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A Global Pandemic – how Solvency II operated during the crisis

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Today's agenda



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We'll discuss

- 1 What happened to Solvency Coverage Ratios?
- 2 Examples of long-term guarantee measure performance during the crisis
- 3 Innovation – suggestions for potential modifications to Solvency II
- 4 Q & A



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What happened to Solvency Coverage Ratios?



Year-end 2019 Solvency Coverage Ratios

Image 1: Average Year-end Solvency Coverage Ratios

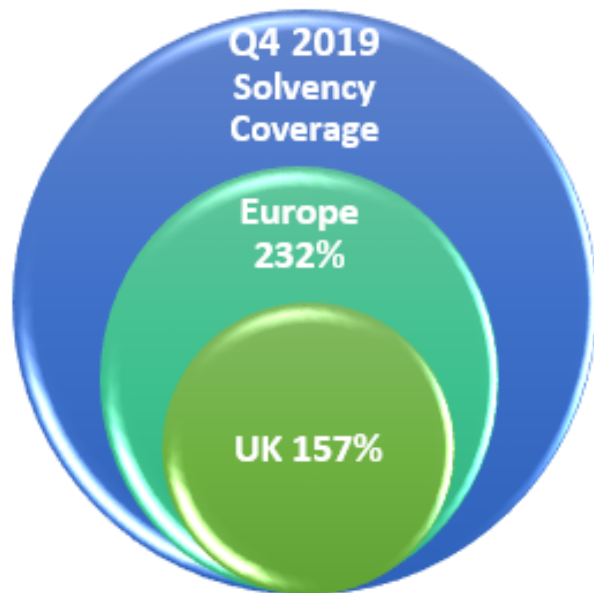
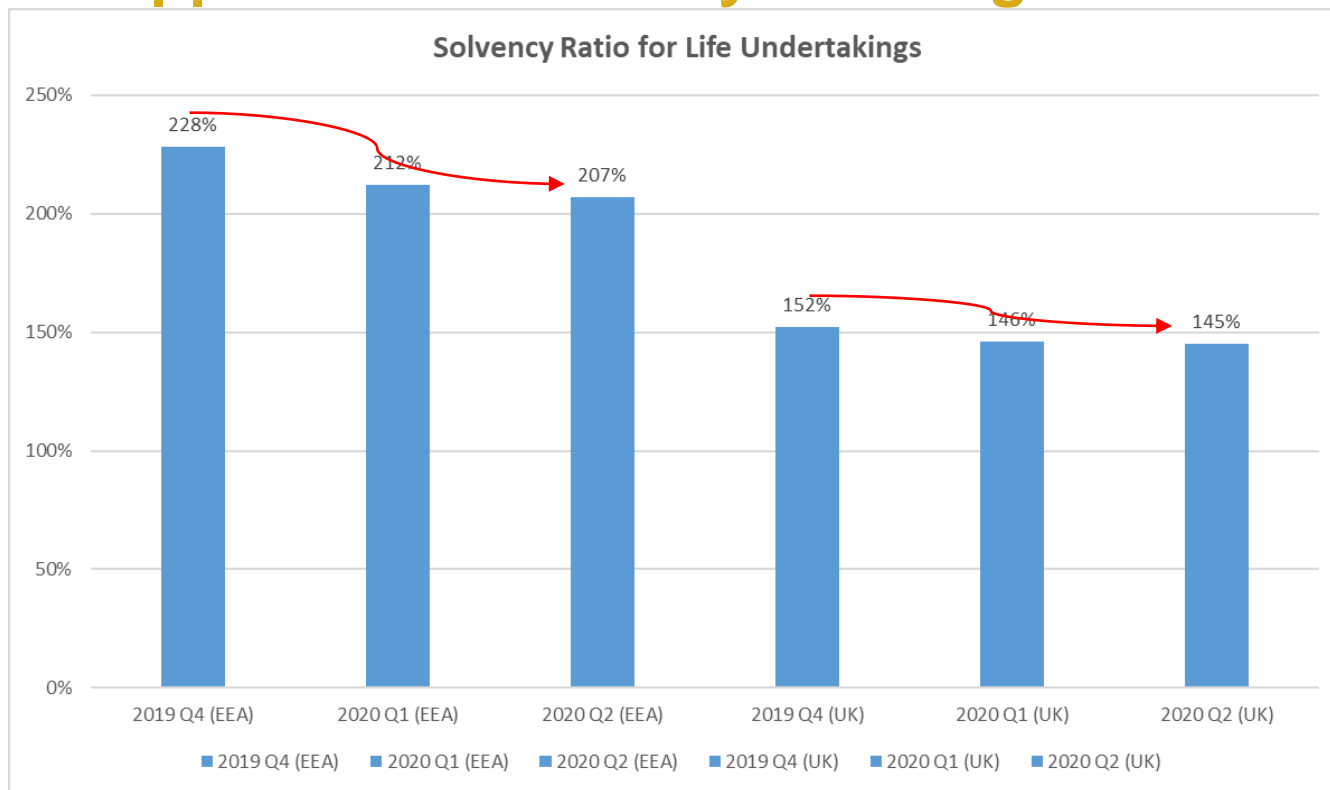


