# 2022 OWN FUNDS & LIFE NEW BUSINESS SUPPLEMENTARY INFORMATION

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# Assicurazioni Generali

# 2022 Own Funds & Life New Business Supplementary Information

## 1 Introduction and key results

This document reports the main results, methodology and assumptions concerning the valuation of 2022 Group Own Funds (hereinafter, GOF) and Life New Business (hereinafter, NB).

GOF results presented in Section 2 are based on 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 2023 for the year-end 2022 Solvency and Financial Condition Report (SFCR) and Quantitative Reporting Templates (QRT).

Section 2 includes the analyses of GOF economic movement from 2021 to 2022 (§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.

Section 3 includes 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. Due to rounding, reported figures may not add up precisely to the totals provided.

### 1.1. Group Own Funds key results

The following table reports the 2022 GOF key preliminary results, compared with 2021 official results.

*Group Own Funds*

| € mln | 2022 | 2021 |
|---|---|---|
| **Group Own Funds** | **46.395** | **50.622** |
| Normalised Own Funds generation | 4.043 | 3.714 |
| Total Own Funds generation | -1.938 | 7.935 |

From year-end 2021 to year-end 2022 GOF moves from € 50.6 billion to € 46.4 billion.

The total Own Funds generation, defined as the variation of GOF before capital movements amounts to €−1.9 billion.

The decrease mainly comes from market variances (with the poor equity market performance and the increase of spreads, volatilities and inflation outweighing the favorable impact of higher interest rates) and non-economic variances occurred during the year. These movements, together with the negative impact of regulatory changes and M&A operations, have been partially compensated by the strong normalised Own Funds generation (€ 4.0 billion, corresponding to 8.0% return on initial GOF), well sustained by the further increase of Life New Business profitability and the solid contribution of the current year Non-Life technical result.

### 1.2. Life New Business key results

The following table reports the 2022 NB key results, compared with 2021 results.

*New Business Value*

| € mln | 2022 | 2021 | Change |
|---|---|---|---|
| **New Business Value** | **2,478** | **2,313** | 4.2% |
| PVNBP | 46,341 | 51,192 | -12.6% |
| NBM | 5.35% | 4.52% | 0.86 pts |

*changes are on a comparable basis*

The value of New Business written in 2022 amounts to € 2.5 billion and, compared to 2021, increases by 4.2% on homogeneous basis (i.e., neutralising the impacts of variations in perimeter and exchange rates), benefiting from the further improved profitability despite the slowdown registered in volumes (measured in terms of Present Value of New Business Premiums, hereinafter PVNBP).

PVNBP amounts to € 46,341 million, showing a decrease of 12.6%. The globally tense political and economic context and the interest rates evolution negatively affect the New Business production in almost all geographical areas, mainly in Germany (-24.1%) and Italy (-13.7%).

The NB profitability (measured in terms of New Business Value on PVNBP, hereinafter NBM) stands at 5.35%, increasing by 0.86 pts compared to 2021 thanks to the significant increase of interest rates (see §4.3), the rebalancing of the business mix towards the most profitable protection and unit-linked business and the continuous improvement of products features.

# 2 Group Own Funds

## 2.1. Group Own Funds analysis of movement

The **2022 total Own Funds generation** (total variation of GOF from 2021 to 2022, before capital movements) amounts to € -1.9 billion: the excellent contribution of the **normalised Own Fund generation** (€ 4.0 billion) has been more than offset by the negative impact of regulatory changes (€ -0.9 billion), economic variances (€ -3.6 billion), non-economic variances (€ -1.3 billion), and M&A operations (€ -0.2 billion).

The impact of the capital movements of € -2.3 billion leads to the overall € -4.2 billion net variation of GOF from 2021 to 2022, from € 50.6 billion to € 46.4 billion.

The following table presents the main drivers of the Group Own Funds movement from 2021 to 2022, on a net of tax basis, together with 2021 comparative figures.

***Group Own Funds analysis of movement***

| € mln | 2022 | 2021 |
|---|---|---|
| **Group Own Funds - beginning of period** | **50.622** | **44.428** |
| Regulatory changes | -852 | -314 |
| **Normalised Own Funds generation** | **4.043** | **3.714** |
| *Life* | *3.004* | *2.728* |
| *Non-Life* | *1.405* | *1.289* |
| *Holdings & Financials* | *-367* | *-302* |
| Economic variances | -3.619 | 3.124 |
| Non-economic variances | -1.278 | 161 |
| *Operating variances* | *-759* | *241* |
| *Other variances* | *-519* | *-80* |
| M&A | -231 | 1.250 |
| **Total Own Funds generation** | **-1.938** | **7.935** |
| Capital movements | -2.289 | -1.741 |
| *Redemption of subordinated debt eligible in BOF* | *0* | *-50* |
| *Shares buyback* | *-500* | *0* |
| *Foreseeable dividend* | *-1.789* | *-1.691* |
| **Group Own Funds - end of period** | **46.395** | **50.622** |

**2022 Regulatory changes** (€ -0.9 billion) are due to:

- the changes adopted by EIOPA (€ 0.1 billion) concerning the level of the UFR (for example on EUR area: from 3.60% to 3.45%), the composition of the reference portfolio used for the calculation of VA and the changes for CHF risk free rate used for the valuation of technical provisions (move from swap to government bond rates, change of the LLP - last liquid point - from 25 to 15 years);
- the negative impact (€ -0.5 billion) regarding the extended modelling (following the clarifications of certain local Regulators) of investment management costs in case of fees retained by the asset manager and deducted from the funds' returns;
- the impact (€ -0.1 billion) derived from the end of the transitional regime applied to the IORP pension business in France that, together with other retirement portfolios, has been merged into a new dedicated pension fund (see §2.3);
- the change required by the local regulator in the methodology for the calculation of French "PPE" reserve (provision pour participation aux excédents) recognized as Surplus Funds item eligible as Own Funds (-0.2 billion €).

**2022 Normalised Own Fund generation** (€ 4.0 billion) is strongly supported by the further growth of the Life business contribution and by the positive Non-Life technical result, partially offset by the contribution of Holdings and Financials segment, which includes also the interest costs on subordinated debt eligible in Basic Own Funds.

More in detail:

- **Life normalised Own Fund generation** (€ 3.0 billion) components are:
  - the Solvency II Value of New Production (€ 1.9 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 € 2.5 billion NBV calculated on MCEV basis) and reflecting the further increased profitability of new products;
  - the expected release, from the business in-force at the beginning of the year, of the prudence included in the Solvency II framework (€ 1.1 billion), deriving from the expected release of the Risk Margin and from the impact on GOF (in terms of higher profit release expected in the year and related impact on the PVFP at the end of 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 (€ -0.0 billion), net of related assets management expenses.
- **Non-Life normalised Own Fund generation** (€ 1.4 billion) stems from the positive contribution of the current year generation based on best estimate assumptions (€ 0.9 billion) in line with the movement of the IFRS current year combined ratio. The remaining contribution (€ 0.5 billion) comes from the discounting effect of current year best estimate liabilities (supported by the increase in the interest rates during the year), 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 Financials normalised Own Fund generation** (€ -0.4 billion) mainly relates to the payment of the interest on the subordinated debt eligible in Basic Own Funds (€ -0.3 billion), to the 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), offset by the net result of the financial segment (€ 0.4 billion).

**2022 Economic variances** have a negative impact of € -3.6 billion and can be split into the following main sources:

- Interest rates (€ 2.0 billion), due to the significant increase of swap curve (e.g. +289 bps on Euro swap 10 years par rate);
- Spreads and Volatility Adjustment (€ -1.3 billion) driven mainly by the spread widening of the Italian government bonds (+60 bps on BTP 10 years spread) and of corporate bonds, that have been partially mitigated by the consequent increase in Volatility Adjustment (from 3 to 19 bps);
- Equities and real estate (€ -2.2 billion), mainly due to the fall of equity market observed in the year;
- Volatilities (€ -1.1 billion), reflecting the negative impacts of higher interest rates and equity market volatilities;
- Other economic variances (€ -0.9 billion), including the impact of higher inflation (€ -0.7 billion) on projected future P&C claims costs and Life general expenses, and other residual cross-effects among the factors reported above.

**2022 Non-economic variances** have a negative impact (€ -1.3 billion) and can be split in:

- Operating variances (€ -0.8 billion) mainly reflecting the more conservative update of surrender assumptions and the contraction of the Surplus Funds in France and the Going Concern Reserve in Germany in the Life segment, partially mitigated by favourable experience variances in the Non-life segment.
- Other variances (€ -0.5 billion) reflecting in particular the novation of the bancassurance agreement in Spain, the non-recurring holding expenses of the period, and the contingent liabilities set aside within the Group IFRS balance sheet.

**2022 M&A** (€ -0.2 billion) related to the acquisition of the control of India Life and Non-life insurance entities, the purchase of La Médicale in France and the operations finalized in Malaysia.

