September 2022

# Insurance Linked Securities – Market View Summer 2022

Asset classes of all colour faced a demanding first half year. Asset class performance tables reveal mostly red numbers with only a few exceptions in selected commodities and the energy sector. The high prices on the energy markets, however, aggravated the difficult economic situation.

Covid, being the first culprit, inflicted several long-lasting harsh lockdowns on multiple large cities in China, triggering severe implications for supply chains of recovering economies in Europe and the United States. In February, Russia raised the geopolitical uncertainties to an unprecedented level with its attack on Ukraine and significantly impacted Europe's energy security and prices.

Inflation rates reached levels not seen for decades in the western world. Asset prices suffered from the ambiguity of central bankers whether to address the inflation-question as a transitory reaction, requesting only moderate action, or as a serious threat to the stability of (weaker) currencies. Central bankers' reactions in the third quarter revealed their assessment that it is not a short-term issue and the corresponding interest movements affected every bond portfolio, irrespective of governmental, corporate or high yield type.

A general re-pricing of risk in nearly all asset classes was the consequence, and the substantially improved yield expectations triggered sizable losses. Insurance Linked Securities performed quite well in this difficult time and proved their merits as a diversifying asset. In an environment with fears of financial repression and rising interest rates, ILS, being market neutral high yield fixed income securities, offer an interesting portfolio benefit as they hold their value due to their short duration and their ability to participate on increasing base rates as floaters over Money Market rates.

ILS offer a true hedge against inflation-induced interest rate changes. A hedge against a general re-pricing of risk is however not possible as reflected in secondary market prices of traded cat bonds. In the next section, we shall shed some light on the factors that drove the price movements of ILS in the first six months of this year.

## *Re-Pricing of risk*

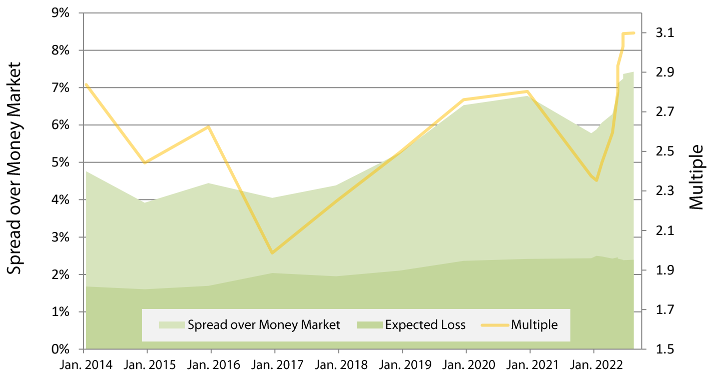



*Chart 1: Development of the yield to maturity over money market in the cat bond market based on the mid-prices of various market makers, excluding short dated paper (saisonality) and pathological (loss-induced) positions.*

Chart 1 shows the development of the yield of the ILS market as exemplified by the cat bond market, for which price indications are regularly available. Shown in this chart is the issue-weighted yield to maturity over money market rate since the beginning of 2014. In 2022, the spread reached a level not seen since the end of the financial crisis. The dark green curve shows that the corresponding expected loss increased as well slightly over time. A simple proxy for the attractivity of the market is the "multiple", i.e. the ratio of spread (over money market) to expected loss. This multiple currently stands at a record level of over 3.

This yield increase was driven by a substantial increase of reinsurance premia. The dynamics can be well observed on the example of the *Everglades Re II* cat bond programme sponsored by the Citizens Property Insurance, the «Insurer of last Resort» in Florida. Series 2021-2 und 2022-1 cover the identical portfolio against the hurricane risk with parameters as stated in the table. Despite a significantly remoter attachment level (with a corresponding lower expected loss), the spread (above money market rate) increased from 5.75% to 7.75% p.a. for the Series 2022-1. Thereby, the multiple increased by 66%!

| | Everglades Re II Series 2021-2 | Everglades Re II Series 2022-1 |
|---|---|---|
| Start of reinsured layer [USD Bn.] | 2.4 | 4.6 |
| End of reinsured layer [USD Bn.] | 3.6 | 6.0 |
| Modelled Expected Loss | 1.03% | 0.83% |
| Coupon in excess of money market rate | 5.75% | 7.75% |

Existing bonds in the cat bond market reacted with a corresponding devaluation to this significant yield increase to adapt to the new regime. The *Swiss Re Global Cat Bond Price Index* lost 3.6% in the first 6 months, a development that reflected itself in existing portfolios.

*Reasons for the yield increase*

We cannot blame central banks' interest rate increases for the mark to market losses. Despite the fact that cat bonds are fixed income instruments, they are structured as floaters over duration-free money market and do not devaluate when base rates increase. The above discussion of the spread widening concentrates therefore on the insurance premium only, i.e., the compensation for assuming event risk, which is earned in excess to the money market return. Collateral assets of cat bonds are usually invested in short-duration money market paper with no meaningful duration risk and hence, interest rate changes do not affect their prices. The absolute compensation of cat bonds, however, is higher today, as more return is generated by the base rate, which provides a compensation element against the higher inflation.

We identify four factors as sources for the development towards the current hard market

- Several years with truly high (2017) or elevated (2018-2021) loss burden for the reinsurance industry forced the industry to demand sizable rate increases.
- The overall (available) capital of the ILS industry shrank in the last 12 months. Especially larger ILS managers lost capital due to meagre performance over several years. In addition, the retrocession market became tighter as ILS capital was only sparsely available due to the investor redemptions and remaining capital often being blocked in side pockets.
- A higher expected inflation increases the financial impact of potential future events due to higher labour or raw material costs, which demands a higher reinsurance premium. This factor does not change the overall attractiveness of the market, but in a hard market it is possible to push such rate increases through to the insured party.
- Despite the fact that cat bonds and private ILS contracts have a high degree of independence, they are not fully decoupled from other asset classes: A globally higher risk awareness, triggering a higher yield expectation on the capital markets in general, will be felt in the ILS market as well.

