EL NIÑO:

Is Another Storm Brewing for Emerging Markets?

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SATURNA CAPITAL

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Saturna Capital, manager of the Amana, Saturna Sustainable, and Sextant Funds, uses years of investment experience to aid investors in navigating today's volatile markets. Founded in 1989 by professionals with extensive experience, Saturna has helped individuals and institutions build wealth, earn income, and preserve capital.

We are long-term, values-based, and socially responsible investors. We view consideration of environmental, social, and governance (ESG) factors as essential in forming portfolios of high-quality companies that are better positioned to reduce risk and identify opportunities. We believe that companies proactively managing business risks related to ESG issues make better contributions to the global economy and are more resilient.

At Saturna, we believe in making your investment dollars work hard for you and that your interests always come first. Saturna strives to not only offer the best investment opportunities from mutual funds to IRAs, but to match those sound investments with superior customer service.

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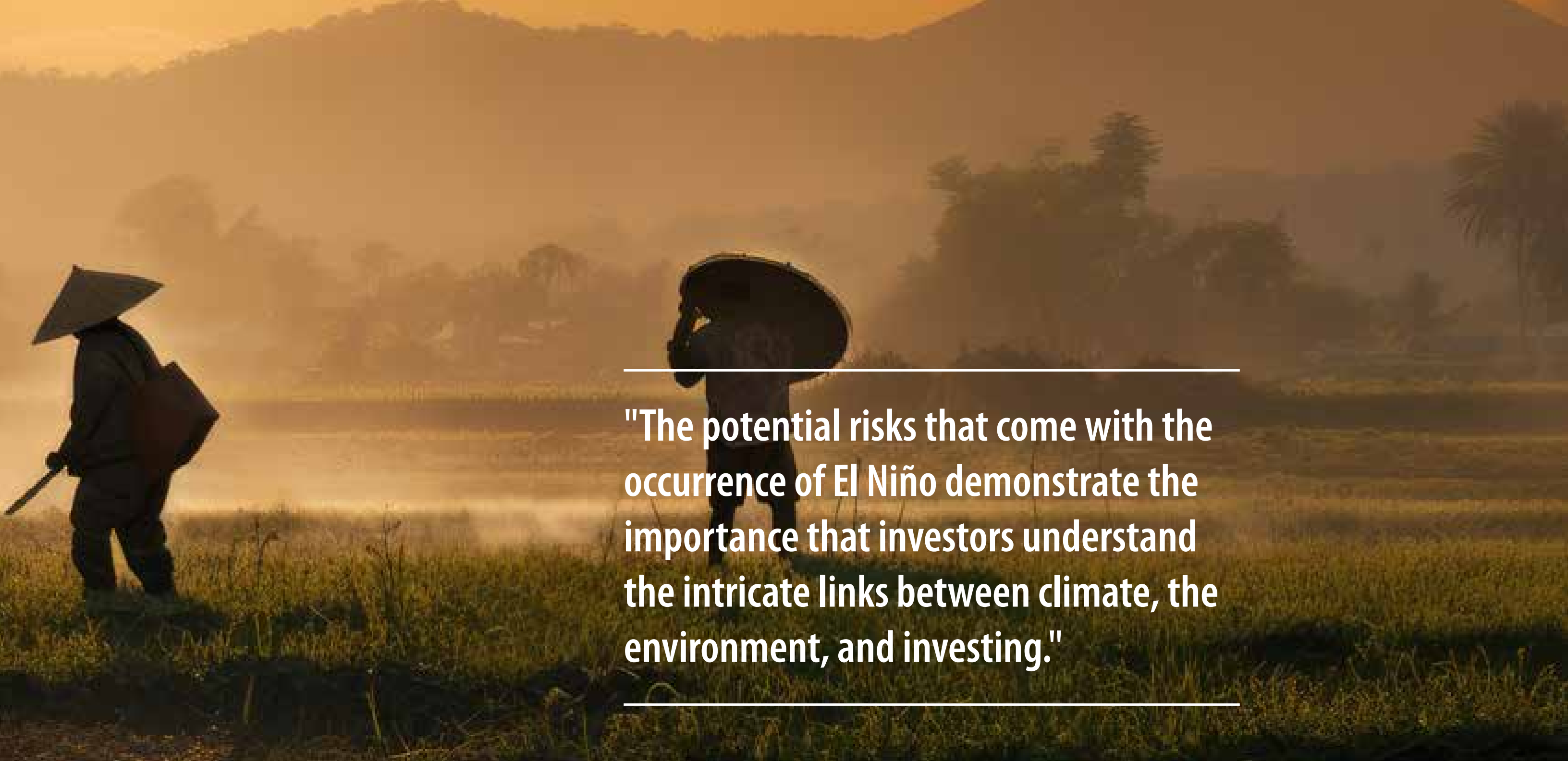
In August 2023, the National Oceanic and Atmospheric Administration (NOAA) predicted that there was a 95% chance of an El Niño occurring in the first half of 2024. El Niño is a period of unusually warm water temperatures in the eastern Pacific Ocean, while La Niña is a period of unusually cool water temperatures. The El Niño Southern Oscillation is the primary cause of global climate fluctuations from year to year. The warm temperatures caused by El Niño can adversely affect agricultural production worldwide, leading to higher food costs. For the 2024 El Niño, the global economy may face new hazards, especially emerging market economies that strive to balance economic growth with reducing pervasive inflationary pressures.

