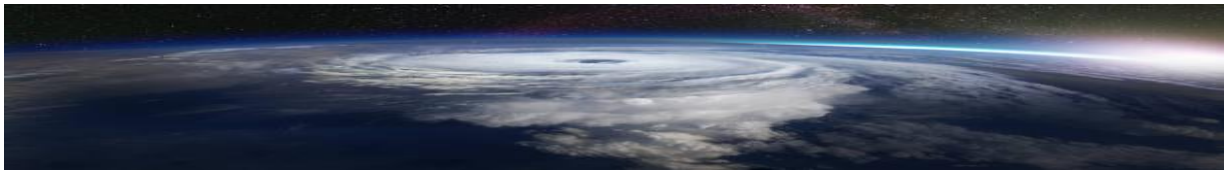

Solidum Market Comment

The impact of El Nino for the Hurricane Season 2026

In its latest monthly update on the ENSO climate phenomenon, dated 20 April 2026, the Climate Prediction Centre of the US National Oceanic and Atmospheric Administration (NOAA) reported that strong El Niño conditions are likely during the peak of this year's Atlantic hurricane season[1]. In this market commentary, we would like to briefly explain this climate phenomenon and outline its significance for the coming hurricane season.

ENSO and the siblings El Niño and La Niña

The *El Niño-Southern Oscillation*, or ENSO for short, is one of the most important global climate variables, as this phenomenon influences global atmospheric circulation and thus has a significant impact on temperature and precipitation worldwide[2]. The El Niño signal refers to the temperature of the equatorial surface waters in the Pacific Ocean relative to the long-term average. Climate research distinguishes even more precisely between different sections of the Pacific Ocean and examines the regions Nino 1 to Nino 4.

The phenomenon is now quantified using the RONI (Relative Oceanic Niño Index) metric. RONI, an extension of the long-established ONI index, is defined as the deviation of the surface temperature of the equatorial Pacific in the Niño Region 3.4 – which encompasses large areas of the central to eastern Pacific – from the average tropical temperature anomaly. El Niño conditions prevail when the equatorial waters of the Pacific are warmer than average. La Niña means that the water temperature there is below the long-term average. In the range from -0.5 to +0.5, the situation is described as neutral. Other index variants exist and use additional variables, but the key points for their interpretation remain largely the same.

[1] https://www.cpc.ncep.noaa.gov/products/analysis_monitoring/lanina/enso_evolution-status-fcsts-web.pdf
[2] https://www.climate.gov/news-features/blogs/enso/what-el-nino-southern-oscillation-enso-nutshell

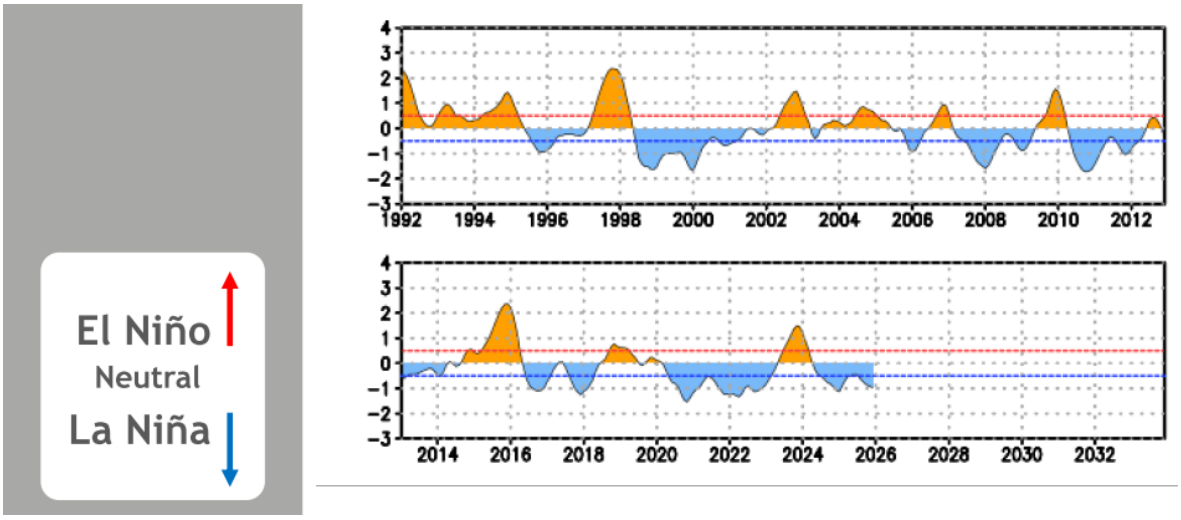

Figure 1: The RONI Index over the last decades (from 1)

Why is the El Niño climate phenomenon significant for the Atlantic hurricane season?

