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# What are the odds?

“That was one in a million” - a throwaway phrase that we use in our everyday interactions when something completely unexpected and unlikely happens. But what do you do when “one in a million” becomes a reality?

A modelling exercise done for the insurance industry concluded that the annual risk of an influenza outbreak on the scale of the 1918 pandemic lies between 0.5% and 1.0%.<sup>1</sup> That’s between a 1-in-200 and 1-in-100 year event in absolute terms. It is estimated that about 500 million people or one-third of the world’s population was infected by the virus that caused that pandemic with the number of worldwide deaths estimated to be at least 50 million.<sup>2</sup> It is too early to tell whether the Covid-19 pandemic will reach the same proportions as that of 1918, but what we can say for certain is that no one saw it coming.

It is natural that in the wake of Covid-19, concerns regarding the solvency of insurers have been raised by both regulators and market participants, especially considering the related financial market volatility. After all, the primary role of insurers is to protect society against exactly this kind of low probability, high impact event and offer a cushion against the fallout. But when the event in question is affecting the entire world almost simultaneously, the usual rules are harder to apply.

Thankfully, it has become clear through the passage of time, that

any concerns around the immediate solvency of insurers were unwarranted both locally and globally, evidenced by the fact that there are free assets of R373bn in the South African life insurance industry, more than double what is needed under the solvency capital requirements imposed by the Prudential Authority.<sup>3</sup> Despite very different solvency regimes existing across different countries and markets, all of them have ensured that the industry was able to bear the brunt of Covid-19 and not only meet the challenge, but in some cases play an even greater role in society through the creation of relief funds or offering payment holidays to policyholders.

But, this is not to say that Covid-19 will not have a significant impact on solvency and how we view it going forward! The risk of insolvencies is certainly not zero and most, if not all insurers, will experience a decrease in their solvency ratios over the next six to eighteen months. However, it is unlikely that the decrease in solvency ratios will lead to an industry-wide problem and it is likely that solvency issues will be felt more keenly by thinly capitalised companies that do not have much of a buffer to play with or very bespoke or mono-line insurers heavily exposed to classes of business worst affected by the pandemic. The risk of insolvencies will of course start to increase if there were to be a sustained global recession or South Africa was forced to go back into Level 5 lockdown but this is true for all industries and is not unique to the insurance industry.

<sup>1</sup> (World Health Organisation, 2018)

<sup>2</sup> (Centre for Disease Control and Prevention, 2019)

<sup>3</sup> (Cranston, 2020)

## It is our view that the most important solvency questions as we move into a post-Covid-19 world are:

### 1. What is the future of solvency measurement?

One benefit the pandemic has yielded is to reinforce the fact that the industry is right to move towards more sophisticated solvency regimes as it is better able to model and provide for an event like this pandemic. It is interesting to note that there is still a wide variety of views on regulatory capital globally with some regions slow to move towards a more sophisticated regime. The three basic approaches to regulatory capital as well as key markets where they are applied is summarised below:

Calculation complexity	Simplified approaches 'Solvency I approach'	RBC (Risk Based Capital) approaches	Internal model, Solvency II, ICAAP
Brief description	Factor-based methods, may not be risk weighted, focused on minimum capital levels	Rules based, mostly factor-based methods (some modelling e.g. VA's, CAT's, other), focused on minimum capital levels	Some aspects are principles-based approach, others are formulaic, to calculate an economic required capital amount and a minimum capital level, factor based
Selected countries	India, Hong Kong (SAR), China; MACAU (SAR) China	US, Canada, Japan, most of South East Asia	EU countries, UK, South Africa, Switzerland, Bermuda, Australia, China

All three approaches determine capital requirements by assessing the impact of adverse events on the assets and liabilities of the insurer. This can include changes to interest rates, reductions in asset values, increases in claims or other adverse events such as credit defaults and losses from operational events. The more sophisticated regimes, such as our local SAM regime, allow for the complex interactions and dependencies between these adverse events and full re-quantification of the balance sheet in response to specific shocks (for example a pandemic event) is required.

The resilience of the local insurance industry is a credit to the SAM regime and the work

done by the Prudential Authority in taking the prescient step of moving towards a more sophisticated regime a few years ago. The fact that this regime models for the risk of a 1-in-200 year event means that the South African insurance industry is well capitalised and has been able to take the pandemic in reasonable stride and continue its work of supporting the local economy during a time when many other companies could not.

