



**eiopa**  
EUROPEAN INSURANCE  
AND OCCUPATIONAL PENSIONS AUTHORITY

# Public Event

# Variation Analysis templates

Frankfurt, 11 October 2017

---

## **Main areas identified for discussion:**

- Surplus Fund
- Investment income and expenses
- Interpretation of S.29.03.R0070-R0090
- Technical flows and link to S.29.04
- Unit-linked example
- Signals to be reported

## **Main areas identified for discussion:**

- Surplus Fund
- Investment income and expenses
- Interpretation of S.29.03.R0070-R0090
- Technical flows and link to S.29.04
- Unit-linked example
- Signals to be reported

## Surplus Fund - **Comments received:**

- FAQ on S.29.01 - Excess of Assets over Liabilities

Insurance Europe has interpreted this to mean the variation element of surplus funds to be included in R0210/C0030 should equal R0050/C0030. Given the movement on surplus funds is captured across several S.29.01 attributes, is it correct to assume that to avoid a double count and for the templates to reconcile, the total value included in R00210/C0030 (in relation to surplus funds) should be deducted from R0190/C0030?

If the total surplus fund variation is to be deducted from R0190/C0030, then R0190/C0030 in S.29.01. is not valid, unless the same adjustment is replicated in R0060/C0010 in S.29.02. If we were to replicate the adjustment, which attribute should it reflect?

## Surplus Fund – **Under analysis:**

- In SII part of the Surplus Fund is considered as BOF;
- Different types of Surplus Funds
  - Case 1: Could be linked to CF projections (calculated as TP)
  - Case 2: Could be linked to CF realised (reflecting variation of Assets/Liabilities)
- Case 1: no duplication between S.29.01.R0190 and R0210

## Surplus Fund – **Under analysis:**

- Case 2:
  - o This means that it should be treated as Own Shares, as both are items which variation is linked to variation of BS other items
  - o In fact, Surplus Fund needs to be considered in S.29.01.R0210 and excluded from R0190/R0200 considering the contribution of this cells to the variation of the Surplus Fund
  - o In S.29.02 the amount feeding the Surplus Fund relative to Investments also needs to be excluded. The proposal is that it is excluded in R0020 (as analogy with own shares) and template will need to be revised in future

## **Main areas identified for discussion:**

- Surplus Fund
- Investment income and expenses
- Interpretation of S.29.03.R0070-R0090
- Technical flows and link to S.29.04
- Unit-linked example
- Signals to be reported

## **Investment income and expenses - Comments received:**

- Can EIOPA confirm that S.29.02 c0010 r0020 should equal sum (S.09.01.01 c0100 - S.09.01.01 c0110) for all rows (excluding assets held for UL/IL, property held for own use and own shares held)
- The cells “Dividends” and “Interests” refer to earned data but earned data is not consistent with the economic perspective and the cash flow approach followed in the template. Insurers will look into their financial statements to obtain the information required leading to a mix of measurement basis in the template

## **Investment income and expenses - Comments received:**

- The description of the field S.29.03.C0100/R0330 is 'Expenses (excluding Investment expenses)' and according to the instructions it is equal to the sum of fields S.29.04.C0010-20/R0030 and their description is Expenses (related to insurance and reinsurance obligations). According to the Article 31 of the Delegated Regulation, expenses related to insurance and reinsurance obligations should include investment management expenses. How then it can be equal to the „expenses excluding investment expenses“?

## **Investment income and expenses – Under analysis:**

- Is the link to S.09.01 correct?
- Investment management expenses (as other expenses) are included in the BE and should be captured in S.29.03 (first table).
- However, the realised cash-flows should not be compensate through the table on technical flows from S.29.03 but through S.29.02
- The exception is the ones related to Unit-linked as S.29.02 excludes UL. In this case the technical flows would be in Variation in Investments in unit-linked in S.29.03. (example to be developed)

## **Main areas identified for discussion:**

- Surplus Fund
- Investment income and expenses
- Interpretation of S.29.03.R0070-R0090
- Technical flows and link to S.29.04
- Unit-linked example
- Signals to be reported

## **Interpretation of S.29.03.R0070-R0090 - Comments received – R0070:**

See comment 5 and 34 for details

- R0070/R0220 – expected diagonal of payments (year 1 cash flow from the opening best estimate)
- In R0070/R0220 the cash flows modelled in year N-1 for year N are excluded

## **Interpretation of S.29.03.R0070-R0090 – Original Instructions of R0070 (due to year N projected in and out flows – risks accepted prior to period):**

Premiums, claims, and surrenders that were forecasted on the Opening Best Estimate as to be paid during the year, will not be in the closing Best Estimate anymore as they would have been paid / received during the year. A neutralisation adjustment shall be performed.

