INSURANCE INVESTMENT ADVISORS

SOLIDUM PARTNERS

28. February 2020

The 2019/2020 coronavirus outbreak and implications for the ILS market

Since the first outbreak of the novel coronavirus disease in China's Wuhan Province in December 2019, the virus has spread first in China and now worldwide. The disease, now called COVID-19, is caused by the SARS-CoV-2 virus, a variant of the SARS and MERS viruses that have led to two other coronavirus outbreaks in recent years.

Since the situation is very dynamic, this briefing does not attempt to provide a summary of the general situation. For an overview of the current state of infection and death figures, we would like to refer the reader to the dashboard website of the Johns-Hopkins University, which can be found as a link on "https://hub.jhu.edu/2020/01/23/coronavirus-outbreak-mapping-tool-649-em1-art1-dtd-health/".

However, as general markets have been increasingly nervous about the situation in recent days, and stock markets in particular have corrected sharply, we would like to explain the various ways through which the virus can affect the cat bond and ILS markets. ILS securities with exposure to COVID-19 can be divided into four groups:

i) Pandemic cat bonds for the World Health Organisation, issued by the World Bank
ii) Cat bonds that cover a sharp rise in medical healthcare costs
iii) Cat bonds, which cover life insurers against a sharp rise in mortality rates
iv) Private transactions, in particular with a focus on extreme mortality

In the following, we would like to provide a brief characterization of these four groups.

World Bank pandemic cat bonds:

In the wake of the "Swine-Flu" pandemic during the 2009/2010 flu season and the Ebola outbreak in West Africa in 2014 to 2016, the WHO, together with the World Bank, considered which mechanism could guarantee rapid funding to help developing countries in a timely manner with the containment of an epidemic in the event of a future outbreak. To this end, the World Bank issued two Cat Bonds with a total of $320 million, the coupon payments of which were sponsored by the governments of Germany and Japan. These bonds respond with a parametric trigger mechanism to various groups of pathogens, including coronaviruses. The risk remoter A series is exposed only with 16.7% of its nominal value against coronavirus, the riskier B tranche, as is typical for Cat Bonds, with the total nominal value. For both bonds, it is expected that the bonds will be paid out, although not all parameters have been met at this time.

Healthcare cost insurance cat bonds:

American health insurer Aetna Life Insurance Company has been on the market for 10 years now with the “Vitality” Cat Bond program for its corporate health insurance division that covers a surge in medical healthcare costs in the US. At present, $800 million is outstanding under this program. These bonds are

structured as relatively risk remote. The severe flu season 2017/18 that led to 810'000 flu-induced hospitalizations and 61'000 deaths in the US posed no threat to the bonds. As long as COVID-19 does not expand into a major epidemic in the US, these bonds are considered as fairly safe.

Extreme Mortality Cat Bonds:

A peak risk scenario for life insurers and life reinsurance companies is a sharp increase in mortality rates in the population due to an epidemic. This corresponds to the "Hurricane on Miami" scenario in catastrophe reinsurance. For this reason, insurance companies seek cover against this risk on the capital market. So-called extreme mortality bonds have therefore always been a constant, albeit small, part of the cat bond market. Currently, only Swiss Re is a sponsor of explicit mortality bonds in the market (Vita Capital VI, $100 million, Matterhorn Re, $80 million). Both bonds require a significant increase of mortality rates, and therefore no impairment is expected at present. However, the example of Matterhorn Re - actually a hurricane bond to which the life insurance component has been added - shows that fund managers must pay careful attention to being adequately compensated for the risk.

Private transactions in the life insurance:

There is a market for private transactions in the life insurance sector. Some managers mix such private transactions into their ILS portfolios or manage explicit life insurance products. By its very nature, such contracts may be structured in many ways, and the details of the underlying insurance contracts determine how strongly these securities are exposed to the COVID-19 outbreak.

Exposure of Solidum ILS funds against the COVID-19 outbreak:

The Solidum Cat Bond Fund and the Solidum ELS Fund, SAC 2 are invested in the risk remote pandemic bond of the World Bank. The expected loss on these positions is -0.4% for the Cat Bond Fund and -0.1% for the SAC2. The loss will be realized in the February results and constitutes the maximum that can be lost on these positions due to Covid-19.

The exposure against the healthcare cost insurance bonds is 4.4% for the Cat Bond Fund, 0.9% for the ELS, SAC2 and 0.8% for the Solidum-Falcon Insurance Linked Strategies Fund. As long as COVID-19 does not expand into a major epidemic in the US, these positions are considered to be safe. Otherwise, the portfolios of these funds are not exposed against Covid-19.

The Solidum ELS Fund, SAC Fund 3 and the Solidum-Falcon Insurance Opportunities Fund are not exposed against Covid-19.

The Portfolio Management Team is always at your disposal for further questions.

With kind regards
Solidum Partners