

EIOPA Opinion on the Solvency II 2020 review

Overview



In December 2020, EIOPA published its opinion on the Solvency II 2020 review. This briefing note summarises EIOPA's proposals. This follows several consultation papers produced by EIOPA in 2019 and impact assessments carried out during 2020.

Overview

On 17 December 2020, the European Insurance and Occupational Pensions Authority (**EIOPA**) published its [opinion](#) on the Solvency II 2020 review. EIOPA stated that it is of the view that, overall, the Solvency II framework is working well and no fundamental changes are needed at this point in time but a number of adjustments are required to ensure that the regulatory framework continues as a well-functioning risk-based regime.

EIOPA has produced a short [factsheet](#) highlighting the key changes. These are shown in the box below.

- 1 LONG-TERM GUARANTEE MEASURES AND EQUITY RISK**
 - Change the method of extrapolating risk-free interest rates to better reflect market rates
 - Volatility adjustment: better align the design of the adjustment to its objectives, in particular reward insurers for holding illiquid liabilities.
 - Risk margin: recognise diversification over time thereby reducing size and volatility of the margin, especially for long-term liabilities
 - Equity risk: revise the criteria for the ability to hold equity long-term, by making a link with long-term illiquid liabilities
- 2 SOLVENCY CAPITAL REQUIREMENTS**
 - Increase the capital requirement for the interest rate to reflect the steep fall of interest rates experienced during the last years and the existence of negative interest rates
- 3 PROPORTIONALITY**
 - Increase proportionality across the three pillars of Solvency II, especially regarding low risk undertakings
 - Introduce a new process for applying and supervising the principle of proportionality characterised by clarity, predictability, risk sensitiveness, supervisory dialogue and reversal of the burden of proof
 - Increase the effectiveness of proportionality embedded in the supervisory review process
 - Increase the transparency on the use of proportionality measures across the three pillars of Solvency II
- 4 MACROPRUDENTIAL POLICY**
 - Supplement the current microprudential framework with a macroprudential perspective
 - Introduce tools and measures to equip national supervisory authorities with sufficient powers to address all sources of systemic risk
- 5 RECOVERY AND RESOLUTION**
 - Develop a minimum harmonised and comprehensive recovery and resolution framework for (re) insurers to deliver increased policyholder protection and financial stability in the European Union
- 6 INSURANCE GUARANTEE SCHEMES**
 - Introduce a European network of national insurance guarantee schemes or alternative mechanisms that should meet a minimum set of harmonised features for the benefit of policyholders and financial stability.

Some of the more interesting proposals include a reduction to the risk margin and the introduction of low risk profile undertakings with specific proportionality measures available.

The proposals with the most material impact on the solvency ratio across European insurers in aggregate are those in relation to extrapolation, the interest rate risk capital requirement, the risk margin, the volatility adjustment and

correlations (see Appendix A for the impact assessment). Undertakings with long-term liabilities are expected to be more significantly affected by the proposed changes.

More detail on the proposed changes is discussed in this briefing note. EIOPA's 100 page opinion covers each of the items addressed in its consultation papers. An accompanying background analysis document extends to 1086 pages and a background impact assessment runs to 470 pages.

It is now up to the European Commission to adopt, amend or reject the proposals made by EIOPA. In its opinion, EIOPA notes that the implementation date for any changes is likely to be closer to 2025 than 2020.

Background

The publication of the EIOPA opinion follows almost two years of work by EIOPA as shown below.



Source: EIOPA factsheet

On 11 February 2019, the European Commission (**EC**) issued a formal [Call for Advice](#) to the European Insurance and Occupational Pensions Authority (**EIOPA**) on the review of the Solvency II Directive. This relates to the full review of the Solvency II rules required by the end of 2020 (**2020 Review**) as required by the Solvency II Directive.

CONSULTATION PAPERS

On 25 June 2019 EIOPA published a first wave of consultation papers on its proposals for the 2020 Review regarding supervisory reporting and public disclosure, and insurance

guarantee schemes. Milliman has written briefing notes on each of these papers (available [here](#)).

On 15 October 2019 EIOPA issued a second wave of consultation entitled “[Consultation Paper on the Opinion on the 2020 review of Solvency II](#)”. This consultation paper was 878 pages long and covered a wide range of areas as follows:

- Long-Term Guarantee (**LTG**) and equity risk measures
- Technical Provisions
- Own Funds
- Solvency Capital Requirement (**SCR**)
- Minimum Capital Requirement (**MCR**)
- Reporting and disclosure
- Proportionality
- Group supervision
- Freedom to provide Services (**FoS**) and Freedom of Establishment (**FoE**)
- Macroprudential policy
- Recovery and resolution
- Fit and proper requirements

Milliman has produced a summary of EIOPA’s proposals in the consultation under each of these areas (available [here](#)).

Milliman has also produced separate briefing notes covering each of these areas in more detail (available [here](#)).

INFORMATION REQUESTS

In December 2019 an information request was carried out by supervisors on behalf of EIOPA for a sample of undertakings throughout Europe. This covered the impact of the proposed changes to the following:

- Volatility adjustment;
- Risk-free rates for CZK, HUF, PLN, RON, CHF and USD;
- Technical provisions, in particular in the areas of contract boundaries, Economic Scenario Generators, dynamic policyholder behaviour, future management actions and expense assumptions;
- Calculation of the standard formula SCR, in particular in the areas of equity risk, interest rate risk, property risk, non-life catastrophe risk and risk mitigating techniques;
- Group supervision.