In order to isolate this adjustment, the calculation may be as follows :

- Consider Opening Best Estimate (cell C0010/R0010) including the adjustment to opening Best Estimate (cells C0010/R0020 to R0040)
- Isolate the amount of cash flows (cash in minus cash out) that were projected within this opening Best Estimate for the period considered
- This isolated amount of cash flow shall come in addition to Opening Best Estimate (for neutralisation effect) – and be filled in cell C0010/R0070 and C0020/R0070.

## **Interpretation of S.29.03.R0070-R0090 – R0070 Under analysis:**

Interpretation is correct but should be extended all CF projected:

- expected diagonal of payments (year 1 cash flow from the opening best estimate) or in other words the cash flows modelled in year N-1 for year N are excluded
- Also the cash-in flows projected should be considered
- All CF projected should be considered regardless of the 'real' cash-flows received/paid
- The 'real' cash-flows received/paid will be reflected in the technical flows
- The impact in EoAoL will at the end be only the difference between the two

## Interpretation of S.29.03.R0070-R0090 - Comments received – R0080:

See comment 5 and 34 for details

- R0080/R0230 – almost actual\* vs expected for year 1 cash flow, where the almost actual\* reflects the difference in actual and expected payments made because of a speeding up or slowing down of payments (and not increases or decreases on settlement – these are for technical flows); hence the closing best estimate is impacted. If insufficient information is available to work this out, then the log summary and associated comments have been interpreted to suggest that a pure actual versus expected calculation can be used.
- R0080/R0230 includes the difference between the real cash flows in year N and the cash flows modelled for year N (assuming a simplified view). So, should the equation “R0310-R0330” + R0080 (can be R0230) = R0070 (can be R0220) apply? In other words, it should include the impact of all real cash flows from year N on BEL as at the end of year N.

## **Interpretation of S.29.03.R0070-R0090 - Comments received – R0080:**

- In step Variation of Best Estimate due to experience and other sources - risks accepted/covered prior to period (R0080/R0230) we have to correct only the first year because this strictly relate to the strict realisation of cash flows when compared to the cash flows that were projected.
- I have projected 1 million surrender payments and in fact we had 2 millions this affects also all future CF because we don't prognose surrender payments in total amounts, but lapse rates which we have to apply on the portfolio at beginning of each year. For that reason I would have to correct all future CF and not just the first one to end up with the closing Best Estimate.
- The next step Variation of Best Estimate due to changes in non economic assumptions - risks accepted/covered prior to period (R0090/R0240) we would report just if we have different assumptions of our lapse rates and not the different future surrender payments because of a false projected first year.

## **Interpretation of S.29.03.R0070-R0090 – Original Instructions of R0080 (due to experience – risks accepted prior to period):**

The variation of Best Estimate captured here shall strictly relate to the strict realisation of cash flows when compared to the cash flows that were projected.

For calculation purposes, and in case of non-availability of information of realised cash flows, the variation due to experience may be calculated as the difference between realised technical flows and projected cash-flow.

Realised technical flows refer to those reported under Solvency II principles i.e. premiums effectively written, claims effectively paid and expenses effectively recorded.

## **Interpretation of S.29.03.R0070-R0090 – R0080 under analysis:**

- The Instructions are in fact not clear
- After exclusion of the projected CF and reporting of realised CF in the technical flows, the difference between this two amounts cannot be reflected again in R0080. This would double the effect and wrongly impact the closing best estimate

## **Interpretation of S.29.03.R0070-R0090 – R0080 under analysis:**

- The case of speeding-up/slowing down:
  - When slowing down the CF reported in R0070 are higher than the real CF but no impact in EoAoL as the responsibility is still there, then this difference should be added in R0080.
  - When speeding-up the CF reported in R0070 is lower than the real CF but no impact on EoAoL as the responsibility was already provisioned, then the difference should be deducted in R0080
- When events in year N lead to a revision of the CF, not related to changes in assumptions, this revisions should also be reported in R0080

## **Interpretation of S.29.03.R0070-R0090 - Comments received – R0090:**

See comment 5 for details

- R0090/R0240 – changes in best estimate that impact the future cash flows at the endpoint valuation (which are not inflation or yield curve driven). These would include new case information or revisions of IBNR due to non-economic assumption changes.
- If inflation cannot be split out explicitly, R0240 would seem the most appropriate place to put it instead of R0230

## **Interpretation of S.29.03.R0070-R0090 – Original Instructions of R0090 (due to changes in non-economic assumptions – risks accepted prior to period):**

It mainly refers to changes in RBNS not driven by realised technical flows (e.g. revision on a case by case basis of the amount of IBNR) and changes assumptions directly linked to insurance risks (i.e. lapse rates), which can be referred to as non-economic assumptions.

