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European Commission
Rue de Spa 2
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23 September 2019

Dear Mr Millerot,

Re: Solvency II 2020 Review – Volatility Adjustment (VA)

The volatility adjustment (VA) has demonstrated its usefulness in providing the Solvency II framework with an ability to counter artificial volatility, bringing together an improved valuation of the insurer's balance sheet spread sensitive items and solvency levels. However, the VA mechanism has shown some weaknesses and shortcomings that may translate into significant distortions under certain conditions, and inadequate risk sensitivity to some important driving features.

We have identified some ways in which the VA would be enhanced to counter these weaknesses, and propose these are considered under the Solvency II 2020 Review.

First, we propose the following recommendations to improve the current VA:

- i. **The artificial volatility associated with market values movements of bonds portfolios backing homothetically own funds needs to be compensated for.** This is all the more important in that own funds can represent very significant proportions of the economic balance sheet. In non-segregated portfolios of assets¹, the assets backing own funds provide cash inflows in their own right which can cover any liability cash outflows, and the performance is built and optimised

¹ The investments backing insurance liabilities and the own funds are not separated.

globally. This reinforces liquidity management against any mismatch and the avoidance of forced sales. These bonds can also be held to maturity according to the long duration features of own funds.

- ii. For non-life insurers, **an additional positive adjustment to the VA should be introduced to compensate for the insufficient duration for which the VA is applied on the insurance liabilities**. The discounting curve applied to the cash flows of the best estimate may fail to help fulfil the role the VA has been designed for when the insurance liabilities' duration in the Solvency II economic balance sheet are significantly lower than the duration of the fixed income assets. This duration gap is of an artificial type and created in the Solvency II economic balance sheet because of the limited going concern and economic perspective imposed with the contract boundaries.
- iii. There needs to be an accommodation for an **improved application ratio**: in many cases insurance companies using the VA are demonstrably able to fully enforce their bond portfolios buy and hold strategies or long-term investment strategies until redemptions of fixed income assets. Such cases support a 100% application ratio that would fairly reflect how those spreads are undoubtedly collected in the way of the coupons and maturity values inherent in the bonds held. Such an approach reinforces the consistency of the valuation of the liabilities with the assets marked at market values and the market value dynamics.
- iv. The **trigger** for the national component needs further improvements. The mechanism in place is based on an activation threshold that restricts the application too severely.
- v. The construction of the reference portfolio based on bond indices has not accounted for **some specific investments with bond-like characteristics**. More granular spread indices in the reference portfolio should be used where necessary to accommodate these investments (such as **mortgage loans**).

Second, we propose that in specific situations the current VA is replaced by an entity-specific approved VA:

The **entity-specific approved VA** would be computed using the weightings from the insurance undertaking portfolio of assets in situations where the basis risk is significant (deviation of an

undertaking's portfolio from the reference portfolio). Additionally, and where applicable, an entity-specific national component submitted to a trigger would be introduced.

The entity-specific approved VA would be subject to the **proportionality principle** and discarded where the basis risk does not prove to be material.

To summarise, the VA approach should be proportionate to the nature, scale and complexity of risks. In this respect, the use of the VA should continue to be optional. (Re)insurers should be able to decide whether or not they want to apply the VA based on their risk management, ALM and proportionality determinations. As a default option, the (re)insurer would use the current VA (improved according to the ways suggested above) as a customized option, and if there is a significant basis risk, an entity specific approved VA should apply.

Yours sincerely



Sarah Goddard

Secretary General

AMICE

AMICE proposal

Current VA improved

1. Bonds assets covering own funds should be taken into account

Bonds assets backing own funds should bring about an increase in the impact of the VA through a complementary adjustment |

Spurious volatility of bonds assets backing own funds is not corrected for in the current VA. This omission can be considerably adverse when own funds represent sizable proportions of insurance undertakings' balance sheets. This does not provide a good risk management incentive to overlook the security that cash flow matching own funds brings, with their long duration and the buy and hold practice they support for bond investments.

In its current design, the higher the proportion of own funds in the balance sheet, the less effective the adjustment, in contradiction with the reality that the bonds assets backing own funds can contribute significantly to improve the liquidity needed to cover insurance liabilities outflows when assets are not segregated. Hence, in such cases, the VA current design will not compensate for the spurious volatility from those assets backing the own funds. Even so, the reasoning with regards to buy & hold applies to the bonds backing own funds particularly strongly (generally few own funds outflows are expected, hence own funds bonds assets inflows are available to improve insurance liability liquidity management).

Indeed, own funds are very long term and the bonds may be kept until maturity in the same way, and more so, than they are for bonds backing insurance contracts' liabilities.

This issue is prominent in non-life insurance undertakings' balance sheets because of the relative higher proportion of own funds towards technical insurance contracts. Similarly, this is all the more prominent in the presence of free surplus.