On 2 March 2020 EIOPA launched an information request on the impact of its draft advice with a reference date of 31 December 2019. Submissions were originally due on 31 March 2020 but this was extended to 1 June 2020. The impact of the following changes were included in this information request:

- A “lambda” reduction factor applied in the calculation of the risk margin;
- An alternative extrapolation methodology in the derivation of the risk-free yield curve;

- An increase in the interest rate down shock when the yield curve is negative;
- Reflecting realistic new business assumptions in best estimate expenses;
- Correlation factor between interest rate and spread risk;
- Volatility adjustment and dynamic volatility adjustment;
- A floor on the interest rate down shock;
- Long term equity requirements;
- Recognition of risk mitigation techniques;
- Non-life MCR factors;
- Contract boundaries clarification.

Finally, in July 2020, EIOPA launched a “complementary information request” similar to the previous information request but with the reference date updated to 30 June 2020. The main purpose of this request was to test the impact of the proposed changes post COVID-19. In addition, specific data on the impact of COVID-19 was requested, such as the impact on lapse rates and claims. Submissions were due by 14 September 2020.

EIOPA has published an analysis of the information gathered in its 406 page background impact assessment document. Some highlights are included in Appendix A below.

Proportionality

In relation to proportionality, EIOPA is proposing several additional measures including:

- Increasing the thresholds for exclusion from Solvency II;
- Introducing the concept of low risk profile undertakings that meet all of the following criteria in the last two years:
 - Undertakings not underwriting more than 5% of annual gross written premium outside of their home country;
 - Undertakings whose accepted reinsurance, measured by gross written premiums, is not higher than 50%;
 - Life undertakings with gross technical provision not higher than €1 billion and non-life undertakings with gross written premiums not higher than €100 million;
 - Life undertakings where the ratio of the gross SCR for the interest rate risk submodule over the gross technical provisions is not higher than 5%;
 - Life undertakings, excluding unit linked business, whose investment returns are higher than the average guaranteed interest rates and non-life undertakings whose combined ratio is less than 100 percent;
 - Non-life undertakings not underwriting more than 30% of annual gross written premiums in Marine, Aviation and transport or Credit and Suretyship lines of business;
 - Undertakings not investing more than 20% of their total investments in non-traditional investments.
- A notification should be provided by undertakings to supervisors if they believe they comply with the low risk

criteria including an early identification of any of the proportionality measures it intends to apply (in particular see the Pillar 2 and Pillar 3 measures below available to low risk profile undertakings).

- For undertakings that are not low risk but wish to avail of proportionality measures, an approval process applies.
- Some specific proposals in relation to captives are also included.

PILLAR 1

No approval is necessary for undertakings wishing to apply simplifications in Pillar 1, only ex-ante notification and ex-post reporting. In relation to Pillar 1, EIOPA is proposing proportionality measures for stochastic valuations and SCR modules, as follows:

- Allowing prudent deterministic valuation for contracts with asymmetric options and guarantees if the following conditions are satisfied:
 - The low risk profile undertaking criteria are complied with;
 - The time value of options and guarantees measured based on the prudent harmonised reduced set of scenarios (approximately ten scenarios to be published by EIOPA) is less than 5% of the SCR;
 - The undertaking adds to its Best Estimate a stochastic supplement equal to 5% of the SCR (or another supplement calibrated to the undertaking using the prudent harmonised reduced set of scenarios);
 - The stochastic supplement does not affect the loss-absorbing capacity of technical provisions.
- Simplified calculation of immaterial SCR modules and submodules (excluding the market risk module) where the immaterial risk is not more than 5% of the BSCR and the sum of all capital requirements for all immaterial risks is not more than 10% of the BSCR, as follows:

$$SCR_{t^k} = \max(SCR_{0^k}; f^k \cdot Volume_{t^k}) \text{ where}$$

- SCR_{t^k} is the capital requirement for immaterial risk k at time t.
- SCR_{0^k} is the capital requirement for immaterial risk k at the start of the application.
- $Volume_{t^k}$ is the undertaking-specific volume measure for risk k at time t
- $Volume_{0^k}$ is the undertaking-specific volume measure for risk k at the start of the application. and
- $f^k = SCR_{0^k} / Volume_{0^k}$ is a risk factor for risk k.

The volume measures are determined at the start of the application of the proportionality measure. Reassessment of the immateriality is carried out after three years. The application of the approach should be reported in the Regular Supervisory Report.

PILLAR 2

For low risk profile undertakings satisfying the criteria above, EIOPA is proposing the following:

- Combinations of key functions are permitted (except the internal audit function) and combinations of key function holders and Board members are permitted;
- A regular ORSA can be provided every two years (and following any significant change in risk profile) instead of every year;
- Written policies may be reviewed less frequently than every year, but at least every three years;
- The variable component of remuneration is not subject to the deferral requirement (if it is less than one third of total remuneration and doesn't exceed €50,000).

These measures can be applied to other undertakings (non-low risk profile undertakings) subject to the consent of the supervisor.

