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COLUMBIA THREADNEEDLE INVESTMENTS

ESG VIEWPOINT

El Niño: a taste of climate risks to come?

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At a glance

- El Niño conditions are now in place, with commentators offering predictions on what this may mean for the economy.
- El Niño cycles are historically correlated with higher inflationary pressures as changing weather can impact crop yields, agriculture, and power – with this coming at a time when global inflation is already high.
- Exactly how this El Niño cycle will play out is a matter of probability rather than certainty. In particular, uncertainty on how it will interact with the underlying effects of climate change- a central concern for scientists.
- The way in which a company manages El Niño can serve as an indicator of how well it is considering and managing physical climate change risks. Climate change is already causing extreme weather in many regions of the world and set to worsen in the future.

Introduction

What is an El Niño cycle, and why is it in the news?

El Niño is the term for the occurrence of unusually warm sea surface temperatures in the Pacific Ocean, which can cause the atmospheric jet streams to shift, altering global weather patterns. The effects of these shifts will play out differently in different geographies. For example, in El Niño conditions, the southern US is more likely to experience rain and flooding, while the northern US and Canada are likely to be drier and warmer than usual. In India and Australia, El Niño most often results in below normal rainfall, which leads to a much higher likelihood of drought.

El Niño years are correlated with a higher frequency of natural disasters, and some of the world's worst climatic disasters have occurred at the peak of El Niño cycles. For example, the 2015-2016 El Niño (strongest cycle since 1950) triggered weather extremes, from severe drought in South and Southeast Asia to intense rainfall in the Pacific. The event affected 60 million people, and at least 40 countries around the world were affected by floods, droughts, storms, wildfires, frosts and diseases, according to the UN.

El Niño events vary from weak temperature increases, with only moderate effects, to very strong increases. It is hard to predict how strong this El Niño event will be, and ultimately strength matters, as stronger El Niño events are likely to lead to more severe economic outcomes. So far, US weather agency NOAA's climate prediction centre suggests a 56% chance of a strong El Niño, and a high likelihood of El Niño conditions continuing into the winter of 2023/2024.

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What are the impacts on commodity prices and inflation?

How does this relate to climate change?

How does this affect our dialogue with companies?

What are our best practice expectations for companies?

Commodity prices and inflation: what are the impacts of El Niño?

El Niño cycles can trigger spikes in commodity prices. At its most simple, drought and heat triggered by El Niño weather has led to increased crop prices due to disruption of the yields. There can also be impacts on energy, as heat can lead to higher energy demands; at the same time, the impacts of extreme weather can lead to the disruption of hydroelectric dams or other sources of power production, such as the temperature of water for cooling nuclear plants.

To understand the impacts of an El Niño cycle, economists consider how El Niño cycles have impacted economies and markets in the past.

At a macro-level, an International Monetary Fund (IMF) study from 2015 shows that the higher temperatures and droughts triggered by an El Niño cycle lead to increases in both non-fuel commodity prices and oil prices. They identified a rise in nonfuel commodities by 5.9% in the first four quarters after an El Niño cycle, and crude oil by 13.9%.

As just one example of commodity price inflation, strong El Niño conditions have been linked to drier weather in West Africa and weak cocoa bean production – with an analysis from **Gro Intelligence** showing 6.5% and 2.2% decreases in yield during the 2009 and 2015 El Niño years, respectively. Beyond commodity inflation is the risk of disruptive extreme weather events that can have broad supply chain impacts.

Historically, El Niño cycles have a marked impact on global inflation, adding 3.9 percentage points to non-energy commodity prices and 3.5 points to oil, **according to Bloomberg Economics modelling**. A separate analysis by the US **Federal Reserve** (from 1998) found that El Niño has "economically important and statistically-significant effects on world real commodity prices". It concluded that a one-standard-deviation surprise in El Niño raises real commodity price inflation by about 3.5 to 4 percentage points. El Niño has also hit GDP growth, particularly in Brazil, Australia and India, according to Bloomberg Economics.

