

## Question Answers

12/07/2023

Question ID	Publication date	Topic	Paragraph / Template	Question	Answer
1	26-Sept-23	Technical Specifications	14	In certain conditions (small risk/complexity liabilities) will it be possible to use the scenarios/solutions provided by EIOPA and can those solutions only be used by companies participating in this information request?	The participation in this EIOPA information request is voluntary. Non-participation has no impact on possible future application of PHRSS or other proportionality measures. However, in order to help to assess and improve the feasibility and reliability of the scenarios, insurers are highly encouraged to participate.
2	23-Oct-23	Technical Specifications	7	If an insurer calculates TVOG using Black-Scholes (i.e. using a closed formula and not stochastically), what is the category of this undertaking?	This is category 2 (undertakings applying deterministic valuations for their TP). As a reminder, the target participants to the 2 <sup>nd</sup> information request are: <ul style="list-style-type: none"> <li>- Category 1: Undertakings using full stochastic valuations for their TP (for currencies other than euro);</li> <li>- Category 2: Undertakings applying deterministic valuations for their TP.</li> </ul>
3	23-Oct-23	General information on participation	6 and 7	Is the participation in the 2 <sup>nd</sup> information request obligatory? If the company applies a stochastic valuation and has liabilities in EUR, is it in the scope of the 2 <sup>nd</sup> information request?	No, this information request is not mandatory but on a voluntary basis. Those additional submissions would be also appreciated even if they are not in the core scope of this 2 <sup>nd</sup> information request.
4	23-Oct-23	General information on reference date	26	Can other reference dates be used for the second information request?	No, all participants should use 31 December 2022 as the reference date.
5	23-Oct-23	Technical Specifications	38	About template sheet "3. BE own calculation", when filling in the SCR, if the entity has both Life + SLTH business and Non-life + NSLTH business: Shall it fill in the SCR for the entire business or just Life + SLTH business?	The SCR should be filled in for the entire business. It should match the value reported in S.23.01 in Solvency II quantitative reporting.
6	23-Oct-23	Scenarios		On the basis of which interest rate curves are the deflators in the files calculated (line 2 in files "PHRSS_set_*.EUR.xlsx")?  Could you please publish the corresponding interest rates curves? I expected the deflators in the base file "PHRSS_CE_EUR.xlsx" to be calculated from the interest rates published by EIOPA as of 31 December 2022, but they are slightly different.	They are calculated on the basis of EIOPA risk free interest rate curves as of 31 December 2022. The scenarios have been updated (update_1) and the deflators are now consistent with the EIOPA risk free interest rate data (using annually compounded interest rates).  Thank you for highlighting this. It was due to a typo in the code and has been fixed in the updated scenarios (update_1).
7	23-Oct-23	Scenarios		The scenario sets published on the EIOPA website have been modified. What has been changed and what scenario sets should be used?	Based on the feedback received during and after the workshop on 11 October we have been made aware of inaccuracies in the calculation of the scenario sets. There were two mistakes in the code used to generate the scenarios: <ul style="list-style-type: none"> <li>- one regarding the calculation of the deflator (the wrong one year zero coupon bond price was used in the calculation, it was one year ahead);</li> <li>- one regarding the calculation of the spot zero coupon bond prices from the EIOPA risk free interest rate curve (the continuous compounding basis was used instead of the annual compounding).</li> </ul> These mistakes have been fixed in the updated scenarios (update 1). We do not expect any material impact on the results of undertakings. Therefore, if an undertaking has already started (or even completed) the calculation, there is no need to redo the work and recalculate based on the updated scenarios. If the undertaking has not started the calculation, the updated scenarios should be used.
8	07-Dec-23	Inflation		How should we derive the inflation?	Please find on the 2 <sup>nd</sup> information request webpage an Excel file presenting an example on how to derive inflation break-even curves and realized inflation at future time steps coherent with the PHRSS scenarios and the real rates seem at t=0 by an undertaking. The following steps should be followed: <ul style="list-style-type: none"> <li>• <a href="#">Tab 1. input PHRSS EUR set 1</a> Tab with input data: the PHRSS scenarios for currency EUR, scenario set 1.</li> <li>• <a href="#">Tab 2. input example inflation</a> Tab with input data: an hypothetical example of zero coupon spot curve for real rates at year end 2022, the participants should here input the curve relevant for their inflation sensitive assets and liabilities.</li> <li>• <a href="#">Tab 3. calc real ZC bond price</a> Calculation of ZC bond prices column B: spot prices calculated from the zero-coupon spot curve for real rates on tab 2 with formula: <math>P_r(t=0, m) = \frac{1}{(1+real\ ZC\ rate_m)^m}</math> columns C to DR: forward prices calculated from the spot prices with formula: <math>P_f(t, m) =</math></li> </ul>

					<p><math>\frac{P_z(0,t+m)}{P_z(0,t)}</math></p> <ul style="list-style-type: none"> <li>• <b>Tab 4. scenario ZC nominal rate</b> Calculation of ZC rates from the ZC prices provided in the PHRSS scenarios (nominal rates) with formula: <math>ZC\ rate\ (t,m) = ZC\ price(t,m)^{\frac{1}{m}} - 1</math>.</li> <li>• <b>Tab 5. scenario real ZC bond price</b> No new calculation, only formatting of the real ZC bond prices already calculated on tab "3. calc real ZC bond price".</li> <li>• <b>Tab 6. scenario real ZC rate</b> Calculation of the real rates (spot and forward) from the ZC bond prices available on tab "5. scenario real ZC bond price" with formula: <math>real\ ZC\ rate\ (t,m) = P_r(t,m)^{\frac{1}{m}} - 1</math>.</li> <li>• <b>Tab 7. scenario inflation rate (BE)</b> Calculation of inflation break-evens from the nominal rates (available on tab "4. scenario ZC nominal rate") and the real rates (available on tab "6. scenario real ZC rate") with formula: <math>inflation\ breakeven\ (t,m) = ZC\ rate\ (t,m) - real\ ZC\ rate\ (t,m)</math>.</li> <li>• <b>Tab 8. scenario realized inflation</b> Calculation of a realized inflation index for each scenario with the formula: <math>Inflation\ Index(t) = \frac{P_z(0,t)}{Deflator(t)} \times Inflation\ Index(0)</math>.</li> </ul>