to the official GOF which will be finalised later during 2020 for the year-end 2019 Solvency and Financial Condition Report (SFCR) and Quantitative Reporting Templates (QRT).[1]

GOF results include the analyses of GOF economic movement from 2018 to 2019 (§2.1), GOF regulatory components (§2.2), GOF reconciliation from IFRS shareholders' equity (§2.3), GOF split by tiers (§2.4), GOF split by segment and region (§2.5), and GOF sensitivity to selected economic variables (§2.6).

NB results presented in Section 3 are calculated as the sum of separate quarterly valuations, based on the Market Consistent Embedded Value (hereinafter, MCEV) principles.

NB results include the analysis of NB main results (§3.1), NB profitability movement (§3.2), NB split by main lines of business (§3.3), NB sensitivity to economic and operating factors (§3.4) and NB profits expected release (§3.5). The split of NB results by region is reported in §3.6, and finally the reconciliation between MCEV NB Value (hereinafter, NBV) and the Solvency II Value of New Production included within GOF is described in §3.7.

The main financial assumptions and the methodology underlying the valuation of GOF and NBV are described in Section 4 and Annex A respectively. Finally, Annex B contains the main definitions and acronyms used in the document.

Monetary terms reported in the tables included in this document are in € million.

[1] In this document, year-end 2018 GOF preliminary results (disclosed in the 2018 Own Funds & New Business Supplementary Information) have been replaced, for comparison purposes, by the official regulatory results disclosed in the 2018 Solvency and Financial Condition Report.

1.1. Group Own Funds key results

The following table reports the 2019 GOF key preliminary results, compared with 2018 official results.

Group Own Funds

€ mln	2019	2018	Change
Group Own Funds	**45,516**	**44,191**	3.0%
Normalised Own Funds generation	3,286	3,312	-0.8%
Total Own Funds generation	3,525	-26	n/m

Preliminary figures for 2019, official figures for 2018

From year-end 2018 to year-end 2019 GOF moves from € 44.2 billion to € 45.5 billion.

The total Own Funds generation, defined as the variation of GOF before capital movements (foreseeable dividends and partial early redemption of the outstanding subordinated debt eligible in Basic Own Funds), amounts to € 3.5 billion and benefits from the solid contribution of normalised Own Fund generation and from positive economic and operating variances.

Normalised Own Fund generation (defined as the variation of Own Funds attributable to activities and factors under management control or influence – see §5.1.3) generates a 7.4% return on initial GOF, standing on the same level of year-end 2018 at € 3.3 billion, thanks to the very positive contribution of both Life and Non-Life business.

1.2. New Business key results

The following table reports the 2019 NB key results, compared with 2018 results.

New Business Value

€ mln	2019	2018	Change
New Business Value	**1,777**	**1,877**	-2.2%
PVNBP	45,664	43,202	10.1%
NBM	3.89%	4.35%	-0.49 pts

changes are on a comparable basis

The value of New Business written in 2019 amounts to € 1.8 billion and decreases slightly (-2.2% on homogeneous basis, i.e. neutralising the impacts of variations in perimeter and exchange rates) compared to 2018: the increase of volumes (measured in terms of Present Value of New Business Premiums, hereinafter PVNBP) has been offset by the slowdown of profitability.

The growth of PVNBP (+10.1%) comes from all regions, and is significantly supported by the growth of Protection business.

The slowdown of the NB profitability (measured in term of New Business Value on PVNBP, hereinafter NBM) is mainly attributable to the sharp decrease of interest rates, which strongly affects Saving business. Thanks to the actions performed to improve the new products' features (i.e. further reduction or removal of guarantees) and to foster the further growth of Protection business, despite its contraction the NBM remains solid at 3.89%.

2 Group Own Funds

2.1. Group Own Funds analysis of movement

The **2019 total Own Funds generation** (total variation of GOF from 2018 to 2019, net of foreseeable dividends and variations of subordinated debt eligible in Basic Own Funds (BOF)) amounts to € 3.5 billion: the contributions of the normalised Own Fund generation (€ 3.3 billion) together with the positive effects of economic (€ 1.3 billion), operating (€ 0.6 billion) and other variances (€ 0.1 billion) are only partially offset by the negative impact of regulatory model changes (€ -0.3 billion) and M&A operations of the year (€ -1.5 billion).

The impacts of the proposed 2019 dividend (€ -1.5 billion, to be paid in 2020) and the early redemption of part of the subordinated debt eligible in the Basic Own Funds (€ -0.7 billion) lead to the overall € 1.3 billion net variation of GOF from 2018 to 2019.

The following table presents the development of the Group Own Funds from 2018 to 2019, on a net of tax basis.

Group Own Funds analysis of movement

€ mln	
2018 Group Own Funds	**44,191**
Regulatory model changes	-257
Normalised Own Funds generation	**3,286**
Life	3,024
Non-Life	858
Holdings & Sectorals	-596
Operating variances	587
Economic variances	1,281
Other variances	130
M&A	-1,501
Total Own Funds generation	**3,525**
Foreseeable dividend	-1,513
Redemption of subordinated debt eligible in BOF	-688
2019 Group Own Funds	**45,516**

Preliminary figures for 2019, official figures for 2018

2019 Regulatory model changes (€ -0.3 billion) are due to:

- the further haircut prescribed by the French Regulator on the amount of eligible unrealised gains on IORP pension business (€ -0.6 billion, see §5.1.1);
- the changes adopted by EIOPA concerning the level of the UFR and the composition of the reference portfolio used for the calculation of VA (€ -0.2 billion);
- the classification of the French “PPE” reserve (*provision pour participation aux excédents*) as Surplus Funds item eligible as Own Funds, as recently defined by the local Regulator (€ 0.9 billion);
- the different consolidation technique adopted by the Group for its insurance operations in China, that are now evaluated for Solvency II purposes with the proportional method (€ -0.6 billion, see §5.1.1);
- the impacts stemming from the extension of Generali’s risk capital Partial Internal Model to Spain, and from other model changes affecting actuarial models, mainly in Germany and France (€ 0.2 billion).

2019 Normalised Own Fund generation (€ 3.3 billion) is well supported by the performance of Life and Non-Life business, partially offset by the contribution of the Holding & Sectorals segment, which includes also the interest costs on subordinated debt. More in detail:

- **Life normalised Own Fund generation** (€ 3.0 billion) components are:
  - the Solvency II Value of New Production (€ 1.4 billion), representing the contribution to GOF originated by the new business sold during the year, calculated according to Solvency II principles (refer to §3.7 for the reconciliation of such value with the € 1.8 billion NBV calculated on MCEV basis);
  - the expected release, from the business in-force at the beginning of the year, of the prudence included in the Solvency II framework (€ 1.4 billion), deriving from the expected release of the Risk Margin and from the higher profit release expected in the year, originated by the difference between the Real-World financial return expected by the shareholder (see §4.4) and the Risk-Neutral return adopted within Solvency II valuation;
  - the unwinding of beginning of period assets and liabilities attributed to the Life segment, with allowance of related assets management expenses (€ 0.2 billion).
- **Non-Life normalised Own Fund generation** (€ 0.9 billion) stems from the technical result of the current year generation based on best estimate assumptions, the expected movement of the Risk Margin and the unwinding of assets and liabilities attributed to the Non-Life segment, with allowance of related assets management expenses.
- **Holdings and Sectoral normalised Own Fund generation** (€ -0.6 billion) mainly relates to the payment of the interest on the subordinated debt (€ -0.4 billion), to recurring holding costs (€ -0.4 billion) and to the unwinding of assets and liabilities (€ -0,1 billion, including senior debt and allowance of assets management expenses), partially offset by the net result of the financial segment (€ 0.3 billion).

2019 Operating variances positively contribute to the GOF movement (€ 0.6 billion) and mainly come from the change in future operating assumptions in the Life segment (€ 0.5 billion), mostly arising from updated future sales assumptions underlying the calculation of the Going Concern Reserve in Germany.

2019 Economic variances have an impact of € 1.2 billion, which can be split into the following main sources:

- Interest rates (€ -1.2 billion), due to the sharp decrease of swap curve (e.g. -60 bps on Euro swap 10 years par rate);
- Spreads and Volatility Adjustment (€ 0.8 billion), mainly driven by the positive impact of the significant spread narrowing of the Italian government bonds (e.g. -74 bps on BTP 10 years);
- Equities and real estate (€ 1.8 billion), due to the effect of the positive performance of the equity market and the Group's real estate assets;
- Other economic variances (€ -0.1 billion) that include minor movement in volatilities and residual cross-effects among factors.

2019 Other variances (€ 0.1 billion) reflect the aggregated impact of minor refinements applied on the actuarial projection models (€ 0.1 billion in aggregate), non-recurring holding expenses (€ -0.1 billion) and other elements such as taxes and exchange rates.

2019 M&A (€ -1.5 billion) represents the impact on GOF stemming from the M&A activities in 2019, including the disposal of Generali Belgium, Generali Worldwide in Guernsey, Generali Leben and the acquisition of Adriatic Slovenica and the entities in the Asset Management perimeter[2].

The movement of GOF from 2018 to 2019 is completed with the impacts related to the **2019 proposed dividend to be paid in 2020**[3] (€ -1.5 billion) and to the early repayment of part of the Group's subordinated debt eligible in the GOF (€ -0.7 billion).

2.2. Group Own Funds results by component

In compliance with the Solvency II regulatory requirements, Group Own Funds are defined as the sum of consolidated Basic Own Funds related to insurance entities, holding and ancillary undertakings attributable to insurance activity and the Own Funds attributable to non-insurance entities, defined according to their sectoral regulatory regimes.

Basic Own Funds, in turn, can be further analysed as the sum of the following components:

- the Excess of Assets over Liabilities as defined in accordance to art. 75 of Directive 2009/138/EC;
- plus subordinated debt eligible in Basic Own Funds;
- less foreseeable dividends;
- plus additional Own Funds related to unrealised capital gains from French pension activities arising from the application of the IORP transitory regime (see §5.1.1);
- less deductions for participations in sectoral entities;
- less deductions for regulatory filters applied to non-available items at Group level, restricted Own Fund items and shares of the parent company.

The contribution to the Group Own Funds of each element listed above is detailed in the following table.

Group Own Funds components

€ mln	2019	2018
Excess of Assets over Liabilities	**40,756**	**38,339**
Subordinated debt eligible in BOF	8,259	8,625
Foreseeable dividend	-1,513	-1,413
Unrealised gains on French IORP business	696	933
Deductions for participations in sectoral entities	-2,752	-2,089
Impact of filter for non availability & minorities and other deductions	-1,011	-1,457
Basic Own Funds after deductions	**44,434**	**42,939**
Contribution of sectoral entities	1,081	1,253
Group Own Funds	**45,516**	**44,191**

Preliminary figures for 2019, official figures for 2018

Commenting on the items contributing to the GOF, it can be noted that:

- the increase of the Excess of Assets over Liabilities (€ 2.4 billion), is mainly attributable to the contribution of the total Own Funds generation of the year (€ 3.5 billion) and to the payment of the 2018 dividend made during 2019 (€ -1.4 billion);

[2] The effects of the acquisition of Seguradoras Unidas in Portugal will impact 2020 figures.
[3] 2019 dividends are proposed by the Board of Directors and approved during the 2020 Shareholders' Annual meeting.

- the change in the amount of subordinated debt eligible in Basic Own Funds (€ -0.4 billion), is due to its early redemption occurred during 2019;
- the foreseeable dividend increases to € 1.5 billion;
- the reduced contribution of the unrealised gains on IORP business stems from their progressive yearly haircut required by the French regulator (see §5.1.1);
- the higher impact of deductions for participations in sectoral entities (€ -0.7 billion) mainly comes from the higher value (quoted market price) of the participation in Banca Generali;
- the change of the impact of filters for minorities and non-available items (€ 0.4 billion) mainly comes from the reduction of the filters on Surplus Funds after the disposal of Generali Leben;
- the reduced contribution of sectoral entities (€ -0.2 billion) reflects the impact of the acquisition (and related activation of goodwill) of some entities within Multiboutique Europe asset management perimeter.

2.3. Reconciliation between IFRS equity and Solvency II Excess of Assets over Liabilities

Under the Solvency II regime, Solvency II Excess of Assets over Liabilities is valuated starting from IFRS shareholders' equity and by adjusting at fair value consolidated assets and liabilities in accordance with Article 75 and Section 2 of the Solvency II Directive.