Certain commodity prices are worth watching as El Niño progresses, such as the price of sugar which peaked in 2015-2016 largely due to El Niño conditions. Cocoa and coffee are also at elevated risk from El Niño impacts, according to some brokers. El Niño years **have, in the past**, lowered the productivity of sugarcane, cotton, rice and oilseeds in India.

Some analysis is already emerging on the scale of risks during this cycle. For example, the Indian credit-rating agency ICRA sees El Niño posing a threat to food inflation in **H2 of the financial year (FY) 2024**. Headline CPI inflation displayed a sharper-than-expected easing to 4.3 per cent in May 2023 in year-on-year (YoY) terms from 4.7 per cent in April 2023, largely driven by the correction in food and beverages.

The overall impact of an El Niño cycle will depend on the macroeconomic and geopolitical backdrop. The very strong 1972-1973 El Niño coincided with the oil shock in late 1973 to send both energy and food prices soaring. A strong El Niño year in 2023/2024 could lead to a similar combination of multiple interacting trends, which is particularly concerning as we are already experiencing a period of above-target inflation in many countries.

How does this relate to climate change?

El Niño is a natural weather phenomenon.

However, the increasing "background" heat caused by the accumulation of greenhouse gases in the atmosphere makes it hard to predict how the weather will react to this El Niño cycle-some scientists are concerned that it could lead to even higher risks in several geographies, particularly where temperatures are already high.

The World Meteorological Organisation has said that the combination of El Niño conditions and anthropogenic warming could push global average temperatures above the **Paris target of 1.5C between 2023 and 2027**.

El Niño is a timely reminder of how vulnerable individual companies are to the changing weather patterns of our planet

Implications for our engagement with companies

From an engagement perspective, an incoming El Niño gives us a tangible backdrop to reach out to companies and assess how well they are preparing for the impacts of volatile and changing weather.

The way in which a company manages El Niño can also serve as a good indicator as to how well it is considering and managing climate change risks, as climate change will lead (and is already leading) to increased extreme weather in many regions of the world. Clearly, the fact that El Niño affects certain geographies more than others and comes with a degree of predictability; historical precedent makes it easier to understand the broader climate impacts. Still, as we see it, the incoming El Niño cycle provides us with the basis to explore – in conversation with companies – the topic of weather and climate risks.

In recent engagements, we have seen that companies are starting to consider the implications of El Niño, particularly in emerging market economies that are highly dependent on agriculture. For example, as part of broader conversations on climate risk management, we have spoken with some emerging market financials who have indicated that they are monitoring the potential macroeconomic implications of El Niño. We can use this opportunity to encourage companies to expand thinking beyond El Niño cycles by considering a transparent reporting of their vulnerability, and exposure, to the underlying and increasing physical climate risks.

We list here our best practice expectations for companies on physical risk disclosure and assessments, which is part of our broader work on increasing companies' resilience to the impacts of climate change and physical climate risks.

Best practice on physical risk disclosure and assessments

1. Undertake physical climate risk assessments at asset level, with assumptions disclosed to investors.
2. Report the outcomes and key assumptions of forward-looking scenario analyses on chronic *and* acute climate risks. Ideally based on IPCC, NGFS or IEA scenarios.
3. Report mitigation and adaptation measures.
4. Embed these findings into the company's strategy, including how these perils can impact operations as well as CAPEX decisions.
5. Provide evidence that physical risks assessments and strategies are overseen at board-level and are considered in the companies' risk register.

The evolution of reporting standards, particularly CDP and the Task Force on Climate-related Financial Disclosures, have already led to some improvements in reporting in these areas. But much company disclosure to date has focused on transition risks arising from decarbonising the energy system. The case of El Niño is a timely reminder of how vulnerable individual companies (and indeed the global economy) are to the changing weather patterns of our planet.

Meet the author

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Albertine joined the Responsible Investment team in the summer of 2022, concentrating on climate change. Albertine's background is in climate science and before joining she worked as a researcher and adviser at a range of academic, third- and public-sector organisations. When not working she enjoys spending her time reading, running, and climbing.

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