As discussed, the ENSO signal is based on climate data from the Pacific. It is therefore not immediately clear why this indicator should be relevant to the course of an Atlantic hurricane season. Nevertheless, the data reveal a clear correlation between an El Niño event in the Pacific and the activity of tropical systems in the Atlantic. *A strong El Niño hinders the formation of tropical storm systems in the Atlantic and thus generally leads to lower hurricane activity.*

This behaviour is caused by an increase in the occurrence of wind shear in the atmosphere over the Atlantic. Such wind shear impairs the ability of low-pressure systems to develop into tropical storms. As for the strength of hurricanes, should they manage to form after all, this does not, at first glance, tell us anything. Some studies suggest that intensity is also slightly affected, but the signal is much weaker in this case.

An example from the recent past

A good example of the lack of suppression of hurricane formation in the Atlantic can be found in a review of the year 2024. In that year, a pronounced La Niña situation was forecasted for the third quarter, and in conjunction with high sea surface temperatures, Solidum predicted a strong hurricane season. This forecast came to pass over the course of the season: we experienced an extremely active hurricane season. One index that measures the strength of a hurricane season is 'Accumulated Cyclone Energy' (ACE). For 2024, the ACE stood at 162, which is 167% of the median for the period 1951 to 2020. However, a strong season must be distinguished from the industry losses caused by these hurricanes. A high ACE value indicates the intensity of the season. It does not describe whether or where the storms make landfall, nor the extent of the damage they cause.

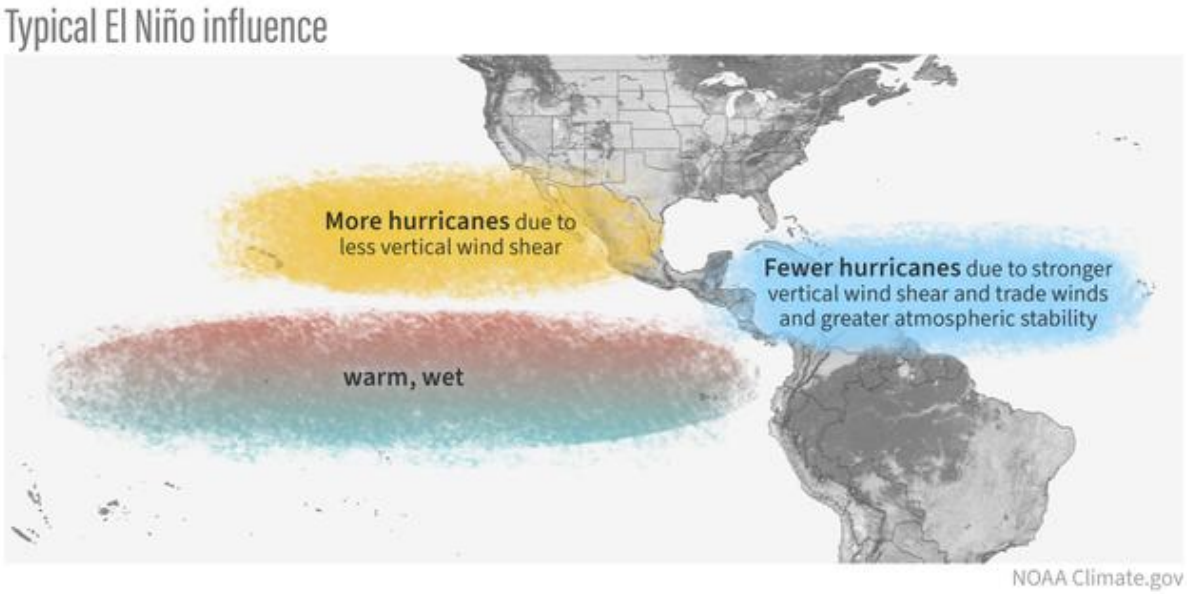

Figure 2: The influence of El Nino on the formation of tropical cyclones.
(From https://www.climate.gov/news-features/blogs/enso/how-does-noaa-see-2024-atlantic-hurricane-season-shaping)

Other ways in which El Niño influences global weather patterns

A strong El Niño has the exact opposite effect on tropical cyclones in the eastern Pacific compared to its impact in the Atlantic. As sea surface temperatures in the eastern Pacific are, by definition, higher during an El Niño and, at the same time, wind shear tends to occur less frequently there, an El Niño increases the risk of hurricanes making landfall on the Mexican Pacific coast. One example is the year 2023, when a very active season was recorded during a significant El Niño and, among other events, Hurricane Otis made landfall near Acapulco as a Category 5 storm with peak winds of 260 km/h.

