ESG Now Podcast

"El Nino Arrives and Debt Thrives"

Transcript, 15 September, 2023

Michael Disabato:

What's up everyone? And welcome to the weekly edition of ESG Now, where we cover how the environment, our society, and corporate governance effects and are affected by our economy. I'm your host, Michael Disabato, and this week we discuss what El Niño will probably do to sovereign debt and the livelihoods of everyone around the world. Thanks as always for joining us. Stay tuned.

The weather has been pretty rough lately. I was toying with, if I should list out some of the devastation we have seen in the last couple of months, the wildfires, the floods, the hurricanes, but I don't really think that's necessary anymore. The warming the world has experienced and the catastrophic events that have gone with it are readily seen, and I don't really need to prove it to you anymore. What is strange is we are actually just leaving a rare third straight year of a cooling event called La Niña, a natural phenomenon that forms and eventually dissipates owing to interactions between the trade winds that blow to the south of the equator and the ocean churning below those winds.

And in June we entered into an El Niño, the inverse of La Niña, the same sort of natural phenomenon but with different wind patterns. And instead of cooling parts of the globe, it actually warms them making it warmer than it already is and excessive rains, extreme weather and droughts follow El Niño. They follow La Niña, but El Niño just adds that really, really hot temperature to our world and to our experience and it makes things even more excessive than La Niña does. And these events create humanitarian crises galore and can decimate our economies sometimes permanently.

A paper recently published in the peer-reviewed journal Science argued that El Niño cycles of 1982 to 1983 and 1997 to 1998 permanently reduced global GDP by 4.1 trillion and 5.7 trillion US Dollars respectively. And really what the authors Christopher Callahan of Stanford University and Justin Mankin of Dartmouth College said they were trying to show was that this analysis is about the sensitivity of the economy to climate variability independent of warming. And when you take warming and you assume that there's warming because of climate change, there is a potential for future losses due to anthropogenic intensification of such variability.

Basically they are saying our economies are fragile and the physical risks caused by climate change can permanently damage them, which to be frank is something we agree with when it comes to physical climate risks. We look at what sort of corporate damage can occur due to physical events caused by climate change, the sort of events that El Niño exacerbates. Even though it's a natural phenomenon that would be here regardless of a warming world, El Niño basically exacerbates what a warming world is doing to us right now. But now that El Niño is here and we are dealing with unprecedented anthropogenic warming, well, folks, we are dealing with unprecedented times overall.

Now luckily to help us make some of those times more understandable, I have with me today my guest and colleague, Alex Schober. And he's publishing a blog on Monday along with our colleague Cole Martin on El Niño and its historic effects on grain prices and sovereign debt. And they have some really interesting findings on which specific countries are most at risk due to their high debt to GDP ratios and their susceptibility to physical damage due to extreme weather. But before we get into that, I think we need to first introduce why debt increases after an El Niño event. And that, as with many things, is in part because of food prices. Food prices, which Alex tells me are already at uncomfortably high levels due to non El Niño related problems.

Alex Schober:

Food prices have been elevated for two to three years. This started with the supply chain disruptions that we saw during COVID, but more recently agricultural prices have risen because of the Russia-Ukraine war. This is partially and mostly because both countries are major food commodity producers, but also Russia blockaded Ukrainian food exports through the Black Sea for a while. That blockade was lifted temporarily, but Russia recently re-implemented that blockade a few months ago, which has created already elevated food prices.

So this is the context. We're starting at a very elevated food price position as we approach the first El Niño period in five years. Rice prices, for example, have already soared to their highest level since 2008. We've already seen a couple other commodity future indexes at multi-year highs as well. So El Niño, depending on the region, could bring either more intense rain, leading to flooding of crop areas, or droughts. So either way we could see lower crop yields and with lower supply comes higher prices.

It's also worth mentioning that many of the countries that are most impacted by El Niño happen to play very large roles in global food markets. I mentioned rice prices earlier. Most of the rice that we see in grocery stores or that are exported throughout the world that come from South Asia, Southeast Asia, where El Niño typically has major impacts on the weather. And because of this we could end up seeing some very exacerbated reactions.

