



Managing insurers liquidity risk - introducing a practical tool

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Liquidity risk for insurers – general aspects

- The **shortage of liquidity** has been historically something driving banks and investment (property) funds in financial industry into liquidation:
 - Especially **2008 financial crisis** was example of several such cases but, at least by some evidence, the insurance industry was actually able to provide liquidity for the sector that time and survived considerably well through the crisis.
 - During COVID-19 pandemic, there was also times when both market liquidity reduced significantly and also customer withdraw their savings, without creating any major issues for insurers liquidity.
 - In this March (2023) Silicon Valley bank collapsed (partly) because of liquidity issues, Also Credit Suisse's issues created severe problems on liquidity. Also there has been growing amount of withdrawals for some EU life insurers and increased collateral calls from using interest rates swaps
 - The business model of insurers tends to create positive liquidity. This added with generally stable/predictable liabilities and a great deal of flexibility reduces the need of (forced) selling of assets.
- Although **Solvency II does not explicitly require capital to be held against liquidity risk**, it does create a number of requirements on insurers with regard to liquidity risk.
 - Anyway lapse shock requires insurers to have on an ongoing basis enough assets to cover extremely large withdrawals. These lapses shocks are high comparing to liquidity stress tests for banks (20% of customer withdrawals).
- During the period of negative interest rates in Europe, there has been a **growing interest amongst insurers to invest more into illiquid assets** to get better return for their investments.
- Supervisors, such as **EIOPA and IAIS have been active** in bringing out ideas from the macro prudential regulation perspective whether liquidity risk should be something insurers to better monitor and report and whether this justifies for additional capital requirements. Also **ESRB** has made a lot of ground work on this particular topic

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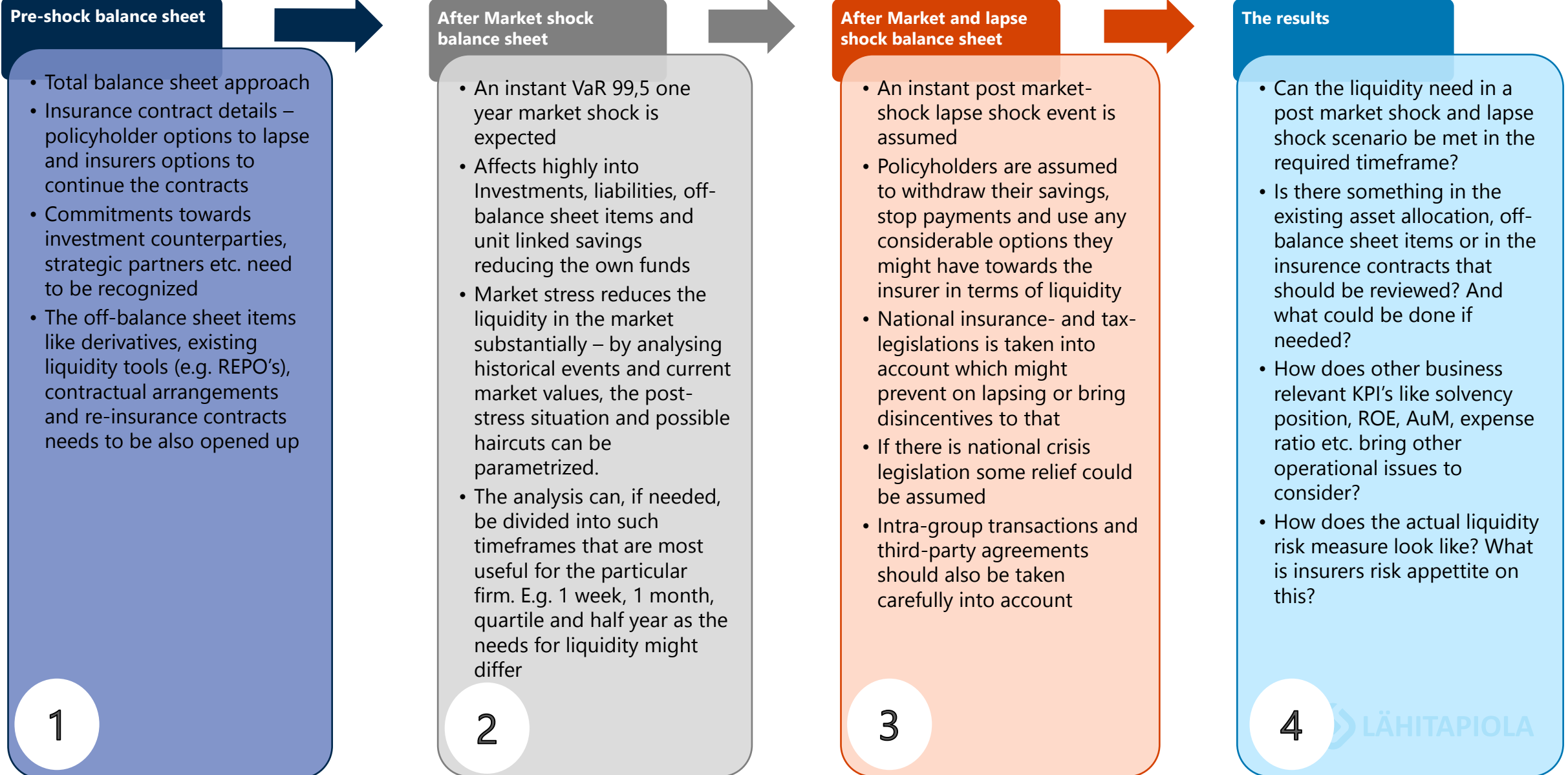
- Liquidity stress was one of the key topics in the EU insurance stress test 2021* that was measured. Anyway it seemed that EU insurance sector survived very well through the scenarios:
 - Under the base case insurers had positive liquidity of €80bn (so no need of any liquid assets) AND liquid assets of €2.8 trillion.
 - under the very extreme stress test the positive liquidity position moved to a negative liquidity position of €10bn but still liquid assets of €2.2 trillion available to cover this small need.
- Different stakeholders have been active in bringing out different aspects on this topic; **EIOPA IRSG** advice on stress testing** and **CRO Forum's** paper on liquidity risk management by insurers ***
- Typically, in normal (an even in stressed) set up, the **cash in-flows for insurers are be higher than out-flows**. This brings a positive best estimate for the liquidity needs. Anyway high pension payments or slowing down business can turn this another way round if there's not sufficient ALM and liquidity management in place.
- This short presentation brings out **one way for an insurer to interpret, measure and manage its liquidity needs**.
- This liquidity assessment is based to an **instant double scenario; market shock combined with lapse shock**, and what liquidity needs it brings for the insurer. The double shock scenario is motivated by the fact that market shock reduces the market liquidity and at the same time the need for cash usually grows for policyholders and possible third parties.