Our proposal is designed to adhere as closely as possible to the current concept of the VA. We favour an approach that will keep the VA in the discounting mechanism, but propose that it is adjusted in such a manner to enable it to compensate the volatility coming from investments backing own funds.

Such a mechanism would reach the overall aims of the VA, i.e. preserve undertakings' solvency from spurious volatility in the spreads markets and recognise the contribution of those investments to liquidity management and financial strength.

2. Entity specific complementary adjustment based on durations

Entity specific duration gaps distort the intention of the VA correction. An entity specific complementary adjustment to the VA is needed to restore the initial objectives |

Entity specific duration gaps between bonds assets and insurance in-force future estimated cash flows can generate unjustified underestimation of own funds under the VA correction. It is paramount that entity specific situations are adequately reflected in this respect.

Currently, the shorter the duration of Technical Provisions, the less effective the VA mechanism is against the duration of the assets affected by the volatility of the spreads.

Technical Provisions are computed using cash flows limited to contract boundaries. This limitation, while justified in order to assess the “in-force” legal commitment of the undertaking, artificially truncates the economic duration considered under realistic ALM processes.

In reality, investment portfolios are constructed on a going concern basis, i.e. with longer durations on assets than the ones derived from run-off approaches to best estimates in many non-life insurance undertakings' cases. Hence, this is predominantly a non-life business concern.

3. Upgrading the application ratio

Rationale for the application ratio |

The initial goal of the VA mechanism is to restrict the full discharge of spreads induced asset side volatilities on insurance undertakings' balance sheet net assets over liabilities. Insurers selling fixed income assets before maturity are bound to recognise market gains or losses depending on market conditions, while bonds held until redemption are not prone to such gains or losses. Under buy and hold investment or long-term investment strategies, only defaults would impact insurance undertakings' own funds.

The default risk case is rightly captured through the derivation of de-risked spreads considered as the safely earnable part of the spreads by insurance undertakings that also corresponds to the amount of spreads volatility that may be passed onto the valuation of insurance technical liabilities through adjusted discounting. Any potential sale of bonds before redemption should be addressed through a less than 100% application ratio.

The application ratio should be linked to cases of forced sales, i.e. the inability for insurance undertakings to choose the timing of fixed income selling and being forced to recognise losses. Applying a 65% factor proves over-punitive in many cases and the structure of cash in- and out-flows not prone to forced sales at a loss of bonds should be a key feature for an upgraded application ratio up to 100%.

Forced sales assessment |

Forced sales at a loss for the company need to be assessed on an objective basis accounting under the following conditions:

- i. Forced sales are to be measured under a going concern perspective, meaning that probable future premiums based on experience and not limited to contract boundaries should be accounted for. This is because premium income provides a natural source of cash for companies and a key item featuring ALM processes and conditioning management actions.
- ii. Forced sales are to be assessed under conditions and scope consistent with the actual financial management of the company. Undertakings that are in a position to take benefit of wider asset pools cover mechanisms beyond any particular restricted asset cover of a specific insurance liability type can transfer cash among their activities to enhance cash-flow matching. This includes situations where some volatility around liability outgoing cash-flows may arise, and avoid the forced sale of bonds before redemption. For instance, a sound and robust process for covering any volatility that may exist around insurance cash outflows is in place when assets backing insurance liabilities and own funds are managed under the same asset pool: cash flow transfers are easily operated for the benefit of the matching of the needs.
- iii. Forced sales are scrutinised under normal market conditions. While exceptional far-reaching adverse shocks may occur and create losses (such as the 99.5% VAR), those

losses are then accounted for in the SCR. The VA used to value best estimates should stick to the average standpoint and average deviations of best estimates.

- iv. Forced sales should be analysed and assessed in the context of the full set of management actions. Companies experiencing cash shortages will take actions listed in their policies, procedures and existing arrangements with third parties. Assessing forced sales without accounting for actual insurance undertakings' management actions will give a biased vision of forced sales.

Proposal for the application ratio |

Our proposal for the application ratio aims to keep a simple and transparent mechanism that does not imply any additional difficulty in undertakings' computations, nor impair disclosures of key valuation parameters.

The ability to hold investments during a market downturn and to hold them to maturity, or alternatively to pick the right market timing, allows insurers effectively to be immune to short-term volatility and to capture an illiquidity/risk premium, i.e. spread.

In order to bring an objective appreciation to the application ratio we compute a liquidity test for the following three to five years. This test would become part of the ORSA (and disclosed to the supervisory authorities on request if needed earlier) and computed on cash-flows.