More precisely, these adjustments consist of:

- eliminating intangible assets (e.g. goodwill);
- revaluating investments not accounted at fair value, such as loans, held to maturity investments and real estate;
- accounting for the Technical Provisions according to Solvency II rules as a sum of Best Estimate of Labilities and Risk Margin;
- including the Solvency II evaluation of financial liabilities and recognizing material contingent liabilities;
- recalculating the impact of net deferred taxes on the above adjustments.

The following table presents the reconciliation between IFRS shareholders' equity and Solvency II Excess of Assets over Liabilities at year-end 2019 and, for comparative purposes, at year-end 2018.

Reconciliation between IFRS Shareholders' Equity and Solvency II Excess of Assets over Liabilities

€ mln	2019	2018
IFRS Shareholders' Equity (gross of minorities)*	**29,386**	**24,643**
Intangibles	**-11,236**	**-10,712**
Goodwill	-7,180	-6,663
DAC	-2,121	-2,143
Other intangibles	-1,935	-1,906
Mark to market of Assets	**8,936**	**9,310**
Bonds	-901	404
Real estate	9,352	8,541
Loans	149	255
Participations	1,207	405
Other assets	-871	-296
Mark to market of Liabilities	**20,374**	**22,962**
Net Technical Provisions	21,385	24,034
Financial debt	-265	-395
Subordinated debt	-541	-501
Other liabilities	-205	-175
Impact of net deferred taxes	**-6,704**	**-7,864**
Excess of Assets over Liabilities	**40,756**	**38,339**

Preliminary figures for 2019, official figures for 2018

** 2019 IFRS Equity adjusted (for illustrative purpose) for the proportional consolidation of China operations within Solvency II (see §5.1.1)*

The elements of reconciliation from the IFRS shareholders' equity (€ 29.4 billion) to the Solvency II Excess of Assets over Liabilities (€ 40.8 billion) are the following:

- **Intangibles** (€ -11.2 billion), not recognised under Solvency II and including also the IFRS goodwill related to non-insurance operations,
- **Mark to market of Assets:** this adjustment (€ 8.9 billion) is primarily due to the change to fair value of real estate assets. The negative mark to market of bonds and other assets is due to the impact of French IORP bonds, equities, investment fund units and derivatives that are recognised at fair value for IFRS purposes and kept at cost in the Solvency II balance sheet (the IORP eligible unrealised gains emerge in the movement from Excess of Assets over Liabilities to Basic Own Funds).
  The significant change to fair value of participations is mainly driven by the increase of the quoted market value of Banca Generali.
- **Mark to market of Liabilities**: this adjustment (€ 20.4 billion) is primarily due to net Technical Provisions (€ 21.4 billion deriving from the difference between IFRS and Solvency II valuation),
- **Impact of net deferred taxes** (€ -6.7 billion) is a consequence of the change to fair value of the items reported above.

2.4. Group Own Funds tiering

According to Solvency II regulation, Group Own Funds items are classified into three Tiers representing different levels of quality, depending on the ability to absorb losses due to adverse business fluctuations on a going-concern basis and in the case of winding-up.

The Group's tiering is described below.

- Tier 1 unrestricted Own Funds includes the following items:
  - ordinary share capital and the related share premium account,
  - available surplus funds (from German, French and Austrian business),
  - reconciliation reserve,
  - additional Own Funds from French pension activities
- Tier 1 restricted is composed of undated subordinated debt
- Tier 2 includes the remaining part of subordinated debt which is classified as dated
- Tier 3 is composed by net deferred tax assets, which are characterised by lower capital quality being not immediately available to absorb losses.

The GOF split by tiers is reported in the following table.

Group Own Funds by Tiering

€ mln	Total	Total Tier 1	*o/w Tier 1 unrestricted*	*o/w Tier 1 restricted*	Tier 2	Tier 3
2019 Group Own Funds	**45,516**	**39,457**	***37,186***	***2,271***	**5,987**	**71**
% on total GOF 2019	**100.0%**	***86.7%***	***81.7%***	***5.0%***	**13.2%**	**0.2%**
2018 Group Own Funds	44,191	38,781	*35,505*	*3,276*	5,349	61
% on total GOF 2018	100.0%	87.8%	*80.3%*	*7.4%*	12.1%	0.1%

Preliminary figures for 2019, official figures for 2018

2019 Group Own Funds remains composed by high-quality capital. Tier 1 counts for about 86.7% of the total (87.8% in 2018), Tier 2 represents 13.2% (12.1% in 2018) and Tier 3 only 0.2% of the total (0.1% in 2018). The minor changes in the Tier 1 restricted and Tier 2 mainly reflects the liability management operations occurred during 2019.

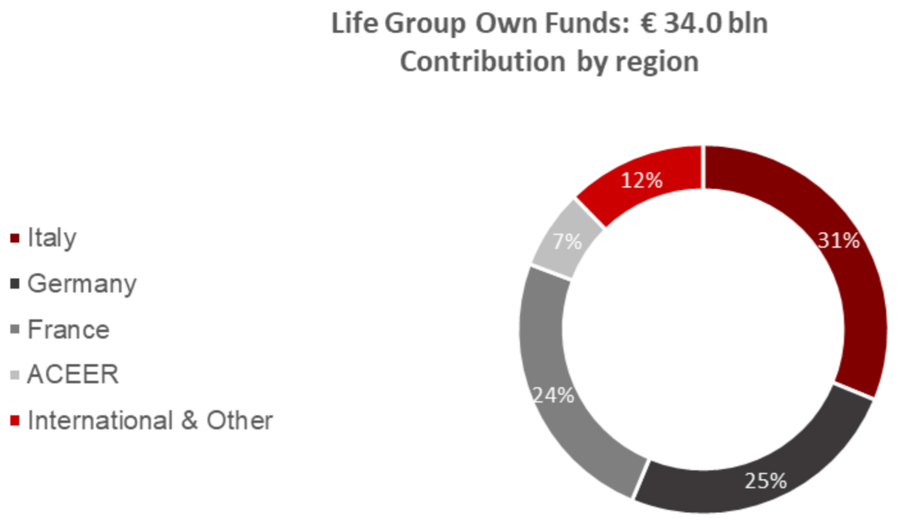
No eligibility filters are triggered thanks to the high-quality of the capital-tiering.

2.5. Group Own Funds by segment and by region

The following charts describe the contribution of the Life and Non-Life segment to 2019 GOF, and their split by the main regions where the Group operates.

Life segment

2019 GOF are mainly attributable to the Life segment, which accounts for € 34.0 billion. The main contributors to the Life segment are Italy and Germany, representing 56% of the Life GOF.



Within 2019 Life GOF, the contribution of the **Solvency II Life Value in-force** to the Excess of Assets over Liabilities (i.e. the after-tax value, before minorities[4] and non-availability filters, expected to emerge from the management of the Life contracts existing at valuation date, calculated according to the Solvency II framework and excluding shareholders' equity components) amounts to € 20.1 billion. This amount can be further split as follows:

- **Basic PVFP** (€ 16.7 billion), representing the present value of future profits expected to flow into shareholders' funds, based on Solvency II market consistent methodology (including the regulatory application of contract boundaries);
- **PVFP allowances** (€ 6.4 billion), representing specific Solvency II valuation allowances (such as the value of Surplus Funds in Germany and France and Going Concern Reserves in Germany);
- **Risk Margin** (€ -3.0 billion), which is the prudential allowance prescribed by Solvency II to take account of the volatility of operating assumptions.

The following table shows the expected future emergence of the Basic PVFP after tax profits stemming from the portfolio in force at year-end 2019 (i.e. excluding future new business) on an undiscounted basis, estimated using Real-World financial assumptions (see §4.4) instead of Solvency II Risk-Neutral assumptions. The cumulative future undiscounted profits amount to € 28.9 billion, with 84% of profits generated in the first 25 years of the projection.

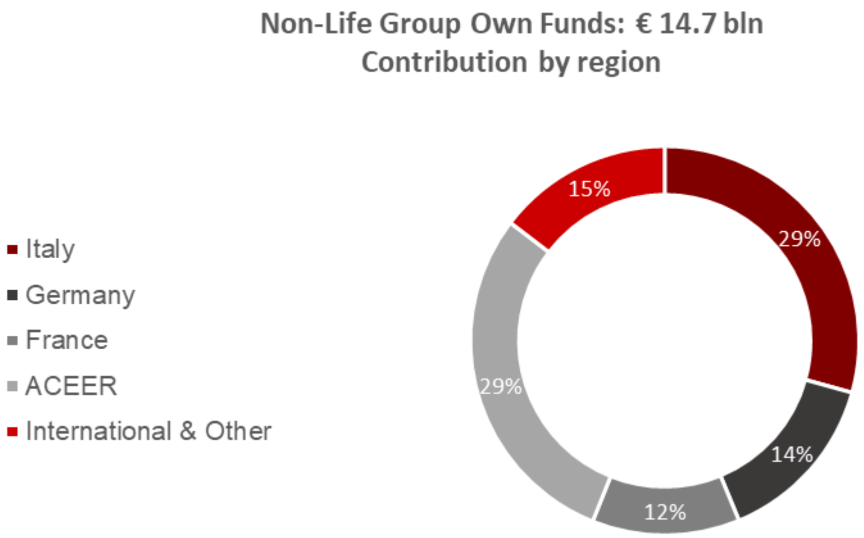
Life Basic PVFP: expected undiscounted profits with Real-World assumptions

€ mln	2019
Years 1-5	9,728
Years 6-10	6,164
Years 11-15	3,893
Years 16-20	2,727
Years 21-25	1,664
Years 26-30	1,186
Years 31 onwards	3,492

[4] Contribution of Solvency II Life Value in-force to the Excess of Asset over Liabilities is determined after minorities only for China operations that are evaluated with the proportional method (see §5.1.1).

Non-Life segment

The Own Funds of the Non-Life segment amount to € 14.7 billion at year-end 2019. The main contributors of the segment are Italy and ACEER, representing 59% of the Non-Life GOF.



Within 2019 Non-Life GOF, the contribution of the **Solvency II Non-Life Value in-force** to the Excess of Assets over Liabilities, defined as the after-tax difference between IFRS reserves and Solvency II Technical Provisions, amounts to € 2.7 billion. This amount can be further split as follows:

– **Basic PVFP** (€ 3.6 billion), representing the difference between IFRS reserves and the Best Estimate of Liabilities component of Non-Life Technical Provisions
– **Risk Margin** (€ -0.9 billion), which is the prudential allowance prescribed by Solvency II to take account of the volatility of operating assumptions.

2.6. Group Own Funds sensitivity analysis

Generali regularly performs sensitivity analyses of the capital position to changes in specific risk factors (e.g. interest rates, equity shock, credit spreads and interest rate volatility).

The aim of this analysis is to assess the resilience of Generali Group capital position to the main risk drivers and evaluate the impact of a wide range of shocks. As at year-end 2019 the following sensitivity analyses are reported (see §5.1.4 for further explanations):

– increase and decrease of interest rates by 50 bps;
– increase and decrease of equity values by 25%;
– widening of spread related to corporate bonds by 50 bps;
– widening of spread related to Italian government bonds by 100 bps;
– regulatory change of 2020 Ultimate Forward Rate (UFR), as required by EIOPA.

The impact of these sensitivities on year-end 2019 GOF are reported in the following table, with 2018 comparative figures.

Group Own Funds - Impact of Sensitivities

€ mln	2019	2019 variation	2018 variation
Group Own Funds	**45,516**		
Interest rate +50 bps	1,272	2.8%	1.1%
Interest rate -50 bps	-1,748	-3.8%	-1.6%
Equity market + 25%	3,384	7.4%	6.4%
Equity market - 25%	-3,443	-7.6%	-6.2%
Credit spread corporate bonds +50 bps	72	0.2%	-0.9%
Credit spread on BTP +100 bps	-1,632	-3.6%	0.2%
Ultimate forward rate (2020 regulatory change)	-197	-0.4%	-0.3%

Preliminary figures for 2019, official figures for 2018

Sensitivity on interest rates (€ +1.3 / € -1.7 billion): the impact reflects both the changes in the fair value of investments and non-technical liabilities (such as senior debt, subordinated debt and defined benefit plans obligations) and the changes of Technical Provisions (change of Life cash flows and change of discount rates).

The asymmetry of the impacts in the two scenarios mainly reflects the reduced absorption capacity of Life Technical Provisions in the case of lower interest rates, because of the presence of financial guarantees.

The wider impact of 2019 interest rates sensitivities compared to 2018 is due to the significantly lower interest rates in the base scenario: with financial guarantees becoming closer, movements in the interest rates amplify their impact on GOF.

Sensitivity on equity (€ +3.4 / € -3.4 billion): the impact reflects both the changes in the fair value of equity and the changes of Life Technical Provisions (change of cash flows).