In order to isolate the strict scope of variation due to changes in assumptions, the calculation may be as follows:

- Consider the opening Best Estimate (cell C0010/R0010) including the adjustment to opening Best Estimate (cell C0010/R0010 to R0040) and the impact of unwinding of year N projected cash-flows (C0010/ R0060 to R0080 and C0020/R0060 to R0080 respectively);
- Based on this figure, run calculations with new assumptions not related to discount rates – that applied at year end N (if any)

## **Interpretation of S.29.03.R0070-R0090 – Original Instructions of R0090 (due to changes in non-economic assumptions – risks accepted prior to period):**

This will provide the variation of Best Estimate strictly related to changes in these assumptions. This may not capture the variation due to case-by-case revision of RBNS, which would thus have to be added.

For Non-Life, cases can be expected where these changes cannot be discerned separately from changes due to experience (C0020 / R0080). In such cases, report the total figure under C0020 / R0080.

## Interpretation of S.29.03.R0070-R0090 - **R0090 under analysis:**

- Include new information or revisions of IBNR due to non-economic assumption changes
- If inflation cannot be split out explicitly in R0100(R0250), would be considered to be part of R0080(R0230). If an undertaking can identify it in R0090 then would also be able to identify it in R0100.
- EIOPA considers Mortality and customer behaviour as non-economic assumptions.

## **Main areas identified for discussion:**

- Surplus Fund
- Investment income and expenses
- Interpretation of S.29.03.R0070-R0090
- Technical flows and link to S.29.04
- Unit-linked example
- Signals to be reported

## Technical flows and link to S.29.04 - **Comments received:**

- S.29.03.R0310-R0330 includes the real cash flows from year N, which, however, do not have any impact on BEL as at the end of year N (this concerns e.g. the actual total claims from year N)
- Insurance Europe's understanding of S.29.03 guidance is that premium written during the period (R0310) relates to the amount of written premiums under Solvency II principles and not included in the Best Estimate, respectively for Life and non-Life.

## Technical flows and link to S.29.04 - **Comments received:**

- As per S.29.04 guidance, premiums earned/to be earned (R0080) relates to:
  - o C0030 – Corresponds to written premiums related to risk covered after the period (ie. premiums to be earned after the period)
  - o C0040 – Corresponds to part of premiums related to risks covered during the period (ie. earned premiums under Solvency II principles)
  - o Is it expected that these two values in S.29.03 (R0310) and S.29.04 (R0080) respectively, should correspond to each other? Are there any EIOPA mandated crosscheck validations for technical flows with other QRTs?

## Technical flows and link to S.29.04 - **Comments received:**

- In our company we understand that a premium receivable is premium that is “past-due”. So past-due premium has to be reported under the balance sheet under the accounts S.02.01. R0360 and R0370, while premium not yet due is included in the best estimate. In addition the following question came up. The definition of written premiums above appears to be consistent with invoiced premium. What is the S2 term for the total premium to be earned under the contract boundary definition (UPR until end of contract).
- Scope of S.29.04. It is already stated that the change in Risk margin is not part of the S.29.04 so a full reconciliation with the EAoL of the S.29.03 is not possible.

## Technical flows and link to S.29.04 - **Comments received:**

- There is a validation rules for cells S.29.04.R0110/C0030 & C0040, these cells can't include e.g. FX or change in perimeter. So could it be that the variation of best estimate for risks covered prior to period only refers to S.29.03 / R0210 – R0250?
- S.29.04.R0080/C0050: There are some example where premium is only due after the coverage period (future premium included in claim provisions). Where should this information be reported?
- S.29.04.R0010 & R0080: Could you please confirm that the sum across all lobes of these two rows should be equal to what was reported in S.29.03. R0310?

