BY NINO SIELING
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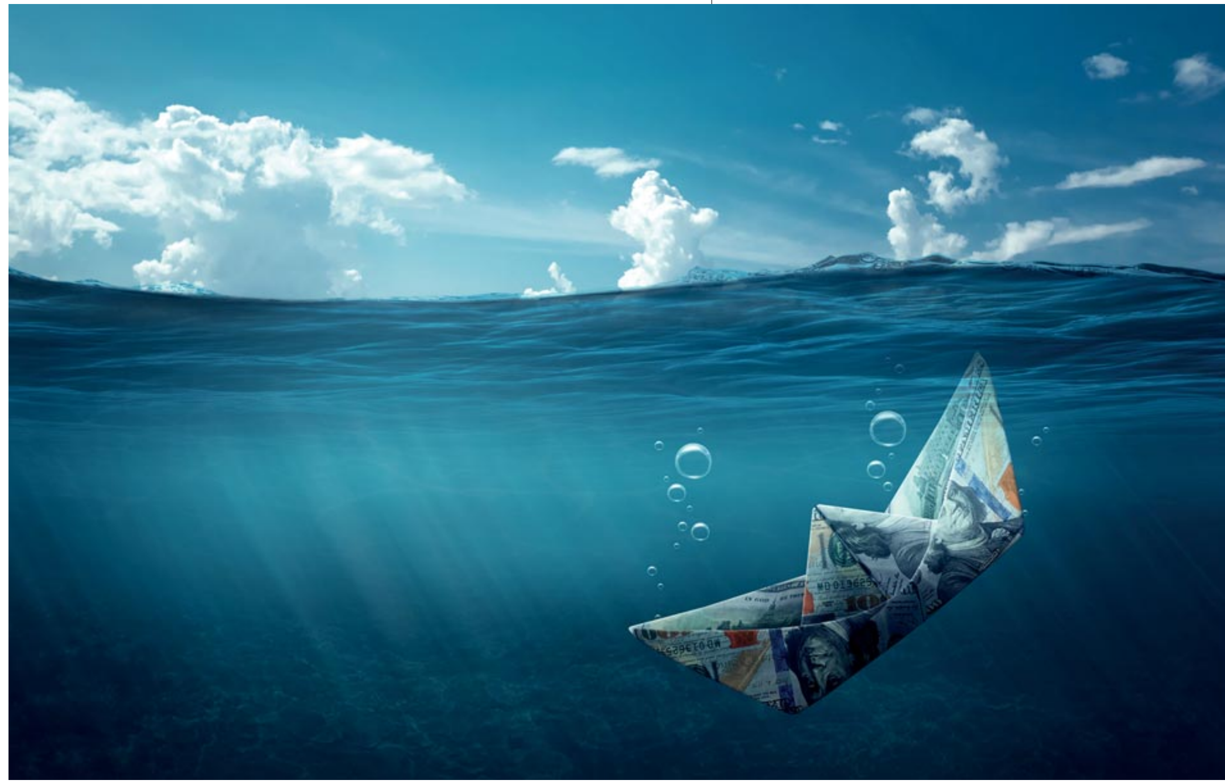

High inflation rates for insurers

In the past few months, consumer price inflation has been increasing significantly. This is observed in Europe (including the Netherlands), and the United States. An increase of the inflation levels can have immense impacts on insurance companies as expenses and associated expense provisions may increase. For Life insurers, benefits linked to consumer price inflation increase, and non-life insurers typically observe claims inflation. We see insurers thus making up their minds on how to deal with increasing inflation. In this paper an approach is sketched, both for the steps to take right now, and more importantly, also on how to be prepared for unforeseen developments.

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RISK APPETITE

Appetite towards inflation risk is not always explicitly defined by insurers. Some insurers include an inflation scenario as part of their ORSA. Currently, the Solvency II Standard Formula does not include a capital requirement on inflation risk as part of the market risk module. We believe, this is mainly caused by the lack of urgency; over the past years the inflation was well below the target rate of 2% and hence it was not on the list of emerging risks. However, if an insurer has an internal model in place, then it is observed that there is an inflation risk module present. If the price levels rise – and with the price levels the claim amounts – then it is observed that insurers try to mitigate this risk by setting up hedging policies. This is more typical for Life insurers than for Non-Life insurers, mainly because of the longer duration and inflation linked products. This hedging is achieved by using inflation swaps for example. However, we note this is not always possible because of associated costs.

THIS IS NOT THE FIRST TIME THAT HIGH INFLATION SPIKES

CURRENT MARKET CIRCUMSTANCES / ELEVATED RISK LEVELS

Importantly, we highlight this is not the first time that high inflation spikes. In fact, it has happened multiple times before over the past decades. The most recent episode was in 2008, where the inflation rose above 5 percent for a few months due to skyrocketing gas prices. This is comparable to what is observed right now. A longer period of high inflation was observed in the 70s and early 80s. These two periods of high inflation were also caused because of a steep increase in oil prices. First period because of an oil embargo implemented by OPEC and the second surge was caused by a decline in oil production. This was brought under control by hiking interest rates.

D'Arcy (1982) finds that both the underwriting profit margin and insurance investment returns were negatively correlated with the inflation rate during the period 1951–1976. Krivo (2009) determines that in the period of 1977–2006 inflation and the underwriting profit margin were not significantly correlated. This could be caused by the change in earning model for insurers. In the 70s the main focus was guarantees whereas currently, the main focus is return for policyholders. However, investment returns and the year-to-year change in underwriting profit margin were both significantly negatively correlated with inflation in that period. Lowe and Warren (2010) express concern that most actuaries, underwriters and claims staff have never experienced severe inflation, so could be slow to adapt to any change in the economic environment.

