Comments on EIOPA's Consultation paper on the Opinion on the 2020 Review of Solvency II

General comments

Finance Norway is the industry organization for the financial industry in Norway, representing 240 financial companies with 50,000 employees. We welcome the opportunity to provide our views regarding the ongoing Solvency II review, and to comment on EIOPA's draft proposals.

As a member of Insurance Europe, Finance Norway (henceforth we) share the views expressed in the consultation response submitted by Insurance Europe. However, we wish to highlight and elaborate on some of the issues, which are of greatest importance to the Norwegian market.

Section 2.6 Transitional measures on the risk-free interest rates and on technical provisions

Finance Norway supports the continued application of the transitional measures as foreseen as in the Directive.

The transitional measures are key elements in the Omnibus II agreement and represent "real capital" as asserted by numerous NSAs. The transitional measures need to remain stable during the run-off period to avoid any negative consequences on long-term business, e.g. negative impact on profit-sharing. No changes are needed, and there should be no national restrictions on the use of the measures, such as the current limitation of the effect of the transitional measure for technical provisions implemented in Norwegian legislation by The Norwegian Ministry of Finance.

Section 3.2 Risk margin

Finance Norway is disappointed by EIOPA's decision to maintain the status quo. The risk margin is excessively high, especially for long-term business and its sensitivity to interest rates is another source of artificial volatility. These issues are particularly problematic for long-term products. As highlighted by Insurance Europe, there are a range of technical arguments which, taken together, support a significant reduction in the risk margin. EIOPA should put more effort into this area as mandated in the CfA.

Further, Finance Norway fully supports Insurance Europe's proposal to exclude mass lapse risk from risk margin calculations under specific conditions.

To the extent that it can be shown that the amount of mass lapse risk corresponds to a positive value of future profits in own funds, mass lapse risk should not be part of the risks leading to a cost of capital for the assumed reference undertaking in Art 38-39 of the DA, i.e. mass lapse risk should in those cases be reduced or excluded from the risk margin calculation.

Section 5.1. Interest rate risk

Of several changes to the Solvency II standard model proposed by EIOPA, the change in interest rate stress is the most severe to Norwegian life insurance companies.

EIOPA's use of factor-based stressed for the extrapolated part of the interest rate term structure is economically incorrect and creates an inconsistency with the calculation of the liabilities. EIOPA's proposed interest rate down stress (shifted approach) is calibrated and back-tested using a simplified and conservative approach. It is exclusively calibrated against interest rate history in EUR. This leads to interest rate stresses being much higher than what the historical data for risk-free curves (RFR curves) in NOK indicates. Also, EIOPA's proposals on the recalibration of interest rate risk are based on overly theoretical and hypothetical view on how low interest rates can go. The proposals would create excessive capital requirements.

Finance Norway therefore opposes all EIOPA's proposed calibrations of the standard formula interest rate shock. Any updated interest rate risk model must be calibrated and designed to apply the shock only up until the last liquid point and must be appropriate for all currencies to which it is applied. We also support Insurance Europe's view that it would be necessary to include a floor which reflects the reality of negative rates without hypothesising about the future and also consider the impact on the business model. Below we comment on EIOPA's proposals in more detail.

Finance Norway wants to underline the importance of calibrating the approach in a way that is consistent for all currencies involved, and within a probable scope. In our view, EIOPA's proposal is based on, for some currencies such as NOK and SEK, a too narrow and simplistic assessment, leading to a too conservative calibration. EIOPA's proposed interest rate seems to overestimate the likelihood of low interest rates for the full range of maturities.

Finance Norway appreciates the complexity of the issue but wants to underline the importance of a full and comprehensive impact assessment for all affected currency areas. Our concern is that substantial increase in capital demands for following a too prudent calibration will impact the insurers' ability to invest in the real economy.

<u>Use of factor-based stresses for the extrapolated part of the interest rate term structure.</u>
There are two key deficiencies with EIOPA's proposed formulation; 1) the level of the effective lower bound of interest rates in the model and 2) the use of factor-based stresses for both the liquid and extrapolated parts of the interest rate term structure.