The impacts in the two scenarios are almost symmetric, because of the presence of derivatives and because of the possibility to manage the unrealised losses over the future projection horizon.

The wider impact of 2019 sensitivity on equity compared to 2018 reflects the worse basic scenario (as for the interest rate sensitivity) but also the higher exposure of the Group to equity instruments.

Sensitivity on credit spread on corporate bonds (€ 0.1 billion): the impact reflects both the changes in the fair value of investments and defined benefit plans obligations and the changes of Technical Provisions (change of Life cash flows and impact on Volatility Adjustment).

In this sensitivity, the negative impact on the assets side is counter-balanced on the liability side by the associated increase of the VA (recalculated according to EIOPA’s formula and reference portfolio), which for Euro increases from 7 bps to 20 bps.

Compared to 2018, the 2019 sensitivity shows a positive impact: this is mainly due to the lower exposure to corporate bonds, and to the higher impact of VA in a lower interest rates environment.

Sensitivity on credit spread on Italian government bonds (€ -1.6 billion): the impact reflects both the changes in the fair value of investments and the changes of Technical Provisions (change of Life cash flows and impact on VA).

In this sensitivity, the Italian government bond spread's widening triggers an increase of the VA adopted by European countries (from 7 bps to 11 bps), without triggering the activation of the Country-specific VA.

The 2019 impact of this sensitivity can't be compared with 2018, where in view of the much higher level of the Italian government spread the results were affected by the activation of the Country-specific VA.

Sensitivity on EIOPA UFR (€ -0.2 billion): the impact reflects and anticipates the changes in UFR required by EIOPA during 2020. In particular, as a consequence of the revised assumptions adopted by EIOPA for the determination of the Ultimate Forward Rate used in the definition of the long-term tail of risk-free curves, a reduction of 15 bps is required to all countries where the Group operates (except for China and Hungary, where the UFR target has already been achieved). For Euro area, the UFR is going to be reduced from 3.90% to 3.75% during 2020.

Also in this case, the 2019 impact is higher than 2018 because of the lower interest rates in the base scenario.

Finally, it can be noted that the impact on the year-end 2019 GOF arising from the further haircut prescribed by the French Regulator on the amount of eligible unrealised gains on IORP pension business (see §5.1.1) amounts to € -0.5 billion.

3 New Business Value

3.1. New Business Value results

The following table shows the development of New Business Value (hereinafter, NBV) from 2018 to 2019, together with the related main profitability indicators. The results are reported after tax and after minorities and the changes are shown on a comparable basis, neutralising the impact of variations in the covered perimeter and foreign exchange rates.

New Business Value

€ mln	2019	2018	Change
Annual premiums	2,100	2,170	-1.3%
Single premiums	24,682	23,425	11.8%
PVNBP	**45,664**	**43,202**	**10.1%**
Cap Factor	10.0	9.1	0.9
APE	4,569	4,513	5.4%
NBV	**1,777**	**1,877**	**-2.2%**
Profitability			
- on PVNBP	**3.89%**	**4.35%**	**-0.49 pts**
- on APE	38.9%	41.6%	-3.0 pts
IRR	20.2%	23.6%	-3.3 pts

changes are on a comparable basis

From 2018 to 2019, the PVNBP increases by 10.1% to € 45.7 billion, with a significant growth of single premiums (+11.8%) and with annual premiums reporting a slight slowdown (-1.3%) compensated by a longer expected duration (cap factor up from 9.1 to 10.0).

The increase of PVNBP mainly comes from Germany (+27.3%, thanks to the restructuring of the sales force following the Generali Leben dismissal), from France (+10.1%, with an increase in all lines of business) and from Italy (+5.8%, with a significant contribution of Saving products with guarantees in case of death only).

The NB profitability decreases by 0.49 pts: the slowdown affects Saving production in almost all regions (due to the sharp decrease of interest rates) and Unit-Linked business in Italy and France (due to updated assumptions on persistency and expenses).

The actions performed to improve the new Saving products and to foster the growth of Protection business have allowed the NBM to remain solid at 3.89%, leading to a minor contraction of the NBV, down 2.2% to € 1.8 billion.

The IRR decreases by 3.3 pts to 20.2%, mainly as a consequence of the significantly lower Real-World financial assumptions underlying its calculation (refer to §4.4 for more details).

3.2. New Business profitability movement and New Business Value components

Movement of New Business Value and profitability

€ mln	NBV	NBM
2018 New Business Value	**1,877**	**4.35%**
Change in perimeter/Exchange rate fluct.	-60	0.03 pts
Products mix/volume	72	-0.14 pts
Economic variance	-371	-0.93 pts
Products features and others	260	0.59 pts
2019 New Business Value	**1,777**	**3.89%**

The overall NB profitability, neutralising the positive impact (+0.03 pts) of the variations in perimeter occurred during 2019 (mainly the sale of the entities in Germany, Belgium, Guernsey and Ireland), is down by 0.49 pts to 3.89%.

Most of the decrease (-0.93 pts), comes from the unfavourable economic framework: in the Euro area, from 2018 to 2019 the reference rates underlying the valuation of NB dropped by -60 bps on an average cumulative yearly basis (refer to §4.3 for more details), and by -116 bps in the fourth quarter.

The negative impact of Product mix/volumes (-0.14 pts) is mainly driven by the higher weight (in terms of PVNBP) of less profitable countries/companies (-0.18 pts), partially offset (+0.04 pts) by the improved product mix, stemming from the higher weight of the profitable Protection business (in terms of PVNBP, weight up from 20.4% to 21.8%) and, more in general, from the higher weight (from 87.5% to 90.6% in terms of NB premiums) of capital light products which also include Unit-Linked and Saving business without guarantees or with guarantees equal to or lower than 0%.

The impact of the review of the new products technical features (including the continuous reduction of the level of financial guarantees - in the Euro area, the average guarantee decreases from 0% in 2018 down to -0.09% in 2019) and other causes (such as the higher contribution of look-through profits from Group asset management activities) accounts for +0.59 pts increase in profitability.

The following table, finally, reports the development of the NBV from 2018 to 2019 by its MCEV component. The drop of interest rate is the main driver for the decrease of the PVFP and also, together with the increase of volumes, for the increase of the Cost of Non Hedgeable Risks.

Breakdown of New Business Value

€ mln	2019	2018
PVFP before Time Value of FG&O	2,288	2,304
Time Value of FG&O	-233	-200
PVFP after Time Value of FG&O	**2,055**	**2,105**
Cost of Capital	-19	-20
Cost of NHR	-258	-208
New Business Value	**1,777**	**1,877**

3.3. New Business Value by line of business

New Business Value by lines of business

€ mln	2019	2018*	Change
PVNBP	**45,664**	**43,202**	**10.1%**
o/w Saving	23,901	21,122	15.2%
o/w Protection	9,965	8,819	17.3%
o/w Unit-Linked	11,797	13,261	-3.7%
NBV	**1,777**	**1,877**	**-2.2%**
o/w Saving	539	606	-8.2%
o/w Protection	816	735	15.2%
o/w Unit-Linked	423	536	-19.0%
NBM	**3.89%**	**4.35%**	**-0.49 pts**
o/w Saving	2.25%	2.87%	-0.58 pts
o/w Protection	8.19%	8.34%	-0.15 pts
o/w Unit-Linked	3.58%	4.05%	-0.68 pts

changes are on a comparable basis
(*) 2018 official figures, with a restated split among main lines of business

In alignment with the Group's strategy, the aggregate growth of PVNBP (+10.1%) mainly comes from Protection business which shows a significant progress compared to 2018 (+17.3%), with positive development in all regions. The weight of Protection business on total PVNBP moves up from 20.4% to 21.8%.

The contraction of Unit-linked business (-3.7%) is mainly due to the weak production in Italy in line with the domestic market trend, only partially offset by the progress in Germany and France.

Saving business shows a good progress (+15.2%) coming mainly from Germany and Italy (where a significant part of the growth comes from products with financial guarantees in case of death only).

In terms of profitability on PVNBP, the aggregate decrease (from 4.35% to 3.89%) mainly affects the Saving business (NBM down from 2.87% to 2.25%, with contractions in all regions due to the drop of interest rates) and the Unit-linked products (NBM down from 4.05% to 3.58%, with contractions in Italy and France respectively due to updated persistency and expense assumptions). The NBM of Protection business, instead, remains high and basically stable (from 8.34% to 8.19%).

3.4. New Business Value sensitivity analysis

The NBV sensitivities are assumed to occur before the sale of the contract. Therefore, the NBV sensitivities give an indication of how the profitability of the same contracts might be affected by a different market environment.

The following table reports the impacts of the sensitivity analyses on NBV. The sensitivities have been derived from a specific NBV run set with financial and operating assumptions based on the latest beginning of period assumptions, i.e. at the end of September 2019 – adjusted (for presentational purposes) to better represent and match official 2019 figures.

Each sensitivity test is performed in isolation, i.e. all assumptions remain unchanged except the one directly impacted by the changed assumption.

The NB sensitivity to the EIOPA Ultimate Forward Rate (UFR) anticipates the impact of the change in the UFR (e.g. -15 bps on Euro area) required by EIOPA during 2020. The impact is not material and affects only long-term businesses.

In general, the impact of economic stresses on 2019 NBV is higher than in 2018, because of the lower interest rates in the base scenario.

NBV Sensitivity Analysis

€ mln	Total	Italy	France	Germany	ACEER	International
Base - NBV	**1,777**	**920**	**188**	**261**	**150**	**259**
Yield Curve +0,5%	9.1%	13.5%	17.6%	-4.5%	2.9%	4.4%
Yield Curve -0,5%	-9.7%	-12.7%	-28.3%	4.3%	-3.9%	-3.2%
Equity Implied Volatilities +25%	-1.1%	-1.0%	-1.5%	-2.6%	-0.7%	0.0%
Swaption Implied Volatilities +25%	-3.5%	-5.1%	-3.5%	-1.3%	-0.9%	-1.5%
EIOPA Ultimate Forward Rate	-0.9%	-1.0%	-1.6%	-1.2%	-1.5%	0.3%
Administrative & Invest.Manag. expenses -10%	4.1%	1.8%	12.7%	1.6%	9.3%	5.4%
Lapse rate +10%	-10.0%	-9.4%	-12.1%	-10.0%	-8.2%	-11.8%
Lapse rate -10%	11.2%	10.3%	13.4%	11.6%	9.1%	13.8%
Mortality/Morbidity for Risk Business -5%	4.6%	0.7%	18.0%	2.9%	9.7%	7.3%
Mortality for Annuity Business -5%	-0.3%	-0.1%	-1.0%	-0.6%	-0.1%	0.0%

3.5. New Business profits

The following table shows the expected future emergence of undiscounted after-tax profits stemming from the NB, estimated using Real-World financial assumptions (see §4.4) instead of Solvency II Risk Neutral assumptions.

New Business expected undiscounted profits with Real-World assumptions

€ mln	2019	2018
Year 0	-760	-743
Year 1 - 5	1,242	1,323
Year 6 - 10	786	823
Year 11 - 15	559	592
Year 16 - 20	447	468
Year 21 - 25	300	318
Year 26 - 30	188	195
Year 31 onwards	392	417

The cumulative undiscounted profits in 2019 amount to € 3.2 billion, slightly reduced in respect of the total amount of 2018 because of the reduced perimeter and the lower Real-World financial assumptions. Almost 82% of the profits are generated in the first 25 years of the projection.

3.6. New Business Value by region

3.6.1. Italy

New Business - Italy

New Business Production

€ mln	2019	2018	Change
Annual premiums	916	995	-7.9%
Single premiums	11,450	9,840	16.4%
PVNBP	**19,510**	**18,443**	**5.8%**
Cap Factor	8.8	8.6	0.2
APE	**2,061**	**1,979**	**4.2%**

changes are on a comparable basis

Breakdown of New Business Value

€ mln	2019	2018
PVFP before Time Value of FG&O	1,131	1,209
Time Value of FG&O	-128	-165
PVFP after Time Value of FG&O	**1,003**	**1,044**
Cost of Capital	-1	-1
Cost of NHR	-83	-64
New Business Value	**920**	**978**

New Business Value and Profitability

€ mln	2019	2018	Change
New Business Value	**920**	**978**	**-6.0%**
Profitability			
-on PVNBP	4.71%	5.30%	-0.59 pts
-on APE	44.6%	49.4%	-4.8 pts
IRR	26.5%	28.4%	-1.9 pts

changes are on a comparable basis

Movement of New Business Value and Profitability

€ mln	NBV	NBM
New business value 2018	**978**	**5.30%**
Change in perimeter/Exchange rate fluct.	0	0.00 pts
Products mix/volume	10	-0.15 pts
Economic Variance	-241	-1.34 pts
Products features and others	173	0.90 pts
New business value 2019	**920**	**4.71%**

NB Production (measured in terms of PVNBP) increases by 5.8%, thanks to the development of Single premiums (+16.4%), only partially offset by the decrease of Annual premiums (-7.9%).