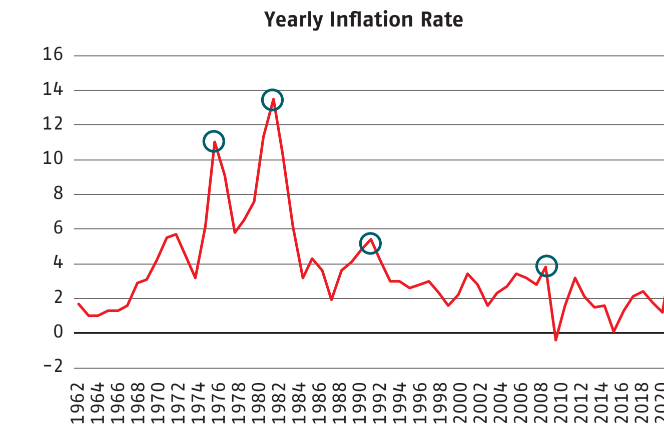
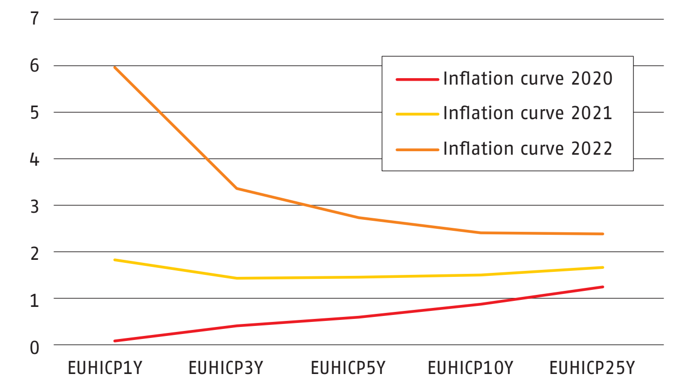


Figure 1 – US Inflation over time

As noted long ago by Irving Fisher (1930), interest rates (or "new money rates" in insurance terminology) and inflation are closely related, as investors expect a real return, over the inflation rate, as compensation for foregoing current consumption. An increase in interest rates reduces the value of long-term fixed income holdings, which make up a significant proportion of investments for insurers. Insurance investment returns were significantly negatively correlated with inflation during the period 1933–1981 (D'Arcy, 1982) and 1977–2006 (Krivo, 2009). In addition, stock returns were significantly negatively correlated with inflation during the period 1933–1981 (D'Arcy, 1982), although not during the period 1977–2006 (Krivo, 2009). This discrepancy may be due to the level of inflation and whether it was expected. A return to a high level of inflation could reduce the value of stocks held in insurers' portfolios.

CONTROL AND CONSEQUENCES

Increase of inflation affects companies' Solvency II balance sheets and IFRS provisions. Not only the current inflation levels affect the balance sheet, but also an expected increase in inflation. As a result, both effects lead to an increase in technical provisions. However, here is a big difference between Life insurers and Non-Life insurers. Main concern within the Life portfolio are pension products. If these are linked to inflation, it is usually priced into the premium. However, if inflation increases by such an amount that this extra premium does not cover the needs, then extra costs arise in case liabilities have not been hedged. For Non-Life, the costs increase as the future claims of current policies will be higher due to inflation. In addition, for example property policy premiums are based on cost to repair at time of loss. These also increase due to inflation, hence the costs of claims increase. In both cases, the earnings of both underwriting and investments will be reduced, and own funds will decrease because of both increased liabilities and reduced asset values.



IDENTIFYING INFLATION RISK

Insurers make use of sensitivity testing to try and identify how rising inflation impacts the balance sheet. In practice, it is difficult to precisely establish the impact of inflation on the balance sheet, but it is of key importance to be able to properly do this. To get an indication, insurers can compare their estimated cost levels versus their realized cost levels and then check what causes the difference between these two, but this is might turn out to be difficult because of for example other cost savings. Is it because more (/less) business has been conducted or is the increase (/decrease) caused by inflation. Insurers should also be careful in adopting the consumer inflation level on their costs since the expenses of an insurer are usually different than those of an ordinary consumer. Hence, it is crucial to get insights on the difference between nominal increase of your cost levels versus an increase caused by inflation.

DEALING WITH INFLATION RISK

The following is recommend for insurers that want to take steps in analyzing and mitigating inflation risk:

- Firstly, the risk appetite needs to be established or reevaluated and/or adjusted depending on the outcome of the possibly new risk appetite.
- Secondly, inflation scenarios need to be included in companies' ALM studies.
- Thirdly, companies should review their assets and then hedge based on its risk appetite. Companies could also look for financial products to hedge against high inflation. Examples of products that perform well in times of high inflation are treasury bills, inflation-indexed bonds, or commodities.
- Next, companies should obtain a clear overview on how any increase in its cost levels is explained by inflation: i.e. which part of the cost increase is caused by a nominal effect (increase/decrease of estimated business), and which part is caused by actual inflation. This should be measured to obtain the real exposure towards inflation. Once this is obtained, an insurer can judge whether enough is being done to hedge against inflation.
- Lastly, it should be noted that changing the inflation expectation in the assumptions underlying technical provision does not work to mitigate the risk. This only causes you to see the risk differently.

CONCLUSION

All in all, these past few months should have been a wake-up call for insurers. Insurers should be cautious as history has a tendency of repeating itself in one way or another. However, unexpected events may arise. So the key message is: "Be prepared". Insurers should know which risks they are willing to take and what options there are. One should have an insight in the situation to perform adequately. The chosen action should be evaluated and checked if it was actually the best execution of the policy. When it turns out that it wasn't, be prepared to implement changes so that next time you will have better results. ■