The movement of GOF from 2021 to 2022 is completed with the impacts of the capital movements (€ -2.3 billion), stemming from the **2022 proposed dividend to be paid in 2023**[1] (€ -1.8 billion) and the impact of the share buyback plan (€ -0.5 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, holdings and ancillary undertakings attributable to insurance activity) and the Own Funds attributable to financial entities, defined according to their sectoral solvency regulatory regimes.

Basic Own Funds, in turn, can be further analysed as the sum of the following components (see §5.1.1):

- the Excess of Assets over Liabilities of the Solvency II Market Value Balance Sheet (MVBS);
- plus subordinated debt eligible in Basic Own Funds;
- less foreseeable dividend;
- less deductions for participations in financial entities;
- less deductions for Solo Own Funds items that are non-available for Group purposes;
- less 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 | 2022 | 2021 |
|---|---|---|
| **Excess of Assets over Liabilities** | **44.380** | **47.506** |
| Subordinated debt eligible in BOF | 7.492 | 8.519 |
| Foreseeable dividend | -1.789 | -1.691 |
| Unrealised gains on French IORP business | - | 374 |
| Deductions for participations in financial entities | -3.827 | -3.448 |
| Deductions for minorities & other not available Own Funds items | -2.181 | -2.035 |
| **Basic Own Funds after deductions** | **44.074** | **49.224** |
| Contribution of financial entities | 2.322 | 1.399 |
| **Group Own Funds** | **46.395** | **50.622** |

[1] 2022 dividends are proposed by the Board of Directors for the approval at the next 2023 Shareholders' Annual meeting.

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

- the decrease of the Excess of Assets over Liabilities (€ -3.1 billion), as outlined in the GOF analysis of movement (see §2.1), mainly reflects the negative impact of regulatory changes, economic and non-economic variances, M&A operations and the dividend paid during the year, only partially offset by the strong contribution of the capital generation;
- the reduction of subordinated debt eligible in Basic Own Funds (€ -1.0 billion) derives from the significant increase in interest rates;
- the amount of the foreseeable dividend increases to € +0.1 billion;
- the contribution of the unrealised gains on IORP business is equal to zero and reflects the new accounting treatment applied from year-end 2022 to the retirement business in France, whose assets and liabilities have been merged in the new dedicated pension fund (see §2.3);
- the higher impact of deductions for participations in financial entities (€ -0.4 billion) mainly comes from the creation of the above-mentioned new pension fund in France which contributes to MVBS as participation;
- the change of the impact of deductions for minorities and non-available items (€ -0.1 billion) is explained by the share buyback plan, equal to € -0.5 billion, partially compensated by reduced minorities and other fungibility movements;
- the increased contribution of financial entities (€ +0.9 billion) is mainly explained by the available capital of the new pension fund in France defined in accordance with its sectoral solvency regulatory regime applicable also for Solvency II purposes.

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

The Solvency II regulatory framework requires an economic, market-consistent approach for the valuation of assets and liabilities that must be valued at fair value in the balance sheet.

Therefore, Solvency II Excess of Assets over Liabilities is valuated starting from IFRS shareholders' equity and by adjusting at fair value the consolidated assets and liabilities that are not already reported at fair value in compliance with Solvency II regulatory framework.

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 assets;
- revaluating at fair value not consolidated participations;
- 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.

In line with the contribution to Group Own Funds, minorities of entities proportionally consolidated for Solvency II purposes have been deducted from the IFRS shareholders' equity.

The following table presents the reconciliation between IFRS shareholders' equity and Solvency II Excess of Assets over Liabilities at year-end 2022 and, for comparative purposes, at year-end 2021.

Compared to the previous year-end, it should be noted that the change of intangible, assets, liabilities, and deferred taxes is largely impacted by the different accounting treatment applied to the IORP pension business in France that, at year-end 2022 (with the end of its transitional regime), has been merged together with other retirement business into a new dedicated pension fund. Such pension fund, being a financial entity, contributes to the GOF with the available capital defined in accordance with its sectoral regulatory regime, and is classified as participation in the SII Balance Sheet. At year-end 2021, instead, assets and liabilities referring to IORP were reported line by line within the SII Balance, valued at cost and with eligible unrealized gains recognized as GOF item to the extent of 15%.

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

| € mln | 2022 | 2021 |
|---|---|---|
| **IFRS Shareholders' Equity (gross of minorities)*** | **17,104** | **30,583** |
| **Intangibles** | **-11,996** | **-11,520** |
| Goodwill | -7,498 | -7,185 |
| DAC | -1,736 | -2,198 |
| Other intangibles | -2,762 | -2,137 |
| **Mark to market of Assets** | **13,314** | **11,517** |
| Bonds | -737 | -1,495 |
| Real estate | 10,906 | 10,974 |
| Loans | 25 | 162 |
| Participations | 2,455 | 2,205 |
| Other assets | 665 | -328 |
| **Mark to market of Liabilities** | **37,225** | **24,504** |
| Net Technical Provisions | 36,805 | 25,262 |
| Financial debt | 118 | -128 |
| Subordinated debt | 876 | -262 |
| Other liabilities | -574 | -368 |
| **Impact of net deferred taxes** | **-11,268** | **-7,578** |
| **Excess of Assets over Liabilities** | **44,380** | **47,506** |

** IFRS Equity adjusted (for illustrative purpose) to exclude, from both 2021 and 2022, the minorities of the entities consolidated proportionally for Solvency II purposes (see §5.1.1)*

The elements of reconciliation from the IFRS shareholders' equity (€ 17.1 billion) to the Solvency II Excess of Assets over Liabilities (€ 44.4 billion) are the following:

- **Intangibles** related to insurance operations (€ -12.0 billion), that are not recognised under Solvency II[2] and that include new Goodwill and other intangibles derived from the recent acquisitions in India, Malaysia and France and from the novation of bancassurance agreement for Cajamar in Spain;
- **Mark to market of Assets:** this adjustment (€ 13.3 billion) is primarily due to the change to fair value of real estate assets. The negative mark to market of bonds is attributable to the significant increase in interest rates;
- **Mark to market of Liabilities**: this adjustment (€ 37.2 billion) is primarily due to net Technical Provisions (€ 36.8 billion deriving from the difference between IFRS and Solvency II valuation). Compared to 2021, the significant increase mainly comes from the Life Technical Provisions;
- **Impact of net deferred taxes** (€ -11.3 billion) is a consequence of the change to fair value of the items reported above.

[2] The goodwill deducted from the intangibles relates only to insurance operations, while the cancellation of the goodwill activated on non-insurance entities is included in the change to fair value of participations.

## 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 is composed by the following items:
  - ordinary share capital and the related share premium account of the parent company Assicurazioni Generali,
  - available surplus funds (from German, French and Austrian business);
  - reconciliation reserve;
  - deductions for minorities and other not available Own Funds items;
  - available capital of financial entities.
- Tier 1 restricted Own Funds includes subordinated liabilities that benefit from grandfathering regime;
- Tier 2 Own Funds is composed of subordinated liabilities, including the remaining part of grandfathered subordinated debts and the positions issued after the entry into force of Solvency II Directive;
- Tier 3 is composed by available net deferred tax assets, which are characterised by lower capital quality being not immediately fungible 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 |
|---|---|---|---|---|---|---|
| **2022 Group Own Funds** | **46.395** | **40.214** | **38.511** | **1.704** | **5.788** | **393** |
| **% on total GOF 2022** | **100,0%** | ***86,7%*** | ***83,0%*** | ***3,7%*** | **12,5%** | **0,8%** |
| 2021 Group Own Funds | **50.622** | **43.697** | **41.801** | ***1.896*** | **6.622** | **303** |
| % on total GOF 2021 | 100,0% | 86,3% | *82,6%* | *3,7%* | 13,1% | 0,6% |

2022 Group Own Funds remains composed by high-quality capital. Tier 1 counts for about 86.7% of the total (86.3% in 2021), Tier 2 represents 12.5% (13.1% in 2021) and Tier 3 only 0.8% of the total (0.6% in 2021).

With regards to liability management operations occurred during 2022, there were no impacts in terms of Own Funds since the new Tier 2 subordinated "Green bond" issued in June 2022 was intended to refinance the early redemption of a subordinated debt eligible in BOF classified as Tier 2.

The reduced amount of Tier 1 restricted and Tier 2 is explained by the significant increase of interest rates that determined a lower SII valuation for the subordinated debt eligible in Basic Own Funds.