For a non-Euro market such as the Norwegian, where the interest rate levels are relatively high compared to the Euro market, the latter will have the most severe consequence. EIOPA's model uses factor-based stresses for the extrapolated part of the interest rate term structure. This is economically incorrect and creates an inconsistency with the calculation of the liabilities; should the prescribed 1 in 200-year stress materialise, only the liquid part of the curve would be affected, the illiquid part of the curve would then be derived using the extrapolation methodology. Therefore, the stress scenario proposed by EIOPA to determine capital requirements is inconsistent with the valuation framework.

This deficiency was highlighted by all the main stakeholders, including the IRSG and Actuarial Association of Europe, who responded to the EIOPA consultation on the 2018 Review of Solvency II. In contrast to the EIOPA proposal, these stakeholders supported an interest rate risk methodology which is consistent with the valuation of liabilities and determines the illiquid part of the stressed curve through extrapolation.

A post-shock extrapolation methodology is also permitted for internal model firms under Article 121 (2) of the Solvency II Directive which states that methods used are "consistent with the calculation of technical provisions". This effectively requires internal model users to extrapolate the illiquid part of the post-shock interest rate curve. As the deviation of modelling approaches between the standard formula and internal models for interest rate risk was one of EIOPA's key rationales for changing the approach, it is unjustified not to accept this approach to deriving the illiquid part of the stressed curve.

The logical correct order (first stress of market data, then extrapolation based on the results) also avoids the false shock of the UFR associate with EIOPA's proposal. Note that even according to EIOPA's planned reduction of the UFR, the annual change of the UFR is restricted to just three possibilities: +15 bp, +/−0 bp or −15 bp. Moreover, the direction of a possible UFR change is known in advance. If the UFR changes in the next year at all, then – depending on the data – either a change of +15 bp or a change of −15 bp may be conceivable, but never both at the same time. This has to be properly reflected in the design of the interest rate risk module.

Stressing and extrapolating in the logical correct order also has the important advantage that the interest rate risk module fits automatically to all different values of the LLP. Thus, there is no need for different proposals depending on the LLP. There should be a single calibration

of risk factors. For the euro, it is applied up to the euro LLP (currently 20 years), for currencies with other LLPs just up to their specific LLP. Then, in each case, extrapolation sets in. This avoids the disadvantage of EIOPA's proposal which applies risk factors of the "wrong category" (either based on market data or tailored for the extrapolation area) to non-euro currencies with a different LLP than the euro LLP.

<u>EIOPA's analysis and backtesting of the Shifted Approach</u>
As part of their consultation paper, EIOPA has applied the calibration and backtesting methodology from 2018 to a data set extended by two additional years of daily data.

EIOPA's comments to the backtesting results seem to be more supporting of the proposed approach than the actual results themselves. Fundamental problems with the proposed approach give too severe interest rate stresses. The use of overlapping data windows (1-year window moved day by day) gives a bias towards more extreme outcomes, clustered in time. Methods exist to adjust for this effect, but EIOPA have not made use of them. This error affects both calibration and backtesting. Stresses for maturities beyond the LLP are constructed by extrapolating the stress itself, instead of extrapolating from the stressed liquid curve.

This gives excessive stresses beyond the LLP. When calibrating and backtesting EIOPA looks at extreme movements at single points along the curve, and then assume that these occur simultaneously, while in reality there is some diversification along the curve. Representative backtests can be defined to give a more realistic view of how well the method works on real-world balance sheets.

Summary of EIOPA's backtesting results
The two tables below summarise the results of the backtesting of the up and down stress and covers a total of 9*21=189 backtests for each stress. Since the proposed calibration methodology always ensures a perfect match of the expected number of breaches for the universe of data points used to calibrate the interest rate down stress, those 13 points do not contain any information, and effectively there are 176 backtests conducted for the interest rate down stress. We have colour coded the tables according to the description below.

Table B – Up Shock Breaches per Currency and Maturity

Currency	1Y	2Y	3Y	4Y	5Y	6Y	7Y	8Y	9Y	10Y	12Y	15Y	20Y	25Y	30Y	35Y	40Y	45Y	50Y	55Y	60Y
EUR	0	0	0	0	0	0	0	0	0	0	0	1	1	56	102	110	110	110	110	110	114
HUF	22	12	22	22	22	22	22	22	22	22	22	13	17	19	20	12	10	9	9	9	10
GBP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	10	38	62	84	128	160
SEK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HRK	0	0	0	0	0	0	0	2	3	5	4	11	10	10	4	2	2	0	0	0	0
CZK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PLN	0	2	0	0	2	0	1	0	0	2	3	22	22	13	12	8	5	3	3	3	5
CHF	0	25	0	0	0	0	0	0	0	0	0	6	13	33	28	13	5	5	6	16	37
NOK	0	0	0	0	0	0	0	0	0	0	1	2	3	3	3	3	3	3	3	3	3