* https://www.eiopa.europa.eu/system/files/2021-12/eiopa-bos-21-552-2021-stress-test-report_0.pdf

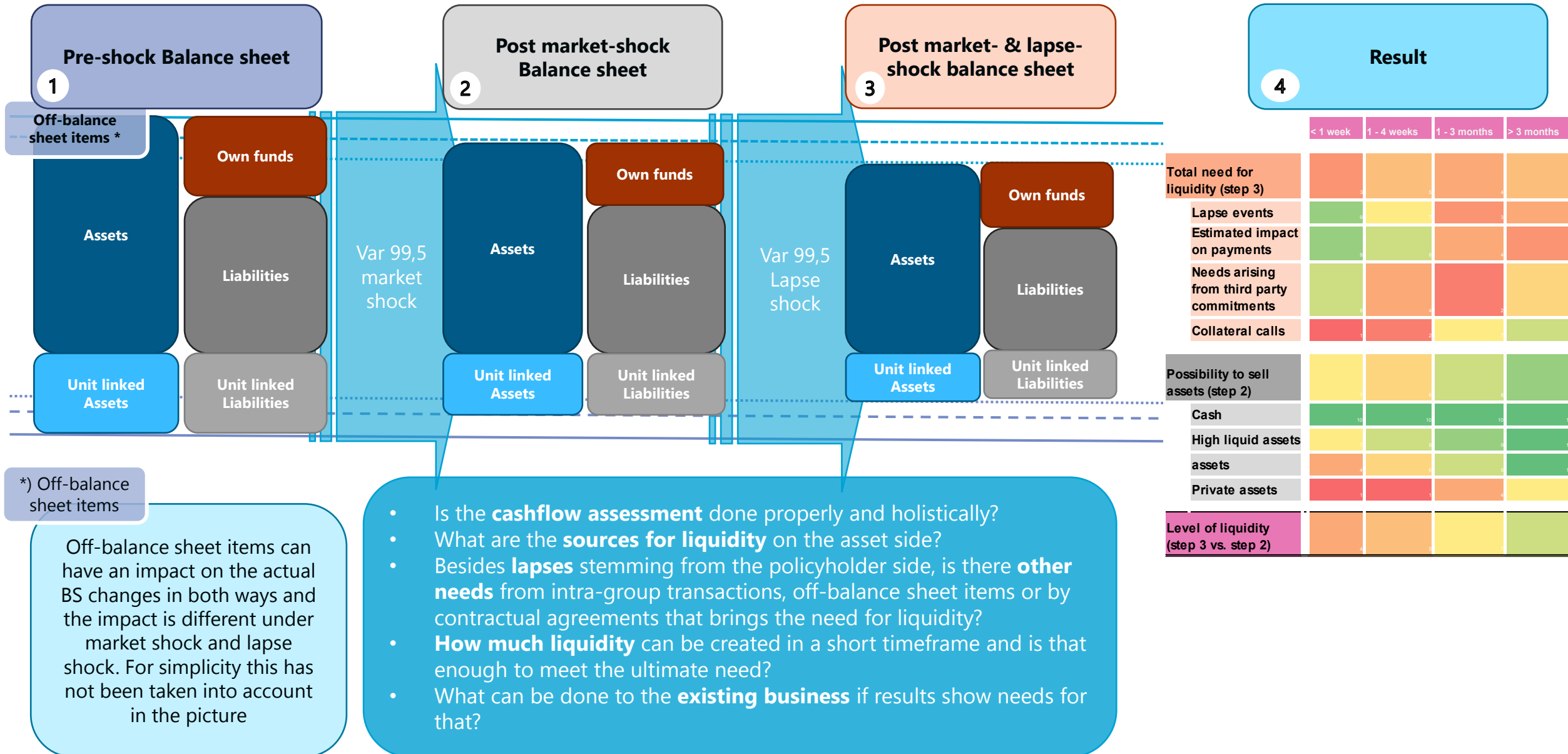
** <https://www.eiopa.europa.eu/system/files/2020-10/irsg-advice-on-stress-testing.pdf>

