

Internal model outputs (Non-life) – Log (for templates IM.03.01, IM.03.11 and MO.03.01, MO.03.11)

Firms are expected to submit all of the templates 'IM.03.01' to 'IM.03.11' and 'MO.03.01' to 'MO.03.11' where relevant. If a firm does not submit a template, it is expected to provide an explanation in 'Reason(s) if template not completed' in C0020 in 'IM.03.01.02'. For example, the reasons might be 'not completed as agreed with supervisor' or 'SCR for risk category calculated by standard formula'.

The internal model outputs firms are expected to provide in the templates 'IM.03.01' to 'IM.03.11' relate to the calculation of the SCR, i.e. to change in basic own funds over one-year time horizon. In particular, outputs in the non-life underwriting risk templates (reserve risk, premium risk, and catastrophe claim risk) should show modelled outputs of the future cash-flows (from the reporting reference date) estimated at one-year following the reporting reference date.

Please note that if a firm has stated in the template 'IM.03.01.01' that the submission covers supervisory statement SS25/15 only, then the rest of the templates beginning with 'MO' are not relevant. Likewise if the submission covers supervisory statement SS26/15 only, then the rest of the templates beginning with 'IM' are not relevant with the exception of 'IM.03.01.02', 'IM.03.01.03', 'IM.03.04.01', 'IM.03.07.01', 'IM.03.10.01' and 'IM.03.11.01'.

Template ID	Template Name	Template Description
IM.030.01.01	Basic Information	This template applies to both one-year time horizon internal model outputs under supervisory statement SS25/15 and ultimate time horizon internal model outputs under SS26/15. It requests information such as the firm's name, reporting reference date, reporting submission date, whether information submitted is for SS25/15 only, SS26/15 only, or both etc.
IM.030.01.02	Content of the submission	This template applies to both one-year time horizon internal model outputs under supervisory statement SS25/15 and ultimate time horizon internal model outputs under SS26/15. It requests identifying which templates have been submitted and the reasons for which each template is not submitted where relevant.
IM.030.01.03	RFF and matching adjustment portfolios	Reporting all ring fenced funds and matching adjustment portfolios, equivalent to S.01.03.01 from the EIOPA QRTs,

Basic Information (IM.030.01.01)

Content of the submission (IM.030.01.02)

ITEM		INSTRUCTIONS
R0010 to R00280 / C0010	Template submitted Y/N	Select either Y (yes) "Reported" or N (no) "Not reported" if the respective template is submitted.

Lines of Business for Reserve and Premium Risk Templates (IM.03.02 to IM.03.03 & MO.03.02 to MO.03.03)

Firm's own lines of business (column C201)

Firms are expected to provide reserve and premium risk model outputs at the level of the lines of business used in their model. Up to 100 lines of business can be reported.

Reserve Risk Templates, 1 Year Risk (IM.03.02.01, IM.03.02.02)

ITEM		INSTRUCTIONS
General comments		<p>If the selection in the template 'IM.030.01.01' for Z0320 = 'Premium Risk', then the information entered in the reserve risk templates relate to claim events that have occurred at the reporting reference date.</p> <p>If the selection in the template 'IM.030.01.01' for Z0320 = 'Reserve risk', then the information entered in the reserve risk templates related to claim events that have occurred at the reporting reference date and future claim events relating to business written or recognised at the reporting reference date.</p> <p>For IM.03.02.01 and MO.03.02.01 enter into Z0020 the own line of business name.</p>
Z0020/ C201	Line of Business (firm's own)	<p>List the lines of business used by the firm in the internal model as per instructions 'Firm's own line of business' in previous pages.</p> <p><u>Drop down to select the line of business from Own LoB 1 to Own LoB 100. The description for these lines are to be given in 'IM.03.10.01'</u></p>
RES204 / C101, C201, C401 to C420;	Best estimate premium provision discounted - gross	<p>This row is only to be reported if the selection in the template 'Basic Information-IM.00.01.01' for Z0320 = 'Reserve risk'.</p> <p>The gross best estimate premium provision (ie before allowing for recoverables from reinsurance, SPVs and finite reinsurance) is to be reported for all lines of business in aggregate and for each individual lines of business. The aggregate should be sum of the individual lines of business.</p>
RES205 / C201, C401 to C416;	Best estimate premium provision - undiscounted - gross	<p>This row is only to be reported if the selection in the template 'Basic Information-IM.00.01.01' for Z0320 = 'Reserve risk'.</p> <p>The undiscounted sum of future cash-flows that comprise the premium provision gross of outwards reinsurance (ie before allowing for recoverables from reinsurance, SPVs and finite reinsurance) is to be reported for each individual lines of business apart from lines of business containing PPO claims. This row does not apply to all lines of business in aggregate.</p>