Michael Disabato:

Indeed, benchmark rice prices in Asia already rose to near 15-year record highs in mid-August 2023 due to concerns that El Niño-related dryness could reduce production in Thailand. Now Thailand is the world's second-largest exporter, but those concerns have meant that there are a few countries that have already banned the export of grain and rice. India is one of those examples. And Thailand is thinking about doing the same. And it's not only rice. Indonesia, for example, is publicly mulling over what to do about their palm oil supplies and whether they should cut or ban exports due to fears around El Niño.

And those are just some of the country-level responses to a weather event that is going to impact our lives globally. And here's how those weather events are going to play out regionally, broadly speaking: the Amazon Basin, Australia, Canada, Northern America, the Indian subcontinent, the Sahel region in Africa, Southeast Asia, Southern Africa, are usually hit by dryer conditions. The Panama Canal is a good example of that. It's already reducing daily transit rates due to a drought that canal administrators say is going to be made worse because of El Niño.

Now for Central and East Asia, the Horn of Africa, the Southern Cone of South America, and the Southern United States, they're going to be dealing with wetter conditions. And some of those places, the Horn of Africa, for example, are in a drought at the moment. So wetter conditions might seem like a good thing, but it's the type of wet conditions that Libya saw last week which led to the devastating floods that killed thousands of people in the Eastern Libyan city of Derna.

So of course these wetter conditions aren't those that are going to help crop growth. It's just the opposite. They're going to hurt yields and now every country is going to deal with their conditions in a different way. But the market condition, the market fundamental that is going to follow everyone because of El Niño, because of commodity prices and the jumping commodity prices is inflation.

Alex Schober:

And we know that people spend a big portion of their money on things like food and fuel, especially in developing markets. And high inflation could raise social tensions if left unabated. We know that the Arab Spring started from high wheat prices, at least that was a huge driver. So governments are going to need to decide if they're going to provide relief to their citizens, to placate them, to provide humanitarian relief, but also have social stability remain intact. Most governments are going to choose to do this. They are going to choose to provide relief financing for their citizens.

So the crux of the argument that we use in our upcoming blog is that we assume that governments are going to increase spending for the social safety net. Government budget balances will probably deteriorate as a result and they'll have to issue more debt. So this could cause debt burdens for governments to increase. In fact, in this paper we determined that there seemed to be a relationship between El Niño periods and government debts, especially for emerging markets.

Michael Disabato:

So Alex and Cole found that this translates into an increase in global debt to GDP ratios after an El Niño event, especially in the emerging markets. That increase is because governments are going to try to up their social spending, repair infrastructure damaged by bad weather, and deal with healthcare costs due to the increase in diseases caused by the El Niño weather effects. And let me give you an example of increase healthcare costs because I don't think a lot of people think about them. They're overlooked in this conversation.

Research collated by the World Health Organization found that the dry conditions associated with El Niños across two decades boosted malaria cases in Columbia and Venezuela by more than a third. That is going to exacerbate their healthcare systems. And so to do all those changes that the governments are going to have to do to deal with those social problems, to increase spending, they're going to have to issue more debt, which does mean that there are more options for investors to buy debt, which might sound like a good thing for debt investors. More debt means more buying opportunities, I would think.

Alex Schober:

Sure, no, it's a good point. There's more options to buy debt if there's more debt issue. But keep in mind that one of the key fundamentals to sovereign debt analysis is debt ratio, so the ability and the willingness for government to repay that debt over time. So there's more debt being issued now, then it may be a problem for these governments to pay that debt in the future. Investors can look into that and that could have valuation impacts on the sovereign debt in question.

Michael Disabato:

Right. Simply because there is more debt out there does not mean that it is worth buying. But there are investors that might gobble up seeing maybe an opportunity or a chance to obtain a social return, help out an at-risk government to get back on its feet. But regardless of who buys it, there certainly seems like there's going to be much more of it after an El Niño event, according to Alex and Cole's findings.