In terms of lines of business, the PVNBP increase is mainly driven by the good growth of traditional Saving business (+16.1%, with a remarkable contribution of Saving products with guarantees in case of death only that now account for about 21% of total PVNBP) and by the further progress of Protection business (+30.8%), whilst the drop of Unit-linked business (-20.4%) follows the market trend.

The New Business **profitability** remains high despite the decrease of -0.59 pts, with the margin on PVNBP moving from 5.30% in 2018 to 4.71% in 2019. This contraction is mainly driven by the worse economic situation and by the more conservative persistency assumptions on hybrid products, partially offset by the new product features, such as the reduced application or further reduction of guarantee level on Saving products.

The lower margins lead to a decrease of NBV by 6.0%, amounting to € 920 million. Analysing the NBV components, it can be noted that the NBV contraction stems from a lower PVFP value (reflecting lower interest rates) and from a higher Cost of NHR (due to higher volumes).

Despite the reduction of the New Business strain (from -2.24% to -2.19% in percentage of PVNBP), the drop of Real-World financial assumptions (see §4.4) leads to the decrease of IRR from 28.4% to 26.5%.

3.6.2. France

New Business - France

New Business Production

€ mln	2019	2018	Change
Annual premiums	144	126	13.9%
Single premiums	9,240	8,475	9.1%
PVNBP	**10,525**	**9,568**	**10.1%**
Cap Factor	9.0	8.7	0.3
APE	**1,068**	**974**	**9.7%**

changes are on a comparable basis

Breakdown of New Business Value

€ mln	2019	2018
PVFP before Time Value of FG&O	330	286
Time Value of FG&O	-84	-22
PVFP after Time Value of FG&O	**247**	**265**
Cost of Capital	-3	-3
Cost of NHR	-56	-42
New Business Value	**188**	**219**

New Business Value and Profitability

€ mln	2019	2018	Change
New Business Value	**188**	**219**	**-14.3%**
Profitability			
-on PVNBP	1.78%	2.29%	-0.51 pts
-on APE	17.6%	22.5%	-4.9 pts
IRR	10.1%	12.8%	-2.7 pts

changes are on a comparable basis

Movement of New Business Value and Profitability

€ mln	NBV	NBM
New business value 2018	**219**	**2.29%**
Change in perimeter/Exchange rate fluct.	0	0.00 pts
Products mix/volume	29	0.08 pts
Economic Variance	-113	-1.08 pts
Products features and others	52	0.50 pts
New business value 2019	**188**	**1.78%**

NB Production increases both in terms of Annual Premiums (+13.9%) and Single Premiums (+9.1%), with an overall positive development (+10.1% in terms of PVNBP).

The PVNBP progress affects all lines of business: +14.0% on Saving, +8.5% on Protection business (representing 28.5% of total PVNBP), +6.6% on Unit-linked business (representing 30.6% of total PVNBP).

The New Business **profitability** decreases from 2.29% in 2018 to 1.78% in 2019. The contraction of NBM stems from the impact of economic variances (-1.08 pts, with low interest rates mainly affecting the Saving business), only partially offset by the more favourable product mix, the improved profitability of Protection business and the enhanced contribution of look-through profits from Group asset management activities. The movement of NBM also reflects the negative impact of the Solvency II regulatory model change adopted at year-end 2018 regarding a more conservative approach for dynamic surrenders assumptions.

The combined effect of higher volumes and lower profitability leads to an overall decrease of NBV (-14.3%), amounting to € 188 million. The NBV contraction comes from both the PVFP (with the increase of Time Value reflecting the mentioned change on dynamic surrenders) and the Cost of NHR (with the increase due to higher volumes especially in protection business).

The IRR decreases from 12.8% in 2018 to 10.1% in 2019, driven by the lower Real-World financial assumptions used in the projection and to the increase of the first year strain (in terms of ratio on the PVNBP, from -2.67% to -2.98%).

3.6.3. Germany

New Business - Germany

New Business Production

€ mln	2019	2018	Change
Annual premiums	470	464	14.2%
Single premiums	1,739	1,470	27.7%
PVNBP	**9,587**	**8,048**	**27.3%**
Cap Factor	16.7	14.2	1.7
APE	**644**	**611**	**17.6%**

changes are on a comparable basis

Breakdown of New Business Value

€ mln	2019	2018
PVFP before Time Value of FG&O	319	261
Time Value of FG&O	-11	-3
PVFP after Time Value of FG&O	**307**	**258**
Cost of Capital	-2	0
Cost of NHR	-44	-30
New Business Value	**261**	**228**

New Business Value and Profitability

€ mln	2019	2018	Change
New Business Value	**261**	**228**	**27.4%**
Profitability			
-on PVNBP	2.73%	2.83%	0 .00 pts
-on APE	40.6%	37.3%	3.1 pts
IRR	46.6%	32.6%	15.9 pts

changes are on a comparable basis

Movement of New Business Value and Profitability

€ mln	NBV	NBM
New business value 2018	**228**	**2.83%**
Change in perimeter/Exchange rate fluct.	-21	-0.10 pts
Products mix/volume	35	-0.06 pts
Economic Variance	-1	-0.17 pts
Products features and others	21	0.23 pts
New business value 2019	**261**	**2.73%**

NB Production (measured in terms of PVNBP) improves by 27.3%, thanks to the successful reorganization after the sale of Generali Leben, with good progress of both Single premiums (+27.7%) and Annual premiums (+14.2%).

The PVNBP progress affects all segments, with Protection business increasing by +25.2% (with a strong contribution of Health business, +47.8%), representing 36.3% of the total PVNBP. Saving business and Unit-linked business also register a significant progress (+42.2% and +16.6% respectively).

The New Business **profitability** remains substantially stable at 2.73% in 2019, with the limited negative impacts stemming from lower interest rates (also thanks to the long duration of the Saving business) and slightly less favourable product mix (higher growth of Saving business) being offset by the revised new products features (e.g. average financial guarantees down from 0.53% to 0.23%).

Thanks to higher volumes and stable profitability, the NBV increased compared to 2018 (+27.4%) and amounts to € 261 million.

Despite the negative impact of the lower Real-World financial assumptions, the IRR increases from 32.6% to 46.6%, mainly thanks to the reduction of the New Business first year strain (from -0.32% to -0.23% in terms of ratio on the PVNBP) linked to the updated assumptions on policyholders' profit share quotas.

3.6.4. Austria and Central Eastern Europe (ACEER)

New Business - ACEER

New Business Production

€ mln	2019	2018	Change
Annual premiums	145	134	3.2%
Single premiums	607	621	-4.5%
PVNBP	**2,146**	**2,028**	**2.1%**
Cap Factor	10.7	10.5	0.2
APE	**205**	**196**	**0.8%**

changes are on a comparable basis

Breakdown of New Business Value

€ mln	2019	2018
PVFP before Time Value of FG&O	178	172
Time Value of FG&O	-1	-1
PVFP after Time Value of FG&O	**177**	**171**
Cost of Capital	-2	-2
Cost of NHR	-25	-27
New Business Value	**150**	**143**

New Business Value and Profitability

€ mln	2019	2018	Change
New Business Value	**150**	**143**	**4.8%**
Profitability			
-on PVNBP	6.97%	7.03%	0.18 pts
-on APE	72.8%	72.6%	2.8 pts
IRR	16.8%	20.3%	-3.5 pts

changes are on a comparable basis

Movement of New Business Value and Profitability

€ mln	NBV	NBM
New business value 2018	**143**	**7.03%**
Change in perimeter/Exchange rate fluct.	0	-0.24 pts
Products mix/volume	3	0.22 pts
Economic Variance	-1	-0.26 pts
Products features and others	5	0.23 pts
New business value 2019	**150**	**6.97%**

The ACEER region includes Group companies operating in Austria and Central Eastern Europe.

NB production (measured in terms of PVNBP) grows by 2.1% on account of the increase in Annual premiums (+3.2%, with a significant contribution from Austria and Hungary) more than offsetting the decline in Single premiums (-4.5%, mainly in Poland and Croatia).

The PVNBP progress entirely comes from the further development of Protection business (+8.5%) in all countries within the region, with a weight on total PVNBP moving from 47.4% to 50.8%. The slowdown of traditional Saving business (-3.0% PVNBP) is due to the contraction in CEE countries (especially in Czech Republic and Croatia), while the slowdown of Unit-linked business (-4.4% PVNBP) is mainly due to Poland.

The New Business **profitability** increases by 0.18 pts on a comparable basis, driven by the higher weight of the more profitable Protection business, mainly in Austria and Czech Republic.

The 2019 NBV amounts to € 150 million, up by 4.8% compared to 2018.

The IRR decreases from 20.3% to 16.8%, on account of the lower Real World financial assumptions and the slightly higher first year strain (from -5.97% to -6.43% on PVNBP).

3.6.5. International

New Business - International

New Business Production

€ mln	2019	2018	Change
Annual premiums	425	450	-6.1%
Single premiums	1,645	3,019	-6.9%
PVNBP	**3,895**	**5,116**	**1.6%**
Cap Factor	5.3	4.7	0.7
APE	**590**	**752**	**-6.3%**

changes are on a comparable basis

Breakdown of New Business Value

€ mln	2019	2018
PVFP before Time Value of FG&O	330	376
Time Value of FG&O	-9	-8
PVFP after Time Value of FG&O	**321**	**367**
Cost of Capital	-12	-13
Cost of NHR	-50	-44
New Business Value	**259**	**310**

New Business Value and Profitability

€ mln	2019	2018	Change
New Business Value	**259**	**310**	**-4.3%**
Profitability			
-on PVNBP	6.65%	6.05%	-0.41 pts
-on APE	43.9%	41.2%	0.9 pts
IRR	16.4%	22.3%	-5.6 pts

changes are on a comparable basis

Movement of New Business Value and Profitability

€ mln	NBV	NBM
New business value 2018	**310**	**6.05%**
Change in perimeter/Exchange rate fluct.	-39	1.01 pts
Products mix/volume	-6	-0.03 pts
Economic Variance	-16	-0.63 pts
Products features and others	9	0.25 pts
New business value 2019	**259**	**6.65%**

The International region includes Group companies operating in Spain, Switzerland, Asia and Americas&Southern Europe and the business written by Assicurazioni Generali through its international branches. The 2018 figures include the operations (i.e. Belgium, Guernsey and Ireland) whose disposal has been finalized in 2018.

NB Production shows a slowdown of both annual (-6.1%) and single premiums (-6.9%). Conversely, the PVNBP slightly increase (+1.6%) thanks to the increased expected duration of the annual premiums (cap factor up from 4.7 to 5.3). In terms of regional development, the good progress registered in Switzerland (+36.0%) is only partially offset by the slowdown in Asia (-5.7%) and Spain (-1.6%).

In terms of lines of business, the PVNBP increase mainly stems from the Protection business (+20.9%, especially in Asia), which increases its overall weight from 30.5% to 44.9%, and from Unit-Linked business (+10.6%, driven by Spain and Switzerland). Traditional Saving business registers a slowdown of -18.3%, mainly coming from Spain and China, following the closure of some unprofitable saving products.

The New Business **profitability** moves from 6.05% to 6.65%, but it shows a 0.41 pts decrease on a comparable basis (neutralising the impact of the sale of less profitable entities disposed in 2018). The worsened financial framework is the main reason of the profitability drop, in particular in Asia.

The lower margins lead to a decrease of NBV (-4.3%), amounting to € 259 million.

The IRR shows a decrease from 22.3% in 2018 to 16.4%, mainly due to the lower Real-World financial assumptions used in the projection and to the increase in the New Business first year strain (from -6.44% to -8.54% in terms of ratio on the PVNBP).

In the following tables, some further analyses are reported for the main areas of the International region: Spain, Switzerland and Asia.

New Business - International - o/w Spain

New Business Production				*New Business Value and Profitability*			
€ mln	**2019**	**2018**	**Change**	€ mln	**2019**	**2018**	**Change**
Annual premiums	26	34	-24.0%	**New Business Value**	**115**	**118**	**-2.4%**
Single premiums	591	603	-1.9%	**Profitability**			
PVNBP	**890**	**904**	**-1.6%**	-on PVNBP	12.96%	13.07%	-0.11 pts
APE	**85**	**95**	**-9.9%**	-on APE	135.3%	124.9%	10.5 pts

changes are on a comparable basis

In line with the Group's strategy, the slowdown of **PVNBP** (-1.6%) is mainly driven by the drop of the traditional Saving business (-24.9%, due to the closure of some unprofitable products), partially offset by the strong increase of Unit-Linked business (+124.9%, also due to the launch of new Index-Linked products) and the good progress of Protection business (+6.3%), that increases its weight from 43.2% to 46.6%.