### 2. What is driving solvency ratios down?

Global insurers today have more than USD20 trillion in assets under management and it is our view that the biggest downward pressure on solvency ratios currently is the impact of financial market action on these asset values. This pressure is coming from several different directions:

- **Equity market volatility:** March 2020 had some unsettling similarities to September 2008 and the Global Financial Crisis and the bailout of insurance giant American International Group Inc. From its peak on 19 February 2020, the S&P 500 collapsed as a result of the pandemic and ensuing lockdowns, losing 34% of its value by 23 March 2020, dragging global markets down along with it as investors panicked and a scramble to safe haven assets occurred.<sup>4</sup> However, these losses have been pared as of 30 June 2020 with the S&P 500 now positive for the year and the JSE down a mere 0.88% over the same period.<sup>5</sup>
- Whilst this is positive news, what is clear is that we are living in a time of unprecedented volatility in equity markets. Insurers with larger equity exposures in their investment portfolios are likely to see significant swings in solvency requirements month-to-month as a result of increased volatility. The Volatility Index<sup>6</sup>, or VIX, has traded above the 30 level since Tuesday, 25 February 2020 with no sign of reducing any time soon – indicating an expectation of increased volatility for the foreseeable future.
- **Downgrading of investments:** many companies and governments are likely to experience financial pressures as a result of the pandemic which will drive downgrades in the credit ratings of their bonds. Insurers with exposure to these instruments will face a corresponding decrease in their solvency ratio as a result of credit downgrades and may need to replace these bonds with higher quality ones, locking in previously unrecognised investment losses.

<sup>4</sup> (The Craziest Statistic From the Coronavirus Market Crash, 2020)

<sup>5</sup> (Bloomberg, 2020)

<sup>6</sup> Created by the Chicago Board Options Exchange (CBOE), the Volatility Index, or VIX, is a real-time market index that represents the market's expectation of 30-day forward-looking volatility. Derived from the price inputs of the S&P 500 index options, it provides a measure of market risk and investors' sentiments. It is also known by other names like "Fear Gauge" or "Fear Index." In absolute terms, VIX values greater than 30 are generally linked to a large volatility resulting from increased uncertainty, risk and investors' fear. VIX values below 20 generally correspond to stable, stress-free periods in the markets.

- **Credit and credit spread risk:** many insurers will see an increase in the credit risk of counterparties, reducing related asset values, as well as in the credit spreads used in liability discounting.

### 3. What are possible avenues that insurers can explore to try and counteract the above factors?

The recovery of the local and global equity markets is evidence that it is wise to move carefully and patiently as the effects from the pandemic emerge and are quantified, as demonstrated by most of the insurance industry.

If not already in place, insurers with significant equity exposure might start exploring the viability of entering into a hedging strategy through the use of derivatives (such as short positions) to protect against any more sudden equity movements. However, the current market volatility may make this an expensive option in the near term.

Another consideration is to review current asset and liability maturities in order to determine whether investment portfolios need to be rebalanced to avoid a cash crunch.

Finally, insurers should consider their exposure to external credit risk and identify significantly at-risk counterparties in order to be ahead of any issues that may arise if the pandemic were to draw out over an extended period or the country were to move back to Level 5 of the lockdown.

### 4. What does this mean for the future of solvency?

We expect that there will be a “new normal” for solvency ratios over the next eighteen months, with solvency levels generally being much closer

to the minimum level than before.

In the longer-term, it is likely that many insurers will reassess their investment portfolio mix and review their asset-liability management approaches as a result of the increased volatility in equities and the lowering interest rates.

One question that is receiving a lot of attention is how this will impact small and medium sized insurers relative to larger insurers? The general view is that this will challenge some of them to the point of potential insolvency or at least they will face more distress than may be felt by the larger insurers. This could point to more M&A activity and further consolidation in the market.

There is also the complex question of how all of this will impact the reinsurers. Will we see sharp increases in pricing due to the global increase in insurance and credit risk? What steps will the reinsurers take to mitigate the reduction in their own credit ratings and investment portfolios? We expect that company’s will be more aware of their total universe of exposure and be more open to paying to pass on risks that they previously would have retained for themselves. Will reinsurers continue to innovate, as they always have, to create new products around pandemic risk that can help insurers?

What is clear is that Covid-19 will change how we look at solvency forever, and thankfully it will primarily be for the better. The current approach to solvency has enabled the insurance industry to achieve its primary goal - endure the pandemic and support those who desperately need support. Any improvements can only reap even greater rewards.

