

### ***S.26.09 – Internal model: Market and Credit risk – for financial instruments***

#### ***General comments:***

This section relates to annual submission of information for individual entities.

This template shall be reported based on availability according to the internal model architecture and risk profile when possible with reasonable effort. The data to be reported shall be agreed between national supervisory authorities and insurance and reinsurance undertakings.

If not indicated differently, “Solvency II values” shall be used, i.e. applying the valuation principles set out in the Directive 2009/138/EC, Delegated Regulation (EU) 2015/35, Technical Standards issued under Directive 2009/138/EC and EIOPA Guidelines.

This template covers the market and credit risk arising from the level or volatility of market prices of financial instruments, which have an impact upon the value of assets and liabilities of the undertaking or the group. Credit risk covers the usual three facets ‘spread’, ‘migration’ and ‘default’.

The figures shall include the impact on assets and liabilities including any impacts on the options and guarantees and on future discretionary benefits for policyholders (‘loss absorbing capacity of technical provisions’).

The figures shall not include the loss absorbing capacity of deferred taxes.

The template consists of three main building blocks:

1. ‘General information’ on few key aspects of the modelling approach
2. ‘Stand-alone capital requirements for market and credit risk and supplementing distribution data’
3. ‘Sensitivities and exposure data’

#### **S.26.09.01.01: General information**

Regarding market and credit risk models three facts on the modelling approach and scope are requested here, as these are important for the analysis of data, namely: Whether the model includes a ‘dynamic volatility adjustment’ (DVA) and whether the model includes ‘ageing effects’ and if non-financial instruments are covered in credit risk. For further details see below.

#### **S.26.09.01.02: Stand-alone capital requirements for market and credit risk and supplementing distribution data**

Based on the requirements of Article 228 of the Delegated Regulation (EU) 2015/35, the probability distribution forecast underlying the internal model shall assign probabilities to changes in either the amount of basic own funds of the insurance or reinsurance undertaking or to other monetary amounts, such as profit and loss, provided that those monetary amounts can be used to determine the changes in basic own funds. The exhaustive set of mutually exclusive future events, referred to in Article 13(38) of Directive 2009/138/EC, shall contain a sufficient number of events to reflect the risk profile of the undertaking.

In template S.26.09.01.02, internal model users are requested to provide certain basic statistical values from the distribution of own funds impacts associated with the ‘probability distribution forecast’ when restricting the events to those associated with a certain type of risk only (‘stand-alone risk’ or ‘marginal risk’). For example, the ‘marginal risk’ for interest rates would

especially cover changes in the level of the interest rate, but inter alia the value of equity would typically not be changed in the simulations.

S.26.09.01.02 covers the typical sub-risks of market and credit risk and requires figures in two subsets:

- I. 'SCR' like figures under variation of the allowance for 'long-term guarantee measures' similar to the template S.22.01:

These figures should be associated with the 99.5% VaR under the risk measure used for the calculation of the Solvency Capital Requirement (SCR). Broadly speaking, you are expected to apply your modelled 'SCR definition' to the basic own funds without eligibility restrictions and without the loss absorbing capacity of deferred taxes. Hence requested figure might differ from the 0.5% sample quantile on the simulated impacts (with negative sign), owing to the statistical estimator for the 0.5 percentile (e.g. including any interpolation or smoothing scheme).

For the purpose of these reporting requirements this value is called the 'modelled VaR' (mVaR) for the 99.50% of basic own funds.

This 'mVaR 99.50%' is requested for the following variations of the 'long-term guarantee measures' (LTGM):

- mVaR 99.50% including all LTGM you regularly apply
- mVaR 99.50% without transitional on technical provisions
- mVaR 99.50% without transitional on interest rates
- mVaR 99.50% without volatility adjustment (VA) and without transitionals
- mVaR 99.50% without matching adjustment (MA) and without all the other LTGMs

- II. Basic statistical data form the 'marginal distribution'

From the distribution for the marginal risk under consideration provide the impacts associated with the following data. These values should be directly taken from the distribution, i.e. in case the mVaR would be different from the 99.50% quantile, please provide the figures without allowing for features from your statistical estimator:

- Mean
- Standard deviation
- Impacts corresponding to the mVaR for the identified quantiles

S.26.09.01.03: Sensitivities and exposure data

In template S.26.09.01.03, data is requested which should support the analysis of results and risk profile, namely 'sensitivities' of the own funds and 'exposure' information with respect to market and credit risk for financial instruments.