The New Business **profitability** is stable and remains at high level (+12.96%), thanks to the higher weight of the very profitable Protection products. The NBV amounts to € 115 million (-2.4% compared to 2018).

New Business - International - o/w Switzerland

New Business Production				*New Business Value and Profitability*			
€ mln	**2019**	**2018**	**Change**	€ mln	**2019**	**2018**	**Change**
Annual premiums	37	28	25.9%	**New Business Value**	**30**	**17**	**72.9%**
Single premiums	33	23	35.1%	**Profitability**			
PVNBP	**546**	**385**	**36.0%**	-on PVNBP	5.47%	4.35%	1.17 pts
APE	**40**	**31**	**26.6%**	-on APE	74.0%	54.7%	19.8 pts

changes are on a comparable basis

In Switzerland, the strong increase of **PVNBP** (36.0%) mainly reflects the good development of the Unit-Linked business (+41.4%), which represents the main part of the production (with a weight of 83.3% on total PVNBP), together with the growth of Protection business (+17.1%).

The New Business **profitability** improves from 4.35% in 2018 to 5.47% in 2019, thanks to the increased weight and profitability of protection business, and to reduction of the Cost of Non Hedgeable Risks (following the adoption of Solvency II partial internal model). The NBV amounts to € 30 million (+72.9% compared to 2018).

New Business - International - o/w ASIA

New Business Production				*New Business Value and Profitability*			
€ mln	**2019**	**2018**	**Change**	€ mln	**2019**	**2018**	**Change**
Annual premiums	285	288	-8.3%	**New Business Value**	**107**	**123**	**-14.3%**
Single premiums	796	857	-12.8%	**Profitability**			
PVNBP	**2,054**	**2,047**	**-5.7%**	-on PVNBP	5.19%	6.02%	-0.52 pts
APE	**365**	**374**	**-9.3%**	-on APE	29.2%	33.0%	-1.7 pts

changes are on a comparable basis

In Asia, the **PVNBP** decreases by -5.7% on account of the reduction of both annual and single premiums, with the progress of Protection business (+23.9%) being offset by the drops of Saving and Unit-linked business. In terms of regional development, the PVNBP decrease is mainly attributable to China (-7.5%), Thailand (-19.6%) and Hong Kong (-20.8%), not fully compensated by the significant increase of Vietnam (+29.9%) and India (+41.5%).

The New Business **profitability** decreases from 6.02% in 2018 to 5.19% in 2019, mainly because of the worsened financial assumptions affecting the traditional Saving business. Protection business (whose weight moves from 35.6% to 46.5%) maintains instead a high profitability. The overall 2019 NBV amounts to € 107 million (-14.3%).

3.7. Reconciliation between New Business Value and Solvency II Value of New Production

The Solvency II Value of New Production is defined as the value generated at issue by the Life new production within Solvency II Own Funds, and represents an important element of the normalised Own Fund generation.

In order to move from NBV to Solvency II Value of New Production, the following adjustments are considered:

– Scope: gross up of the minorities in line with Own Funds requirements;
– Alternative approach of Cost of Capital (CoC) and Cost of Non Hedgeable Risks (NHR): removal of MCEV CoC and Cost of NHR (under MCEV based on a 4% net of tax charge) and inclusion of Solvency II Risk Margin (under Solvency II based on 6% charge);
– Other: this is mainly due to removal of look-through profits (e.g. asset management fees emerging in Group entities outside the Life perimeter) not recognised under the Solvency II framework, the removal of French NB pensions products which are treated under the IORP transitory regime and the removal of the impact of VA for Asian Countries where it is not yet recognised within Solvency II.

No adjustment is needed regarding the definition and application of contract boundaries, as both NBV and Solvency II Value of New Production are aligned to the approach prescribed by Solvency II.

The following table shows the main elements of the reconciliation between NBV and Solvency II Value of New Production.

From NBV to Solvency II VNP

€ mln	2019	2018
NBV	**1,777**	**1,877**
Minority impact	140	173
NBV gross up of the minorities	**1,917**	**2,050**
Alternative approach of CoC&NHR	-261	-215
Other	-264	-191
Solvency II Value of New Production	**1,393**	**1,643**

4 Assumptions

The calculation of GOF and NBV makes use of various assumptions with respect to economic conditions, operating factors and other variables, many of which are beyond Generali's control. Although all the assumptions represent estimates that Generali regards as reasonable best estimates, future developments may vary from those assumed in the calculations and such variations could have a significant impact on results.

Economic assumptions have been set consistently with observable market data. Taxation assumptions are based on current tax legislation. Operating assumptions (including profit sharing mechanisms) are based on each company's current experience and practice, where available and otherwise credible.

Differently from GOF calculations (where economic assumptions are related to the end of year), for NB calculations, whose yearly results are calculated as the sum of the four quarterly NB valuations, the financial assumptions are related to the beginning of each quarterly valuation. Therefore, to facilitate the yearly NB comparison, in the next paragraphs NB financial assumptions are reported as weighted average over the four quarters.

4.1. Financial assumptions

Generali has adopted a market consistent methodology based on a risk-neutral approach for the vast majority of its business.

The Time Value of FG&O is modelled by means of a set of 1,000 stochastic simulations, calibrated reflecting observable market data as at the valuation date and generated centrally by an Economic Scenario Generator provided by Moody's Analytics UK Limited.

At year-end 2019 valuation, consistently with previous year-end, the following models have been considered:

- Libor Market Model plus (LMM+) for nominal risk-free yield curves, which allows for negative interest rates;
- Two-Factor Vasicek model for real yield curves;
- G2 model (an extension of JLT model) for Corporate bonds' credit spreads;
- Time Varying Deterministic Volatility model for equity indexes;
- Constant Volatility model for real estate indexes;
- Mean reverting process for equity dividend yields and real estate income return.

The ESG is a structural model where the risky assets are defined as the risk-free return plus a risky excess return component. As a consequence:

- nominal and real rates are explicitly modelled;
- all other assets (Corporate Bonds, Equity, Property) are derived by means of log excess return on the nominal rates.

The key economic assumptions, for each currency, are:

- the reference nominal interest rates (as defined by EIOPA);
- the implied volatilities for nominal yield curve, equity, real estate and real estate;
- transition matrix, recovery rate and spreads over risk-free rates for corporate bonds;
- inflation rates;
- correlations between different asset classes.

Such assumptions are described in more detail in the following paragraphs.

4.1.1. Risk-free interest rates term structure

The nominal risk-free interest rate term structures used by Generali for the calculation of both GOF and NBV is fully compliant with EIOPA technical specification where the key component are:

- identification of the “base” relevant financial instruments (swap or government bonds);
- adjustment capturing the embedded credit risk (Credit Risk Adjustment - CRA);
- adjustment reflecting the portion of government and corporate bonds spreads which is assumed to be earned in a risk-free manner (Volatility Adjustment – VA);
- assessment of the Last Liquid Point (LLP) until which the observed market rates are used;
- assessment of the long-term target (Ultimate Forward Rate - UFR) used in the extrapolation of market data (based on the Smith Wilson methodology) after the LLP;
- maturity at which the extrapolated forward rate converges to the UFR (Convergence point).

The following table summarises the EIOPA calibration concerning the construction of the risk-free interest rate structures used by Generali for its main currencies.

EIOPA - Risk-free rates construction

Currency	@ dd.mm.yyyy	Base	CRA	VA	LLP	UFR	Convergence point
EUR	31.12.2019	Swap	-10 bps	7 bps	20 yrs	3.90%	60 yrs
	31.12.2018	Swap	-10 bps	24 bps	20 yrs	4.05%	60 yrs
CHF	31.12.2019	Swap	-10 bps	5 bps	25 yrs	2.90%	65 yrs
	31.12.2018	Swap	-10 bps	4 bps	25 yrs	3.05%	65 yrs
CNY	31.12.2019	Swap	-22 bps	n/a	10 yrs	4.50%	60 yrs
	31.12.2018	Swap	-19 bps	n/a	10 yrs	4.35%	60 yrs
CZK	31.12.2019	Swap	-10 bps	13 bps	15 yrs	3.90%	60 yrs
	31.12.2018	Swap	-10 bps	17 bps	15 yrs	4.05%	60 yrs
HUF	31.12.2019	Govt	-10 bps	1 bps	15 yrs	4.50%	60 yrs
	31.12.2018	Govt	-10 bps	5 bps	15 yrs	4.35%	60 yrs
PLN	31.12.2019	Govt	-10 bps	8 bps	10 yrs	3.90%	60 yrs
	31.12.2018	Govt	-10 bps	9 bps	10 yrs	4.05%	60 yrs

Finally, the following table summarises the risk-free rates provided by EIOPA and applied by Generali for its main currencies[5].

[5] For materiality reasons, VA has not been adopted in the valuation of entities operating in Hungary and Poland. In China, where EIOPA does not publish yet a VA, Generali has estimated and adopted, only for NB purposes, an adjustment to be applied on the risk-free rates (37 bps on average in 2019, 46 bps on average in 2018).

Risk-free rates (par rates including all adopted adjustments)

Currency	@ dd.mm.yyyy	1 Years	2 Years	5 Years	10 Years	20 Years	30 Years
EUR	31.12.2019	-0.35%	-0.32%	-0.16%	0.18%	0.56%	1.15%
	31.12.2018	-0.09%	-0.04%	0.34%	0.95%	1.46%	1.89%
CHF	31.12.2019	-0.68%	-0.66%	-0.47%	-0.15%	0.13%	0.33%
	31.12.2018	-0.71%	-0.63%	-0.31%	0.25%	0.71%	0.88%
CNY	31.12.2019	2.45%	2.52%	2.79%	3.08%	3.42%	3.60%
	31.12.2018	2.49%	2.52%	2.77%	3.05%	3.34%	3.51%
CZK	31.12.2019	2.28%	2.29%	2.09%	1.76%	2.04%	2.38%
	31.12.2018	2.13%	2.08%	1.88%	1.83%	2.13%	2.47%
HUF	31.12.2019	0.02%	0.15%	0.95%	1.88%	2.82%	3.16%
	31.12.2018	0.44%	1.03%	2.20%	3.03%	3.63%	3.79%
PLN	31.12.2019	1.02%	1.40%	1.73%	2.01%	2.35%	2.63%
	31.12.2018	0.94%	1.32%	2.11%	2.71%	3.00%	3.18%

4.1.2. Implied volatilities

Nominal yield curves are calibrated on the volatility implied by the market prices of the At The Money (ATM) swaption based on the Normal pricing model.

As for the previous valuation, the ATM Normal Swaption Implied Volatilities (SIV) are based on the last observable market data (31 December); all available market data have been used, without any smoothing or anchoring techniques.

The following table[6] compares Normal ATM SIV related to the 10-year swap maturity considered for the 2019 and 2018 valuations.

Swaption Implied Volatilities - 10yr swap maturity ATM Normal

Currency	@ dd.mm.yyyy	Option Tenor				
		1 Years	2 Years	5 Years	10 Years	20 Years
EUR	31.12.2019	0.45%	0.47%	0.52%	0.56%	0.52%
	31.12.2018	0.43%	0.49%	0.60%	0.62%	0.54%
CHF	31.12.2019	0.45%	0.48%	0.57%	0.58%	0.58%
	31.12.2018	0.47%	0.55%	0.66%	0.66%	0.47%
CZK	31.12.2019	0.58%	0.63%	0.63%	0.63%	0.63%
	31.12.2018	0.57%	0.61%	0.61%	0.43%	0.31%
HUF	31.12.2019	1.54%	1.45%	1.35%	1.35%	1.35%
	31.12.2018	1.53%	1.45%	1.34%	0.95%	0.67%

[6] The CNY and PLN currencies are not included in this (SIV) and next table (EIV) because they are valuated with a certainty equivalent approach.

Regarding equity, for each currency a specific index (Euro Stoxx 50 for EUR, SMI for CHF, PX for CZK, BUX for HUF) has been selected, and the calibration is performed on the volatility implied by the market prices of the ATM option based on Black-Scholes pricing model.

The following table compares Black-Scholes Equity Implied Volatilities (EIV) considered for the 2019 and 2018 valuations.