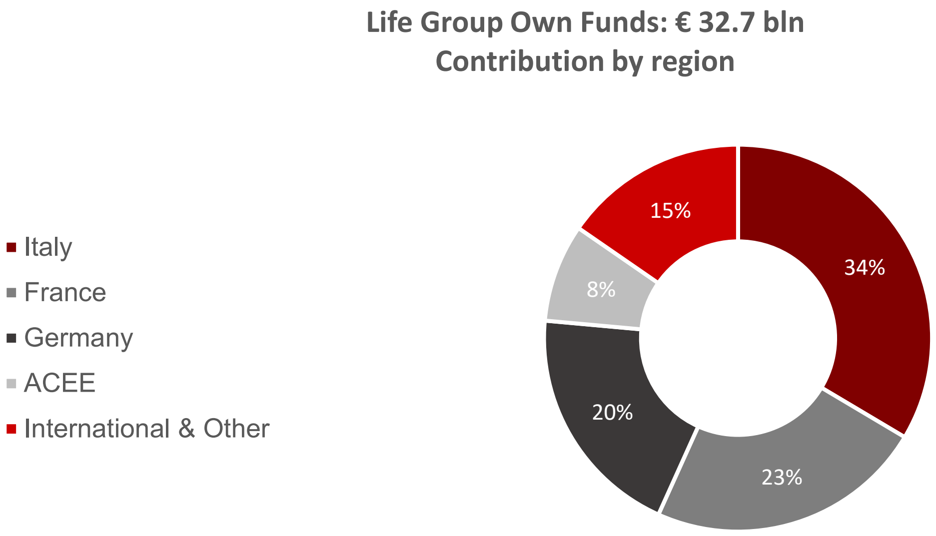
No eligibility deductions are triggered thanks to the high-quality of the capital-tiering.

## 2.5. Group Own Funds by segment and by region

The following charts describe the contribution of the Life and Non-Life segment to 2022 GOF, and their split by the main regions where the Group operates. The contribution of the Holdings & Financials segment is negative, on account of the financial debt issued by Assicurazioni Generali and by the Group intermediate holdings.

### Life segment

2022 GOF are mainly attributable to the Life segment, which accounts for € 32.7 billion. The main contributors to the Life segment are Italy and France, representing 57% of the Life GOF.




Within 2022 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[3] and non-availability deductions, 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 € 22.3 billion. This amount can be further split as follows:

- **PVFP** (€ 25.6 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), plus the value deriving from specific Solvency II valuation allowances (such as the value of Surplus Funds in Germany and France, Going Concern Reserves in Germany and transitional measures in Portugal);
- **Risk Margin and Counterparty Default Adjustment** (€ -3.3 billion), which is the prudential allowance prescribed by Solvency II to take account of the volatility of operating assumptions.

[3] 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).

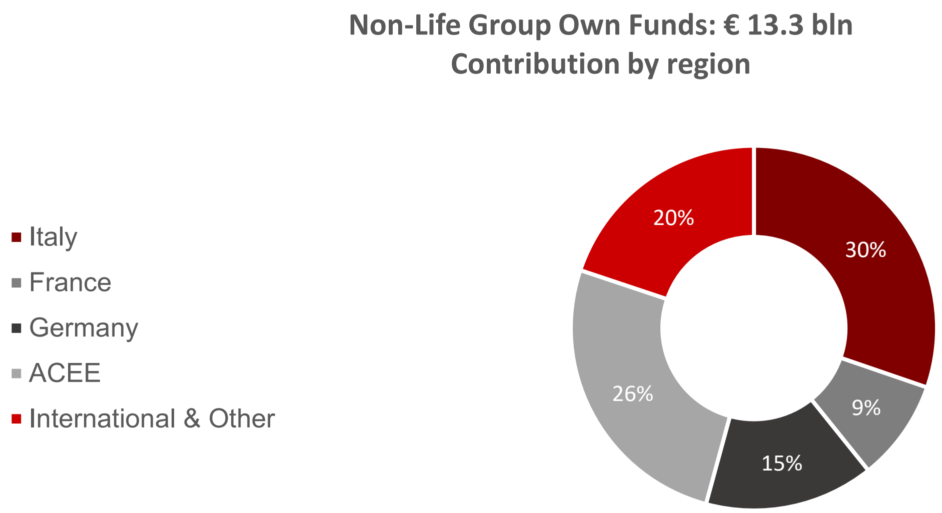
The following table shows the expected future emergence of the PVFP after tax profits stemming from the portfolio in force at year-end 2022 (i.e. excluding future new business) on an undiscounted basis, estimated using Real-World financial assumptions (see §4.4) instead of Solvency II Risk-Neutral assumptions, together with previous year comparative figures. The cumulative future undiscounted profits amount to € 59.8 billion, with 74% of profits generated in the first 25 years of the projection. The increase in projected profits mainly reflects the sharp growth of the underlying Real-World financial assumptions (see §4.4).

***Life PVFP***
***Expected undiscounted profits with Real-World assumptions***

| € mln | 2022 | 2021 |
|---|---|---|
| Years 1-5 | 13,704 | 10,836 |
| Years 6-10 | 10,149 | 7,284 |
| Years 11-15 | 8,205 | 5,024 |
| Years 16-20 | 6,903 | 3,939 |
| Years 21-25 | 5,398 | 2,804 |
| Years 26-30 | 4,349 | 2,133 |
| Years 31 onwards | 11,114 | 5,281 |

**Non-Life segment**

The Own Funds of the Non-Life segment amount to € 13.3 billion at year-end 2022. The main contributors of the segment are Italy and ACEE, representing 56% of the Non-Life GOF.




Within 2022 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 € 5.2 billion. This amount can be further split as follows:

- **PVFP** (€ 6.3 billion), representing the difference between IFRS reserves and the Best Estimate of Liabilities component of Non-Life Technical Provisions;
- **Risk Margin and Counterparty Default Adjustment** (€ -1.1 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 analysis of the capital position to changes in specific risk factors.

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 2022 the following sensitivity analysis 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;
- increase in Equity and Swaption implied volatilities by 25%.

The impact of these sensitivities on year-end 2022 GOF are reported in the following table, together with 2021 comparative figures.

*Group Own Funds - Impact of Sensitivities*

| € mln | 2022 | 2021 |
|---|---|---|
| **Group Own Funds** | **46,395** | **50,622** |
| Interest rate +50 bps | 193 | 848 |
| Interest rate -50 bps | -294 | -1,121 |
| Equity market + 25% | 2,640 | 3,194 |
| Equity market - 25% | -2,663 | -3,270 |
| Credit spread corporate bonds +50 bps | -272 | 322 |
| Credit spread on BTP +100 bps | -84 | -1,596 |
| Equity implied volatility + 25% | -524 | -493 |
| Swaption implied volatility + 25% | -716 | -533 |

**Sensitivity on interest rates (€ +0.2 / € -0.3 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 different absorption capacity of Life Technical Provisions in the case of lower interest rates, because of the presence of financial guarantees. Compared to 2021, the lower impact of this sensitivity mainly reflects the more favorable interest rate environment, as well as the reduced duration gap between assets and liabilities and the enhanced product mix following the portfolio repositioning strategy.

**Sensitivity on equity (€ +2.6 / € -2.7 billion)**: the impact reflects both the changes in the fair value of equity, private equity, and the changes of Life Technical Provisions (change of cash flows).

The sensitivities on equity are almost symmetric and the lower impact compared to 2021 reflects the lower exposure of the Group to equity instruments in line with the negative market performance observed during 2022.

**Sensitivity on credit spread on corporate bonds (€ -0.3 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 only partially 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 19 bps to 31 bps.

Compared to 2021, the opposite sign of the effect is mainly explained by the reduced benefit (due to higher interest rates) of the increase in the Volatility Adjustment.

**Sensitivity on credit spread on Italian government bonds (€ -0.1 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).

At year-end 2022 this sensitivity triggers not only an increase of the recalculated currency-VA adopted by other European countries (from 19 bps to 23 bps), but also (unlike year-end 2021, when the Italian government bond spread in the base scenario was lower) the activation of the Italian Country-specific VA, amounting to 44 bps. This effect, together with the reduced amount of the stress on the asset side (due to lower initial market value and shorter duration), explains the sizeable reduction of the sensitivity compared to 2021.

**Sensitivity on Equity and Swaption implied volatility (€ -0.5 and € -0.7 billion respectively):** the impact reflects both the changes in the fair value of investments and the changes of Life Technical Provisions (increased volatility in the valuation).

These scenarios induce a higher variability in the stochastic scenarios used for the valuation of Life Technical Provisions, leading to a higher Time Value of Options and Financial Guarantees.

Furthermore, for what concerns the update on EIOPA UFR, no significant impacts are expected next year in consideration of the fact that all major countries where the Group operates have already achieved the target level defined by the Regulator (and for this reason the sensitivity is no longer relevant).

In addition, it should be noted that from the beginning of 2023 new reference rates have been introduced by EIOPA to assess Technical Provisions for selected currencies. In particular, the changes for CHF (move from government bond rates to SARON - Swiss Average Rate Overnight - rates, change of the last liquid point from 15 to 10 years) have an impact of € +0.6 billion on year-end 2022 Group Own Funds.