S.26.09.01.03 for each of the sub-risks covered by S.26.09.01.02 asks for exposure data in the base case and under certain stressed scenarios. Exposure data is the Solvency II value of the

following items but only for those entries under these items, which are subject to the respective risk:

- Assets
- Liabilities
- Assets minus Liabilities
- Assets excl. Unit-linked
- Liabilities excl. Unit-linked
- Assets excl. Unit-linked minus Liabilities excl. Unit-linked

CODE	ITEM	INSTRUCTIONS
<i>General information</i>		
C0010/R0010	Type of VA used	<p>Identifies whether the undertaking applies a Volatility Adjustment (VA) in the calculation of the SCR, and in case of 'yes', identifies whether changes of the VA over the 1-year-time-horizon of Solvency II are anticipated ('dynamic VA') or not ('constant VA'). One of the options in the following closed list shall be used:</p> <p>1 – No VA 2 – Constant VA 3 – Dynamic VA</p>
C0010/R0020	Type of shock model for market risk	<p>For market and credit risk, internal models regarding the 1-year-time-horizon of Solvency II roughly follow two approaches. Instantaneous shock models or a projection over 1 year, at the end of which e.g. a bond with two years maturity at the beginning of the projection would have a maturity of one year. The undertaking is asked to answer the question for 'market risk'.</p> <p>One of the options in the following closed list shall be used:</p> <p>1 – Instantaneous shock model 2 – Projection model</p>
C0010/R0030	Type of shock model for credit risk	<p>For market &amp; credit risk, internal models regarding the 1-year-time-horizon of Solvency II roughly follow two approaches. Instantaneous shock models or a projection over 1 year, at the end of which e.g. a bond with two years maturity at the beginning of the projection would have a maturity of one year. The answer should be given for 'credit risk'.</p>

		<p>One of the options in the following closed list shall be used:</p> <p>1 – Instantaneous shock model</p> <p>2 – Projection model</p>
C0010/R0040	Coverage of non-financial instruments	<p>Identifies whether credit risk for non-financial instruments is covered in the tables 2 and 3 and to which extent. One of the options in the following closed list shall be used:</p> <p>1 – No</p> <p>2 – Fully</p> <p>3 – Partial</p> <p>The choice relates mainly to the approach of modelling ‘credit event’ risk, i.e. ‘migration’ and ‘default’. Especially so called ‘credit portfolio models’ cover not only investments but for example also reinsurance, receivables and also off-balance sheet items.</p> <p>The corresponding information is relevant for the interpretation of credit risk related line R12 to R17 in table 2 (‘marginal risks’) and for table 3 (‘combined risks’).</p>
<i>STAND ALONE MARKET AND CREDIT RISK: “SCR” AND DISTRIBUTION DATA</i>		
C0020-C0060/R0040	Interest rate risk sum	Sum of the respective values of C0020-C0060/R0060 and C0020-C0060/R0070.
C0020-C0300/R0050	Interest rate risk sum of which: Interest rate risk diversified	<p>Within the market &amp; credit risk, the interest rate risk comprises the sensitivity of the values of assets, liabilities and financial instruments to changes in the term structure of interest rates, or in the volatility of interest rates. It does not comprise the sensitivity to any of the facets of credit risk.</p> <p>In this line, only diversification between changes in the term structure of interest rates and changes in the volatility of interest rates should be taken into account.</p>
C0020-C0300/R0060	Interest rate risk sum of which: Interest rate risk	This risk comprises the sensitivity of the values of assets, liabilities and financial instruments to changes in the term structure of interest rates, but neither changes in the volatility of interest rates nor any facets of credit risk.