It remains unknown on which level the yield potential of the ILS market will reside in 2023 and beyond. On one side, we expect that the typical seasonality pattern of hurricane-exposed ILS investments will cause some decrease as tropical storm risk amortises in QIII of each year. On the other hand, reinsurance CEOs issued very confident statements about the market situation at this year's Rendez Vous de Monte Carlo, forecasting a very attractive renewal and a very hard market.

### *The first half of the 2022 hurricane season*

Many hurricane forecasters expected a slightly above average season, which however should stay clearly below the activity of the last two years. Up to now, this prognosis has not yet materialised. The Atlantic saw unusually little activity, with no tropical depression developing during August. The last August without any tropical system in this basin occurred 25 years ago in 1997.

Several factors contributed to this rare behaviour, such as a below average monsoon trough in the inner-tropical convergence zone, a large layer of dry Saharan air dust over the mid-Atlantic and a weather phenomenon called Madden-Julian Oscillation (MJO). The MJO is a large-scale coupling between atmospheric circulation and tropical deep atmospheric convection that circulates the earth's tropics in 30 to 60 days and manifests itself in changing rainfall patterns. The wet phase of enhanced convection and precipitation is followed by a dry phase where thunderstorm activity is suppressed, which happened to lie over the Atlantic during this August.

In mid-September, the half way point of the season is reached, but it too early to call the season over. The factors suppressing hurricane formation lost their influence already in the first week of September, and directly two hurricanes could form in the open Atlantic. Up to the end of September, the so-called Cap Verde type hurricanes will dominate. A Cape Verde type storm emerges from the monsoon trough in Africa and is a disturbance that travels as tropical depression over the Atlantic, eventually developing into a sizable hurricane. In October, the hurricane cyclogenesis shifts more to the still warm waters of the Caribbean, forming storms that travel up to the US Gulf or East Coast.

### *Solidum Fond performance until August 2022*

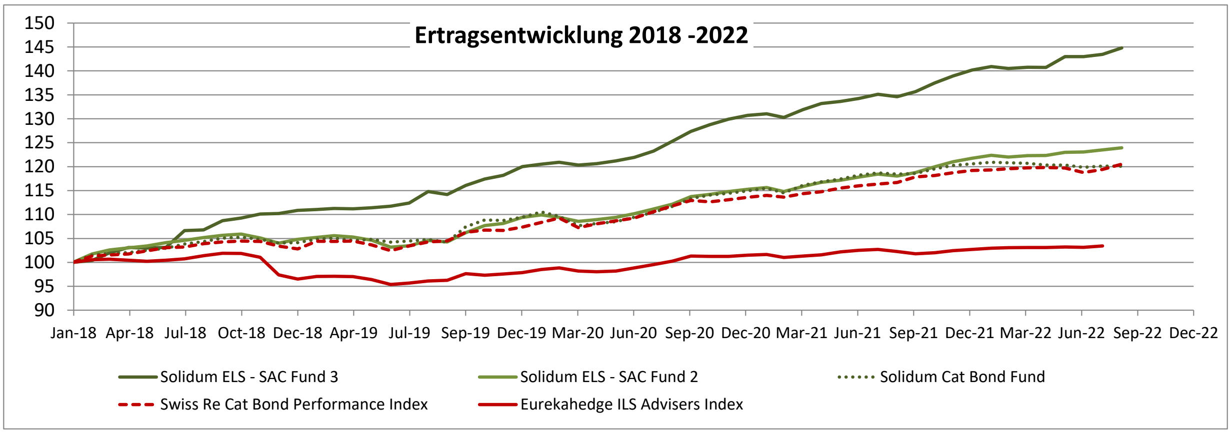
In the light of the significant spread widening, the portfolios with a higher allocation to private contracts (reinsurance and retrocession) performed better than the pure cat bond portfolio of the Solidum Cat Bond Fund, due to the fact that the former are less exposed to the spread widening

| | **08/22** | **2021** | 2020 | 2019 | 2018 |
|---|---|---|---|---|---|
| Solidum Cat Bond Fund (USD R) | -0.24% | 4.91% | 5.02% | 5.10% | 4.13% |
| Solidum ELS SAC 2 (USD A-1) | 1.46% | 5.10% | 4.83% | 3.84% | 4.31% |
| Solidum ELS SAC 2 (USD I-1) | 1.80% | 5.62% | 5.36% | 4.36% | 4.83% |
| Solidum ELS SAC 3 (USD I-1) | 3.29% | 7.27% | 8.92% | 8.22% | 10.88% |
| Eurekahedge ILS Advisers Index *) | 0.71% | 0.82% | 3.69% | 1.43% | -3.49% |
| Swiss Re Cat Bond Performance Index **) | 1.11% | 4.92% | 5.81% | 4.43% | 2.81% |

*) July 2022; **) no cost, non-investable

dynamics, given the shorter risk amortisation pattern of the typically annual contracts. In contrast to most cat bond funds that apply a *best bid / modified best bid* approach to pricing, Solidum uses a more conservative *average bid* valuation that enhances the mark to market impact in phases of price reductions, but is in our view more appropriate for semi-liquid markets such as the cat bond market. The performance is hence approximately 2 to 3% behind the expectation as of beginning of the year.

The new spread level offers however a great prospect for above average earnings in the second half of the year.




The management team remains at your disposal for any question about the asset class or the Solidum Funds. We would be pleased to start a dialogue with you on cat bonds and insurance linked securities.

With kind regards

Solidum Partners

Dr. Karsten Bromann Stefan Müller