*** https://www.thecroforum.org/wp-content/uploads/2019/09/CRO_Forum_Managing-liquidity-risk_2019_Final-1.pdf

The liquidity risk assessment methodology 4-step approach



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Liquidity Stress measure - numerical example for a life insurer

Asset class	Market Stress				Possibility to sell assets (post stress)				Asset allocation after answering the liquidity	
	Market value	Allocation	post stress Market value	Post stress allocation	< 1 month	1-3 month	4-6 month	Over 6 month	Post market & lapse stress Market value	Post market & lapse stress allocation
Equity	200 M€	20 %	108 M€	13 %	86 M€	22 M€	0 M€	0 M€	78 M€	11 %
Bonds	450 M€	45 %	454 M€	53 %	427 M€	27 M€	0 M€	0 M€	323 M€	47 %
Long Duration	400 M€	40 %	404 M€	47 %	377 M€	27 M€	0 M€	0 M€	274 M€	40 %
Short Duration	50 M€	5 %	50 M€	6 %	50 M€	0 M€	0 M€	0 M€	50 M€	7 %
Real Estate	70 M€	7 %	52 M€	6 %	0 M€	0 M€	10 M€	42 M€	52 M€	8 %
Private Equity	80 M€	8 %	64 M€	8 %	0 M€	0 M€	3 M€	61 M€	64 M€	9 %
Alternatives	50 M€	5 %	47 M€	6 %	0 M€	9 M€	9 M€	28 M€	47 M€	7 %
Strategic Investments	50 M€	5 %	43 M€	5 %	0 M€	0 M€	0 M€	43 M€	43 M€	6 %
Private loans	100 M€	10 %	85 M€	10 %	0 M€	9 M€	9 M€	68 M€	85 M€	12 %
	1 000 M€		852 M€		513 M€	67 M€	32 M€	241 M€	692 M€	

Need for liquidity

	< 1 month	1-3 month	4-6 month	Over 6 month
Savings withdrawal shock incl. other lapse events	160 M€			
Estimated impact on payments	5 M€	8 M€	10 M€	15 M€
Needs arising from third party commitments	25 M€	5 M€	15 M€	25 M€
Total need for liquidity	190 M€	13 M€	25 M€	40 M€
Liquidity risk level (possibility to create / total need)	2,7	5,2	1,3	6,0

The figures are illustrative by nature

Key Takeaways

- **Liquidity risk is a complex issue** that needs a holistic and custom made assessment even though it doesn't seem to be the biggest risk for insurers.
- The **increased liquidity needs after a double shock scenario can appear to be substantial** compared to normal times. However, comparing this increased need to the amount of liquidity an insurer actually has or can create in a short time frame is key to assessing if there would be any actual concerns
- The introduced **four step approach**, which uses the shocks, expert judgement and balance sheet analysis, **seems to give a good and holistic overview** of the different aspects of liquidity. Though a lot of insurer specific questions exist which needs to be assessed looking at the particular business model and the cashflows.
- Finding a simplistic approach which is good enough and does not give false comfort or false concern appears challenging. Therefore, this type of **scenario based approach seems to fit well for the purpose**.
- If using this approach, **insurer should set its risk appetite** e.g. by the amount needed for the stressed liquidity needs. If the measure gives a value too high, then possible changes to increase asset allocation liquidity or actions to reduce sudden needs for cash should be made.
- The **solvency position can be quite neutral** to the stress event but other measures such as investment return or expense ratio can be severely hit.
- National **insurance contract and insurance company legislation** should be carefully studied to understand the timeline for payments towards policyholders and third parties. If there is a **crisis law** that prevents policyholders to withdrawing their savings contracts in a crisis situation this should also be taken into account, at least conditionally.
- This 'new gold standard' - idea was presented also in the Actuary's August edition.



Thank You!

**Any Questions or
comments?**