# 3 Life New Business Value

## 3.1. New Business Value results

The following table shows the development of Life New Business Value (hereinafter, NBV) from 2021 to 2022, 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 | 2022 | 2021 | Change |
|---|---|---|---|
| Annual premiums | 2,177 | 2,383 | -10.8% |
| Single premiums | 26,207 | 26,252 | -5.4% |
| **PVNBP** | **46,341** | **51,192** | **-12.6%** |
| Cap Factor | 9.3 | 10.5 | -1.1 |
| APE | 4,798 | 5,009 | -7.9% |
| **NBV** | **2,478** | **2,313** | **4.2%** |
| **Profitability** | | | |
| **- on PVNBP** | **5.35%** | **4.52%** | **0.86 pts** |
| - on APE | 51.7% | 46.2% | 6.0 pts |
| **IRR** | 28.1% | 24.3% | 3.9 pts |

*changes are on a comparable basis*

From 2021 to 2022 the PVNBP decreases by 12.6% to € 46.3 billion: the drop is mainly driven by the reduction of Annual premiums (-10.8%) and is amplified by the higher discounting effect following the rise of interest rates over 2022. In fact, the decrease of the New Business production measured in terms of Annual Premium Equivalent (hereinafter, APE) is milder, amounting to -7.9%.

The globally tense political and economic context, coupled with the interest rates evolution, adversely affects the NB production in all main areas. The largest contraction of PVNBP is recorded in Germany (-24.1%, also on account of the closure to sale of the Riester pension product) and in Italy (-13.7%, also emphasized by the extraordinary first quarter 2021 production), whilst the production in France shows a more resilient development (-3.8%).

The remarkable improvement of the NBM (up 0.86 pts to 5.35%) is mainly attributable to the significant rise of interest rates together with the enhanced product mix with a higher weight of more profitable Unit-linked and Protection business. The increase of marginality is mostly driven by the good performance of France (+1.45%, also thanks to the improved profitability of Protection business), Italy (+0.90%, on account of better company and product mix together with improved Saving profitability) and Germany (+0.75%, mainly thanks to Unit-linked business).

The IRR also grows by 3.9 pts to 28.1%, thanks to the improved business mix, the higher Real-World financial assumptions underlying the calculation (refer to §4.4 for more details) together with a lower first-year strain (from -4.51% to -4.29% in terms of ratio on the first-year premiums).

### 3.2. New Business profitability movement and New Business Value components

*Movement of New Business Value and profitability*

| € mln | NBV | NBM |
|---|---|---|
| **2021 New Business Value** | **2,313** | **4.52%** |
| Change in perimeter/Exchange rate fluct. | 67 | -0.03 pts |
| Products mix/volume | -120 | 0.13 pts |
| Economic variance | 148 | 0.58 pts |
| Products features and others | 71 | 0.15 pts |
| **2022 New Business Value** | **2,478** | **5.35%** |

Neutralising the negligible impact of the variation in the perimeter and the exchange rate fluctuations occurred during 2022 (-0.03 pts, mainly attributable to the Cattolica Group acquisition and the increased Group's participation in the Indian entity, both with lower than average profitability), the overall NB profitability increases by 0.86 pts to 5.35%.

The positive impact of Product mix/volumes (+0.13 pts) is mainly explained by the production rebalancing towards the more profitable Protection and Unit-linked business with enhanced marginality. The effect of the more favourable product mix is coupled with the higher weight (in terms of PVNBP) of countries and companies with a higher profitability.

The rise of interest rates significantly boosts the profitability (+0.58 pts): from 2021 to 2022 the reference rates underlying the valuation of NB in the Euro area increase by 186 bps on a cumulative yearly average basis (refer to §4.3 for more details).

Finally, the change in products features and others has a positive impact (+0.15 pts) on NB profitability, also thanks to the higher contribution of look-through profits from Group asset management activities (mainly due to the planned funds internalization in Germany) and to the actions performed to improve the new products' features (i.e., further reduction or removal of guarantees) and to foster the growth of more profitable products.

The following table reports the evolution of NBV from 2021 to 2022 split by its MCEV components. The significant growth of interest rates is the main driver for the increase of the PVFP and for the decrease of Time Value of FG&O, despite the lower volumes.

*Breakdown of New Business Value*

| € mln | 2022 | 2021 |
|---|---|---|
| PVFP before Time Value of FG&O | 2,874 | 2,810 |
| Time Value of FG&O | -118 | -203 |
| **PVFP after Time Value of FG&O** | **2,756** | **2,607** |
| Cost of Capital | -21 | -19 |
| Cost of NHR | -257 | -275 |
| **New Business Value** | **2,478** | **2,313** |

### 3.3. New Business Value by line of business

***New Business Value by lines of business***

| € mln | 2022 | 2021 | Change |
|---|---|---|---|
| **PVNBP** | **46,341** | **51,192** | **-12.6%** |
| *o/w Saving* | 17,723 | 20,945 | -18.4% |
| *o/w Protection* | 11,747 | 12,647 | -8.8% |
| *o/w Unit-Linked* | 16,872 | 17,599 | -8.4% |
| **NBV** | **2,478** | **2,313** | **4.2%** |
| *o/w Saving* | 655 | 487 | 32.3% |
| *o/w Protection* | 994 | 989 | -3.0% |
| *o/w Unit-Linked* | 830 | 837 | -3.5% |
| **NBM** | **5.35%** | **4.52%** | **0.86 pts** |
| *o/w Saving* | 3.70% | 2.32% | 1.42 pts |
| *o/w Protection* | 8.46% | 7.82% | 0.51 pts |
| *o/w Unit-Linked* | 4.92% | 4.75% | 0.25 pts |

*changes are on a comparable basis*

The aggregate slowdown of PVNBP (-12.6%) is mainly attributable to Saving business (-18.4%), while Unit-linked and Protection lines show a more resilient production (-8.4% and -8.8%, respectively) and consequently increase their weight on total PVNBP (in aggregate, 61.8% compared to 59.1% in 2021).

Saving business, suffering more from the globally tense political and economic context and from the interest rates evolution, shows a sharp decrease (-18.4%) in almost all main countries, driven by Germany, Italy and France. Overall weight decreases, moving from 40.9% to 38.2% (-2.7%). Despite the drop in the production, Saving profitability significantly improves (NBM from 2.32% to 3.70%), thanks to the substantial increase of interest rates together with the higher weight of more profitable Italian products with financial guarantees only in case of death.

The overall slowdown of Protection business in all areas (-8.8% in aggregate) is primarily attributable to Germany (-23.0%, mainly driven by the contraction of the complementary risk coverages linked to the Riester product) and to the extraordinary first quarter 2021 health coverage production in China, partially offset by the good production in France (+7.2%, mainly regarding group business). Overall weight increases, moving from 24.7% to 25.3% (+1.0%). The further improvement of Protection profitability is mainly attributable to France, also thanks to the rise of interest rates that positively impacts both individual long-term and group income protection products.

Unit-linked business decrease (-8.4%) is also linked to the globally tense economic situation and is particularly relevant in Italy (-16.8%) within the bank distribution channel. Overall weight moves from 34.4% to 36.4%. The Unit-linked profitability increases (+0.25 pts) especially in Germany (+1.49 pts, benefiting from higher look-through profits following the planned funds internalization) and in International (+1.01 pts, thanks to the higher weight of more profitable Asian Unit-linked products).

### 3.4. New Business Value sensitivity analysis

NBV sensitivities are assumed to occur before the sale of the contract in order to provide 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 are derived from a specific NBV calculation set with the latest beginning of period operating assumptions (i.e., end of September 2022) and average 2022 financial assumptions. The related NBV results are adjusted (for presentational purposes) to better represent and match official 2022 figures.

Each sensitivity is performed in isolation, i.e., all assumptions remain unchanged except the one under analysis.

On average, the impact of economic stresses on 2022 NBV is lower than in 2021, reflecting the lower exposure to interest rates fluctuations.

*NBV Sensitivity Analysis*

| € mln | 2022 | 2022 variation | 2021 variation |
|---|---|---|---|
| **Base - NBV** | **2,478** | | |
| Yield Curve +0,5% | 26 | 1.0% | 2.8% |
| Yield Curve -0,5% | -43 | -1.7% | -4.5% |
| Administrative & Invest.Manag. expenses -10% | 81 | 3.3% | 3.2% |
| Lapse rate +10% | -169 | -6.8% | -7.2% |
| Lapse rate -10% | 194 | 7.8% | 8.3% |
| Mortality/Morbidity for Risk Business -5% | 84 | 3.4% | 4.1% |
| Mortality for Annuity Business -5% | -4 | -0.2% | -0.1% |

### 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 | 2022 | 2021 |
|---|---|---|
| Year 0 | -749 | -784 |
| Year 1 - 5 | 1,616 | 1,536 |
| Year 6 - 10 | 1,029 | 868 |
| Year 11 - 15 | 756 | 612 |
| Year 16 - 20 | 711 | 534 |
| Year 21 - 25 | 507 | 379 |
| Year 26 - 30 | 387 | 283 |
| Year 31 onwards | 1,167 | 835 |

The cumulative undiscounted profits in 2022 amount to € 5.4 billion, increasing from previous year on account of higher profitability and generally higher Real-World financial assumptions. About 71% of the profits are generated in the first 25 years of the projection. Profits from year 31 onwards increase compared to 2021, also as a result of the higher weight of long-term business (especially pension products in France).

