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Regulatory watch Solvency II

Review of IRR changes and insurance portfolio impacts

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Regulatory watch: Solvency II 2025 SCR IRR amendments

On 17 July 2025, the European Commission released a new draft aimed at amending Delegated Regulation (EU) 2015/35, which covers the delegated acts under the Solvency II framework.

The draft provides insights into forthcoming changes in the calculation methodologies for capital requirements.

Following the close of the feedback period, on 5 September 2025 the European Commission published the industry's views on the proposed changes. Insurers expressed concern regarding the revised solvency capital requirement (SCR) for interest rate risk (IRR), describing the new approach as "unwarrantedly volatile and overly punitive" and noting that "changes in the interest rate risk SCR remains significantly overstated". This feedback underlines the need for insurers to develop a clear understanding of the new methodology and its impact on their portfolios.

The anticipated modifications will have a direct impact on the insurance solvency position and must be considered in advance to avoid tardive adjustments that could result in important losses resulting from capital mismanagement.

New methodology for computing SCR IRR

The main changes affecting the Market SCR, and particularly the IRR sub-module, concern the revision of correlation factors and the updated methodology for calculating upward and downward interest rate shocks. In addition, the new rules explicitly allow for negative interest rates, aligning the framework with market practice and the need for realistic risk scenarios.

Lower correlations factors increasing diversification within the SCR market module

The SCR correlation matrix within the Solvency II framework has been amended to reflect a more granular approach towards calculating capital requirements for different financial risks.

The new correlation matrix introduces a second parameter for the correlation between interest rate risk and spread risk. This new parameter, defined as B in the regulation, differentiates the correlation between the interest rate risk and the spread risk from other risks. The parameter B is equal to zero if an up scenario is applied and 0.25 if a down scenario is applied. The latter represents a change with regards to the current regulation where the correlation is set at 0.5 (figure 1).

Figure 1: Diversification matrix for the SCR market showing parameters changes

	Interest rate	Equity	Property	Spread	Concentration	Currency
Interest rate	1	A	A	A	0	0.25
Equity	A	1	0.75	0.75	0	0.25
Property	A	0.75	1	0.5	0	0.25
Spread	A	0.75	0.5	1	0	0.25
Concentration	0	0	0	0	1	0
Currency	0.25	0.25	0.25	0.25	0	1

	Interest rate	Equity	Property	Spread	Concentration	Currency
Interest rate	1	A	A	B	0	0.25
Equity	A	1	0.75	0.75	0	0.25
Property	A	0.75	1	0.5	0	0.25
Spread	B	0.75	0.5	1	0	0.25
Concentration	0	0	0	0	1	0
Currency	0.25	0.25	0.25	0.25	0	1

This change results in a lower SCR Market due to an increase in diversification effect, for companies subject to the DOWN scenario.

02

Updated approach to IRR curves

The draft introduces new amendments to Articles 165 and 166 under Solvency II, providing a new formula-based methodology for calibrating interest rate shocks.

This change replaces the previous generic percentage adjustments with maturity-specific parameters, designed to align the calibration more closely with the structure of the interest rate curve term structure. The framework now requires the upward and downward shocks to be expressed through two parameters at each maturity, a slope and a shift, which adjust the basic risk-free rate in a way that reflects curve dynamics.