Table C- Down Shock Breaches per Currency and Maturity

Currency	1Y	2Y	3Y	4Y	5Y	6Y	7Y	8Y	9Y	10Y	12Y	15Y	20Y	25Y	30Y	35Y	40Y	45Y	50Y	55Y	60Y
EUR	25	25	25	25	25	25	25	25	25	25	25	25	25	4	0	1	1	1	1	1	2
HUF	0	0	45	58	36	35	35	35	21	15	15	17	2	4	9	9	10	11	13	20	22
GBP	115	51	20	0	1	10	36	32	17	7	1	0	0	0	13	53	73	100	148	176	193
SEK	138	99	72	80	73	79	87	75	69	46	0	0	0	0	0	0	0	0	0	0	0
HRK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CZK	0	0	0	0	0	0	0	0	0	0	2	3	0	0	0	0	0	0	0	0	0
PLN	0	2	0	18	19	33	61	47	22	18	16	11	3	2	2	2	2	2	2	2	2
CHF	0	66	128	90	55	76	104	102	99	100	89	64	35	50	20	1	0	0	0	0	0
NOK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Color coding: yellow=too few breaches, white=too many breaches, pink=calibration universe interest rate down stress

We can now count the number of cases where the number of breaches is higher or lower than the expected number of breaches defined in Table A of section 5.1 in EIOPAs document. Too few breaches mean that the defined stress is too severe, too many breaches mean that the defined stress is too lenient. We can see that in an overwhelming majority of the cases, the defined stress has been too severe. 75.6% of the interest rate down backtests give too few breaches, while 91.5% of the interest rate up backtests give too few breaches.

For the interest rate down stress, we see two systematic features: for three currencies (HRK, CZK and NOK), there are zero breaches for all maturities. The defined stress seems to be more problematic for longer maturities: for maturities longer than 20 years, 90.3% of cases have too few breaches, while 65.4% of cases have too few breaches for maturities of 20 years or less.

The interest rate up stress seems to be even less consistent with the historical data. In this case, maturities of 20 years or less have too few breaches in 100% of the cases, while 77.8% of the cases with maturities above 20 years have too few breaches.

Down Stress				Up Stress		
Over 20 years	Count	Share		**Over 20 years**	Count	Share
Too many breaches	7	9.7%		Too many breaches	16	22.2%
Too few breaches	65	90.3%		Too few breaches	56	77.8%
Total	72	100.0%		Total	72	100.0%
Up to 20 years	Count	Share		**Up to 20 years**	Count	Share
Too many breaches	36	34.6%		Too many breaches	0	0.0%
Too few breaches	68	65.4%		Too few breaches	117	100.0%
Total	104	100.0%		Total	117	100.0%
Total	Count	Share		**Total**	Count	Share
Too many breaches	43	24.4%		Too many breaches	16	8.5%
Too few breaches	133	75.6%		Too few breaches	173	91.5%
Total	176	100.0%		Total	189	100.0%

Given the information summarised above, we disagree with EIOPAs assessment in paragraph 13, that the number of breaches in general are within the expected range up to the end of the calibration at a maturity of 20Y. We find that the backtesting results for the up-shocks in Table B are not in line with the expectations according to a 99.5 percentile shock. The number of breaches in the non-extrapolated part of the term structure is far too low.

We also disagree with EIOPAs assessment in paragraph 15, that overall, the proposed interest rate shocks show a satisfactory performance in the backtesting for most EEA currencies and maturities, and that the proposed calibration presents an important improvement of the current SCR interest rate shocks. We find that the backtesting results show that the calibration of the up-shock is overshooting.

While there is a comment in 5.14 on the scale of underestimation when there are too many breaches, there is no comment on the scale of overestimation when there are too few breaches, and no sign that any such analysis has been conducted.
The summary of EIOPA's backtesting results shows that EIOPA's proposed solution tends to give an exaggerated stress for maturities beyond 20 years, where the stress itself is extrapolated rather than extrapolating the stressed curve.