Equity Implied Volatilities - ATM Black-Scholes

Currency	@ dd.mm.yyyy	Option Term				
		1 Years	2 Years	5 Years	7 Years	10 Years
EUR	31.12.2019	14.23%	14.98%	16.41%	16.93%	17.33%
	31.12.2018	17.38%	16.55%	16.27%	16.42%	17.17%
CHF	31.12.2019	13.01%	13.50%	13.73%	13.88%	14.00%
	31.12.2018	17.25%	16.42%	15.17%	15.10%	15.04%
CZK	31.12.2019	11.40%	11.03%	11.80%	11.90%	11.98%
	31.12.2018	15.00%	13.16%	12.09%	11.71%	11.41%
HUF	31.12.2019	18.75%	18.33%	18.19%	18.25%	18.29%
	31.12.2018	20.17%	19.59%	19.53%	19.72%	19.86%

Concerning real estate, due to the lack of market prices options, the calibration is based on country historical data; for EUR the calibration outcomes are clustered into 2 indexes (High, Low volatility) reflecting the local specificities.

Real estate Implied Volatilities - ATM Black-Scholes

Currenc	@ dd.mm.yyyy	All	High	Low
EUR	31.12.2019		7.38%	2.81%
	31.12.2018		7.84%	2.82%
CHF	31.12.2019	4.17%		
	31.12.2018	4.31%		
CZK	31.12.2019	7.49%		
	31.12.2018	7.07%		
HUF	31.12.2019	6.82%		
	31.12.2018	6.68%		

4.1.3. Transition matrix, recovery rate and spreads over reference rates for corporate bonds

Credit Transition matrix and recovery rate are based on historical average evidences provided by Moody's within the most representative Corporate bond markets (USD), in particular:

- Transition matrix covers the rating change, including default, in the period 1920-2015;
- Recovery rate is based on post-default trading prices of the senior subordinated seniority in the period 1983-2015.

Corporate spreads over reference rate are referred to currency market spreads and, in case no market data is considered adequate, are based on historical average market spreads registered in the most liquid markets (USD, EUR, GBP).

4.1.4. Inflation rates

Inflation rates are stochastically modelled as the difference between Nominal and Real Yield curves and are calibrated based on market inflation swaps or economic consensus forecast depending on data availability.

Inflation rates

Currency	@ dd.mm.yyyy	1 Year	5 Years	10 Years	30 Years
EUR	31.12.2019	1.05%	1.19%	1.46%	1.90%
	31.12.2018	0.73%	1.32%	1.73%	2.08%
CHF	31.12.2019	0.50%	0.70%	0.70%	0.80%
	31.12.2018	1.00%	1.01%	1.01%	1.01%
CNY	31.12.2019	3.06%	2.10%	2.10%	2.85%
	31.12.2018	2.30%	2.25%	2.25%	2.87%
CZK	31.12.2019	2.40%	2.00%	2.00%	2.00%
	31.12.2018	2.30%	2.00%	2.00%	2.00%
HUF	31.12.2019	3.20%	3.10%	3.10%	3.05%
	31.12.2018	3.20%	3.00%	3.00%	3.00%
PLN	31.12.2019	2.80%	2.50%	2.50%	2.11%
	31.12.2018	2.30%	2.50%	2.50%	2.11%

To inflate expenses, country specific allowance has also been made for the additional inflation related to salaries and medical costs.

4.1.5. Correlations

Correlations between asset returns, which are not directly observable metrics, are inferred using:

- an analysis of historical data covering a significant number of currencies;
- expert opinions.

In the table below the most relevant correlations (representing a common target set for all the economies) are reported.

Relevant correlation among assets

	Nominal Short rate	Equity (excess return)	Real estate (excess return)
Nominal Short rate		-11%	-10%
Equity (excess return)	-11%		37%
Real estate (excess return)	-10%	37%	

Upper right values referred to YE19, Lower left values referred to YE18

4.2. Other economic assumptions

4.2.1. Assumptions on taxation

In defining GOF, the appropriate nominal tax rate is applied by Country and by balance sheet item on the difference between value recognised for Solvency II purposes and fiscal recognised amount. When a pattern for the realization of the values is needed, the tax rate referred to a specific future fiscal year is applied.

For the NB calculation, the assumptions for future taxation are based on the prevailing local tax rates as at the respective valuation dates. Where applicable, account has been taken of the specific tax treatment of income on certain asset classes backing both technical reserves and required capital, including tax credits or exemptions on dividend income, tax credits on investment returns and tax exemptions on certain qualifying participations.

4.2.2. Exchange rates

GOF and NB values have been calculated using local currencies: GOF figures have been converted to EUR using year-end exchange rates, while quarterly NB values have been converted to EUR using the exchange rates valid at the end of each quarter.

The following table shows the assumed year-end exchange rates (foreign currency against 1 EUR) for selected currencies.

Exchange rates

	31.12.2019	31.12.2018
CHF	1.09	1.13
CNY	7.82	7.85
CZK	25.41	25.74
HUF	330.71	320.80
PLN	4.25	4.29

4.3. Average New Business yearly economic assumptions

The year-end 2019 and 2018 NB figures are obtained as the sum of four quarters, each quarter being calculated with beginning of period financial assumptions. To facilitate a comparison between the economic assumptions adopted along the two years, weighted averages of the main economic assumptions, based on quarterly NB premiums, are reported below.

The following table reports the average 10 years par reference rates, inclusive of CRA and VA.

Average Reference Rates (including all adopted adjust.)

	2019	2018
EUR	0.31%	0.91%
CHF	-0.13%	0.30%
CNY	3.43%	4.09%
CZK	1.66%	1.98%
HUF	2.42%	2.82%
PLN	2.38%	3.10%

The following table reports the average of both SIV (5/5, Normal) and EIV (5 years, Black-Scholes), with reference to the currencies where stochastic scenarios are used.

Average Implied Volatility

	SIV (5/5, Normal)		EIV (5, Black-Scholes)	
	2019	2018	2019	2018
EUR	0.51%	0.62%	16.33%	17.17%
CHF	0.59%	0.68%	14.32%	14.62%
CZK	0.62%	0.61%	11.79%	12.74%
HUF	1.29%	1.31%	18.72%	19.17%

4.4. Real-World financial assumptions

Real-World best estimate financial assumptions are used by companies, performing market consistent valuations, to calculate the distributable profits used to derive the NB Internal Rate of Return (IRR) at each quarter. They are also used to determine the financial returns expected by the shareholder, basis for the calculation of the normalised Own Funds generation (see §5.1.3).

The main economic assumptions used in the Real-World framework are the following:

- Government bonds return are based on market return, at the valuation date;
- Corporate bonds returns are based on market average spread, at the valuation date;
- Equity total returns are set by adding an equity risk premium of 2.90% over the 10-year par-yield of local government bond, with the exception of companies belonging to the Euro-Zone, for which the 2.90% spread is applied over the 10-year German bund;
- Real estate total returns are set by adding a risk premium of 1.15% over the 10-year par-yield of local government bond, with the exception of companies belonging to the Euro-Zone, for which the 1.15% spread is applied over the 10-year German bund.

The main Real-World economic assumptions adopted for GOF (at year-end 2019 and 2018) and for NB (as weighted average across quarters, based on NB premiums) are summarised in the following tables:

OF Year-End RW assumptions

	10 y Government Bond		Equity Total Returns		Property Total Returns	
	31.12.2019	31.12.2018	31.12.2019	31.12.2018	31.12.2019	31.12.2018
Italy	1.37%	2.71%	2.74%	3.17%	1.42%	1.62%
France	0.12%	0.72%	2.74%	3.17%	1.42%	1.62%
Germany	-0.16%	0.27%	2.74%	3.17%	1.42%	1.62%
ACEER - Austria	0.09%	0.59%	2.74%	3.17%	1.42%	1.62%
ACEER - Czech Rep.	1.61%	1.92%	4.51%	4.82%	3.07%	2.74%
Intern. - Spain	0.48%	1.47%	2.74%	3.17%	1.42%	1.62%
Intern. - Switzerland	-0.46%	-0.19%	2.44%	2.71%	0.96%	1.03%
Intern. - China	3.58%	3.64%	6.48%	6.54%	4.79%	5.97%

NB average RW assumptions

	10 y Government Bond		Equity Total Returns		Property Total Returns	
	avg 2019	avg 2018	avg 2019	avg 2018	avg 2019	avg 2018
Italy	1.95%	2.38%	2.72%	3.35%	0.97%	1.60%
France	0.09%	0.72%	2.65%	3.35%	0.90%	1.60%
Germany	-0.17%	0.45%	2.73%	3.35%	0.98%	1.60%
ACEER - Austria	0.12%	0.67%	2.72%	3.35%	0.97%	1.60%
ACEER - Czech Rep.	1.64%	1.90%	4.54%	4.80%	2.79%	3.05%
Intern. - Spain	0.80%	1.41%	2.75%	3.36%	1.00%	1.61%
Intern. - Switzerland	-0.49%	-0.01%	2.41%	2.89%	0.66%	1.14%
Intern. - China	3.61%	4.51%	6.51%	7.41%	4.76%	5.66%

5 Annex A: Methodology

5.1. Group Own Funds

5.1.1. Group Own Funds methodology

Group Own Funds are valuated in accordance with the current Solvency II provisions of the Directive 2009/138/EC, as well as the 'Delegated Regulation' 2015/35/EC and related Guidelines.

Group Own Funds reported in this document are calculated in the "regulatory view" scenario, according to which the Solvency Capital Requirement (SCR) of each company, mainly affecting the calculation of the Risk Margin, is determined with either Internal Model or Standard Formula methodology, depending on whether the Partial Internal Model has been approved or not for the specific company.

The Group Own Funds are defined by the aggregation of the:

a) Basic Own Funds (after deduction), representing the sum of

- Solvency II Excess of Assets over Liabilities[7];
- contribution of subordinated debt eligible in Basic Own Funds;
- deduction for foreseeable dividends and distributions;
- additional OF related to unrealised capital gains from French pension activities arising from the application of the IORP transitory regime[8];
- deductions for participations in sectoral entities,
- deductions for regulatory filters applied to non-available items at Group level, restricted Own Funds items and shares of the parent company

and

b) the contribution of the available capital of sectoral entities, according to their regulatory regimes.

The items composing Group Own Funds are classified into three tiers of capital, depending on the extent to which they can absorb losses due to adverse business fluctuations on a going-concern basis or in case of winding-up. The classification by tiers of Group Own Funds is the following:

- Tier 1 Unrestricted Group Own Funds includes Ordinary share capital and the related share premium account, Available Surplus funds from German, France and Austrian business, the Reconciliation reserve and additional Own Funds from French pension activities. The Reconciliation Reserve is net of Foreseeable Dividends, restricted Own Funds items and shares of the parent company;
- Tier 1 Restricted Group Own Funds is composed by undated subordinated debt eligible in Group Own Funds;
- Tier 2 Group Own Funds includes the remaining part of subordinated debt eligible in Group Own Funds, which is classified as dated;
- Tier 3 Group Own Funds is composed by net deferred tax assets, which are characterised by lower capital quality, being not immediately available to absorb losses.

[7] Net of minority interest for China operations that are evaluated with the proportional method, according to article 335 of Commission Delegated Regulation (EU) 2015/35 of 10 October 2014.
[8] These additional Own Funds are authorised by the Supervisor for the years between 2016 and 2022, a period during which the proportion of the eligible unrealised capital gains will decrease gradually.

Regarding the Group Own Funds coverage of the SCR, the following eligibility filters apply according to art. 82 of the ‘Delegated Regulation’ 2015/35/EC:

- the eligible amount of Tier 1 restricted should not exceed 20% of total Tier 1;
- the sum of Tier 2 and Tier 3 should not exceed 50% of the SCR of insurance entities;
- the eligible amount of Tier 3 Own Funds cannot exceed 15% of SCR of insurance entities.

As set out in Article 75 of Directive 2009/138/EC, the Solvency II regulatory framework requires an economic, market-consistent approach to the valuation of assets and liabilities adopting assumptions that market participants would use in valuing the same assets and liabilities.

In order to define the Solvency II figures, all assets and liabilities in the balance sheet must be valued at fair value. Broadly, Solvency II is referring to IAS/IFRS accounting principles to evaluate assets and liabilities, with the main exceptions described below.

Assets

Intangible assets (goodwill, deferred acquisition costs and other intangible assets) in Solvency II balance sheet are valued at zero. An exception to this treatment is allowed by the regulation when it is possible to demonstrate that the intangible assets (typically software) have a market price and can be exchanged in the market on an arm’s length basis.