C0020-C0300/R0070	Interest rate risk sum of which: Interest rate volatility risk	This risk comprises the sensitivity of the values of assets, liabilities and financial instruments to changes in the volatility of interest rates but no facets of credit risk.
C0020-C0300/R0080	Inflation risk	<p>Within the market and credit risk, this risk comprises the sensitivity of the values of assets, liabilities and financial instruments to changes in the inflation.</p> <p>As inflation in certain internal models is also allowed for e.g. in the underwriting risk, please ensure, that there is no double-counting.</p>
C0020-C0060/R0090	Equity risk sum	Sum of the respective values of C0020-C0060/R0110 and C0020-C0060/R0120.
C0020-C0300/R0100	Equity risk sum of which: Equity risk diversified	<p>Within the market and credit risk, the equity risk comprises the sensitivity of the values of assets, liabilities and financial instruments to changes in the level, or in the volatility of market prices of equities.</p> <p>In this line, diversification between changes in the level and changes in the volatility of market prices should be taken into account.</p>
C0020-C0300/R0110	Equity risk sum of which: Equity risk	Equity risk comprises the sensitivity of the values of assets, liabilities and financial instruments to changes in the level of market prices of equities.
C0020-C0300/R0120	Equity risk sum of which: Equity volatility risk	Equity volatility risk comprises the sensitivity of the values of assets, liabilities and financial instruments to changes in the volatility of market prices of equities.
C0020-C0300/R0130	Property risk	<p>Within the market &amp; credit risk, the property risk comprises the sensitivity of the values of assets, liabilities and financial instruments to changes in the level, or in the volatility of market prices of real estate.</p> <p>Differently from e.g. equity risk no split in ‘level’ and ‘volatility’ is requested.</p>
C0020-C0300/R0140	Currency risk	Within the market and credit risk, the currency risk comprises the sensitivity of the values of assets, liabilities and financial instruments to changes in the level, or in the volatility of currency exchange rates.

		Differently from e.g. equity risk no split in ‘level’ and ‘volatility’ is requested.
C0020- C0060/R0150	Credit risk sum	<p>Sum of the respective following values:</p> <ul style="list-style-type: none"> <li>- Credit Event Risk (‘migration and default’) (R0170)</li> <li>- Credit Spread risk ‘Government and central banks’ (R0190)</li> <li>- Credit Spread risk other (R0200)</li> </ul> <p>If the split in ‘Government and central banks’ (R0190) and ‘other’ (R0200) is not available in the model, please use ‘Credit Spread Risk’ (R0180) instead in the sum.</p>
C0020- C0300/R0160	Credit risk sum of which: Credit risk diversified	<p>Within the market and credit risk, the credit risk comprises the sensitivity of the values of assets, liabilities and financial instruments to changes in the value of assets due to changes in credit spreads or credit migration or by credit default.</p> <p>In this line, diversification between changes in credit spreads or credit migration or credit default should be taken into account.</p> <p>Credit risk shall be given according to the scope as defined in the internal model and could cover only financial instruments or could cover any assets and also off-balance sheet items.</p>
C0020- C0300/R0170	Credit risk sum of which: Credit event risk (‘migration and default’)	<p>Credit event risk comprises the sensitivity of the values of assets, liabilities and financial instruments to changes in the value of assets due to changes in credit migration or by credit default.</p> <p>Diversification between credit migration and credit default should be taken into account.</p> <p>Credit risk shall be given according to the scope as defined in the internal model and could cover only financial instruments or could cover any assets and also off-balance sheet items.</p>
C0020- C0300/R0180	Credit risk sum of which: Credit Spread risk	<p>Credit spread risk comprises the sensitivity of the values of assets, liabilities and financial instruments to changes in the value of financial instruments due to changes in spreads over the risk-free term structure which are not owed to migration or (partial) default.</p>