Image 2: Average Market Risk Proportion of Solvency Capital Requirement

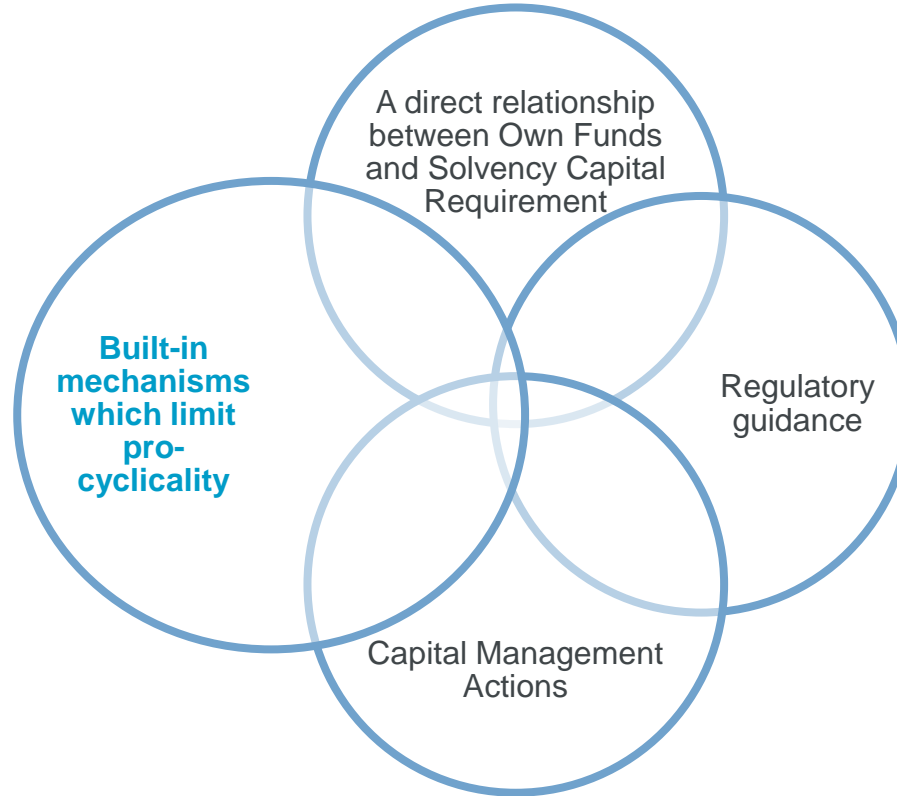


What happened to Solvency Coverage Ratios over 2020?



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Why the observed resilience?





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Examples of long-term guarantee measure performance during the crisis



Verdict from the European Risk Stability Board



Mr Valdis Dombrovskis
Executive Vice-president
European Commission
130 Rue de la Loi
1040 Brussels
Belgium

ECB-PUBLIC
ESRB/2020/0115

Solvency II review

16 October 2020

Dear Vice-President Dombrovskis,

I am writing to you with reference to the consultation your services are organising on the review of Solvency II and am hereby transmitting to you the ESRB General Board's position on Solvency II.