Finance Norway views on the future development of the interest rate risk SCR submodule

Should a future development of the interest rate risk SCR submodule prove necessary, we recognise that a relative shifted approach model could be used as an alternative to the current approach to capture the risk of negative yields, as this approach is relatively simple, transparent and data driven.

However, any updated interest rate risk model must be calibrated and designed to:

1. Extrapolate the illiquid part of the yield curve using standard extrapolation parameters and methodology.
2. Contain a floor which properly reflects the extent to which yield curves can go negative and the true risk in a low and negative yield environment
3. Be appropriate for all currencies to which it is applied.

Furthermore, any changes to the interest rate risk submodule should be phased in over time.

Section 5.3 Property risk

Finance Norway supports a recalibration of the property risk submodule charge and welcomes EIOPA's investigation of a more appropriate shock not solely based on UK data (policy option 7).

We encourage EIOPA to adjust the property risk factor as soon as possible. In the current framework, calibration is based mostly on UK data, which most likely results in too high stresses for properties in some countries, such as the Norwegian. As identified by EIOPA, there are structural differences in property markets. Consequently, a pan-European single common shock cannot be solely based on UK commercial property market which is exceptionally volatile and by no means representative for a typical European insurer's real estate investment. Therefore, the property risk should be recalibrated with appropriate data from other European property markets, including the Nordics. The European Commission should be provided with a definitive advice implying a change to the current approach.

Section 5.6. Calibration of underwriting risk

Finance Norway supports both a recalibration of the lapse risk parameters for both life and non-life insurance as well as the extension of the USP framework to cover lapse risk. Moreover, in the life lapse risk scenarios the change in option exercise rates should apply to all contracts.

In its 2009 advice, CEIOPS proposed a mass lapse calibration of 30% for retail business and 70% for non-retail business. (CEIOPS' CP49 on the Mass Lapse from October 2009). These

calibrations were used in the QIS 5 exercise but were subsequently increased to 40% for retail business prior to the implementation of Solvency II.

The industry has previously highlighted that the calibration of these factors is unduly onerous and does not reflect insurers' experience.

When calculating the capital requirement for mass lapse risk, any changes in the risk margin are excluded. This means that in a mass lapse scenario it is assumed that the cost of holding capital for future mass lapse risk remains unchanged, despite the loss of customer-base (and future profit). It would be more correct to re-calculate the risk margin when calculating the capital requirement for mass lapse risk, thus reducing the mass lapse stress accordingly.

Profitable unit-linked products result in high lapse risk, and a high-risk margin. This is especially the case for products that will be charged 70 %. An unintentional consequence of this might be that many companies are considering, or already have bought, mass lapse reinsurance. Mass lapse reinsurance is mainly considered to be a capital measure, which drives up costs. A re-evaluation of the risk margin and mass lapse for unit-linked products is therefore necessary.

Section 9.3.10 Group SCR calculation when using Combination of methods
(Response to EIOPA's Q9.2)
The industry has highlighted for a number of years that the current group currency risk methodology over-estimates currency mismatches because it wrongly generates a capital charge when a company, very appropriately, holds assets in local currency to back a local currency solvency requirement (see Insurance Europe response to the EIOPA draft advice to the EC on the 2018 review of Solvency II and Insurance Europe Briefing note Currency risk March 2013).

Article 188 (1) of the Solvency II Delegated Regulation defines capital requirement for currency risk as the sum of the capital requirements for currency risk for each foreign currency. For each foreign currency, the capital requirement for currency risk is determined by the loss in basic own funds arising from a stress of 25% to the value of foreign currency against local currency (see Article 188 (2)). Where the consolidated group SCR is calculated on the basis of the standard formula, the local currency is the currency used for the preparation of the consolidated accounts, as per Article 337 of the Solvency II Delegated Regulation.

For a group with exposure to multiple currencies, the standard formula can give a poor representation of the currency risk. By forcing a group to hold capital against currency risk

at the group level even though currency risk is perfectly well handled at the solo level, the design of the currency risk calculation will distort the incentives for good risk management practice at the group level. For a group with exposure to multiple currencies the standard formula can give a poor representation of the currency risk.

By forcing a group to hold capital against currency risk at the group level even though currency risk is perfectly well handled at the solo level, the design of the currency risk calculation will distort the incentives for good risk management practice at the group level.