C0020- C0300/R0190	Credit Spread risk – Spread risk 'Government and central banks'	<p>Credit spread risk 'Government and central banks' comprises the sensitivity of the values of assets, liabilities and financial instruments to changes in the value of financial instruments issued by governments and central banks due to changes in spreads over the risk-free term structure which are not owed to migration or (partial) default.</p> <p>The following list enumerates the CIC codes of the asset classes that are considered to government or central banks: 13, 14, 15, 16, 17, 19. The CIC codes 13 and 14 were used to identify bonds issued by Regional government and local authorities (RGLA). RGLA should be allocated to government portfolio if they are listed in the Commission Implementing Regulation (EU) 2015/2011 and otherwise to non-financial corporate portfolio according to their credit quality step.</p>
C0020- C0300/R0200	Credit Spread risk other	Credit spread risk 'other' comprises the sensitivity of the values of assets, liabilities and financial instruments to changes in the value of financial instruments not issued by governments and central banks due to changes in spreads over the risk-free term structure which are not owed to migration or (partial) default.
<i>STAND ALONE MARKET AND CREDIT RISK : Combined market and credit risk</i>		
C0020- C0060/R0020	Market and credit risk diversified	<p>In this line, please provide data for the combined market and credit risk, i.e. the risk arising from the level or volatility of market prices of assets, which have an impact upon the value of assets and liabilities of the undertaking or the group. Credit risk covers the usual three facets 'spread', 'migration' and 'default'.</p> <p>Credit risk shall be given according to the scope as defined in the internal model and could cover only financial instruments or could cover any assets and also off-balance sheet items.</p>
C0020- C0060/R0010	Market and credit risk sum (level 2 components)	<p>Sum of the respective following values:</p> <ul style="list-style-type: none"> <li>- Interest rate risk diversified (R0050)</li> <li>- Inflation risk (R0080)</li> <li>- Equity risk diversified (R0100)</li> <li>- Property risk (R0130)</li> <li>- Currency risk (R0140)</li> <li>- Credit risk sum (R0150)</li> </ul>
C0020- C0060/R0030	Market and credit risk diversification	Amount corresponding to the difference between C0020-C0060/R0020 and C0020-C0060/R0010.

		This amount should be reported as a negative value.
<i>STAND ALONE MARKET AND CREDIT RISK: Sensitivities &amp; exposure data</i>		
C0310-C0360/R0210	Exposure sensitive to interest rates - base case / no shock	Solvency II value in the Solvency II balance sheet at the key date of the exposure as specified above and subject to interest rate risk.
C0310-C0360/R0220	Interest Rates (parallel shift all maturities) by - 100bps	Solvency II value of the exposure subject to interest rate risk as specified above but under the scenario of a parallel -100 bps shift on interest rates for all maturities. This shift impacts all maturities not only those before the 'last liquid point' (LLP).
C0310-C0360/R0230	Interest Rates (parallel shift all maturities) by +100bps	Solvency II value of the exposure subject to interest rate risk as specified above but under the scenario of a parallel +100 bps shift on interest rates for all maturities. Please note that this shift impacts all maturities not only those before the 'last liquid point' (LLP).
C0310-C0360/R0240	Interest Rates (parallel shift all maturities) by - 50bps	Solvency II value of the exposure subject to interest rate risk as specified above but under the scenario of a parallel -50 bps shift on interest rates for all maturities. Please note that this shift impacts all maturities not only those before the 'last liquid point' (LLP).
C0310-C0360/R0250	Interest Rates (parallel shift all maturities) by +50bps	Solvency II value of the exposure subject to interest rate risk as specified above but under the scenario of a parallel +50 bps shift on interest rates for all maturities. Please note that this shift impacts all maturities not only those before the 'last liquid point' (LLP).
C0310-C0360/R0260	Exposure sensitive to inflation rates - base case / no shock	Solvency II value in the Solvency II balance sheet at the key date of the exposure as specified above and subject to inflation risk.
C0310-C0360/R0270	Inflation rates - 100bps	Solvency II value of the exposure subject to inflation risk as specified above but under the scenario of a decrease of -100 bps on inflation rates.  This sensitivity should be applied in line with the internal models definition and allocation of inflation risk.