Central banks in developed economies are expected to end their tightening cycles in 2024. However, some emerging economies are unlikely to do the same. The market's mixed outlook depends on a variety of factors, including consumer price index (CPI) and weighting to food costs depending on each country. Simply put, the variation between different countries' CPIs can substantially raise some countries' exposure to fluctuations in food prices. The lack of standardization could make inflation forecasts more difficult to predict and have other unintended impacts, because a nation's CPI affects inflation measurements which can directly influence the monetary policy of its central bank.

While seemingly innocuous for most, inflation can be perilous to an economy and can directly impact a country's capability to repay debt, manage the cost of debt, and reallocate government funds, which could have political repercussions. These factors, when combined, significantly influence debt sustainability and economic health. Inflation affects many aspects of the economy, including social stability. Historically, escalating food prices were one of the factors that instigated widespread protests and even revolutions, such as the French Revolution of 1789, and the Russian Revolution of 1917.[1] In 2010, after an adverse alignment of droughts, wildfires, and floods that decimated food supplies, global food prices rose about 40%. Some researchers contend that the desperation caused by the spike in food costs contributed to the Arab Spring in 2011.[2]

The potential risks that come with the occurrence of El Niño demonstrate the importance that investors understand the intricate links between climate, the environment, and investing. If active investment managers want to incorporate environmental, social, and governance (ESG) considerations into global investing, attention to climate related-risks matter. History can be a valuable guide for the future; both the Latin American debt crisis (1982-83) and the East Asian financial crisis (1997-98) coincided with some of the strongest El Niños in recorded history.[3] El Niños can vary with different intensities, as shown in the "Oceanic Niño Index (ONI) 1900-Present" graphic.