Figure 2: New SCR IRR shocked curve formulas

For the upward shock: $r_m^{up} = r_m \cdot (1 + s_m^{up}) + b_m^{up}$

For the downward shock: $r_m^{down} = r_m \cdot (1 + s_m^{down}) + b_m^{down}$

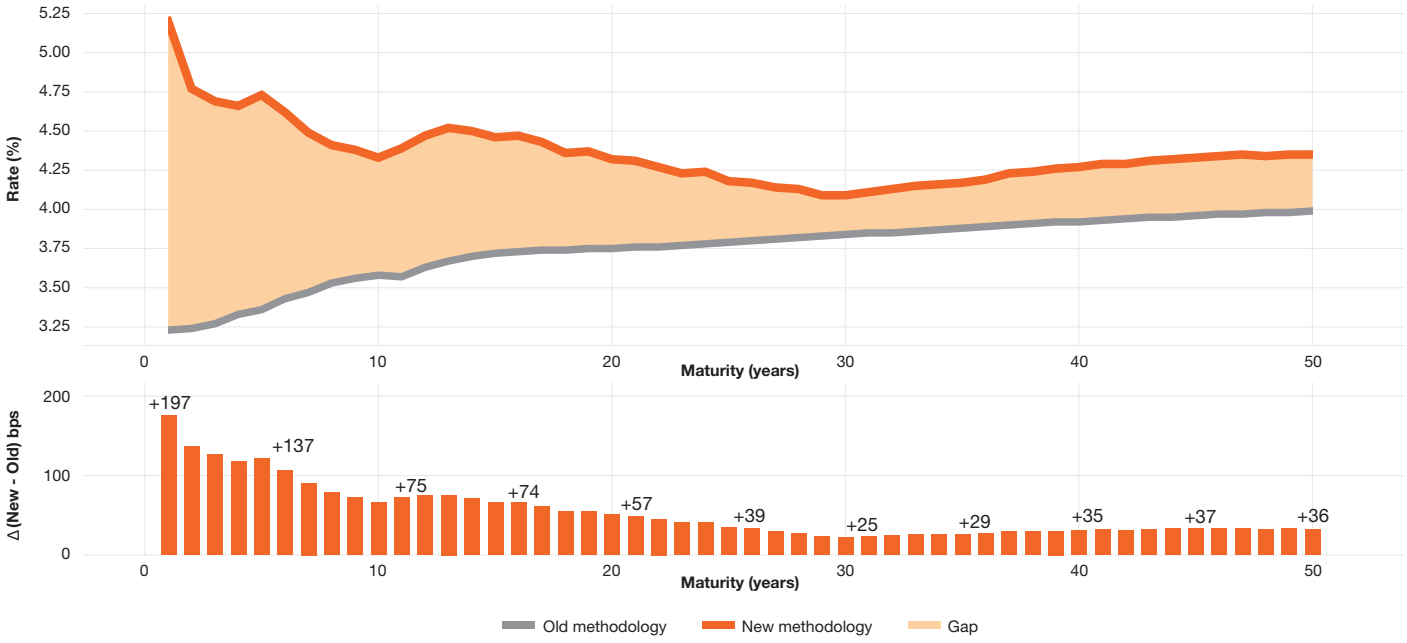
The addition of the b_m^{up} and b_m^{down} parameters introduce an absolute shift in the shock calibration, in addition to the already existing proportional slope adjustment. As a result, shocks are no longer only relative to the existing rate level but can also capture structural features of the yield curve.

In practice, this leads to higher increases at the short end in the upward shock and lower stressed rates at the long end in the downward shock, making capital requirements more sensitive to portfolio maturity profiles and the overall shape of the curve.

> Higher shocks and higher capital requirements.

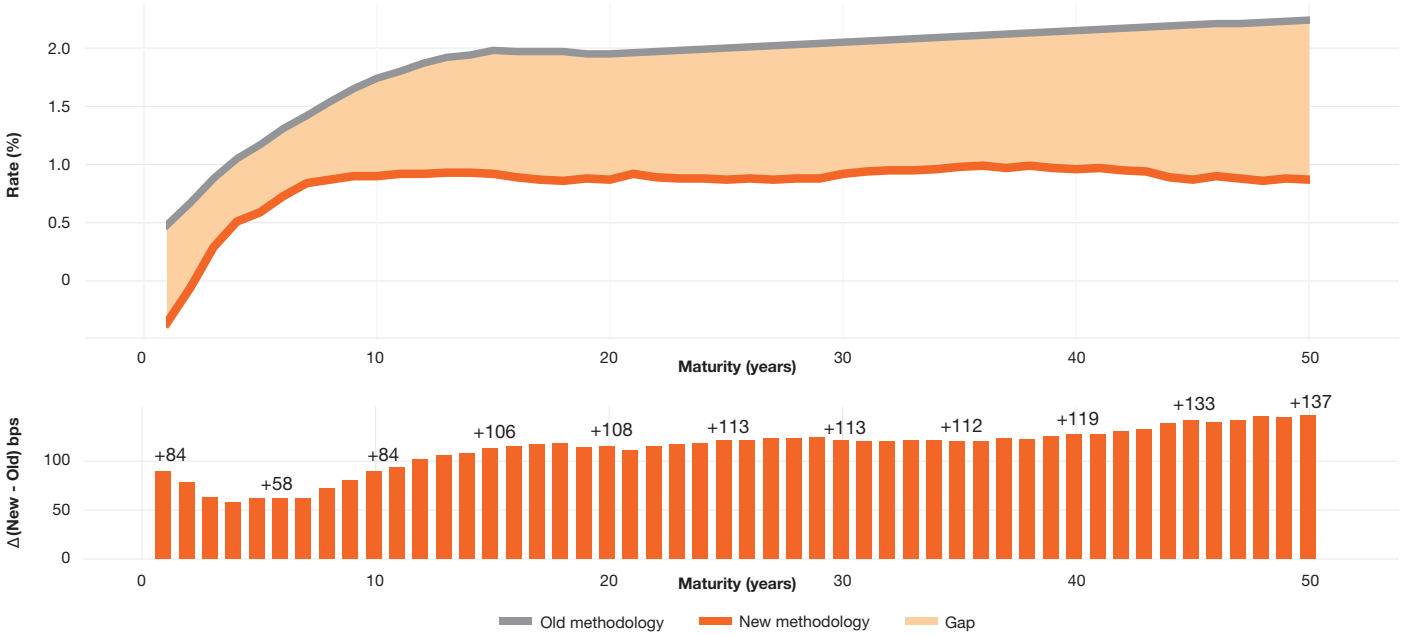
The impact of this change is demonstrated in the figures below. By analysing the European Insurance and Occupational Pensions Authority (EIOPA) Euro curve as of the end of July 2025 and recalculating it using the updated methodology and parameter values, significant differences can be observed in both the upward and downward scenarios (figure 3 and figure 4).