PILLAR 3

In relation to Pillar 3, EIOPA is proposing:

- Amendments to the Quantitative Reporting Templates (QRTs) as follows:
 - Review risk-based thresholds;
 - Simplify the quarterly submission;
 - Delete and simplify some QRTs.
- Allow for the exemption of group reporting, without the condition of exemption for all solo undertakings belonging to that group.

Technical Provisions

EIOPA has several proposals affecting technical provisions, including:

- EIOPA is proposing a reduction to the risk margin calculation by applying a factor, λ , to the projection of the SCR that starts at 97.5% at year 1 and reduces to a floor of 50% by year 28.
- Expenses to be projected in the BEL should take account of decisions made by the Board of the undertaking in relation to writing new business. In the Background analysis, EIOPA states that expenses should be allocated to all future business, existing business and new business. EIOPA states that assuming that new business will come when this is not the real expectation leads to a non-realistic valuation of the best estimate.
- Clarification of wording in relation to contract boundaries and Expected Profits in Future Premiums (**EPIFP**).

SCR and MCR

EIOPA has several proposals in relation to the SCR and MCR, including:

- Updating the calibration of interest rate risk sub-module (consistent with that proposed in the consultation and with EIOPA's previous advice to the EC under the 2018 [interim review](#) that the EC chose not to implement at that time). EIOPA is proposing to phase in the introduction of the change over five years.
- Reducing the correlation parameter between falling interest rates and spread risk from 0.5 to 0.25, in line with evidence from financial markets.
- Simplified calculation of the risk-mitigating effect of derivatives, reinsurance, special purpose vehicles and insurance securitisations in the counterparty default risk module.
- Some amendments to the recognition of risk mitigation techniques including the upgrading of EIOPA's guidelines on basis risk to be included in the Delegated Regulation
- EIOPA is proposing changes to the risk factors used to calculate the non-life components of the MCR calculation.
- EIOPA has also clarified the wording in relation to expectations in the event of non-compliance with the MCR.

Reporting and Disclosure

EIOPA is proposing several changes to the reporting and disclosure package including:

- Changes to the structure and content of the Solvency and Financial Condition report (**SFCR**) and splitting it into two parts – one part addressed to policyholders and the other to professional users of the report.
- Extending the deadline for the solo SFCR by 4 weeks from 14 weeks to 18 weeks and for the group SFCR by 4 weeks from 20 to 24 weeks.
- The following sensitivities for the Own Funds, SCR amount and SCR ratio to be included in the SFCR:
 - Equity markets +/- 25%
 - Risk free interest rates +/- 50 bps
 - Credit spreads of fixed-income investments +/- 50 bps
 - Property values +/- 25%
- Additional information in the SFCR including sustainability risks, environmental, social and governance factors and climate change issues, and LTG related information.
- External audit of the SFCR covering the Solvency II balance sheet at a minimum, with the option for each member state's supervisor to also include the SCR and eligible own funds.
- Simplifications to the derivatives and technical provisions templates.

- New information in relation to cross-border business, cyber risk and product splits in S.14.

LTG Measures

EIOPA is proposing changes to the following:

- Extrapolation
- Matching adjustment
- Volatility adjustment
- Disclosure and risk management of LTG measures

EXTRAPOLATION

- EIOPA is proposing using the alternative extrapolation method to take into account market rates beyond the starting point of the extrapolation.
- The alternative extrapolation methodology steps away from the Smith-Wilson extrapolation methodology and is considered less complex compared to the current approach.
- In order to mitigate the impact of implementing the alternative extrapolation methodology, while interest rates remain below those of 2019, a smoothing solution is proposed. This smoothing mechanism will be phased out by 2032 (when other transitional measures will end).
- The introduction of the smoothing solution will dampen the hit on capital ratios; however, it does add another layer of complexity and volatility to the discount curve.

Milliman has produced a briefing note with more detail on the proposed extrapolation methodology (available [here](#)).

MATCHING ADJUSTMENT

- EIOPA is proposing recognising diversification effects in the standard formula SCR between matching adjustment portfolios and other portfolios.
- EIOPA is proposing additional requirements in relation to the eligibility of restructured assets in matching adjustment portfolios.

VOLATILITY ADJUSTMENT

- EIOPA is proposing that the use of the volatility adjustment should be subject to supervisory approval in all countries and that supervisors should have the power to request undertakings to stop using the volatility adjustment.
- EIOPA is proposing increasing the volatility adjustment ratio from the current 65% to 85%.
- EIOPA is proposing splitting the volatility adjustment into a permanent part and a macroeconomic part.
- The permanent part is proposed as 85% of the risk corrected spread of the representative portfolio, adjusted by two application ratios and a scale factor.
- One application ratio measures the duration and volume mismatch between the fixed income investments and the

insurance liabilities of the undertaking. It aims to address the illiquidity characteristics of the liabilities of the undertaking and to mitigate overshooting effects.

- The other application ratio measures the degree of illiquidity of the undertaking's liabilities.
- The scale factor represents the weight of the government and corporate bonds in the representative portfolio.
- The macroeconomic adjustment is proposed as 85% of the risk adjusted spread of the country's reference portfolio allowing for the above applications ratios and a scale factor.
- In addition, a component is applied that is designed to ensure a gradual and smooth activation of the country component and to avoid a "cliff-edge" effect.
- EIOPA states that the VA should be applied with respect to all best estimate liabilities in the same currency.