Investment assets: according to art. 75 of the Directive, these items are recognised at fair value. Most investment assets (such as Equities, Bonds, Investment funds etc.) are subject to the same valuation also for IFRS purposes, therefore no adjustments are performed moving from IFRS to Solvency II balance sheet. For real estate, IAS loans and held to maturity assets categories, and all the other items that are not classified at fair value in IFRS, the marked-to-market approach is applied for the purposes of the Solvency II balance sheet.

For **Participations,** which are not consolidated and are not represented on a line-by-line approach in the Solvency II balance sheet, a valuation hierarchy is defined where the preferable approach is the quoted market price and, if the quoted market price is not available, a mark-to-model approach can be adopted starting from the Adjusted Equity method.

Reinsurance assets: for Solvency II purposes, recoverables from reinsurance contracts are calculated consistently with the boundaries of the contracts to which those amounts relate and taking into account the expected losses due to default of the counterparty; the remaining reinsurance assets are adjusted from their IFRS value due to the risk of default of the reinsurer.

Liabilities

Best Estimate Liabilities: the best estimate corresponds to the probability-weighted average of the present value of future cash-flows related to insurance and reinsurance obligations in force at the valuation date taking into account all options and financial guarantees. Therefore, it includes both a probabilistic assessment of their occurrence and an appropriate assessment of the time value of money, obtained for each relevant currency on the basis of the risk-free interest rate term structure, observed in the market and officially provided by EIOPA.

Risk Margin: the Risk Margin is the part of Technical Provisions that ensures that the overall value of the Technical Provisions is equivalent to the amount a third party would theoretically require in order to take over and meet the insurance liabilities, taking into account the cost of capital required to support those liabilities over their remaining future lifetime and regarding non-hedgeable risks, i.e. underwriting risks, credit risks related to reinsurance contracts and operational risks.

Financial Debt: in order to ensure compliance with Solvency II principles, financial liabilities are valued at fair value without any adjustment for change in own credit standing of the borrower.

Subordinated debt eligible in Group Own Funds: according to art. 73 of Solvency II Delegated Acts, subordinated debt which is characterised by specific features (primarily, the loss absorbing capacity) are eligible to be considered as capital and therefore contributes to the Group Own Funds at their nominal value.

Deferred tax assets and liabilities: according to the Solvency II framework, Solvency II deferred taxes are based on the temporary difference between the Solvency II value of assets and liabilities and the value for tax purposes on an item by item basis, using the expected tax rate to be applied when assets (liabilities) are realised (settled) and considering any potential impact of any announcement of amendment to tax rate. Unlike any deferred tax liability, the recognition of a deferred tax asset is subject to a recoverability test, which aims at showing that sufficient taxable income will be available in the future to absorb the tax credit.

5.1.2. Group Own Funds covered business

For the definition of the consolidation scope of Group Own Funds, the following rules apply for the entities that are consolidated line by line in the Group IFRS Consolidated Financial Statement:

a) all Group insurance and reinsurance undertakings, insurance holding companies, mixed financial holding companies and ancillary services undertakings which are subsidiaries of Assicurazioni Generali S.p.A. are consolidated also for Own Funds purposes;

b) Group financial sector undertakings[9] contribute with their quota share of the Own Funds calculated according to the relevant sectoral rules, as referred to in Article 2(7) of Directive 2002/87/EC;

c) Investment vehicles associated to insurance activities are consolidated in the parent company, according to their quota share of participation.

Remaining Group entities are valuated within the parent undertaking on the basis of valuation methods compliant with current regulation (quoted market price for listed entities, adjusted IFRS equity method or other alternative techniques for IFRS participations valued at cost).

In this document, further analyses are reported with reference to the following segments:

1) **Life.** The Life Group Own Funds includes the Own Funds contribution of all the Solvency II Life lines of business and consist of:
    - the Own Funds contribution of all Group Life companies;
    - the Own Funds contribution of the Solvency II Life segment of the Group Composite companies;
    - the contribution of investment vehicles owned by entities classified in the Solvency II Life segment, according to the quota share of participation;
    - the Own Funds contribution of Life business component of Assicurazioni Generali and Generali Deutschland Holding.

[9] Credit institutions, investment firms and financial institutions, alternative investment funds managers, UCITS management companies, institutions for occupational retirement provision, non-regulated undertakings carrying out financial activities.

2) **Non-Life.** The Non-Life Group Own Funds segment includes the Own Funds contribution of all the Solvency II Non-Life lines of business and consists of:
   - the Own Funds contribution of all Group Non-Life companies;
   - the Own Funds contribution of the Solvency II Non-Life segment of the Group Composite companies;
   - the contribution of investment vehicles owned by entities classified in the Non-life segment, according to the quota share of participation;
   - the Own Funds contribution of Non-Life business component of Assicurazioni Generali and Generali Deutschland Holding.

3) **Holdings and Sectorals.** The Holdings and Sectorals Group Own Funds consist of:
   - the Own Funds contribution of all other non-insurance Group (sub-)Holdings;
   - the sectoral available capital (as recognised within Solvency II, in Group's share) of all other Group Financial companies and credit Institution, including Banca Generali Group;
   - the residual assets and liabilities of Assicurazioni Generali and Generali Deutschland Holding, not attributed to Life and Non-Life segment.

Life and Non-Life segments are then split by region in accordance with the classification used for reporting purposes.

5.1.3. Group Own Funds analysis of movement

The purpose of the GOF analysis of movement is to determine the sources of movements driving the development of GOF. In order to provide an economic explanation to the movement of the GOF from the beginning to the end of the reference period, the following macro drivers are considered:

- Regulatory model changes,
- Normalised Own Funds generation,
- Operating variances,
- Economic variances,
- Other variances,
- M&A,
- Capital movements.

Regulatory model changes

The regulatory model changes represent the impact on the Own Funds analysis of movement of model changes required by or agreed with Regulators.

Normalised Own Funds generation

The normalised Own Funds generation represents the increase or decrease in Own Funds attributable to activities under managerial control or influence or expected at the beginning of the period, and is split by line of business. Together with the normalised variation of the Solvency Capital Requirement, it contributes to the determination of the Solvency II normalised capital generation.

1) **Life business contribution**

   Life business normalised Own Funds generation is driven by:

Life SII Value of New Production (SII VNP)

Referring to Life business, Solvency II VNP represents the contribution to GOF of the Life New Business, determined at issue according to Solvency II rules. For the reconciliation between the Solvency II Value of New Production and the NBV refer to §3.7.

Expected release of prudence

This is the expected release, from the business in-force at the beginning of the year, of the prudence included in the Solvency II framework, deriving from the expected release of the Risk Margin and from the higher profit release expected in the year, originated by the difference between the Real-World financial return expected by the shareholder (see §4.4) and the Risk-Neutral return adopted within Solvency II valuation.

Life Unwinding

Unwinding is defined as the roll-forward of the value from the beginning to the end of the reference period. On a yearly basis, this represents the effect that the estimated cash-flows are one period closer to the valuation date, considering that moving from period t-1 to period t OF items are discounted one year less compared to the opening official valuation.

It is calculated by capitalizing the value at the beginning of the year over the whole period with the appropriate expected return of each Own Funds item. More in detail:

- Solvency II Life Value in-force unwinding is determined with Risk-Neutral assumptions and includes also the unwinding of SII VNP, which represents the roll-forward of quarterly SII VNP from point of sale to end of the year,
- for the remaining life assets and non-technical liabilities that are not included in the Solvency II Life Value in-force, unwinding is determined with Real-World assumptions, with allowance of related assets management expenses.

2) **Non-Life business**

Non-Life business normalised Own Funds generation is driven by:

- the technical result of the current year generation, evaluated using best estimate assumptions,
- the expected movement of Risk Margin (expected release from the business in-force at the beginning of the year, offset by the Risk Margin absorbed by the current year generation),
- unwinding of assets and liabilities attributed to the Non-life segment and defined as for Life business. It is calculated by capitalizing the value at the beginning of the year over the whole period with the appropriate expected return of each Own Funds item. More in detail, Non-life Solvency II technical provisions unwinding is determined with Risk-Neutral assumptions, while assets and non-technical liabilities unwinding is determined with Real-World expected returns, with allowance of related assets management expenses.

3) **Holdings and Sectorals**

In this segment, normalised Own Funds generation is driven by:

- interest expenses paid on external subordinated debt eligible in BOF,

- IFRS recurring holding costs of entities consolidated line by line for GOF purposes that are not modelled in the Solvency II Life Value in-force,
- unwinding of assets and liabilities attributed to the Holding segment and defined as for Life and Non-life business. It is calculated by capitalizing the value at the beginning of the year over the whole period with the appropriate expected return of each Own Funds item. More in detail, assets and non-technical liabilities unwinding is determined with Real-World expected returns, with allowance of related assets management expenses,
- the contribution to Group P&L result of the period of sectoral entities, according to their quota share.

Operating, economic and other variances

Operating variance is defined as the Own Funds movement attributed to experience or change in assumptions related to operating factors.

Economic variance is defined as the Own Funds movement attributed to the experience variance on the expected returns over the period and to the change in assumptions of all the different financial market conditions.

Other variances can be attributable to extraordinary and non-recurring items (such as non-recurring expenses) and to other non-operating variations in GOF (such as model refinements, tax variances and changes in regulatory filters).

M&A

This driver of the Own Funds analysis of movements reports the impacts of M&A operations such as acquisitions and/or sales of business portfolios and other acquisitions or disposal operations.

Capital Movements

This driver includes net capital injections, net impact of issues or pay-backs of subordinated debt eligible in Basic Own Funds, foreseeable dividend and other capital distributions.

5.1.4. Group Own Funds sensitivity analysis

The impacts of each sensitivity on Group Own Funds are valuated, applying separately each identified sensitivity factor to all relevant assets and liabilities of the Solvency II balance sheet.

Sensitivities on GOF are applied in isolation rather than in combination, and are performed in light of a *what-if* analysis, i.e. all changes are assumed to occur instantly after the valuation date. When running a specific sensitivity, all other assumptions remain unchanged, except when certain assumptions are directly impacted by the application of the sensitivity being run: this is the case of management actions, such as the rebalancing of asset portfolios, that are typically included in the calculation of Technical Provisions or the Volatility Adjustment which can be recalibrated under specific sensitivity scenarios.

The sensitivity analyses reported in this document are the following.

Interest rates upward shift of 50 basis points computes the effect of an instantaneous upward parallel shock of the reference rates until the Last Liquid Point with extrapolation performed in line with EIOPA methodology.

This stress affects the market value of the following instruments:

- Fixed income (change in discount factors and indexed coupon);
- Derivatives (change in discount factors and derivative underlying value);
- Investment funds fully or partially invested in the aforementioned asset classes.

This sensitivity has also an impact on senior and subordinated financial liabilities, pension benefit obligations and on Technical Provisions, both Life and Non-Life, affecting their valuation curve and, where relevant, the cash flows. For Life Technical Provisions the extent of such impact depends on their capacity to absorb the corresponding changes of the stressed assets.

Interest rates downward shift of 50 basis points is the same as above but with a shift downward. No floor is applied where the shift of 50 basis points drops rates below 0%.

Equity markets higher value of 25% simulates an increase of the current market prices of equity. This stress affects the following instruments:

- Equity (change in price);
- Convertible bonds (change in underlying asset price);
- Equity derivatives (change in underlying price);
- Investment funds fully or partially invested in the aforementioned asset classes;
- Pension benefit obligations.

This sensitivity has also an impact on Life Technical Provisions; the extent of such impact depends on their capacity to absorb the corresponding changes of the stressed assets.

Equity markets lower value of 25%: same methodology as mentioned above assuming a decrease.

Credit spreads instantaneous increase of 50 basis points added to the market corporate spreads. This stress affects the market value of the following instruments:

- Fixed income (changes in discount factors);
- Derivatives (changes in the underlying asset price);
- Investment funds fully or partially invested in the aforementioned asset classes.

Moreover, this shock causes an increase to the Volatility Adjustment, thus entailing also a change to the interest rate curve adopted for the valuation of Technical Provisions, both Life and Non-Life. For Life Technical Provisions the extent of such impact depends on their capacity to absorb the corresponding changes of the stressed assets.

Italian government bonds credit spread instantaneous increase of 100 basis point: same methodology as above, adding 100 basis points and applying the shock only to fixed income instruments issued by Italian government or Italian government related entities. Also in this case the Volatility Adjustment adopted for this sensitivity is modified for the indirect impact of the increase in the Italian Government bond spread. In addition, allowance is made for the possible activation of the Italian Country-specific VA. As a consequence, the Technical Provisions are also affected according to their capacity to absorb the corresponding changes of the stressed assets.

EIOPA Ultimate Forward Rate: impact of the change in UFR required by EIOPA during 2020 (i.e. -15 bps on all countries where the Group operates, except for China and Hungary, where the UFR target has already been achieved).