## 3.6. New Business Value by region

### 3.6.1. Italy

*New Business - Italy*

*New Business Production*

| € mln | 2022 | 2021 | Change |
|---|---|---|---|
| Annual premiums | 902 | 966 | -8.6% |
| Single premiums | 11,025 | 10,895 | -10.1% |
| **PVNBP** | **18,013** | **19,334** | **-13.7%** |
| Cap Factor | 7.7 | 8.7 | -1.0 |
| **APE** | **2,005** | **2,055** | **-9.5%** |

*changes are on a comparable basis*

*Breakdown of New Business Value*

| € mln | 2022 | 2021 |
|---|---|---|
| PVFP before Time Value of FG&O | 1,272 | 1,246 |
| Time Value of FG&O | -51 | -92 |
| **PVFP after Time Value of FG&O** | **1,220** | **1,154** |
| Cost of Capital | 0 | 0 |
| Cost of NHR | -94 | -89 |
| **New Business Value** | **1,126** | **1,065** |

*New Business Value and Profitability*

| € mln | 2022 | 2021 | Change |
|---|---|---|---|
| **New Business Value** | **1,126** | **1,065** | **0.7%** |
| **Profitability** | | | |
| -on PVNBP | 6.25% | 5.51% | 0.90 pts |
| -on APE | 56.2% | 51.8% | 5.7 pts |
| **IRR** | 27.3% | 26.3% | 1.0 pts |

*changes are on a comparable basis*

*Movement of New Business Value and Profitability*

| € mln | NBV | NBM |
|---|---|---|
| **New business value 2021** | **1,065** | **5.51%** |
| Change in perimeter/Exchange rate fluct | 53 | -0.15 pts |
| Products mix/volume | -92 | 0.08 pts |
| Economic Variance | 51 | 0.56 pts |
| Products features and others | 50 | 0.26 pts |
| **New business value 2022** | **1,126** | **6.25%** |

**NB Production** (measured in terms of PVNBP) amounts to € 18,013 million, down 13.7% compared to 2021, mainly due to the globally tense political and economic context and the interest rates evolution, with a reduction both in Annual premiums (-8.6%) and Single premiums (-10.1%).

With reference to the lines of business, both Saving and Unit-linked business report a contraction compared to last year (respectively -12.6% and -16.8%), while Protection business shows a more resilient production (-6.2%). Within Saving business, the weight on total NB premiums of new products offering financial guarantees only in case of death further improves from 67.4% in 2021 to 71.8% in 2022.

The New Business **profitability** increases, with the margin on PVNBP moving from 5.51% in 2021 to 6.25% in 2022. The good progress (+0.90 pts) is mainly due to the significant rise of interest rates (+0.56 pts) together with better product features (+0.26 pts), while the acquisition of the Cattolica group, with a lower marginality compared to the country average, slightly reduces the overall profitability.

The combined effect of the increased profitability and the lower volumes leads to an overall slight growth of NBV (+0.7%), amounting to € 1,126 million.

IRR increases from 26.3% to 27.3%, thanks to the higher profits and the slightly decreased New Business first-year strain (from -3.43% to -3.30% in terms of ratio on the first-year premiums).

### 3.6.2. France

***New Business - France***

***New Business Production***

| € mln | 2022 | 2021 | Change |
|---|---|---|---|
| Annual premiums | 168 | 211 | -20.2% |
| Single premiums | 10,697 | 10,917 | -2.0% |
| **PVNBP** | **12,107** | **12,588** | **-3.8%** |
| Cap Factor | 8.5 | 8.0 | 0.5 |
| **APE** | **1,238** | **1,303** | **-5.0%** |

*changes are on a comparable basis*

***Breakdown of New Business Value***

| € mln | 2022 | 2021 |
|---|---|---|
| PVFP before Time Value of FG&O | 656 | 515 |
| Time Value of FG&O | -58 | -78 |
| **PVFP after Time Value of FG&O** | **598** | **437** |
| Cost of Capital | -3 | -2 |
| Cost of NHR | -71 | -74 |
| **New Business Value** | **523** | **361** |

***New Business Value and Profitability***

| € mln | 2022 | 2021 | Change |
|---|---|---|---|
| **New Business Value** | **523** | **361** | **44.9%** |
| **Profitability** | | | |
| -on PVNBP | 4.32% | 2.87% | 1.45 pts |
| -on APE | 42.3% | 27.7% | 14.5 pts |
| **IRR** | 36.0% | 15.9% | 20.1 pts |

*changes are on a comparable basis*

***Movement of New Business Value and Profitability***

| € mln | NBV | NBM |
|---|---|---|
| **New business value 2021** | **361** | **2.87%** |
| Change in perimeter/Exchange rate fluct. | 0 | 0.00 pts |
| Products mix/volume | 27 | 0.30 pts |
| Economic Variance | 168 | 1.42 pts |
| Products features and others | -33 | -0.27 pts |
| **New business value 2022** | **523** | **4.32%** |

**NB Production** remains almost stable in terms of PVNBP, withstanding the globally tense political and economic situation, where the decrease of Annual premiums (-20.2%) is smoothed out by the more resilient Single premiums production (-2.0%).

The PVNBP slight decrease results from the combination of positive progress of Protection business (+7.2%) and slowdown of Saving business (-20.0%, with a weight on total PVNBP moving from 26.0% to 21.7%), reflecting the investment rebalancing, within the Hybrid products, towards the more profitable and less capital-intensive Unit-linked component that remains stable (-1.5%).

The New Business **profitability** increases from 2.87% in 2021 to 4.32% in 2022. The significant progress of NBM is mainly driven by the rise of interest rates (+1.42 pts, that positively impacts both Saving and Protection business, thanks to both individual long-term and group income protection products) together with the more favorable product mix (+0.30 pts, mainly thanks to the higher proportion of Protection business), while the increase of the management expenses for Unit-Linked business negatively impacts for -0.27 pts.

The increased profitability leads to an increase of NBV (+44.9%), amounting to € 523 million.

The reduction of first-year strain (in terms of ratio on the first-year premiums, from -3.57% to -2.62%) together with higher profits drive the increase of IRR from 15.9% in 2021 to 36.0% in 2022.

## 3.6.3. Germany

***New Business - Germany***

***New Business Production***

| € mln | 2022 | 2021 | Change |
|---|---|---|---|
| Annual premiums | 406 | 501 | -19.0% |
| Single premiums | 1,852 | 2,162 | -14.3% |
| **PVNBP** | **9,454** | **12,454** | **-24.1%** |
| Cap Factor | 18.7 | 20.5 | -1.8 |
| **APE** | **592** | **718** | **-17.6%** |

*changes are on a comparable basis*

***Breakdown of New Business Value***

| € mln | 2022 | 2021 |
|---|---|---|
| PVFP before Time Value of FG&O | 382 | 429 |
| Time Value of FG&O | -4 | -24 |
| **PVFP after Time Value of FG&O** | **379** | **405** |
| Cost of Capital | 0 | 0 |
| Cost of NHR | -32 | -43 |
| **New Business Value** | **346** | **362** |

***New Business Value and Profitability***

| € mln | 2022 | 2021 | Change |
|---|---|---|---|
| **New Business Value** | **346** | **362** | **-4.4%** |
| **Profitability** | | | |
| -on PVNBP | 3.66% | 2.91% | 0.75 pts |
| -on APE | 58.5% | 50.5% | 8.0 pts |
| **IRR** | 48.1% | 40.4% | 7.7 pts |

*changes are on a comparable basis*

***Movement of New Business Value and Profitability***

| € mln | NBV | NBM |
|---|---|---|
| **New business value 2021** | **362** | **2.91%** |
| Change in perimeter/Exchange rate fluct. | 0 | 0.00 pts |
| Products mix/volume | -52 | 0.00 pts |
| Economic Variance | -39 | 0.05 pts |
| Products features and others | 75 | 0.70 pts |
| **New business value 2022** | **346** | **3.66%** |

**NB Production** (measured in terms of PVNBP) decreases by 24.1% with a slowdown of both Annual premiums (-19.0%) and Single premiums (-14.3%).

The PVNBP decrease affects all lines of business due to the unfavorable political and economic context and the interest rates evolution. The PVNBP contraction is especially driven by Saving (-42.2%) and Protection lines (-23.0%), also as a consequence of the closing to sale of the Riester pension product and its complementary risk coverages, while Unit-linked business shows a limited decline of -5.4%, thanks to the resilient Unit-linked component within Hybrid products.