We propose the 65% application ratio to remain as default application ratio and be upgraded and refined where necessary to reflect strong cash flow matching quality situations:

- **65%** is kept as a default option;
- **85%** in the case of an insurance undertaking with no liquidity gap shortage for a minimum of 36 months after the reference date and for a period of at least one-third of the best estimate average duration;
- **100%** in the case of an insurance undertaking with no liquidity gap shortage for a minimum of five years after the reference date and at least for a period of half the best estimate average duration.

The liquidity measured here should be understood in the sense of the test that will be presented in a separate document and calibrated with a one in ten shock.

4. Dynamic Volatility Adjustment

A **dynamic VA** should be introduced within the standard formula in order to align the use of the VA with article 105 (5d) of the Solvency II Directive. This would fulfil the role the VA fulfils in the central balance sheet. Based on the VA used (default or entity specific derivation), the dynamic volatility adjustment is applied.

5. Making the national trigger mechanism operative

The current country-specific component of the VA was introduced to account for country-specific situations such as those experienced during the sovereign debt crisis. However, the design adopted has made this component widely ineffective since the thresholds used to trigger the national component of the VA have proved to be too constraining and unresponsive in significant volatile and adverse market situations. The sensitivity of the trigger has been partially improved with the Solvency II 2018 review. However, the mechanism has not been amended sufficiently.

Based on historical data, the absolute threshold of the risk-corrected country spread originally set to 100 bps and revised in 2018 to 85 bps should be further decreased, at the least down to 60 bps. In correlation, the relative threshold set to 200% of the risk-corrected currency spread and deducted from the risk-corrected country spread has not proved to be a major obstacle to the activation of the country VA so far but that may not always be the case, should currency spreads increase in higher proportions. Therefore, we propose the relative threshold be decreased to 160%.

6. Composition reference portfolio

The construction of the reference portfolio based on bond indices has not accounted for certain specific investments with bond-like characteristics. More granular spread indices in the reference portfolio should be used where necessary to accommodate these, such as mortgage loans.

Entity specific approved VA

Concerning the basis risk that appears when an undertaking's portfolio deviates significantly from the reference portfolio computed by EIOPA, it may cause the VA to affect the liabilities in a magnitude that differs from the actual magnitude of the undertaking's portfolio effective spread volatility. An option for an entity specific derivation of the VA should be introduced where the basis risk is significant. The entity specific VA derivation would be based on the asset segments weightings from the entity's own portfolio of assets.

Annex 1 – Detailed proposal

The objective is to obtain an appropriate allocation of the impact of spreads market volatility to the liability side of the Solvency II balance sheet. On the asset side, changes in spreads cause variations in asset market values that can be approximated with the following:

$F1 \quad \Delta Assets = Investments \times \omega_{Bonds} \times Duration_{Bonds} \times \Delta Spreads$
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Where:

Investments : represents the market value of all investments in the Solvency II balance sheet before the change in market spreads

ω_{Bonds} : represents the proportion of bonds in the investments

$Duration_{Bonds}$: represents the duration of bonds in the investments

$\Delta Spreads$: instantaneous changes in spreads observed on financial markets at one point in time

The changes in the market value of investments due to an instantaneous change in the spreads ($\Delta Spreads$) and estimated by the formula *F1* (above) should translate into an equivalent change on the liability side of the insurance undertaking's balance sheet with an appropriate allocation between BE (best estimate) and own funds such that:

$F2 \quad \Delta Assets = \Delta BE + \Delta Own Funds$

This equation *F2* realises our core principles remarks. The variations in the market values of assets induced by spreads volatilities should be adequately partitioned between the best estimates and own funds revaluations. Hence it is necessary to have a proper mechanism to support this process.

Proposed extended formula for the VA |

$Operational VA = OF_{adjustment} * D_{adjustment} * VA \text{ (as published by EIOPA or derived from entity specific asset weightings as in the non-standard option)}$

With $OF_{adjustment}$ (only for insurance undertakings with no segregation of assets in investment and risk management)² which allows for long term bond investments backing own funds

$$\frac{Investments_{Total}}{Investments_{BE}}$$

² The investments backing insurance liabilities and the own funds are not separated in practice and no internal or external requirements to do so exist.

and $D_{\text{adjustment}}$ is:

$$\text{Max} \left(\frac{\text{Duration}_{\text{Bonds}}}{\text{Duration}_{\text{BE}}}, 1 \right)$$

better reflecting the going-concern approach. If the outcome is higher than 1, the undertaking has to demonstrate it is able to avoid forced sales over the duration of the best estimate.

$\text{Duration}_{\text{BE}}$ is computed on best estimates without volatility adjustments to avoid circularity.

Where:

VA is the standard VA computed by EIOPA with three options for the application ratios to improve the risk sensitivity to insurance undertakings' different business cases: 65%, 85% or 100%.

The two proposed adjustments could be ignored by undertakings when they have no material impact or if these two adjustments are not supported by the risk management policies and risk appetite of the (re)insurer.