5.2. New Business Value

5.2.1. New Business Value methodology

NBV arises from premiums written during the reporting period on new contracts issued in the current year and on existing contracts acquired in prior periods which, according to the Solvency II Contract Boundaries rules, are excluded from the projection of in-force liabilities (e.g. yearly renewable risk contracts, where the Company has the right to re-price the premiums).

Voluntary additional premiums stemming from existing contracts, if made at terms and conditions predefined at the inception of the contract, are not recognised as new business (their projection is included in the in-force business).

No value is attributed in respect of future New Business.

The Generali Life NBV includes inwards reinsurance written, and is net of the impact of reinsurance ceded out of the Group.

NBV is calculated, on a stand-alone basis, on a quarterly basis with beginning of quarter operating and economic assumptions and actual expenses (acquisition costs and first year commissions).

NBV is determined as the present value, at the point of sale (i.e. taking account of the first year New Business strain) of the projected stream of after tax profits that are expected to be generated by the covered New Business written in the year, net of the cost of financial guarantees and options granted to policyholders, the frictional costs of setting up and holding required capital and the cost of non hedgeable risks. NBV includes the stream of profits generated in the financial undertakings which are directly associated with Life insurance business, after deduction of all related expenses on a look through basis.

The breakdown by region of the NBV is presented according to the region in which the Life insurance business is generated (i.e. the value attributed to the stream of profits that are expected to be generated in Holding undertakings, through intra-Group Life reinsurance, is reattributed to the ceding undertaking).

The full-year NBV is defined as the algebraic sum of the NBV of each quarter where each quarterly NBV is aggregated after consideration of end of quarter minorities, and converted to Euro using end of quarter exchange rates.

Generali's "bottom-up" market consistent methodology covers 99% of Life and Health business of the Group in terms of New Business Premiums. The residual business is valued using a traditional deterministic valuation based on the Real-World financial assumptions described in §4.4.

NBV can be broken down into the components illustrated below.

Present Value of Future Profits (PVFP) before Time Value of Financial Guarantees and Options

It is equal to the present value at issue of future after tax profits calculated according to a certainty-equivalent approach, i.e. projecting cash flows in a scenario in which the market return of all assets is set equal to the reference rate and discounting at the same reference rate.

It represents the value of the business without taking credit for any future asset risk premium over the reference rate and it captures the intrinsic value of financial guarantees and options.

Time Value of Financial Guarantees and Options (Time Value of FG&O)

It represents the additional cost to shareholders associated with financial guarantees and options, including dynamic policyholder behaviour, over and above the intrinsic value that is already reflected in the PVFP defined above; it is calculated on a market consistent basis.

For the vast majority of business with financial guarantees and options, stochastic models are used to project future profits over a range of risk-neutral economic scenarios. The mean of the PVFPs arising in the different economic scenarios represents the value of the business allowing for the market consistent value of the financial guarantees and options, determined in line with the way cash flows with similar optionality would be valued in the financial markets. The Time Value of Financial Guarantees and Options is then calculated as the difference between the PVFP before the Time Value of FG&O defined above and the mean of the stochastic PVFPs.

Stochastic models are set up appropriately allowing for the business-specific structure of financial guarantees and profit sharing, and also allowing for management actions and for the corresponding behaviour of policyholders. Management actions mainly consist of decisions regarding asset investment and disinvestment according to scenario specific cash flow positions, payments to and withdrawals from profit sharing funds, and the determination of crediting rates. The target asset allocation is consistent with the asset mix of the Existing Business at the year-end prior to the quarterly NB valuation date and the principles underlying management actions are in line with the regulatory requirements and with actual strategies as executed in recent years. The stochastic models also allow for policyholder behaviour linked to the development of the capital markets, so that the propensity for lapses increases when market yield is more competitive than the crediting rate offered by the insurer.

The most material financial guarantees and options offered by the covered business are guaranteed interest rates, minimum maturity values, guaranteed minimum surrender values and, where appropriate, inflation guarantees and guaranteed take-up rates on traditional business, and guaranteed maturity values on Unit-linked business.

Frictional costs of required capital

The required capital for each EEA company is defined as the local regulatory Solvency Capital Requirement. It is presented net of the impact of relevant eligible items (such as the PVFP) that can be used to support capital requirements with no associated cost to shareholders. For non EEA it is defined as the maximum between the 100% of the local regulatory required capital and the Solvency II capital based on Standard Formula, net of the relevant free coverage.

Frictional costs of required capital reflect the economic costs incurred by shareholders through investing in the required capital in an insurance company rather than directly. They are mainly represented by taxation and any policyholder interest in the investment income of assets backing the required capital plus the investment expenses incurred for the management of these assets (where these have not been already allowed for in the PVFP).

Frictional costs of required capital are independent from the cost of non hedgeable risks.

Frictional costs are calculated by projecting the future levels of required capital over the lifetime of the business, using appropriate risk drivers.

Cost of Non Hedgeable Risks (Cost of NHR)

The Cost of Non Hedgeable Risks is an explicit, additional and separate allowance that covers non hedgeable risks not already allowed for in the PVFP and the Time Value of FG&O. As a general principle, non hedgeable risks refer to both financial and non-financial risks. Since the assumptions for non hedgeable risks used in calculating the PVFP and the Time Value of FG&O are best estimate and company specific, the Cost of NHR reflects the fact that:

- experience may vary from projection assumptions and hence a charge for uncertainty in the setting of the best estimate assumptions could be needed;
- the single best estimate assumptions may not fully capture the asymmetry in shareholder's results;
- allowance should be made for any risks that are not included in the PVFP and the Time Value of FG&O (e.g. operational risks).

The Cost of NHR is calculated using a "cost of capital" approach, based on Solvency II SCR for non hedgeable risks projected across all projection years with appropriate drivers. The annual charge applied is equal to 4%, before the application of taxes at the local ordinary taxation level.

Operating assumptions

Operating assumptions such as expenses and commissions, mortality, morbidity, lapses and annuity take-up rates, have been determined by each company on the basis of their best estimates as of the beginning of period date, referring to the current experience when available or to appropriate industry benchmarks.

The value of New Business at point of sale is shown after the deduction of all acquisition costs. Maintenance expenses, generally expressed as per-policy amounts, are assumed to increase at the inflation rate, with specific allowance for the inflation of salaries and medical costs.

Commissions and other payments to distribution channels have been projected based on the agreements in-force at the valuation date.

Life insurance and asset management contract charges, terms and conditions, including surrender value bases, management fees and other charges, have been assumed to remain unaltered at the levels prevailing at the valuation date.

Allowance for management actions (mainly consisting of decisions regarding asset investment and disinvestment, payments to and withdrawals from profit sharing funds, and the determination of crediting rates) are in line with the regulatory requirements and with actual strategies as executed in recent years and as expected in business plans.

5.2.2. New Business Value covered business

The NB results cover the business related to:

- Life insurance undertakings;
- Health undertakings in Germany and Austria which sell business that has characteristics closely related to Life insurance business (i.e. long-term health);
- Non-Life undertakings in Spain limited to the business which has characteristics closely related to Life insurance business (i.e. Decesos);
- Holding and Financial undertakings, in relation to the profits/losses arising from the management of the Life business (look through profit and reinsurance results).

5.2.3. New Business Value sensitivity analysis

The NB sensitivities are performed in isolation rather than in combination (i.e. all other assumptions remain unchanged except where they are directly impacted by the changed assumptions). These sensitivities have been derived from an additional NBV run based on operating and economic assumptions related to the end of September framework (e.g. the central value, stressed in each sensitivity, is calculated using the reference rates and the operating assumptions as at 30 September 2019).

The NBV sensitivities are assumed to occur before the sale of the contract. Therefore, the NBV sensitivities give an indication of how the profitability of future NB might be in a different market environment.

- **Interest rate upward shift of 50 basis points**: sensitivity to an upward shift of 50 basis points in the underlying reference rates, accompanied by an upward shift of 50 basis points in all other dependent economic assumptions. According to the framework of the NBV sensitivities where the sensitivities are assumed to occur before the sale of the contract, the increase of interest rates will be applied to the entire product life without generating any unrealised losses.
- **Interest rate downward shift of 50 basis points**: sensitivity to a downward parallel shift of 50 basis points in the underlying reference rates, accompanied by a downward shift of 50 basis points in all other dependent economic assumptions. According to the framework of the NBV sensitivities where the sensitivities are assumed to occur before the sale of the contract, the decrease of interest rates will be applied to the entire product life without generating any unrealised gains.
- **Equity Implied Volatilities +25%**: sensitivity to a 25% increase of the Equity Implied Volatility across all maturities, resulting in a change of the time value of financial options and guarantees.
- **Swaption Implied Volatilities +25%**: sensitivity to a 25% increase of the Swaption Implied Volatility across all option maturities and swap tenors, resulting in a change of the time value of financial options and guarantees.
- **EIOPA Ultimate Forward Rate**: sensitivity to a change of UFR in accordance with EIOPA 2020 requirements (i.e. -15 bps for all countries where the Group operates, except for Hungary and China where the UFR target has already been achieved).
- **Administrative & Investment Management expenses -10%**: sensitivity to a 10% decrease of administrative and investment management expenses.
- **Lapse Rate -10%**: sensitivity to a 10% decrease of lapse rates (multiplicative, i.e. 90% of best estimate lapse rates).
- **Lapse Rate +10%**: sensitivity to a 10% increase of lapse rates (multiplicative, i.e. 110% of best estimate lapse rates).
- **Mortality/morbidity for risk business -5%**: sensitivity to a 5% decrease of mortality/morbidity (multiplicative, i.e. 95% of best estimate mortality/morbidity rates), including the effect of possible related re-pricing, for all product lines subject to mortality risk, i.e. where the present value of future profits decreases when the mortality rates increase (e.g. term assurance, whole life, annuity during the accumulation period).
- **Mortality for annuity business -5%**: sensitivity to a 5% decrease of mortality (multiplicative, i.e. 95% of best estimate mortality rates) for business subject to longevity risk, i.e. where the present value of future profits decreases when the mortality rates decrease (e.g. annuities in payment).

6 Annex B: Definitions and abbreviations

New Business Value (NBV): the NBV is the present value, at the point of sale, of the projected stream of after tax profits expected to be generated by the New Business written in the year, after allowance for:

- the Cost of Financial Guarantees and Options granted to policyholders;
- the frictional costs of setting up and holding required capital;
- the Cost of Non Hedgeable Risks.

Full year NBV is calculated as the algebraic sum of the NBV of each quarter, each of them calculated with beginning of period operating and economic assumptions.

Annual Premium Equivalent (APE): the APE is defined as New Business annualised regular premiums plus 10% of single premiums.

Present Value of New Business Premiums (PVNBP): the PVNBP is defined as the present value of the expected future New Business premiums, allowing for lapses and other exits, discounted to point of sale using the reference rates.

Capitalization Factor (cap factor): the cap factor is defined as the present value of regular premiums divided by the amount of regular premiums, and provides a measure of the expected duration of regular premiums future payments.

Internal Rate of Return (IRR): the IRR is defined as the rate at which the present value of New Business distributable profits (therefore allowing for New Business first year strain and required capital absorption) calculated using Real-World best estimate assumptions is equal to zero.

Basic Own Funds after deduction (BOF): Group Basic Own Funds after deduction represents the contribution of insurance and reinsurance undertakings and other entities not subject to other solvency sectoral rules to the Group Own Funds.

Group Own Funds (GOF): Group Own Funds are defined as the sum of the Group BOF and the contribution of sectoral entities, according to their regulatory regimes.

Technical Provisions (TP): the Technical Provisions correspond to the sum of the best estimate liability (probability-weighted average of the present value of future cash-flows related to insurance and reinsurance obligations in force at the valuation date) and Risk Margin (the part of Technical Provisions that ensures that the overall value of the Technical Provisions is equivalent to the amount a third party would theoretically require in order to take over and meet the insurance liabilities).

Volatility Adjustment (VA): the VA allows insurance and reinsurance undertakings to adjust the relevant risk-free interest rate term structure used for the calculation of the Technical Provisions to mitigate the effect of bond spreads widening. The VA is calculated by EIOPA and amounts to 65% of the risk-corrected spread between the interest rate that could be earned from bonds included in a reference portfolio and the basic risk-free interest rates. The VA is derived for each relevant currency (based on currency specific reference portfolios) and, where relevant, for national insurance markets (based on country specific reference portfolios).

Ultimate Forward Rate (UFR): the UFR is the long-term risk-free rate defined for each currency by EIOPA as the sum of a long-term inflation and an expected real interest rate.