Premium Risk Templates, 1 Year Risk (IM.03.03.01, IM.03.03.02)

ITEM		INSTRUCTIONS
General comments		<p>If the selection in the template 'Basic Information-IM.00.01.01' for Z0320 = 'Premium Risk', then the information entered in the premium risk templates relate to future claim events relating to business written or recognised at the reporting reference date plus future claim events relating to business planned to be written or recognised in the 12 months following the reporting reference date.</p> <p>If the selection in the template 'Basic Information-IM.00.01.01' for Z0320 = 'Reserve risk', then the information entered in the premium risk templates related to future claim events relating to business planned to be written or recognised in the 12 months following the reporting reference date.</p>
Z0020/ C201	Line of Business (firm's own)	<p>List the lines of business used by the firm in the internal model as per instructions 'Firm's own line of business' in previous pages.</p> <p><u>Drop down to select the line of business from Own LoB 1 to Own LoB 100. The description for these lines are to be given in 'IM.03.10.01'</u></p>
PRE601		<p>If the selection in the template 'Basic Information-IM.00.01.01' for Z0320 = 'Reserve Risk',</p> <p>Firms are expected to provide a brief explanation of how future catastrophe claim events in the premium provision have been allowed for in the outputs reported on the templates 'IM.03.02.01, IM.03.02.02, MO.03.02.01, MO.03.02.02 Reserve Risk'.</p>

Historical Loss Ratios Template (IM.03.04.01)

ITEM		INSTRUCTIONS
General comments		<p>Firms are expected to report the historical premiums and loss ratios on a consistent basis as how the premium risk is modelled.</p> <p>If the selection in the template 'Basic Information-IM.00.01.01' for Z0320 = 'Premium Risk', this means the premium provision is modelled in premium risk and often implies the internal model operates on an accident year, and therefore the historical loss ratios should be reported on an accident year basis.</p> <p>If the selection in the template 'Basic Information-IM.00.01.01' for Z0320 = 'Reserve Risk', this means the premium provision is modelled in reserve risk and often implies the internal model operates on an underwriting year basis, and therefore the historical loss ratios should be reported on an underwriting year basis.</p>
HLR401 to HLR420; HLR701 to HLR720	Historical claims ratios	<p>For the year up to and including the reporting reference date ("<u>N</u>") and for each of the preceding <u>19</u> years provide the following for all lines of business in aggregate and for each of the firm's own line of business used in the premium risk part of its models:</p> <ul style="list-style-type: none"> gross ultimate undiscounted claims ratios as estimated at the reporting reference date (rows HLR401 to HLR420), and net of reinsurance ultimate undiscounted claims ratios as estimated at the reporting reference date (rows HLR701 to HLR720). <p>The basis used for reporting the historical loss ratio should be consistent with how the premium risk is modelled.</p> <p>If the selection in the template 'Basic Information-IM.00.01.01' for Z0320 = 'Premium Risk', this means the premium provision is modelled in premium risk and often implies the internal model operates on an accident year, and therefore the historical loss ratios should be reported on an accident year basis.</p> <ul style="list-style-type: none"> The numerator of the claims ratio for a year is the estimate (at the reference date) of the ultimate benefit payments and claims (including IBNR claims) relating to claim events that occurred in the year. The denominator of the claims ratio for a year is the earned premium for the year as reported in row HLR301 to HLR320 (if gross) or in row HLR601 to HLR620 (if net) for the year. <p>If the selection in the template 'Basic Information-IM.00.01.01' for Z0320 = 'Reserve Risk', this means the premium provision is modelled in reserve risk and often implies the internal model operates on an underwriting year basis, and therefore the historical loss ratios should be reported on an underwriting year basis.</p> <ul style="list-style-type: none"> The numerator of the claims ratio for a year is the estimate (at the reporting reference date) of the ultimate benefit payments and claims (including IBNR claims) relating to business written in the year. The denominator of the claims ratio for a year is the written premium for the year as reported in row HLR201 to HLR220 (if gross) or in row HLR501 to HLR520 (if net) for the year.