DYNAMIC VOLATILITY ADJUSTMENT

- EIOPA is proposing no dynamic volatility adjustment in the standard formula and an enhanced prudency principle where it is used in an internal model.

DISCLOSURES AND RISK MANAGEMENT PROVISIONS

EIOPA is proposing changes to public disclosures in relation to certain LTG measures and the risk management provisions for these measures.

EQUITY RISK MEASURES

- EIOPA is proposing widening the symmetric adjustment corridor for the equity risk capital charge from +/- 10% to +/- 17%.
- EIOPA is proposing to phase out the duration-based equity risk sub-module (due to the introduction of the capital requirement for long-term equity investments) and is proposing updates to the criteria for classification as long-term equity.

Macroprudential policy

EIOPA is of the view that the macroprudential perspective should be incorporated into the current prudential Solvency II framework through amendments to the legislation. EIOPA is proposing the following:

- Supervisors should be granted measures to reinforce the insurer's financial position following sector-wide shocks, including restricting or suspending dividend payments¹.
- Supervisors should be given the power to set a capital surcharge to address entity-, activity- or behaviour-based sources of systemic risk. EIOPA is proposing to draft

guidelines on the procedures for decisions to trigger, set, calculate and remove the capital surcharge for systemic risk.

- Supervisors should be given the power to define "soft" thresholds at market levels to identify excessive concentrations and to intervene where there is a risk to financial stability. EIOPA is proposing to draft guidelines on the procedures for decisions to set the soft thresholds at the EU level, while taking into account the conditions in the different markets.
- Undertakings should include macroprudential considerations and potential sources of systemic risk in the ORSA. Supervisors should use ORSAs to aggregate information on sources of systemic risk.
- Expansion of the prudent person principle to take into account macroprudential concerns (such as risk related to the credit cycle and economic downturn).
- Supervisors should be given the power to require systemic risk management plans from certain undertakings. EIOPA proposes to issue guidelines to specify the undertakings in scope.
- EIOPA proposes to issue guidelines on the operational details of a potential liquidity risk framework.
- All undertakings should be required to draft liquidity risk management plans for identifying and addressing potential liquidity stresses. EIOPA proposes to issue guidelines to specify when undertakings could be exempted from drafting a liquidity risk management plan.
- Supervisors to be given the power to impose a temporary freeze on redemption rights of policyholders of undertakings affected by a significant liquidity risk. EIOPA states this should be applied as a last resort measure in exceptional circumstances and EIOPA should issue guidelines to further specify "exceptional circumstances".

Recovery and Resolution

EIOPA is proposing that a minimum harmonised recovery and resolution framework should be established across the EU. It sets out a range of proposals in the areas set out below.

RECOVERY MEASURES

- A requirement for pre-emptive recovery plans to be developed and maintained by undertakings (covering a very significant share of each national market);
- Supervisors to be given a set of preventative measures as follows:
 - Require intensive dialogue and regular meetings with the undertaking

¹ This proposal is the only one that wasn't previously included in the consultation paper and presumably is a result of many supervisors seeking to restrict dividend payments following the outbreak of the COVID-19 pandemic.

- Additional or more frequent reporting
- Require the Board to implement measures set out in the pre-emptive recovery plan within a specific timeframe
- Require the undertaking to limit variable remuneration and bonuses

RESOLUTION MEASURES

- Member states should establish an administrative resolution authority for the resolution of undertakings;
- Resolution authorities should consider the following objectives:
 - To protect policyholders
 - To maintain financial stability
 - To ensure continuity of functions
 - To protect public funds;
- Resolution authorities should develop and maintain resolution plans and conduct resolvability assessments in a pre-emptive manner for undertakings covering a significant share of the national market;
- Grant resolution authorities with a set of harmonised resolution powers (EIOPA sets out a minimum list of powers that should be included);
- Supervisors should establish cross-border cooperation and coordination arrangements between resolution authorities for crisis situations.

TRIGGER FRAMEWORK

- Supervisors to be given the power to set judgement-based early intervention triggers;
- EIOPA is of the view that non-compliance with the SCR is an appropriate trigger for entry into recovery;
- Judgment-based triggers for entry into resolution should be introduced and should include:
 - Undertaking is no longer viable
 - Recovery measures have been exhausted
 - Resolution action is necessary in the public interest.

Group Supervision

EIOPA is proposing the following changes in relation to group supervision:

- Changes to the calculation of group own funds and solvency capital requirements;
- Clarification of the requirements of the system of governance at group level;
- Definition of groups and the scope of application of group supervision;
- Supervision of intragroup transactions and risk concentration;

- Supervisory powers where the parent is headquartered in a non-equivalent third country;
- Supervisory powers over insurance holding companies and mixed financial holding companies.

FoS and FoE

EIOPA is proposing changes in relation to insurance companies operating cross-border including:

- A requirement to declare during the authorisation process if a formal or informal request for authorisation in another country was rejected or withdrawn and the reasons for this;
- Information exchange between home and host supervisors in case of material changes in the FoS activities;
- Enhanced role for EIOPA in complex cross-border cases where supervisors fail to reach a common view in the collaboration platform including the power to make recommendations to the supervisor concerned and to make these public if they are not adopted;
- Cooperation between home and host supervisors during ongoing supervision to ensure the home supervisor understands whether the undertaking has a clear understanding of the risks in host territories covering at least:
 - System of governance
 - Outsourcing arrangements and distribution partners
 - Business strategy and claims handling
 - Consumer protection;
- Host supervisors to be given the power to request information with regard to the business of undertakings operating in that member state from the home supervisor or the undertaking in a reasonable timeframe and in the official language of that member state.