Solvency II has contributed to make individual insurers safer and EIOPA has been central to making the new regime a success. Nevertheless, there are also gaps in the framework, and the forthcoming review of Solvency II is a unique opportunity to close these gaps in the years to come, or sooner if the situation requires so. Over the past few years, the ESRB has taken positions on topics it considered most pertinent with regard to their systemic relevance. They are the need to: (i) better reflect macroprudential considerations in Solvency II; (ii) establish a harmonised recovery and resolution framework across the European Union; and (iii) continue ensuring that risks are properly captured under Solvency II.¹ In addition, (iv) the recent events linked to the COVID-19 pandemic should be analysed and taken into account in the review as they shed a new light on the strengths and weaknesses of the insurance sector.

- “With Solvency II being a mark-to-market regime, volatility in financial markets is reflected in insurers’ solvency ratios.”
- “Existing tools, such as the symmetric adjustment for equity risk (SAE), the volatility adjustment (VA) and the matching adjustment (MA), attenuate this volatility, but the crisis highlighted certain shortcomings with some of them.”



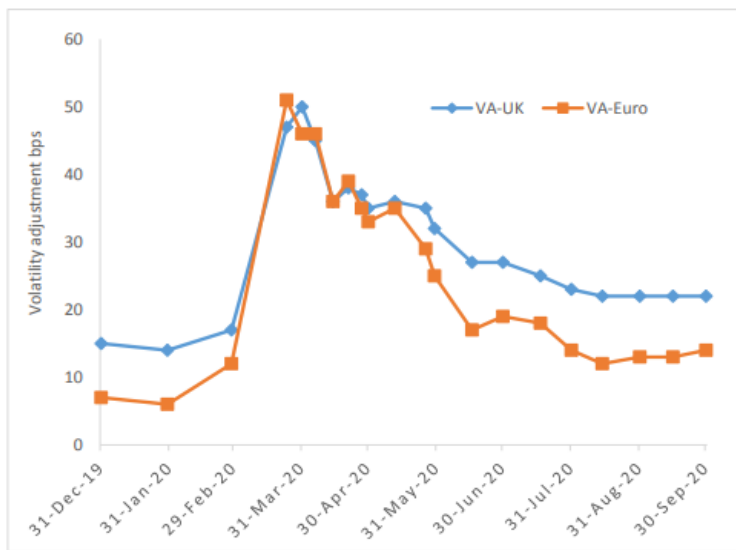
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The volatility adjustment (VA)

The VA

- a mechanism that allows, where applicable, an addition to the risk-free rate that reflects part of the market spread on bonds.
- designed to mitigate the effect of low liquidity of bonds or exceptional increases in credit spreads

Figure 1: Volatility adjustment for sterling (UK) and Euros during 2020



Source: EIOPA

Benefits

- VA increased significantly during market stress
- Regulators allowed some insurers to use VA for first time



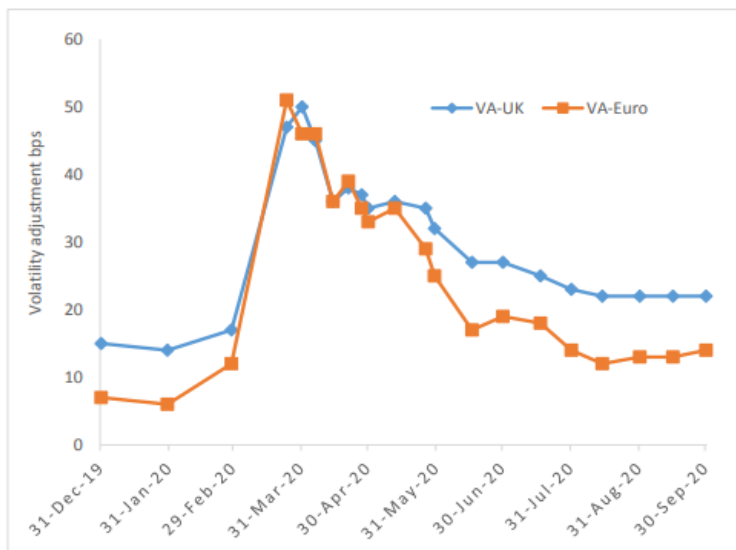
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Challenges

- Not based on actual investments held by an insurer and can suffer from ‘overshooting’
- EIOPA Consultation addressed this but report from Milliman concluded new approach reduce overshooting but also materially reduced VA benefits
- The additional country-specific mechanism did not function in a timely fashion during the Covid-19 crisis
- Not a symmetrical mechanism, so doesn’t require insurers to build up additional buffers when markets are strong