The New Business **profitability** increases from 2.91% in 2021 to 3.66% in 2022, progressing in all lines of business thanks to the enhanced and revised product features, with higher preference for internal unit funds and further lowering of financial guarantees.

The higher profitability partially offsets the lower volumes leading to a slight decrease of NBV compared to 2021 (-4.4%) that amounts to € 346 million in 2022.

IRR increases from 40.4% to 48.1% thanks to the higher profits and the decrease of New Business first-year strain (from -1.36% to -0.81% in terms of ratio on the first-year premiums).

### 3.6.4. Austria and Central Eastern Europe (ACEE)

***New Business - ACEE***

***New Business Production***

| € mln | 2022 | 2021 | Change |
|---|---|---|---|
| Annual premiums | 154 | 145 | 6.9% |
| Single premiums | 673 | 648 | 3.9% |
| **PVNBP** | **2,152** | **2,305** | **-6.3%** |
| Cap Factor | 9.6 | 11.4 | -1.8 |
| **APE** | **221** | **210** | **6.0%** |

*changes are on a comparable basis*

***Breakdown of New Business Value***

| € mln | 2022 | 2021 |
|---|---|---|
| PVFP before Time Value of FG&O | 177 | 187 |
| Time Value of FG&O | -1 | -1 |
| **PVFP after Time Value of FG&O** | **176** | **187** |
| Cost of Capital | -2 | -2 |
| Cost of NHR | -27 | -28 |
| **New Business Value** | **147** | **157** |

***New Business Value and Profitability***

| € mln | 2022 | 2021 | Change |
|---|---|---|---|
| **New Business Value** | **147** | **157** | **-6.9%** |
| **Profitability** | | | |
| -on PVNBP | 6.83% | 6.79% | -0.04 pts |
| -on APE | 66.4% | 74.5% | -9.2 pts |
| **IRR** | 11.9% | 13.1% | -1.4 pts |

*changes are on a comparable basis*

***Movement of New Business Value and Profitability***

| € mln | NBV | NBM |
|---|---|---|
| **New business value 2021** | **157** | **6.79%** |
| Change in perimeter/Exchange rate fluct. | 1 | 0.08 pts |
| Products mix/volume | 18 | 0.80 pts |
| Economic Variance | -11 | -0.09 pts |
| Products features and others | -17 | -0.75 pts |
| **New business value 2022** | **147** | **6.83%** |

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

**NB production** (measured in terms of PVNBP) decreases by 6.3% on account of Austria slowdown (-13.3%), mainly attributable to the higher discounting effect on future Annual premiums, partially offset by a moderate growth in the CEE area (+2.9%). Despite the drop in PVNBP, the first-year Annual premiums (+6.9%) and Single premiums (+3.9%) show a moderate increase.

The PVNBP decreases in all lines of business, mainly driven by Saving business contraction (-25.3%) mostly attributable to Austria (-31.6%). Unit Linked business is more resilient (-3.5%) in both regions and Protection business remains quite stable (-3.4%, where the slowdown in Austria of -13.1% is partially offset by CEE region growth of +7.1%).

The New Business **profitability** remains high (6.83%), broadly unchanged compared to 2021 (-0.04 pts) thanks to the high profitability of protection products). The decrease in the CEE area (-0.79 pts) is almost completely offset by the increase in Austria (+0.21 pts).

The 2022 NBV amounts to € 147 million, down by 6.9% compared to 2021.

The IRR decreases from 13.1% to 11.9%, mainly on account of the slight increase of New Business first-year strain (from -19.47% to -21.04% in terms of ratio on the first-year premiums), driven by the higher acquisition costs in Austria.

### 3.6.5. International

*New Business - International*

*New Business Production*

| € mln | 2022 | 2021 | Change |
|---|---|---|---|
| Annual premiums | 546 | 560 | -8.5% |
| Single premiums | 1,961 | 1,629 | 16.5% |
| **PVNBP** | **4,615** | **4,511** | **-3.2%** |
| Cap Factor | 4.9 | 5.2 | -0.3 |
| **APE** | **742** | **723** | **-3.0%** |

*changes are on a comparable basis*

*Breakdown of New Business Value*

| € mln | 2022 | 2021 |
|---|---|---|
| PVFP before Time Value of FG&O | 388 | 433 |
| Time Value of FG&O | -4 | -9 |
| **PVFP after Time Value of FG&O** | **384** | **424** |
| Cost of Capital | -16 | -15 |
| Cost of NHR | -32 | -41 |
| **New Business Value** | **336** | **368** |

*New Business Value and Profitability*

| € mln | 2022 | 2021 | Change |
|---|---|---|---|
| **New Business Value** | **336** | **368** | **-11.8%** |
| **Profitability** | | | |
| -on PVNBP | 7.28% | 8.16% | -0.72 pts |
| -on APE | 45.2% | 50.9% | -4.6 pts |
| **IRR** | 26.4% | 39.3% | -11.4 pts |

*changes are on a comparable basis*

*Movement of New Business Value and Profitability*

| € mln | NBV | NBM |
|---|---|---|
| **New business value 2021** | **368** | **8.16%** |
| Change in perimeter/Exchange rate fluct. | 12 | -0.16 pts |
| Products mix/volume | -21 | -0.45 pts |
| Economic Variance | -20 | -0.20 pts |
| Products features and others | -3 | -0.07 pts |
| **New business value 2022** | **336** | **7.28%** |

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.

**NB Production** (measured in terms of PVNBP) decreases by 3.2%, due to the contraction of Annual premiums (-8.5%) partially offset by a good production of Single premiums (+16.5%). The decrease is registered in almost all regions, mainly in Asia (-8.4%), partially compensated by Americas&Southern Europe.

In terms of lines of business, the PVNBP decrease mainly stems from Protection business (-8.6%, driven by a strong slowdown in Asia, -30.5%), while Saving and Unit-linked business remain quite stable (+2.1% and -0.8% respectively).

The New Business **profitability** moves from 8.16% to 7.28%, decreasing by 0.72 pts on a comparable basis, mainly driven by the worsened company/product mix (-0.45 pts, due to a lower weight of more profitable Protection business) and by the economic variance (-0.20 pts, attributable to the higher discounting effect on the fee-based business), together with the negative impacts of the Group participation’s increase in the less profitable Indian entity and of the exchange rates fluctuations (-0.16 pts).

The lower margins and volumes lead to a decrease of NBV (-11.8%), amounting to € 336 million.

The IRR shows a decrease from 39.3% in 2021 to 26.4% in 2022, on account of a different company mix within International area (higher weight of China).

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 | 2022 | 2021 | Change | € mln | 2022 | 2021 | Change |
| Annual premiums | 17 | 18 | -6.4% | **New Business Value** | **118** | **127** | **-7.7%** |
| Single premiums | 501 | 470 | 6.6% | **Profitability** | | | |
| **PVNBP** | **710** | **732** | **-3.0%** | -on PVNBP | 16.56% | 17.41% | -0.85 pts |
| **APE** | **67** | **65** | **3.0%** | -on APE | 176.2% | 196.7% | -20.5 pts |

*changes are on a comparable basis*

In Spain, **PVNBP** slowdown by 3.0% due to the drop in the Annual premiums (-6.4%) only partially offset by a positive production of the Single premiums (+6.6%). In terms of lines of business, the decrease is driven by both Saving (-28.7%) and Protection (-7.1%), partially offset by the good contribution of Unit-linked (+51.0%, thanks to the launch of a new tranche of Index-linked products).

The New Business **profitability** slightly decreases from 17.41% to 16.56%, remaining always at high level thanks to the very profitable Protection products. The NBV amounts to € 118 million (-7.7% compared to 2021).

***New Business - International - o/w Switzerland***

| *New Business Production* | | | | *New Business Value and Profitability* | | | |
|---|---|---|---|---|---|---|---|
| € mln | 2022 | 2021 | Change | € mln | 2022 | 2021 | Change |
| Annual premiums | 42 | 42 | -6.6% | **New Business Value** | **41** | **42** | **-9.8%** |
| Single premiums | 50 | 55 | -15.3% | **Profitability** | | | |
| **PVNBP** | **597** | **655** | **-15.8%** | -on PVNBP | 6.85% | 6.43% | 0.46 pts |
| **APE** | **47** | **47** | **-7.6%** | -on APE | 87.1% | 89.6% | -2.2 pts |

*changes are on a comparable basis*

In Switzerland, **PVNBP** decreases by 15.8%, with a reduction of both Annual and Single premiums (-6.6% and -15.3% respectively), reflecting the contraction of Unit-linked (-16.4%, which represents the main part of the production with a weight of 85.0%) and Protection business (-16.7%).

The New Business **profitability** slightly increases from 6.43% in 2021 to 6.85% in 2022, mainly thanks to a more favorable business mix in the Unit-linked part. The NBV amounts to € 41 million (-9.8% compared to 2021).