These proposals are to ensure that supervisory powers are sufficient to prevent failures of insurance companies operating cross-border.

Insurance Guarantee Schemes

EIOPA proposes to introduce a European network of national insurance guarantee schemes (IGSs) or alternative mechanisms that should meet a minimum set of harmonised features for the benefit of policyholders in the event of insurance failures.

Their geographical coverage should be based on the home-country principle, and should concern specific life policies and non-life policies agreed at EU level with a harmonised minimum coverage. The IGSs or the alternative mechanisms should be funded on the basis of ex-ante contributions by insurers, possibly complemented by ex-post funding arrangements in case of capital shortfalls.

To ensure a certain degree of flexibility to the Member States, EIOPA advises that the complete implementation of the minimum set of harmonised features proposed in its opinion should be preceded by a transitional phase.

Fit and Proper requirements

EIOPA states that a number of cross-border cases indicate a lack of harmonisation across the EEA in the assessment of fit and proper requirements of Board members and qualifying shareholders.

EIOPA is proposing the following:

- Clarifying ongoing assessment of the Board and ongoing assessment of qualifying shareholders;
- Allowing EIOPA to assist in complex cross-border cases where a common view between supervisors is not reached.

Summary

The background impact assessment produced by EIOPA includes the objectives and the expected costs for the industry and supervisors of the proposed changes.

It is clear that implementing and ensuring compliance with the proposed changes will be a significant undertaking for insurers. One-off and ongoing costs are estimated by EIOPA in the following areas:

- Recovery and risk management planning including drafting and implementing a recovery plan, a liquidity risk management plan and a systemic risk management plan;
- Calculation of technical provisions including updating for changes to extrapolation, volatility adjustment, risk margin, expenses, contract boundaries and EPIFP;
- Calculation of SCR/MCR including updating the interest rate risk submodule and demonstrating effective risk transfer for the recognition of risk mitigating techniques;
- Including the macroprudential perspective in the ORSA;
- Reporting and disclosure, in particular the audit of the Solvency II balance sheet which is not currently required in all European countries.

How Milliman Can Help

Our Milliman consultants have extensive experience with Solvency II.

We can help you to understand the proposed changes and to implement them.

In addition, our [Solvency II Compliance Assessment Tool](#) can help you to stay abreast of regulatory change and to monitor and assess compliance across all three pillars of Solvency II.

Milliman is among the world's largest providers of actuarial and related products and services. The firm has consulting practices in life insurance and financial services, property & casualty insurance, healthcare, and employee benefits. Founded in 1947, Milliman is an independent firm with offices in major cities around the globe.

Milliman maintains a strong and growing presence in Europe with 250 professional consultants serving clients from offices in Amsterdam, Brussels, Bucharest, Dublin, Dusseldorf, Isle of Man, London, Luxembourg, Madrid, Milan, Paris, Warsaw, and Zurich.

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Appendix A: Impact Assessment

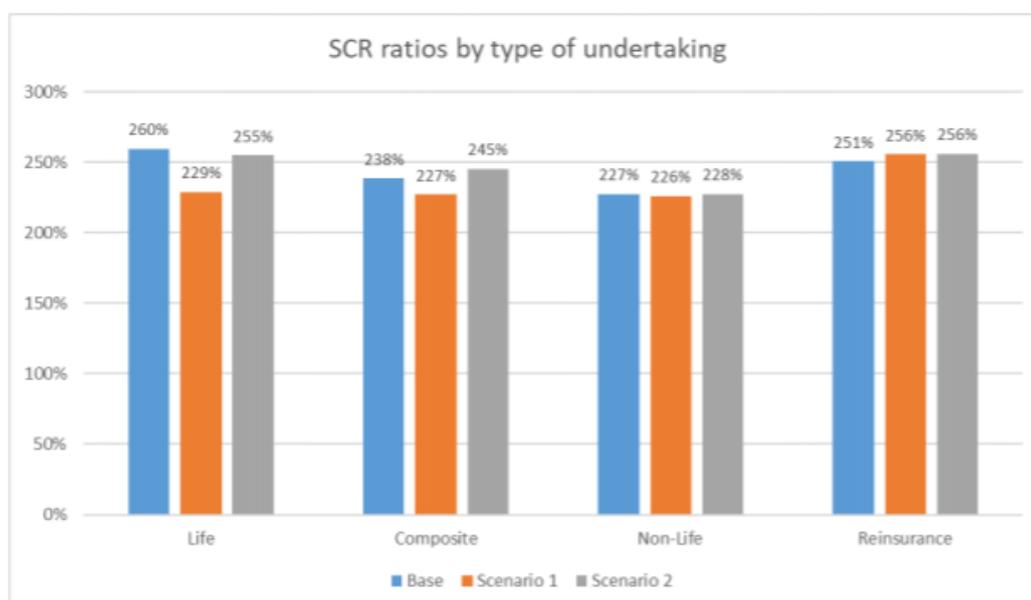
This Appendix shows some of the information produced in EIOPA's analysis of the information gathered in its information requests.