Catastrophe Risk Template, 1 yr (IM.03.05.01)

ITEM		INSTRUCTIONS
C601 to C615	Split of business between geographic territories	<p>The total gross <u>written</u> premium income and total insured value split by territory. It is acknowledged that not all of these exposure measures relate specifically to cat exposed business.</p> <p>Where there is exposure to more than one peril in any such region, gross premium income should be the total for all perils, and total insured value should be for the peril with the largest exposure figure.</p> <p>Premiums and sums insured are split between a list of broad-based regions in</p>

ITEM		INSTRUCTIONS
		<p>which the risk lies, including 4 US regions which are used by EIOPA. The regions used are: UK, Europe ex UK, North East US, South East US, Mid-West US, <u>Western US</u>, Caribbean, South America, Australia, Rest of World, and a catch-all “unallocated” category for premiums and insured values which cannot be allocated to any of the other regions.</p> <p>Because reinsurance contracts may cover a number of regions, the split of premiums and total insured value for inward reinsurance business is broader still, with allocation between five regions: UK, Europe ex UK, North America, Rest of World, and a catch-all “unallocated”.</p> <p>Total gross <u>written</u> premium (ie the sum of items in C601 to C615) should be consistent with the totals shown on the template ‘IM.03.03.01 Premium Risk’.</p>
C701 to C703	Split of business between direct insurance, reinsurance and retrocession	Approximate split of gross <u>written</u> premium income between these three types of business. Proportions can be rounded to nearest 1% or nearest 10%.

Insurance Risk Output Correlations Template (IM.03.06.01)

ITEM	INSTRUCTIONS
General comments	<p>In this template firms are expected to report the model output correlations between its own lines of business:</p> <ul style="list-style-type: none"> • Gross of reinsurance, undiscounted, linear correlations (rows R100 to R299); • Gross of reinsurance, undiscounted, rank correlations (rows R300 to R499); • Net of reinsurance, discounted, linear correlations (rows R500 to R699); <p>It allows output correlations between:</p> <ul style="list-style-type: none"> • Up to 100 reserve risk LoBs (ie between reserve_risk_LoB_i and reserve_risk_LoB_j, where $i=2$ to 100, $j=1$ to $i-1$); • Up to 100 reserve risk LoBs and up to 100 premium risk LoBs (ie between premium_risk_LoB_i and reserve_risk_LoB_j, where $i,j=1$ to 100); • Up to 100 premium risk LoBs (ie between premium_risk_LoB_i and premium_risk_LoB_j, where $i=2$ to 100, $j=1$ to $i-1$). <p>The lines of business are those used in a firm's internal model and will be looked up from refer to those used in the premium and reserving risk 'Own Lines' sheets. Therefore when completing these 'Own Lines' sheets do not leave any spaces between columns.</p>

Insurance Risk
Market Risk Template (IM.03.07.01)