***New Business - International - o/w ASIA***

| *New Business Production* | | | | *New Business Value and Profitability* | | | |
|---|---|---|---|---|---|---|---|
| € mln | 2022 | 2021 | Change | € mln | 2022 | 2021 | Change |
| Annual premiums | 386 | 413 | -13.7% | **New Business Value** | **134** | **166** | **-23.7%** |
| Single premiums | 997 | 888 | 5.9% | **Profitability** | | | |
| **PVNBP** | **2,624** | **2,660** | **-8.4%** | -on PVNBP | 5.10% | 6.24% | -1.03 pts |
| **APE** | **486** | **501** | **-10.3%** | -on APE | 27.5% | 33.1% | -4.9 pts |

*changes are on a comparable basis*

In Asia, the **PVNBP** decreases by 8.4%, due to the contraction of Annual premiums (-13.7%) partially offset by a good production of Single premiums (+5.9%).

The significant drop is entirely attributable to Protection business (-30.5%), driven by China (-36.3%, due to a comparison with an exceptional health coverage production in the first quarter 2021), Vietnam and Hong Kong, only partially compensated by the growth in Saving (+6.7%, mainly thanks to the contribution of Hong Kong and China). Unit-linked business remains almost stable (+2.7%): the very good contribution of Vietnam is offset by the drop in Thailand and Indonesia.

The New Business **profitability** decreases from 6.24% in 2021 to 5.10% in 2022, mainly as a consequence of a less favourable business mix and a negative contribution of China, partially offset by the more profitable products in Vietnam that increase their weight in the Asian area. The overall 2022 NBV amounts to € 134 million (-23.7%).

### 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 in 2022 were 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. Despite the drop of volumes, the value stemming from internal funds' asset management fees (included in the line "other") remains stable, reflecting the planned internalization of the Unit-linked funds in Germany.

***From NBV to Solvency II VNP***

| € mln | 2022 | 2021 |
|---|---|---|
| **NBV** | **2,478** | **2,313** |
| Minority impact | 103 | 93 |
| **NBV gross up of the minorities** | **2,581** | **2,406** |
| Alternative approach of CoC&NHR | -239 | -259 |
| Other | -427 | -434 |
| **Solvency II Value of New Production** | **1,915** | **1,713** |

# 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 (ESG) provided by Moody's Analytics UK Limited.

At year-end 2022 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 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 | 31.12.2022 | Swap | -10 bps | 19 bps | 20 yrs | 3.45% | 60 yrs |
| | 31.12.2021 | Swap | -10 bps | 3 bps | 20 yrs | 3.60% | 60 yrs |
| CHF | 31.12.2022 | Govt | -10 bps | -3 bps | 15 yrs | 2.45% | 60 yrs |
| | 31.12.2021 | Swap | -10 bps | 4 bps | 25 yrs | 2.60% | 65 yrs |
| CNY | 31.12.2022 | Swap | -10 bps | 6 bps | 10 yrs | 4.50% | 60 yrs |
| | 31.12.2021 | Swap | -11 bps | 34 bps | 10 yrs | 4.50% | 60 yrs |
| CZK | 31.12.2022 | Swap | -10 bps | 24 bps | 15 yrs | 3.45% | 60 yrs |
| | 31.12.2021 | Swap | -10 bps | 21 bps | 15 yrs | 3.60% | 60 yrs |
| HUF | 31.12.2022 | Govt | -10 bps | 20 bps | 15 yrs | 4.50% | 60 yrs |
| | 31.12.2021 | Govt | -10 bps | 8 bps | 15 yrs | 4.50% | 60 yrs |
| PLN | 31.12.2022 | Govt | -10 bps | 17 bps | 10 yrs | 3.45% | 60 yrs |
| | 31.12.2021 | Govt | -10 bps | 17 bps | 10 yrs | 3.60% | 60 yrs |

Finally, the following table summarises the risk-free rates provided by EIOPA and applied by Generali for its main currencies[4].

[4] For materiality reasons, VA has not been adopted in the valuation of entities operating in Hungary and Poland.

***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 | 31.12.2022 | 3.37% | 3.48% | 3.33% | 3.29% | 3.02% | 2.95% |
| | 31.12.2021 | -0.55% | -0.37% | -0.05% | 0.23% | 0.48% | 1.02% |
| CHF | 31.12.2022 | 1.03% | 1.12% | 1.30% | 1.45% | 1.54% | 1.70% |
| | 31.12.2021 | -0.76% | -0.55% | -0.29% | 0.03% | 0.02% | 0.36% |
| CNY | 31.12.2022 | 2.16% | 2.35% | 2.75% | 3.05% | 3.41% | 3.59% |
| | 31.12.2021 | 2.46% | 2.53% | 2.80% | 3.09% | 3.45% | 3.63% |
| CZK | 31.12.2022 | 6.75% | 6.48% | 5.37% | 4.93% | 4.71% | 4.53% |
| | 31.12.2021 | 4.85% | 4.60% | 3.96% | 3.37% | 3.22% | 3.26% |
| HUF | 31.12.2022 | 13.66% | 12.57% | 9.99% | 8.97% | 8.55% | 8.10% |
| | 31.12.2021 | 3.49% | 3.93% | 4.27% | 4.41% | 4.59% | 4.62% |
| PLN | 31.12.2022 | 6.40% | 6.60% | 6.73% | 6.66% | 6.23% | 5.85% |
| | 31.12.2021 | 2.66% | 3.37% | 3.72% | 3.58% | 3.52% | 3.52% |

### 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[5] compares Normal ATM SIV related to the 10-year swap maturity considered for the 2022 and 2021 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 | 31.12.2022 | 1.20% | 1.16% | 0.99% | 0.82% | 0.65% |
| | 31.12.2021 | 0.63% | 0.63% | 0.61% | 0.59% | 0.52% |
| CHF | 31.12.2022 | 1.25% | 1.21% | 1.02% | 0.86% | 0.86% |
| | 31.12.2021 | 0.68% | 0.67% | 0.65% | 0.63% | 0.63% |
| CZK | 31.12.2022 | 1.50% | 1.48% | 0.98% | 0.85% | 0.85% |
| | 31.12.2021 | 0.73% | 0.77% | 0.61% | 0.61% | 0.61% |
| HUF | 31.12.2022 | 3.31% | 3.08% | 2.38% | 1.09% | 1.09% |
| | 31.12.2021 | 1.62% | 1.60% | 1.48% | 0.78% | 0.78% |

[5] 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 2022 and 2021 valuations.

***Equity Implied Volatilities - ATM Black-Scholes***

| Currency | @ dd.mm.yyyy | Option Term | | | | |
|---|---|---|---|---|---|---|
| | | 1 Years | 2 Years | 5 Years | 7 Years | 10 Years |
| EUR | 31.12.2022 | 20.65% | 20.56% | 20.60% | 21.64% | 23.13% |
| | 31.12.2021 | 18.10% | 18.03% | 18.45% | 19.16% | 19.85% |
| CHF | 31.12.2022 | 15.60% | 16.40% | 16.76% | 16.85% | 16.89% |
| | 31.12.2021 | 14.50% | 14.67% | 15.53% | 16.10% | 16.59% |
| CZK | 31.12.2022 | 18.33% | 17.99% | 17.49% | 18.28% | 18.84% |
| | 31.12.2021 | 16.19% | 15.37% | 15.75% | 16.39% | 16.85% |
| HUF | 31.12.2022 | 28.62% | 29.92% | 31.38% | 31.75% | 32.03% |
| | 31.12.2021 | 23.21% | 23.61% | 24.68% | 24.93% | 25.12% |

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***

| Currency | @ dd.mm.yyyy | All | High | Low |
|---|---|---|---|---|
| EUR | 31.12.2022 | | 7.30% | 3.15% |
| | 31.12.2021 | | 7.37% | 3.04% |
| CHF | 31.12.2022 | 3.48% | | |
| | 31.12.2021 | 3.98% | | |
| CZK | 31.12.2022 | 6.67% | | |
| | 31.12.2021 | 6.65% | | |
| HUF | 31.12.2022 | 6.07% | | |
| | 31.12.2021 | 6.96% | | |

### 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 1920-2021;
- Recovery rate is based on post-default trading prices of the senior subordinated seniority in the period 1983-2021.