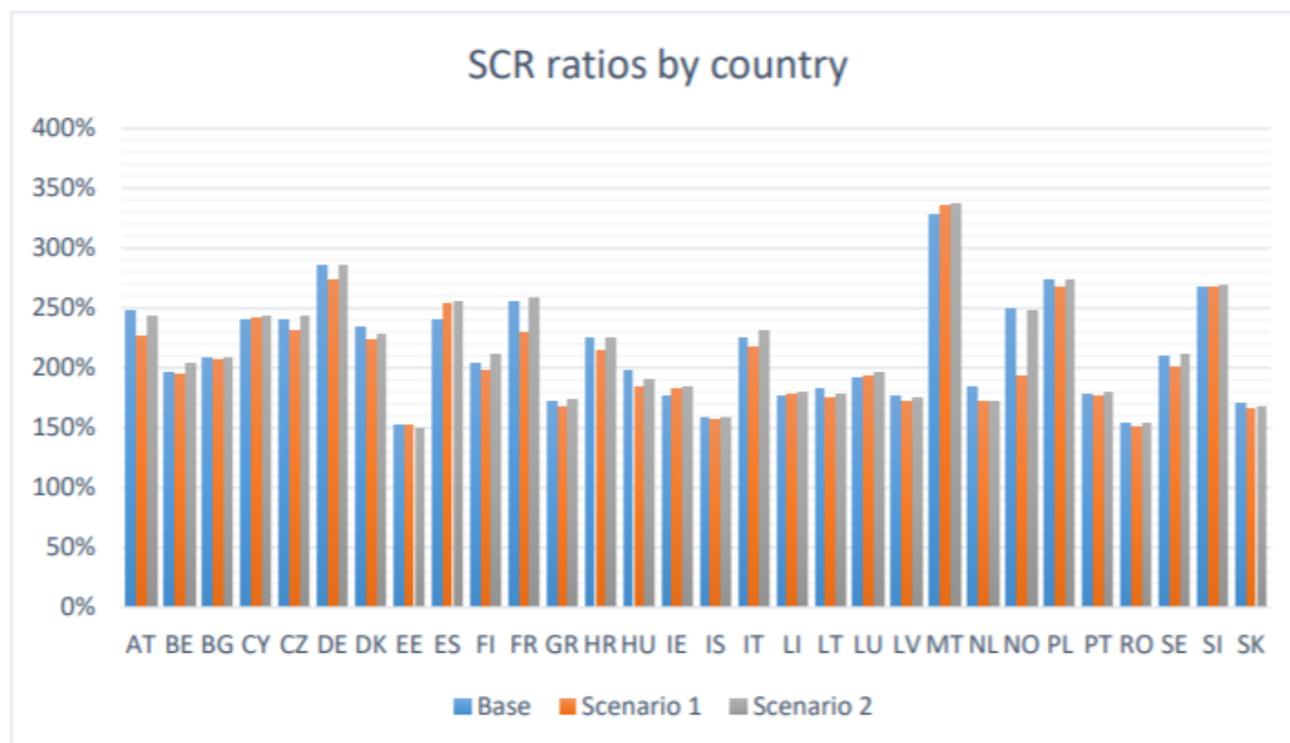
YEAR-END 2019 SOLVENCY RATIOS

EIOPA's Holistic Impact Assessment (**HIA**) collected data at end 2019 on the following scenarios:

- Base scenario (current Solvency II approach)
- Scenario 1 (combined impact of EIOPA's advice)
- Scenario 2 (combined impact of EIOPA's advice excluding the interest rate risk proposal)

In summary, the average SCR ratios at end 2019 was 247%. This reduced to 234% under scenario 1 and increased to 248% under scenario 2. Charts of the SCR ratio in each scenario by undertaking type and by country are shown below.





Q2 2020 SOLVENCY RATIOS

EIOPA's Complementary Information Request (CIR) collected data at end Q2 2020 on the same scenarios. In summary, the average SCR ratios had fallen from 247% at end 2019 to 226% at Q2 2020. This reduced to 204% under scenario 1 and to 216% under scenario 2.