Annex 2 – Liquidity test

The “liquidity test” aims at evaluating potential situations of forced sales and should rely on the following:

- it should encompass the assets and liabilities on the economic balance sheet and any collateral requirements having an impact on the liquidity position;
- it should resemble the 1-in-200-year scenarios over a 1-year horizon but scaled down to a 1-in-10-year event. The scenarios should focus on the impact on the cash position (or liquidity position). The insurer will assess whether assets are forced to be sold with materialised unrealised losses in order to recover from liquidity gap position, i.e. a negative cash position. Any existing other measures should first be considered, such as existing credit lines, repos, etc.;
- an insurer has adequate liquidity risk management and liquidity stress testing;
- the outcome of the liquidity test will impact the application ratio;
- the capital requirements within Solvency II focus on the impact on the available own funds. From a “going concern” point of view, an economic loss is not similar to a realised loss;
- within fixed income securities (with a maturity), the passing of time will automatically move the economic value towards the maturity amount/redemption value. Any economic loss will recycle as an economic gain and vice versa;
- the only risk to this automatic cycle is the counterparty default and/or the requirement to sell the asset in order to be able to pay any liability;
- the liquidity test is based on an instantaneous stress and a projection of the cash flows over the following 3 to 5 years. These cash flows will take into consideration the instantaneous stresses applied.

Liquidity shocks |

The stress scenarios should be assessed regarding their impact on the cash position of the insurer over a 3 to 5-year horizon after the recognition of the scenario.

1. Market risks

Equity, interest rates, property and currency risks are assessed through their impacts on collateral requirements. Spread shocks are translated into the impact on default and fundamental spreads.

2. Life risks

Mortality, longevity, morbidity, revision and expenses risks should be translated into the impact on the appropriate time horizon of the liquidity test, if material. For catastrophe and lapse risks, the liquidity impact is assumed to be equivalent to the capital requirement. The mass lapse shock is first applied, after which the other scenarios are applied.

3. Non-life risks

Premium and reserve risks should be translated into the impact on the appropriate time horizon of the liquidity test, if material. For catastrophe and lapse risks the liquidity impact is assumed to be equivalent to the capital requirement. The lapse scenario is applied initially, followed by the others.

4. Other risks

For default, operational and intangible risks, the liquidity impact is assumed to be equivalent to the capital requirement.

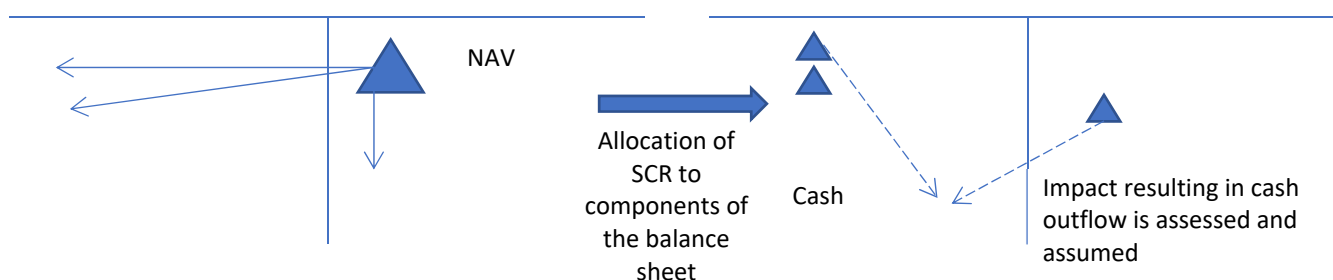
Enacting the liquidity test |

The liquidity test is a three-step process:

In the first step, the scenarios required by the standard formula or the (partial) internal model are applied:



In the second step, the SCR is allocated to its underlying causes and the impact on cash position is assessed.



In the third step, the liquidity needs are assessed.

Cash and cash equivalents	
Opening Balance	
Impact instantaneous scenarios on cash position	(-)
Opening Balance after the impact of the scenarios	A
Expected cash flows after impact scenarios year 1	(+/-)
Closing Balance (end period)	B
Expected cash flows after impact scenarios subsequent years	(+/-)
Closing Balance (end period)	B'

If A is negative, the insurer must demonstrate that the negative cash position can be recovered without the need to sell any assets which are backing the insurance liabilities (for example using recognised credit lines, repos, secured lending or other arrangements).

If B is negative, the insurer must demonstrate that the expected negative cash position can be recovered without the need to sell any assets which are backing the insurance liabilities (for example, raising premiums).

If A and B' are positive, or the insurer is able to recover from a negative position without the requirement to sell assets backing the insurance liabilities, the test is deemed to be passed in full. The assessment of the cash flows is done over the appropriate time horizon.