ITEM		INSTRUCTIONS
MKT002 to MKT004 Z0010	Market risk – major currencies	<p>The ISO4217 code for the firm’s largest, second largest and third largest non-GBP currencies respectively measured by Solvency II value in the reporting currency of financial investments held at the reporting reference date-, <u>with the materiality reported in Z0020.</u></p> <p>For the purpose of deriving the three largest non-GBP currencies, financial investments comprises of only investments reported on Solvency II reporting template S.02.01.01 at items ‘Investments (other than assets held for index-linked and unit-linked contracts)’ and ‘Cash and cash equivalents’ ie {S.02.01.01, R0070 and R0420}.</p>
Z0020	<u>Market risk - Materiality</u>	<p><u>The materiality of the currency stated in Z0010 for the firm’s largest, second largest and third largest non-GBP currencies respectively measured by Solvency II value in the reporting currency of financial investments held at the reporting reference date.</u></p>
Rows MKT101 to MKT110	<u>Model outputs</u>	<p>In rows MKT101 to MKT110 respectively firms should provide the expected model outputs for each of the following categories of market risk:</p> <ol style="list-style-type: none"> 1) Market risk overall (row MKT101), 2) Interest rate risk (row MKT102), 3) Inflation risk (row MKT103), 4) Credit Spread risk (row MKT104), 5) Investment Credit default / transition risk (row MKT105), 6) Equity risk (row MKT106), 7) Property risk (row MKT107), 8) Currency risk (row MKT108), 9) Other market risks (row MKT109), and 10) Derivatives risk (row MKT110). <p>The following is expected:</p> <ul style="list-style-type: none"> • The output distribution reported for each of the above market risk categories (1) to (9) should be the reduction in basic own funds over a one-year time horizon from only the factors that constitute that market risk category in the firm’s model. (For derivatives risk, see instructions for MKT110 below.) • A reduction in basic own funds is to be shown as a positive number and an increase in basic own funds is to be shown as a negative number. (This might not apply to derivatives risk, see instructions for MKT110 below.) • The 99.5th percentile of the distribution should be a reduction in basic own funds that has an estimated likelihood of being exceeded of ½%. (This might not apply to derivatives risk, see instructions for MKT110 below.) • A negative mean (column C201) would mean that the expected reduction in basic own funds from only the factors that constitute that market risk category in the firm’s model is a negative reduction (ie an increase in basic own funds). (This might not apply to derivatives risk, see instructions for MKT110 below.) <p>The model outputs to be reported in columns C201 to C203 and C205 to C221 respectively are: mean; standard deviation; and the following percentiles – maximum simulated value, 99.9%, 99.5%, 99%, 97.5%, 95%, 90%, 75%, 50%, 25%, 10%, 5%, 2.5%, 1%, 0.5%, 0.1%, minimum simulated value. Each of these outputs are to be monetary amounts.</p> <p>The information to be reported in column C301 is to include, but is not limited to,:</p> <ul style="list-style-type: none"> • explanations for why an instruction is not followed. (For example if an