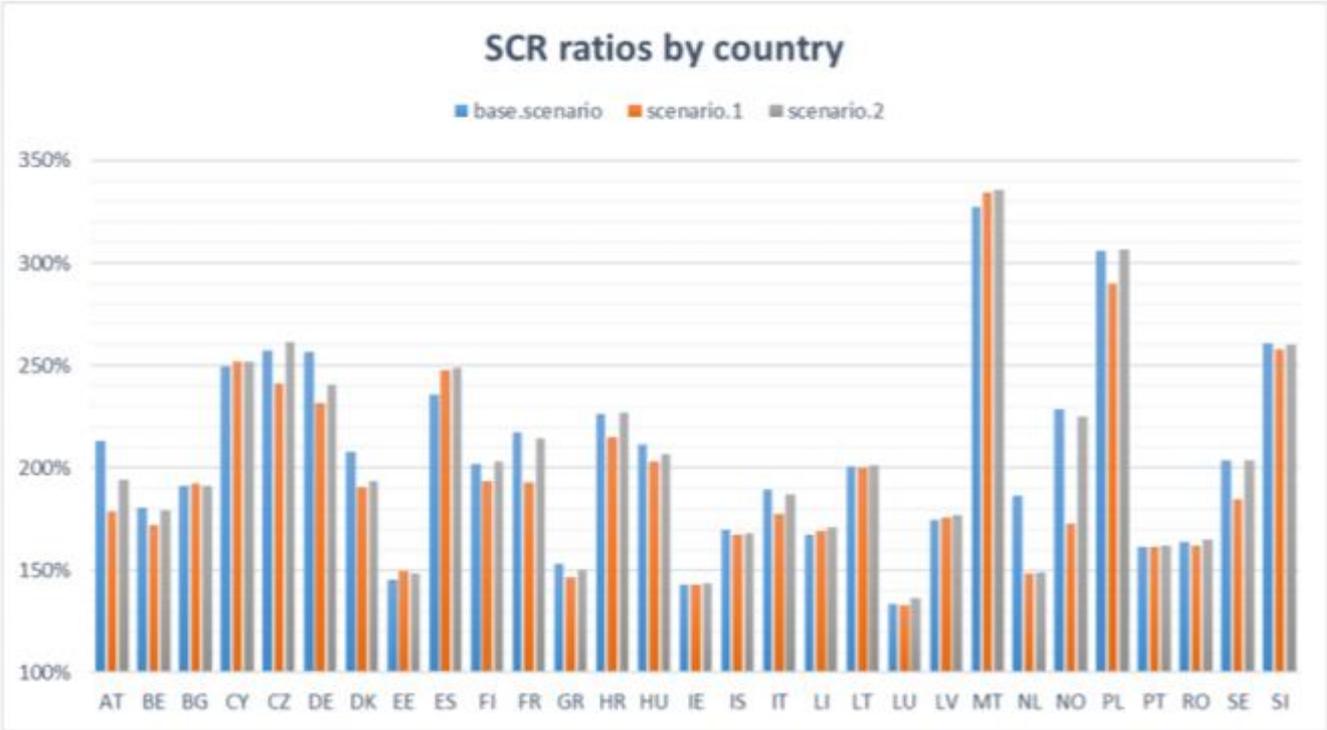
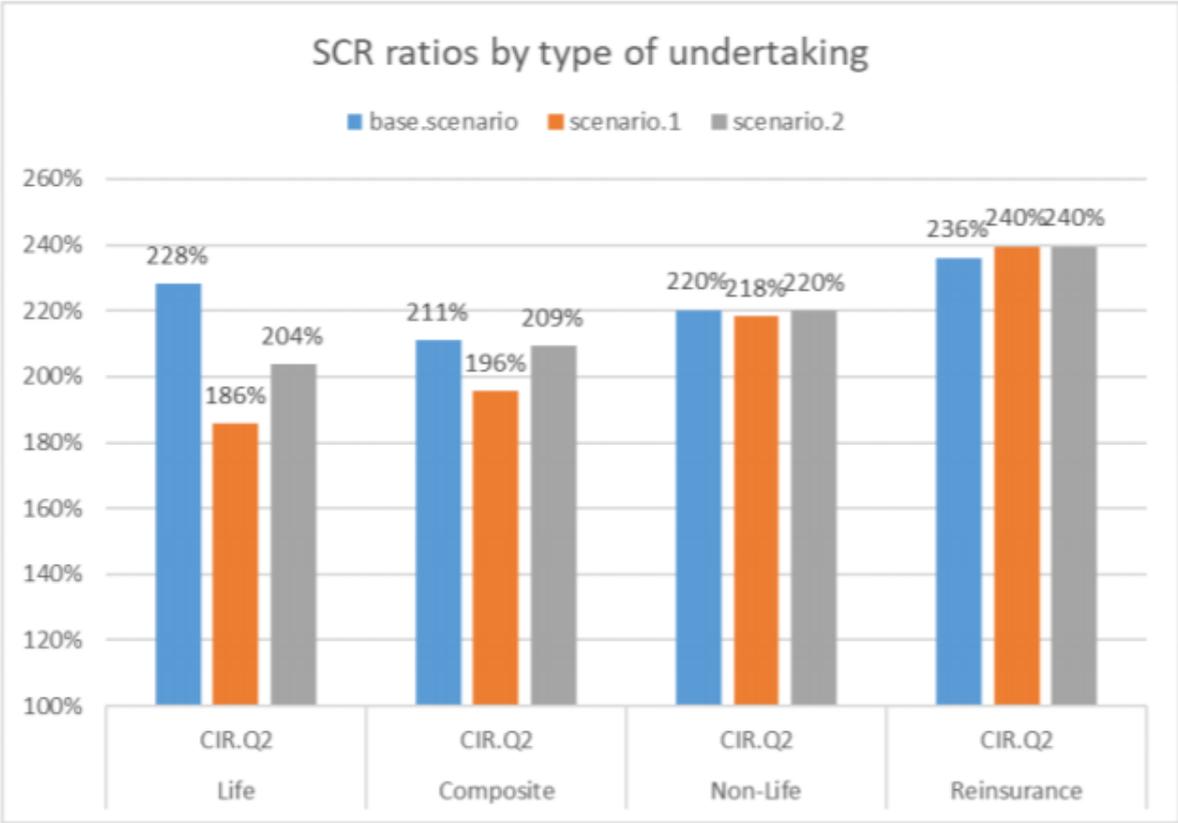
Both in scenario 1 and scenario 2 the impact in the CIR is stronger than in the HIA resulting in an additional reduction of the capital surplus of €25 bn and €26 bn respectively. The following table compares the contribution of the different changes to the overall impact on the capital surplus in scenario 1.