Now, I should caveat that though on behalf of Alex and Cole who do do so in their blog, when you look at historic debt to GDP ratios after an El Niño event, you notice that El Niños tend to unfold in the past during completely unrelated factors that do curb economic growth, especially in the emerging markets. But to me, that actually suits their analysis in a way because climate change is certainly an event that is curbing economic growth as it unfolds. Unfolds or becomes more acute, you take your pick. And El Niño could push financially-fragile governments that are already dealing with physical climate risks in the recent past due to climate change into a dangerous place.

So Alex and Cole looked into which countries might be most at risk of entering the danger zone by looking at our sovereign physical risk scores, which measure how likely a sovereign is going to be affected by weather events caused by climate change and taking those scores and weighing them against our data on basically the health of a government's finances. And they could see which countries are more at risk of being affected by a catastrophic climate event while not being able to really bail themselves out of the problems such an event could cause. Those are places like Sri Lanka, Brazil, and Pakistan, just to name a few.

Alex Schober:

What this means is that they're potentially going to require some bilateral lending from folks like the World Bank or the IMF and impact investors may need to go engage with these sovereign issuers to help come up with solutions, whether it be pushing them to enact some sort of policy, doing some sort of private lending deal, even pushing them to go to the development banks I mentioned earlier for a bailout package. Again, some of these countries may not have the ability to finance this.

One example I can give is Pakistan. We had huge floods in Pakistan in 2021 and after those floods happened, the sovereign yields for Pakistan rose to debt distress levels and they almost defaulted almost entirely because of the floods. And the IMF came in with a bailout package and Pakistan is still in a pretty precarious debt situation. But the manifestation of fiscal risk events can have a very direct impact on sovereign debt markets. And it's something that investors are going to start realizing more and more over time.

Michael Disabato:

What may be beneficial, and Alex does allude to this, is if investors could use a more advanced physical risk modeling tool, for example, and help push capital toward the areas that are likely going to be affected by an El Niño weather event before they even happen. And governments can assist in that by collaborating with investors through sovereign debt issuance that is done in a sustainable and useful manner.

But to end us off here, I asked Alex if he could do a bit of forecasting for us. No, El Niño has been like the other, so it's good to speculate, I think. There are ranges that are possible. There are unknowns to think about. And in thinking about those, we can maybe figure out where to pay most attention to in the coming months.

Alex Schober:

The acute effects of El Niño start during the summer in the Southern Hemisphere, so in the next couple of months somewhere in the Southern Hemisphere, being winter in the Northern Hemisphere. So we won't know the magnitude of impact for probably another quarter or two. And how governments react financially may not be immediately obvious as it pertains to sovereign debt fundamentals or even as it pertains to how citizens receive relief on the ground.

So there are two other unknowns to bring up. The first is how the recent extreme weather we've seen brought about by climate change plays any role into how bad this El Niño might be. We haven't seen a particularly bad El Niño period since 2016 and 2017, but we've seen a bunch of extreme weather events, even just this summer. So do these have any kind of relationship? So that's the first uncertainty.

The second unknown is how long this El Niño even lasts. We haven't seen a two-year-long El Niño since 2016, 2017. Often they only last one year, but sometimes they can last two, sometimes they can last three, even though that's even more rare. A long El Niño would exacerbate and compound the effects that we've already talked about: on global food prices, the global economy, on sovereign debt fundamentals, on societies as a whole. I think that's something that's very much up in the air is how long this ends up lasting. So the magnitude and the time that this El Niño period has is going to be extremely important for us to watch.

Michael Disabato:

And it might be that in the end, El Niño just further spurs investing in climate adaptation. Many of the countries that may be hardest hit will be the ones most in need to transition their economies, but also will be bearing the heaviest adaptation burden while also being more indebted due to everything we just talked about, climate adaptation investing is not as plentiful as climate mitigation investing. And this might change after the hopefully short El Niño passes us by.

And that's it for the week. I wanted to thank Alex for talking to me about the news with an ESG twist. I wanted to thank you so much for listening. If you like what you heard, don't forget to rate and review us. That puts us a little bit higher on some podcast lists and more people are able to find us and listen as well. And if you want to hear myself or Bentley each week and our other host, Gabriela de la Serna, then subscribe wherever you get your podcasts. Thanks again and talk to you soon.

Speaker 3:

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