However, a prevailing ENSO regime also has an impact on other weather phenomena relevant to insurance. Recent studies by NOAA and Gallagher Re[3] show a correlation between a La Niña situation and potentially costly hazards such as hail and tornadoes in the US. According to this data, *a La Niña situation leads to increased activity of severe convective storms, i.e. hail and tornado events in the US.* During El Niño phases, no such increase can be detected and a lower loss burden, particularly in the case of aggregate contracts, is more likely.

Although El Niño is important for forecasting the Atlantic hurricane season, it is only one of many factors that are important for such a forecast

A wide range of information is taken into account when forecasting the course of a hurricane season. In addition to the ENSO regime, the ocean heat content and sea surface temperature in a specific region are particularly significant in the medium term. Shorter-term factors include the position of

[3] Gallaghar Re: Natural Catastrophe and Climate Report; Q1 2026

the Bermuda/Azores High and the phase of the Madden-Julian Oscillation during the peak of the season. Unfortunately, therefore, even a clear El Niño signal does not allow for a 100% certain prediction of the course of the coming season. However, the probabilities do shift statistically significantly in an El Niño year, and the portfolio management of an ILS or cat bond fund can exploit this shift in probabilities for tactical positioning.

Impact on the ILS market, prices and risk-adjusted spreads

There is no simple rule for what an El Niño situation means for ILS managers and their clients. Given the likelihood of a less active season, one might assume that spreads are more likely to fall. However, there are numerous other influencing factors, such as supply and demand, the total capital of insurance and reinsurance companies, and other variables. *It is more important to analyse the spread in relation to the expected risk, measured as the difference between the spread relative to the money market and the expected loss.* If spreads fall less sharply than the expected loss, risk-adjusted margins rise, even if they may decline in nominal terms.

As in any market, pricing serves as a starting point dictated by the market. An ILS manager must use these price figures to carefully assess whether investment opportunities are attractive. A key factor in this regard is the short- and medium-term market situation. At Solidum, we actively take this into account and incorporate it as a key component of our investment process.

We would also like to mention the year 2024 at this point. In light of the forecasts, we have observed a significant decline in interest in ILS instruments for hurricanes, such as cat bonds, which has led to a widening of spreads. *This is where an important point comes into play: standard risk models do not respond to El Niño/La Niña inputs.* For this reason, additional and more in-depth analyses must be incorporated into the assessment of ILS investment opportunities – an aspect that is also embedded in Solidum's investment process.

Selecting and constructing the portfolio whilst taking El Niño/La Niña into account is a key tactical measure for the ILS manager. Solidum actively utilises this information. A good example is our forecasts for the 2024 and 2025 hurricane seasons, in which we provided an assessment of tactical positioning. As mentioned above, we forecast a very strong hurricane season for 2024, which subsequently materialised. We therefore positioned the portfolio more conservatively. Although the season was severe, the reinsurance industry and the ILS asset class were ultimately fortunate, as Hurricane Milton missed the sweet spot of the Greater Tampa area (and thus very high losses) by just 75 km.

Conclusions

- Taking all weather data into account *is of crucial importance for an ILS manager.* This involves not only taking note of and summarising the various weather data, but also having a sound understanding of their respective significance and how they interact. Whilst El Niño and La Niña are important factors, they must be considered in the context of other weather phenomena.
- Whilst the impact of El Niño on the hurricane season is undoubtedly significant, a manager must also take into account other potentially costly hazard categories, such as hail and tornadoes in the US. *As outlined, it is reasonable to assume that a strong El Niño event will lead to a lower incidence of these events in the US.*
- Based on this information, *the impact on spreads and risk (expected loss) must be carefully assessed.* Sometimes the markets react in a way that is partly 'blind' to relevant parameters, which opens up trading opportunities in the secondary market. Solidum has numerous examples of how it has exploited such anomalies to generate additional returns.
- The risk models available on the market each *have their own strengths and limitations.* As already mentioned, El Niño/La Niña climate regimes are not included as input parameters in standard risk models. It is therefore extremely important to use bespoke calibrations, proprietary models and analytical methods.

Solidum Partners was founded in 2004, and the team has a combined total of more than 120 years experience in the reinsurance and ILS industry. The quality of its forecasts and the underlying proprietary models have proven their worth over decades. Performance, particularly during the most challenging phases of the ILS market (Fukushima, hurricanes such as Harvey, Irma, Maria and Ian, or major earthquakes such as the one in Mexico), has been significantly better than the Cat Bond Fund Index, thanks to our superior risk management process. Please do not hesitate to contact us if you require further information.

Solidum Partners AG
Mühlebachstrasse 70
CH-8008 Zürich, Schweiz
contact@solidumpartners.ch

Dr. Ulrich Behm
T +41 43 521 21 83
M +41 79 613 21 83
ulrich.behm@solidumpartners.ch

Daniel Wälchli
T +41 43 521 21 84
M +41 79 614 21 84
daniel.waelchli@solidumpartners.ch