## **Technical flows and link to S.29.04 - Under analysis:**

- Technical flows in S.29.03: During the year
- The sum of the variation of the BE with the Technical flows provide the variation of EoAoL due to technical provisions
  - Claims – the impact will be mainly the difference between projected and paid, new business and revaluations of BE
  - Premiums: the impact will be mainly the difference between the premium written (also form new business) and the earning pattern projected
- The amounts of technical flows between S.29.03 and S.29.04 should in general match but with some caveats
- There are validations for Claims (BV 509 for S.29.03.R0320), for expenses (BV510 for S.29.03.R0330) and others but NOT for S.29.03.R0310. For Premiums, and for AY the S.29.04 requests the earned premium and not written premium.
- In S.29.03 we should clarify that is premiums written/earned, that are not in closing BE (following S.29.04 approach)

## **Technical flows and link to S.29.04 - Under analysis:**

- Variation of BE: template does not focus on changes not directly linked to acceptance of risks, focusing only on the amounts reported in S.29.03.R0050-R0100 for UY and R0190-R0250 for AY.
- Validations exist but do not cover all items

## **Main areas identified for discussion:**

- Surplus Fund
- Investment income and expenses
- Interpretation of S.29.03.R0070-R0090
- Technical flows and link to S.29.04
- Unit-linked example
- Signals to be reported

## Unit linked example - **Comments received:**

- Would be good to add some numerical examples for life business especially unit-linked business, illustrating how you expect companies to report the full suite of S.29 QRTs for this type of business.
- This concerns rows R0200 and R0250 in QRT S.29.01, and their correspondence with rows R0360 and R0370 in QRT S.29.03. Paragraph 1.12 states that the “Other variations” (R0250) should reflect the variation of the assets and liabilities related to “Index-linked and unit-linked contracts” (see BV508). This validation contradicts this statement by clearly indicating that the neutralised variation of the assets and liabilities for unit-linked contracts calculated in row R0360 in QRT S.29.03 will be reported in row R0200 in QRT S.29.01 and not R0250. This is also made clear when reading paragraphs 1.24 and 1.35.
- The sixth answer in the FAQ on S.29.03 (page 18) contains the same contradiction, where the first point of the answer seems to contradict the third point of the answer.

## **Unit linked example - Comments received:**

- S.29.03.R0080/R0230: Regarding unit linked life insurance products it seems unclear whether this row should include changes in the unit linked BE due to returns on unit linked investments; And if not, it seems unclear where these movements should be reported; For example, if a unit linked contract has 80 euros savings at the opening and 100 euros savings at the closing due to positive returns on unit-linked investment, this has an effect on the Best Estimate. Should this be reported here (variation due to experience)?

## Unit linked example - Comments received:

- Sources of variation (e.g. economic drivers) can cause a movement in unit liabilities (captured in the main table of S.29.03) that is not completely neutralised by offsetting impact in unit assets (R0300). This contradicts the definition of S.29.03 R0300 which expects neutralisation of unit assets vs unit liabilities however our proposal is that this is appropriate in this context.
- We propose therefore that variations in unit assets minus unit liabilities that arise due to this strategic mis-match will impact on the 'bottom line' of S.29.03 (i.e. R0360) and hence also on EoAoL, via R0200 on S.29.01. We propose this does not impact on R0250 on S.29.01, and this seems to contradict the guidance on page 18 of the explanatory note indicates "the net impact between investments and liabilities from unit-linked and index-linked business" should be included in R0250 on S.29.01. However our proposal is that this is appropriate in this context

## **Unit linked example - Comments received:**

- The instruction on how to fill fields S.29.03.01 C0090/R0300 Variation in Investments in unit-linked and S.29.04.01 C0010-20/R0060 Adjustment of valuation of Assets held for unit-linked funds is insufficient and unclear. What exactly is supposed to be presented in these fields?
- How should these values be calculated? How to isolate variance due to investments from total performance in case of unit-linked products with switches between funds, partial surrenders and additional payments?

## **Unit linked example - Under analysis:**

- Example under development
- Any example that industry may share?

## **Main areas identified for discussion:**

- Surplus Fund
- Investment income and expenses
- Interpretation of S.29.03.R0070-R0090
- Technical flows and link to S.29.04
- Unit-linked example
- Signals to be reported

## Signals to be reported - Comments received:

- It seems counterintuitive that S.29.02.R0050 should be added as a negative figure and normally figures are reported as positive figure in line with their nature. Further it would be appreciated if R0030 can also be confirmed as a positive (increase) change in the value of the financial liability would have a negative effect of EoAoL.
- In QRT S.29.03, items such as Claims and Expenses are to be reported as positive values; however, for investment expenses in row R0050 of QRT S.29.02 there is no clear guidance provided. Paragraph 1.23 of the explanatory note indicates that R0060 on S.29.02 should be the sum of R0010 to R0050, which would then suggest the number in R0050 needs to be reported as a negative amount to give the correct total value.

## **Signals to be reported – Under analysis:**

- The document will be reviewed in order to clarify the signals to be used across all templates
- Regarding S.29.02.R0010-R0050 the amounts should be reported according to their contribution to the variation of excess of assets and liabilities, i.e. as positive if leading to an increase of the EoAoL (increase of assets or decrease of liabilities) and negative if leading to a decrease of EoAoL