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Transitional Measure on Technical Provisions (TMTP)

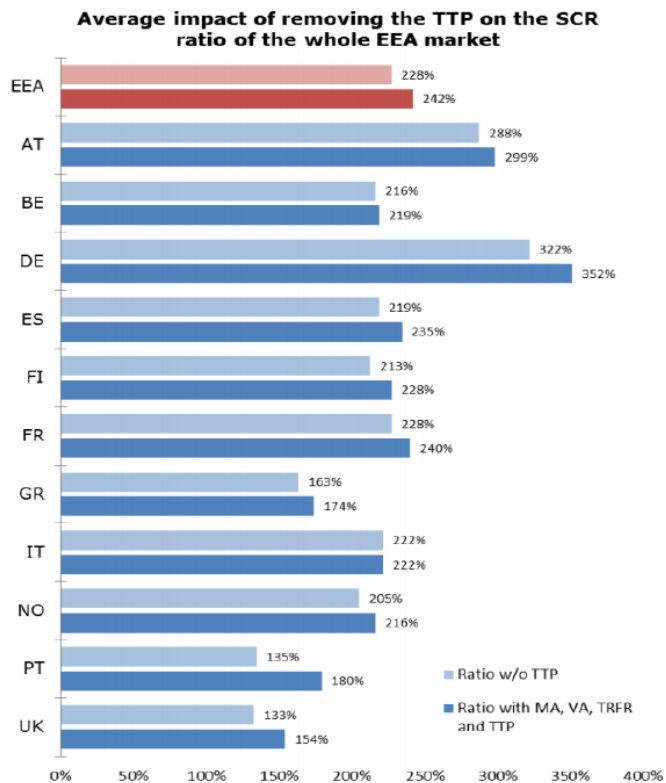
The TMTP

- a mechanism designed to allow insurers to recognise the impact of increased technical provisions calculated under the Solvency II regime compared to the previous Solvency I regime¹ on an amortising basis over 16 years (from January 2016)
- designed to help smooth the capital impact of transitioning between the regimes
- for UK insurers, often seen as a mechanism to dampen or smooth the impact of falls in interest rates which lead to a significant increase of the risk margin



¹ In the UK, typically using the Pillar 2 Individual Capital Assessment basis

Transitional Measure on Technical Provisions (TMTP)



Benefits

- UK regulator allows for recalibration e.g. on significant rate move – including during March 2020
- Many insurers disclose and manage their solvency as if TMTP continually recalculated

Challenges

- Many insurers choose not to formally recalculate during Covid-19 impact
- Governance burden of formal recalculation
- Not intended as a mechanism to smooth the impact of a crisis but rather a long-term transition mechanism



Symmetric Adjustment for Equity Risk (SAE)

The SAE

- designed to reduce procyclicality by reducing (increasing) the equity stress in the standard formula when equity market levels are low (high) compared to their 3-year historic average
- acts to dampen (50% of) the impact of equity market falls, since if markets fall, the corresponding Solvency Capital Requirement stress is reduced

$$\text{SAE} = \frac{1}{2} * [(CI - AI)/AI - 8\%]$$

Where:

CI denotes the current level of the equity index (a composite index determined by EIOPA)