C0310-C0360/R0280	Inflation rates +100bps	Solvency II value of the exposure subject to inflation risk as specified above but under the scenario of an increase of +100 bps on inflation rates.  This sensitivity should be applied in line with the internal models definition and allocation of inflation risk.
C0310-C0360/R0290	Exposure sensitive to credit spreads - base case / no shock	Solvency II value in the Solvency II balance sheet at the key date of the exposure as specified above and subject to credit spread risk.
C0310-C0360/R0300	Spread (uniform shift all maturities and assets) -100 bps	Solvency II value of the exposure subject to credit spread risk as specified above but under the scenario of uniform shift in credit spreads for all maturities and assets by -100 bps.
C0310-C0360/R0310	Spread (uniform shift all maturities and assets) +100 bps	Solvency II value of the exposure subject to credit spread risk as specified above but under the scenario of uniform shift in credit spreads for all maturities and assets by +100 bps.
C0310-C0360/R0320	Exposure sensitive to equity level risk - base case / no shock	Solvency II value in the Solvency II balance sheet at the key date of the exposure as specified above and subject to equity level risk.
C0310-C0360/R0330	Equity (uniform shift in values) -30%	Solvency II value of the exposure subject to equity level risk as specified above but under the scenario of uniform decrease in values by -30%.
C0310-C0360/R0340	Equity (uniform shift in values) +30%	Solvency II value of the exposure subject to equity level risk as specified above but under the scenario of uniform increase in values by +30%.
C0310-C0360/R0350	Exposure sensitive to Property risk - base case / no shock	Solvency II value in the Solvency II balance sheet at the key date of the exposure as specified above and subject to property risk.
C0310-C0360/R0360	Property (uniform shift in values) -30%	Solvency II value of the exposure subject to property risk as specified above but under the scenario of uniform decrease in values by -30%.
C0310-C0360/R0370	Property (uniform shift in values) +30%	Solvency II value of the exposure subject to property risk as specified above but under the scenario of uniform increase in values by +30%.

C0310-C0360/R0380	Exposure sensitive to Currency risk - base case / no shock	Solvency II value in the Solvency II balance sheet at the key date of the exposure as specified above and subject to currency risk.
C0310-C0360/R0390	Currency (uniform shift in exchange rates) -10%	Solvency II value of the exposure subject to currency risk as specified above but under the scenario of uniform decrease in exchange rates by -10%.
C0310-C0360/R0400	Currency (uniform shift in exchange rates) +10%	Solvency II value of the exposure subject to currency risk as specified above but under the scenario of uniform increase in exchange rates by +10%.
C0310-C0360/R0410	Exposure sensitive to interest rate volatility - base case / no shock	Solvency II value in the Solvency II balance sheet at the key date of the exposure as specified above and subject to interest rate volatility risk.
C0310-C0360/R0420	Interest rate volatility down - 25%	<p>Solvency II value of the exposure subject to interest rate risk as specified above but under the scenario of a decrease of interest rate volatility by -25%.</p> <p>This shift is a parallel shift of the whole volatility surface for log-normal and normal vols.</p> <p>Only one of the rows R0420 or R0430 may be reported.</p>
C0310-C0360/R0430	Interest rate volatility down - 20bp for normal vols	<p>Solvency II value of the exposure subject to interest rate risk as specified above but under the scenario of a decrease of interest rate volatility by -20 bp for normal vols.</p> <p>This shift is a parallel shift of the whole volatility surface for log-normal and normal vols.</p> <p>Only one of the rows R0420 or R0430 may be reported.</p>
C0310-C0360/R0440	Interest rate volatility up +25%	<p>Solvency II value of the exposure subject to interest rate risk as specified above but under the scenario of an increase of interest rate volatility by +25%.</p> <p>This shift is a parallel shift of the whole volatility surface for log-normal and normal vols.</p> <p>Only one of the rows R0440 or R0450 may be reported.</p>

C0310- C0360/R0450	Interest rate volatility up +20bp for normal vols	<p>Solvency II value of the exposure subject to interest rate risk as specified above but under the scenario of an increase of interest rate volatility by +20 bp for normal vols.</p> <p>This shift is a parallel shift of the whole volatility surface for log-normal and normal vols.</p> <p>Only one of the rows R0440 or R0450 may be reported.</p>
C0310- C0360/R0460	Exposure sensitive to equity volatility - base case / no shock	Solvency II value in the Solvency II balance sheet at the key date of the exposure as specified above and subject to equity volatility risk.
C0310- C0360/R0470	Equity volatility down -25%	Solvency II value of the exposure subject to interest rate risk as specified above but under the scenario of a decrease of equity volatility by -25%.
C0310- C0360/R0480	Equity volatility up +25%	Solvency II value of the exposure subject to interest rate risk as specified above but under the scenario of an increase of equity volatility by +25%.



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