ITEM		INSTRUCTIONS
		<p>instruction asks for outputs before any allowance for derivatives or hedging instruments but the model does not produce this, then provide an explanation in column C301).</p> <ul style="list-style-type: none"> • explanations of whether the model produces outputs that combine two or more of the sub-modules listed above. <p>explanations for why any of columns C201 to C221 are left blank for one (or more) of the rows. (Eg if all the firm's assets and liabilities were entirely in GBP, currency risk would not be applicable to the firm, and for row MKT108 columns C201 to C221 would be left blank and an explanation would be provided in C301.)</p>
<p>MKT301 to MKT306 MKT401 to MKT408; MKT421 to MKT426; MKT441 to MKT446; MKT461 to MKT466 MKT501 to MKT505; MKT601 to MKT626; MKT651 to MKT675; MKT701 to MKT725; MKT751 to MKT775; MKT791 to MKT796; MKT801 to MKT805; MKT901 to MKT906; MKT921 to MKT926; MKT941 to MKT946; MKT961 to MKT966</p>	<p>Outputs for specific risks</p>	<p>For the output distributions referred to in each of these rows firms are expected to provide, in columns C101, C102 (if applicable), C201 (if applicable), and C205 to C221, the following items:</p> <ul style="list-style-type: none"> • The value at the reference date that is the base for the output distribution in question [<i>at column C101</i>]. Eg If the output distribution in question is: <ul style="list-style-type: none"> ➤ Increase in equity volatility 10 year at the money (ATM) put option, then in column C101 enter the equity volatility 10 year ATM put option at the reference date. ➤ Increase in risk-free zero coupon bond spot yield of term N, then in column C101 enter the risk-free zero coupon bond spot yield of term N at the reference date. ➤ Increase in implied inflation spot yield of term N, then in column C101 enter the implied inflation spot yield of term N at the reference date. ➤ Increase in [AAA, AA, A, BBB or B] rated ZCB spot rate spread (over RF) of term N, then in column C101 enter the [AAA, AA, A, BBB or B] rated ZCB spot rate spread (over RF) of term N at the reference date. ➤ Increase in spread of swaps over gilts spot rate of term N, then in column C101 enter spread of swaps over gilts spot rate N at the reference date. ➤ Relative increase in exchange rate to GBP, then in column C101 enter the exchange rate to GBP at the reference date. • Mean, standard deviation and of the output distribution [<i>columns C201, C202, C203 respectively</i>]. • Maximum and minimum values in the output distribution [<i>columns C205 and C221 respectively</i>]. • The following percentiles of the output distribution: 99.9%, 99.5%, 99%, 97.5%, 95%, 90%, 75%, 50%, 25%, 10%, 5%, 2.5%, 1%, 0.5%, 0.1% [<i>columns C206 to C220 respectively</i>]. • The mean, standard deviation, maximum, minimum and above percentiles of the output distribution are all to be in the same format. Eg if the output distribution is the increase in a risk free rate expressed as a percentage point increase, the mean the maximum and the 95th percentile etc are all to be expressed in the format of a percentage point increase. <p>Where an increase is to be reported it is to be expressed as an absolute quantum of the increase from the base value reported at column C101 (unless otherwise stated). For example if the risk-free zero coupon bond spot yield of term T at the reference date is 4.00% and the output distribution of the risk-free zero coupon bond spot yield of term T at time t=1 [or at the reference date immediately after an instantaneous change] has a:</p> <ul style="list-style-type: none"> • mean of 3.80%, • 90th percentile of 5.00%, • 2.5th percentile of 2.30% <p>then the base value reported at column C101 is 4.00% and</p> <ul style="list-style-type: none"> • the mean increase reported at column C201 is minus 0.20% (-0.20%), • the 90th percentile increase reported at column C208 is +1.00%, • the 2.5th percentile increase reported at column C217 is minus 1.70% (-1.70%).

ITEM		INSTRUCTIONS
		If an item referred to in one of these rows is not modelled, columns C101, C102, C201 to C221 should left blank and an explanation that the item is not modelled provided in column C301.
MKT421 to MKT426		As per MKT401 to MKT406 but: <ul style="list-style-type: none"> • MKT421 to MKT426 relate to the currency entered at item <u>MKT002Z0010</u> for each of the three most material non-GVP currencies. • If no currency entered at item MKT002 these rows are not expected to be completed. • MKT426 is only expected to be completed if: <ul style="list-style-type: none"> ➤ the firm has obligations to pay claims settled by PPOs in the currency entered at item <u>MKT002Z0010</u>, or ➤ the firm's SCR includes an amount for risk relating to pension scheme obligations denominated in the currency entered at item <u>MKT002Z0010</u>.
MKT441 to MKT446		As per MKT401 to MKT406 but: <ul style="list-style-type: none"> • MKT421 to MKT426 relate to the currency entered at item MKT003. • If no currency entered at item MKT003 these rows are not expected to be completed. • MKT426 are not expected to be completed if: <ul style="list-style-type: none"> ➤ the firm has obligations to pay claims settled by PPOs in the currency entered at item MKT003, or ➤ the firm's SCR includes an amount for risk relating to pension scheme obligations denominated in the currency entered at item MKT003.
MKT461 to MKT466		As per MKT401 to MKT406 but: <ul style="list-style-type: none"> • MKT461 to MKT466 relate to the currency entered at item MKT004. • If no currency entered at item MKT004 these rows are not expected to be completed. • MKT426 is only expected to be completed if: <ul style="list-style-type: none"> ➤ the firm has obligations to pay claims settled by PPOs in the currency entered at item MKT004, or ➤ the firm's SCR includes an amount for risk relating to pension scheme obligations denominated in the currency entered at item MKT004.
MKT651 to MKT675		As per MKT601 to MKT625 but for the currency <u>three most material currencies</u> entered at <u>MKT002Z0010</u> .
MKT701 to MKT725		As per MKT601 to MKT625 but for the currency entered at MKT003.
MKT751 to MKT775		As per MKT601 to MKT625 but for the currency entered at MKT004.
MKT801 to MKT803	<u>exchange rate</u> <u>Material currency:</u> <u>Exchange rate to</u> <u>GBP</u>	At column C101 report the relevant currency exchange rate at the reference date for the conversion of GBP to the relevant currency. For example if the USD to GBP exchange rate is £1= \$1.5608 enter 1.5608 (and do not enter 0.6407); if the EUR to GBP exchange rate is £1=€1.2841 enter 1.2841 (and do not enter 0.7788). For the increase in exchange rate at columns C201 and C205 to C221 enter the relative increase from the exchange rate at the reference date to that at time t=1 [or at the reference date immediately after an instantaneous change] (expressed as a percentage). Eg at reference date £1=€1.14, 90 th percentile exchange rate at time t=1 is £1=€1.54. Then value (reported at column C101) is 1.14, 90 th percentile increase in f/x rate (reported at column C211) is +35% $(= (1.54 - 1.14) / 1.14)$.
MKT801		Relative increase in the exchange rate of the currency reported at MKT002 to GBP over one year from that at the reference date. If 'n/a' is reported at MKT002 then row MKT801 is to be left blank.