AI denotes the average of the daily levels of the index over the last 36 months

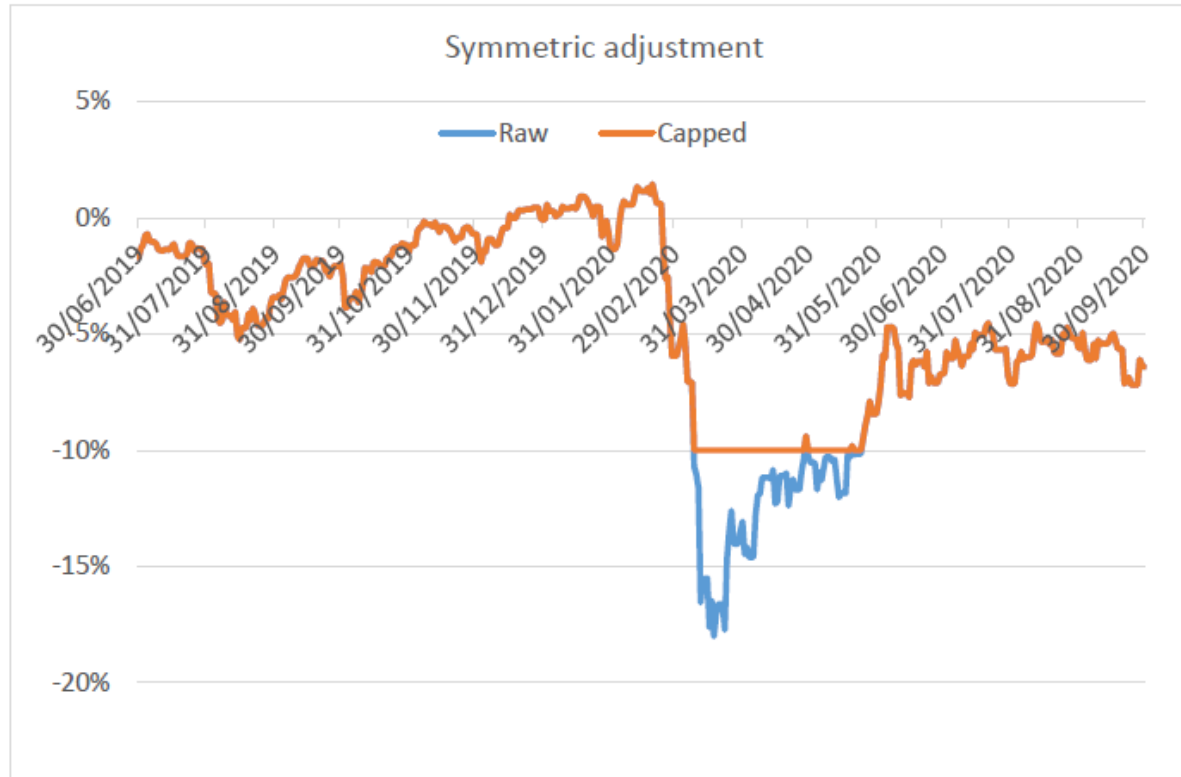
So if the SAE is say -5%, this means the SCR stress for type 1 equities is reduced from the standard 39% to 34%.

In its raw form, an instant x% fall in equity markets would lead to a x%/2 reduction in the SCR stress.

- But is capped at 10% in absolute terms – i.e. for both exceptionally strong and weak markets



Symmetric Adjustment for Equity Risk (SAE)

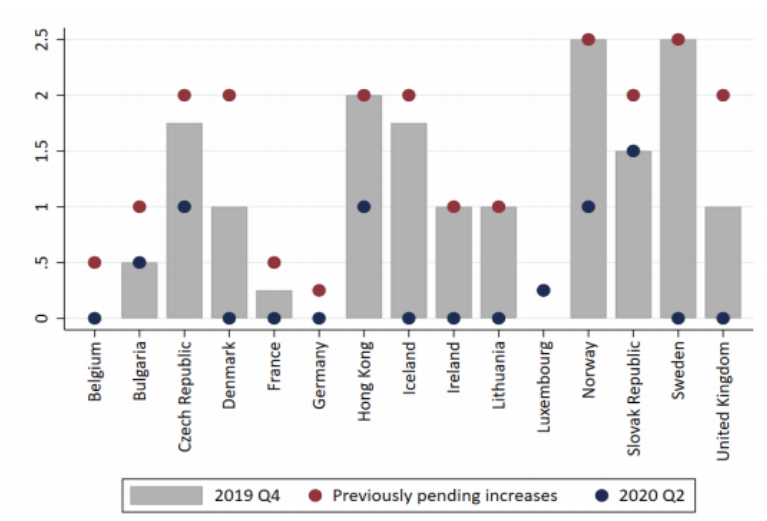


Solvency II countercyclical measures vs buffers

Solvency II

- Very limited opportunity for insurers to build up capital buffers in benign markets.
- A similar approach used within banking regulation, countercyclical capital buffers (CCyBs), could be applied to insurers
- For example, could operate by requiring the solvency ratio of insurers to be higher/(lower) when markets are generally benign/(stressed) as assessed by a financial stability board

Chart 1: Effective CCyB rates before and after the Covid-19 Shock (%) (source: Bank Underground)



Suggestions:

- some of the countercyclical measures may require modification
- explicit countercyclical buffers could be introduced





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Innovation: views on potential modifications to Solvency II



The matching adjustment (MA)

The MA

- is a mechanism that allows an adjustment to the relevant risk-free interest rate
- is naturally countercyclical in the sense that, as credit spreads widen, reducing asset valuations, the liability discount rate widens accordingly, reducing liability valuations
- performs reasonably well in response to widening credit spreads, but this has not yet been tested in a period of heavy and sustained credit downgrades
- Whilst the MA performed reasonably in the crisis, insurers were required to take action to manage the credit quality of their portfolio (the “BBB cliff”)

Suggestion:

- cliff edges and other uneconomic elements could be removed or amended to reduce the risk of procyclicality.