Changes to:	Approximate impact on capital surplus	
	HIA	CIR
Volatility adjustment	+16 bn	+13 bn
Risk margin	+16 bn	+18 bn
Extrapolation	-34 bn	-61 bn
Correlations	+5 bn	+5 bn
Interest rate risk	-21 bn	-20 bn

The amounts are approximate, in particular because of interrelations between the different changes. Note also that the amounts relate to the sample of participants only, so the results may not be fully representative of the whole market.

The impact of the change to the extrapolation is significantly higher in the CIR than in the HIA. The reason for the stronger impact is apparently that, due to the lower interest rate level in the CIR, the future discretionary benefits recognised in the insurance liabilities do not mitigate the impact of the change to the same degree as in the HIA.

Charts of the SCR ratio in each scenario in the CIR at Q2 2020 by undertaking type and by country are shown below.



RISK MARGIN

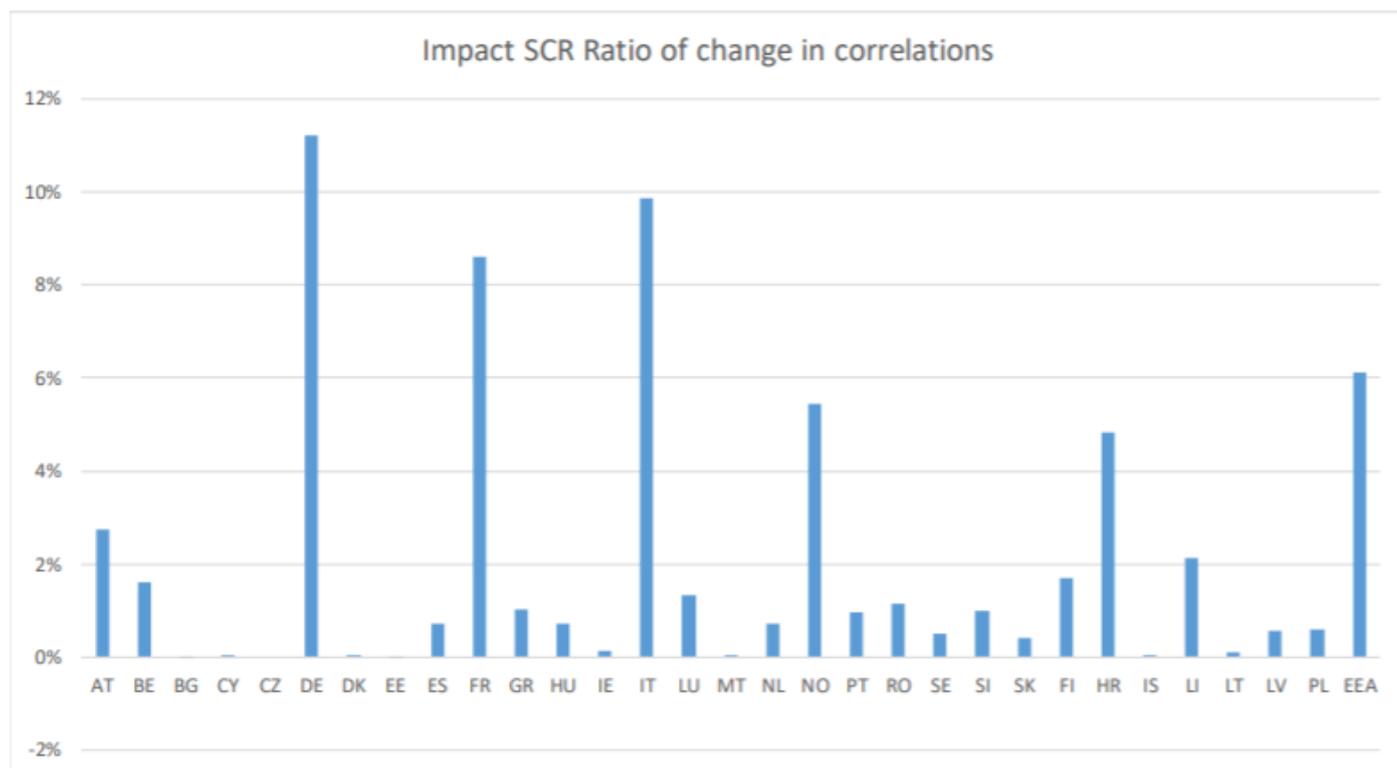
The following chart shows the impact on the risk margin of the proposed approach under both the HIA (YE 2019) and CIR (Q2 2020).



As can be seen a material reduction in the risk margin is expected. The impact will be greater for longer term business.

CORRELATIONS

The impact on the SCR ratio of the change in correlations in the HIA is shown by country in the chart below.



The only proposed correlation change is to the correlation between the interest rate down shock and the spread shock. So material impacts are only seen where the down interest rate shock bites and where these shocks are material.

MACRO-PRUDENTIAL POLICY

The following tables show the percentages of undertakings in each country that already have a pre-emptive recovery plan, a liquidity risk management plan and a systemic risk management plan in place.