Figure 3: SCR IRR - up shock



For the **up shock**, the new methodology results in significantly higher stressed rates at the short end of the curve, with differences of up to 197 basis points at one-year maturity compared with the old methodology. Beyond the short maturities, the gap narrows but remains positive across the curve, with increases of around 30 to 40 basis points still observed in the long end. This adjustment introduces greater sensitivity to near-term rate movements, affecting capital requirements for insurers with exposures concentrated in shorter maturities.

Figure 4: SCR IRR - down shock



For the **down shock**, the effect is the opposite. The new formula produces systematically lower stressed rates than the old methodology across the entire maturity spectrum. The reduction is most pronounced at longer maturities, where the difference reaches 137 basis points at the fifty-year horizon. The result is a lower downward shock scenario, with potential implications for capital charges linked to liability re-valuations and for insurers with longer-dated portfolios.

Conclusion:

These changes will materially alter how interest rate risk capital is assessed. Insurers must quickly recalibrate models, adapt ALM strategies and update reporting and governance processes, as exposures at both the short and long ends of the curve may drive unexpected capital impacts.

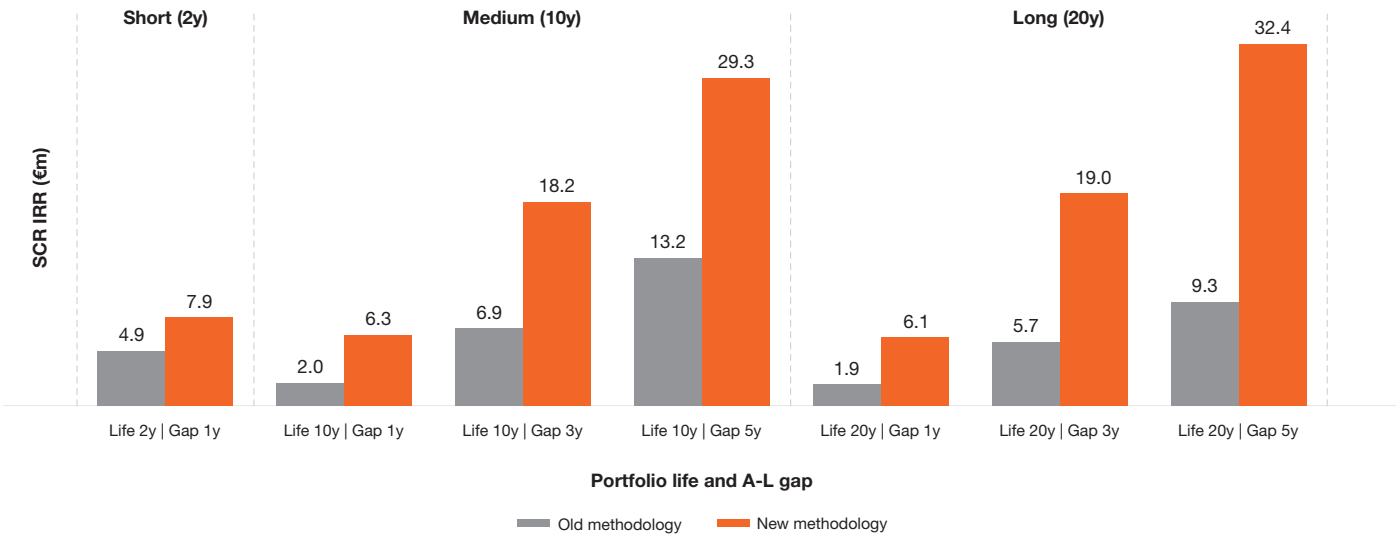
03

What does this mean for an insurance portfolio?

The changes to Solvency II directly affect how the capital charge for interest rate risk is calculated. It is essential to understand how these changes impact insurance portfolio strategies.

To illustrate the impact, we reviewed a €1 billion balance sheet and compared outcomes under the old and new approaches. The results, shown in figure 5, demonstrate that new capital requirements are always higher and vary significantly depending on the maturity of assets and the extent of duration gap. For senior management, this is not just a technical adjustment, it has a direct bearing on capital planning and investment strategy.

Figure 5: SCR IRR - old vs. new EIOPA shocks



Our analysis shows two clear findings:

- **Short-term impact**: For a two-year portfolio with a one-year duration gap, the capital charge increases from €4.9 million to €7.9 million.

- **Long-term impact**: For a twenty-year portfolio with a five-year duration gap, the charge rises from €9.3 million to €32.4 million.

These results illustrate that wider duration gaps will translate into significantly higher capital requirements. Insurers will need to adjust their asset and liabilities management to reflect those changes, as unbalanced positions can create substantial additional charges under the revised framework. Furthermore, this challenge will have a direct impact on the solvency ratio, investment choices and capital planning.

Considering these changes, insurers must think ahead and tailor their strategies to align with evolving regulation. PwC is here to support management teams, ensuring the selected approaches not only meet compliance requirements, but also leverage these changes for strategic growth.

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