Model calibrations

Internal model calibrations



- In theory allow more flexibility than the standard formula
- Can add to procyclical behaviour

Suggestions:

- Regulators could allow the symmetrical adjustment to be applied as an explicit external adjustment to the results of insurer's base internal model calibrations.
- Internal model calibration could be made more explicitly through-the-cycle or even counter-cyclical, including allowing explicit countercyclical adjustments outside of the insurer's own calibrations



The “edge of the world” framework from the Stable Measures of Risk Working Party

- At time 0 we are at centre of the world 
- We have a view of the edge 

At time 1, a moderate loss occurs

4 cases:

1. Edge unmoved
2. Edge moves less than centre
3. Centre and edge both moved equally
4. Edge has moved more than centre



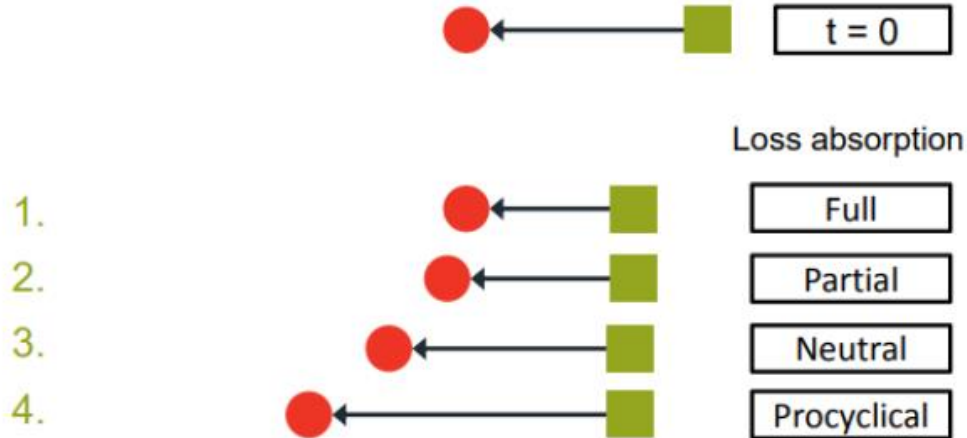
Extent to which losses are absorbed determines cyclical impact



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Information content of adverse event

1. is **unconditional** in price space: targets a fixed '1 in 200' price level
2. is **mean reversion**: adverse event lowers likely severity of next event
3. is **unconditional** in return space: latest event has no impact on next
4. is **procyclical**: latest event leads to strengthened view of next one





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Thank you

Appendix

Output from the IFoA Covid-19 Action Taskforce (ICAT) Capital Management Workstream

Capital and management actions taken by life insurers, both prior to and during the crisis, as well as those planned for the future:

<http://blog.actuaries.org.uk/blog/using-hindsight-gain-foresight>

The countercyclical measures in Solvency II and how well they worked in practice:

<https://www.actuaries.org.uk/system/files/field/document/Countercyclical-effects-v5-intro-%28002%29.pdf>

How insurance company solvency ratios performed during COVID-19:

https://www.actuaries.org.uk/system/files/field/document/How%20Solvency%20ratios%20performed_v4_withGraphALT.pdf

Actions actually taken by international regulators in response to the crisis:

<https://www.actuaries.org.uk/system/files/field/document/Regulatory-Action-taken-to-mitigate-the-impact-of-the-COVID-19-pandemic-using-international-insight-to-gain-foresight.pdf>

Solvency II – countercyclical capital requirements and regulatory flexibility:

<https://www.actuaries.org.uk/system/files/field/document/Solvency%20II%20%E2%80%93%20countercyclical%20capital%20requirements%20and%20regulatory%20flexibility.pdf>



Questions

Comments

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