ITEM		INSTRUCTIONS
MKT802		Relative increase in the exchange rate of the currency reported at MKT003 to GBP over one year from that at the reference date. If 'n/a' is reported at MKT003 then row MKT802 is to be left blank.
MKT803		Relative increase in the exchange rate of the currency reported at MKT004 to GBP over one year from that at the reference date. If 'n/a' is reported at MKT004 then row MKT803 is to be left blank.
MKT921 to MKT928	Inflation spot yields for three most material non GBP currency	As per MKT901 to MKT908 but for the currency three most material non-GBP currencies entered at MKT002 (and not for GBP)Z0010. If no currency is entered at MKT002Z0010, these rows can be left blank. Row MKT926 is only expected to be completed if: <ul style="list-style-type: none"> the firm has obligations to pay claims settled by PPOs in the currency entered at item MKT002Z0010, or the firm's SCR includes an amount for risk relating to pension scheme obligations denominated in the currency entered at item MKT002Z0010.
MKT941 to MKT948	Inflation spot yields for second most material non GBP currency	As per MKT901 to MKT908 but for the currency entered at MKT003 (and not for GBP). If no currency is entered at MKT003, these rows can be left blank. Row MKT946 is only expected to be completed if: <ul style="list-style-type: none"> the firm has obligations to pay claims settled by PPOs in the currency entered at item MKT003, or the firm's SCR includes an amount for risk relating to pension scheme obligations denominated in the currency entered at item MKT003.
MKT961 to MKT968	Inflation spot yields for third most material non GBP currency	As per MKT901 to MKT908 but for the currency entered at MKT004 (and not for GBP). If no currency is entered at MKT004, these rows can be left blank. Row MKT966 is only expected to be completed if: <ul style="list-style-type: none"> the firm has obligations to pay claims settled by PPOs in the currency entered at item MKT004, or the firm's SCR includes an amount for risk relating to pension scheme obligations denominated in the currency entered at item MKT004.

Undertaking LoB Description Template (IM.03.10.01)

ITEM		INSTRUCTIONS
<u>R0001 to R0100 / C0010, R0100 to R0200 / C0010</u>	<u>Name of LoB</u>	The name of each firm's own line of business as included in templates 'IM.03.02.01 Reserve Risk' and 'IM.03.03.01 Premium Risk'.
<u>R0001 to R0100 / C0010, R0100 to R0200 / C0010</u>	<u>Description of LoB</u>	<p>A description of each firm's own line of business as defined <u>included</u> in templates 'IM.03.02.01 Reserve Risk' and 'IM.03.03.01 Premium Risk'.</p> <p>For example, retail or commercial; UK or other; includes or exclude claims settled by PPOs; include or exclude claims to be settled by PPOs.</p> <p>If a firm's own line of business includes claims to be settled by PPOs, please indicate which of the following are included: (i) reported but not settled PPO claims, (ii) incurred but not reported PPO claims, (iii) future claim events to be settled by PPO relating to business written prior to the reporting reference date.</p>