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

Future 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 | 31.12.2022 | 4.54% | 2.52% | 2.40% | 2.24% |
| | 31.12.2021 | 3.50% | 1.89% | 2.08% | 2.16% |
| CHF | 31.12.2022 | 2.10% | 1.25% | 1.25% | 1.09% |
| | 31.12.2021 | 0.70% | 0.60% | 0.60% | 0.74% |
| CNY | 31.12.2022 | 2.30% | 2.20% | 2.20% | 2.86% |
| | 31.12.2021 | 2.20% | 2.15% | 2.15% | 2.86% |
| CZK | 31.12.2022 | 8.95% | 3.25% | 3.25% | 2.27% |
| | 31.12.2021 | 4.70% | 2.30% | 2.30% | 2.10% |
| HUF | 31.12.2022 | 14.80% | 4.40% | 4.40% | 3.30% |
| | 31.12.2021 | 4.70% | 3.20% | 3.20% | 3.08% |
| PLN | 31.12.2022 | 13.40% | 5.90% | 5.90% | 2.45% |
| | 31.12.2021 | 5.80% | 3.50% | 3.50% | 2.23% |

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 | | -10% | -10% |
| Equity (excess return) | -11% | | 35% |
| Real estate (excess return) | -10% | 35% | |

*Upper right value referred to YE22, Lower left values referred to YE21*

## 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***

| | 31.12.2022 | 31.12.2021 |
|---|---|---|
| CHF | 0.99 | 1.04 |
| CNY | 7.42 | 7.25 |
| CZK | 24.15 | 24.85 |
| HUF | 400.45 | 368.57 |
| PLN | 4.68 | 4.58 |

## 4.3. Average New Business yearly economic assumptions

The year-end 2022 and 2021 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.)***

| | 2022 | 2021 |
|---|---|---|
| EUR | 1.85% | -0.02% |
| CHF | 0.52% | -0.04% |
| CNY | 3.05% | 3.33% |
| CZK | 4.52% | 1.86% |
| HUF | 6.79% | 2.53% |
| PLN | 5.54% | 1.59% |

### 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 related elements within the normalised Own Funds generation (see §5.1.3).

For different asset classes, Real-World assumptions are set according to the following approach:

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

The resulting Real-World economic assumptions adopted for GOF (at year-end 2022 and 2021) 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*** | |
|---|---|---|---|---|---|---|
| | 31.12.2022 | 31.12.2021 | 31.12.2022 | 31.12.2021 | 31.12.2022 | 31.12.2021 |
| Italy | 4.65% | 1.16% | 6.56% | 2.68% | 5.56% | 0.93% |
| France | 3.10% | 0.19% | 6.56% | 2.68% | 5.56% | 0.93% |
| Germany | 2.56% | -0.22% | 6.56% | 2.68% | 5.56% | 0.93% |
| ACEER-Austria | 3.11% | 0.13% | 6.56% | 2.68% | 5.56% | 0.93% |
| ACEER-Czech Rep. | 5.03% | 2.88% | 9.03% | 5.78% | 8.03% | 4.03% |
| Intern. - Spain | 3.58% | 0.55% | 6.56% | 2.68% | 5.56% | 0.93% |
| Intern. - Switzerland | 1.58% | -0.12% | 5.58% | 2.78% | 4.58% | 1.03% |
| Intern. - China | 2.99% | 3.08% | 6.99% | 5.98% | 5.99% | 4.23% |

***NB average RW assumptions***

| | ***10 y Government Bond*** | | ***Equity Total Returns*** | | ***Property Total Returns*** | |
|---|---|---|---|---|---|---|
| | avg 2022 | avg 2021 | avg 2022 | avg 2021 | avg 2022 | avg 2021 |
| Italy | 2.68% | 0.76% | 3.81% | 2.52% | 2.06% | 0.77% |
| France | 1.76% | 0.01% | 4.13% | 2.56% | 2.38% | 0.81% |
| Germany | 0.85% | -0.39% | 3.75% | 2.51% | 2.00% | 0.76% |
| ACEER-Austria | 1.22% | -0.11% | 3.63% | 2.51% | 1.88% | 0.76% |
| ACEER-Czech Rep. | 4.25% | 1.76% | 7.15% | 4.66% | 5.40% | 2.91% |
| Intern. - Spain | 1.91% | 0.28% | 3.86% | 2.48% | 2.11% | 0.73% |
| Intern. - Switzerland | 0.63% | -0.32% | 3.53% | 2.58% | 1.78% | 0.83% |
| Intern. - China | 3.05% | 3.46% | 5.95% | 6.36% | 4.20% | 4.61% |

# 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[6] as defined in accordance to art. 75 of Directive 2009/138/EC;
- contribution of subordinated debt eligible in Basic Own Funds;
- deduction for foreseeable dividend and other distributions such as any commitments or circumstances likely to reduce the company's profits, not adequately recognized by the valuation of the assets and liabilities;
- deductions for participations in financial entities,
- deductions for Solo Own Funds items that eligible for Group purposes up to the level of contribution to Group SCR of each entity[7];
- deductions for other restricted Own Funds items[8] and shares of the parent company Assicurazioni Generali;

and

b) the contribution of the available capital of financial entities, according to their regulatory regimes as referred to in Article 2(7) of Directive 2002/87/EC.

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, French and Austrian business, the Reconciliation reserve. The Reconciliation reserve is net of Foreseeable Dividend, restricted Own Funds items and shares of the parent company;
- Tier 1 restricted Own Funds includes subordinated liabilities that benefit from grandfathering regime[9];

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[6] Net of minority interest for entities that are evaluated with the proportional consolidation method, according to article 335 of Commission Delegated Regulation (EU) 2015/35 of 10 October 2014.
[7] Such as minority deductions, surplus funds, other non-available items at Group level.
[8] i.e. restricted Own Funds items in respect of ring-fenced funds.
[9] These items were issued before the entry into force of the Solvency II Directive and cover the Solvency margin up to 50% according to Solvency I regime.

- Tier 2 Own Funds is composed of subordinated liabilities, including the remaining part of grandfathered[10] subordinated debts and the positions issued after the entry into force of Solvency II Directive;
- 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.

Regarding the Group Own Funds coverage of the SCR, the following eligibility deductions 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, according to art. 13 of Solvency II Delegated Acts the quoted market price is the preferable method. If not available, mark-to-model approaches are adopted according to the following valuation hierarchy:

- insurance participations are valued on the basis of entity's MVBS excess of assets over liabilities;
- not insurance participations are valued on the basis of entity's IFRS equity, excluding intangible assets;
- other alternative methods are allowed in the residual cases not covered above (i.e. in absence of quoted market price and when adjusted equity methods are not applicable).

**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.

[10] These items were issued before the entry into force of the Solvency II Directive and, differently from Tier 1 restricted, cover the Solvency margin up to 25% according to Solvency I regime.

**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[11] 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 for

[11] 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.

entities that are excluded from the MVBS perimeter but that are consolidated line by line or valued at equity for IFRS purposes 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.

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 Financials.** The Holdings and Financials Group Own Funds segment 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 institutions, 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 changes,
- Normalised Own Funds generation,
- Economic variances,
- Non-economic variances,
- M&A,
- Capital movements.

**Regulatory changes**

The regulatory changes represent the impact on the Own Funds analysis of movement of changes required by or shared 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 impact on GOF (in terms of higher profit release expected in the year and related impact on the PVFP at the end of the year) originated in the year 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),
- the discounting effect of current year best estimate liabilities,
- 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 Financials**

   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 net result of the period of financial entities, according to their quota share.

**Economic variances**

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.

**Non-economic variances**

Operating variance is defined as the Own Funds movement attributed to experience or change in assumptions related to operating factors, or to refinements of the Life and Non-Life projection models.

Other variances can be attributable to extraordinary and non-recurring items (such as non-recurring expenses or settlements) and to other non-operating variations in GOF (such as tax variances and changes in regulatory deductions).

**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 (as the Volatility Adjustment which can be recalibrated under specific sensitivity scenarios), and management actions (as the rebalancing of asset portfolios in the projection years), that are typically included in the calculation of Technical Provisions and will react accordingly.

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 market interest rates, affecting the market value of the main following instruments:

- Government and corporate bonds (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 (recalculated in line with EIOPA methodology) 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);
- Private 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.

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 main instruments:

- Corporate bonds (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 also entailing 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.

**Sensitivity on Equity and Swaption implied volatilities increase by 25%:** This stress affects the market value of the following main instruments:

- Structured notes and other corporate investments (changes in the underlying asset price for interest rate volatility);
- Derivatives (changes in derivative underlying value);
- Investment funds fully or partially invested in the aforementioned asset classes.

Moreover, these shocks also imply an increased volatility in the stochastic valuation of the Life Technical Provisions along the projection. The extent of such impact depends on their capacity to absorb the corresponding changes of the stressed assets and the presence of financial guarantees.

## 5.2. Life 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). The sensitivities have been derived from a specific NBV run set with the latest beginning of period operating assumptions (i.e., end of September 2022) and average 2022 financial assumptions. The related NBV results have been adjusted (for presentational purposes) to better represent and match official 2022 figures.

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 (in line with EIOPA methodology), 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 (in line with EIOPA methodology), 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.
- **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.

**Present Value of Future Profits (PVFP):** the PVFP is defined as present value at issue of future after tax profits calculated according to a market consistent methodology.

**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 financial 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.