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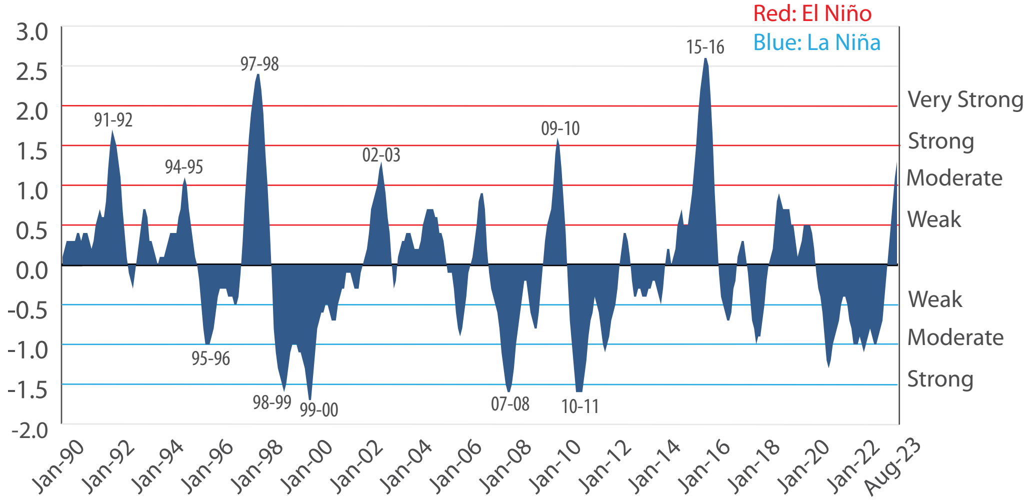
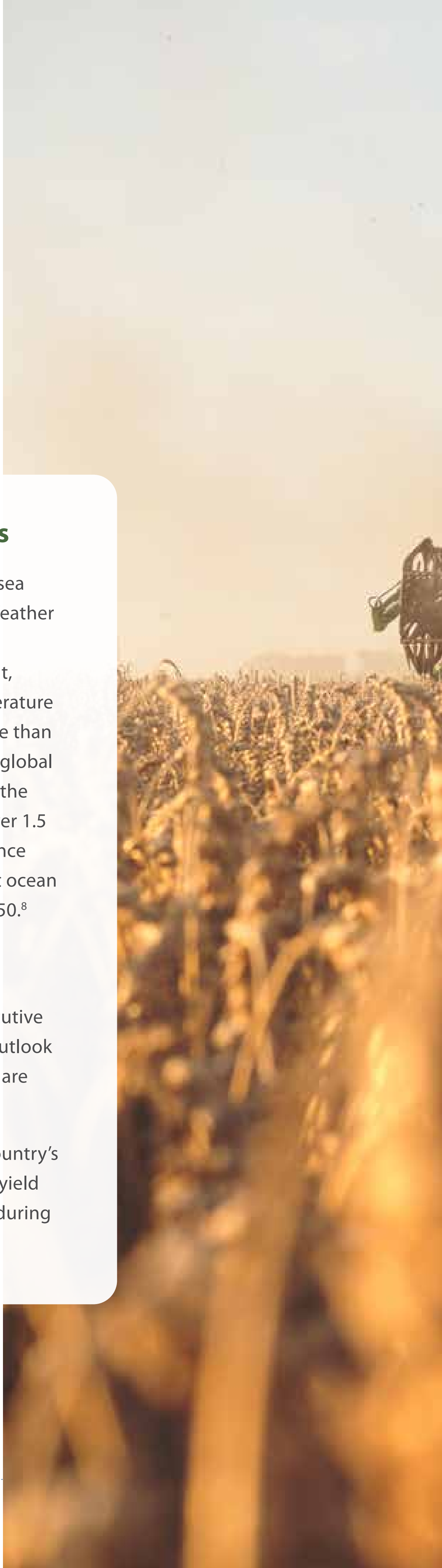
Oceanic Niño Index (ONI) - 1990-Present



Source: National Oceanic and Atmospheric Administration

The 2024 El Niño is extremely ill-timed, given the ongoing imbalances in the supply of food and fertilizer caused by the Russian-Ukrainian war. Several nations implemented limitations on food exports to maintain national food security. In summer 2023, India declared that non-basmati white rice would no longer be allowed for export. This was meant to assure rice availability and decrease costs. The ban, following other restrictions, "has sent the Asian market into a panic," said Tanner Ehmke, lead economist for grains and oilseeds at CoBank. "Now there's concern about food inflation, especially across Asia." India supplies roughly 40% of the global rice trade, while the banned non-basmati white rice represents about 15%.[4] By month-end August 2023, rice prices in key exporting countries, including Thailand and Vietnam, rose around 20% since India's ban, which tightened global supplies.[5]



El Niño: The “Skinny” on Warming Implications

The NOAA's Oceanic Niño Index (ONI) uses the temperature of the sea surface to gauge the strength of El Niño episodes.[6] The National Weather Service will officially declare an El Niño to be in effect when water temperatures are at least 0.5 ˚Celsius, approximately 0.9 ˚Fahrenheit, above average over a three-month period. This slight rise in temperature is considered a “weak” El Niño. When sea temperatures rise by more than 1.5 ˚C / (~2.7 ˚F), it’s considered a “strong” El Niño, which can boost global temperatures by as much as 0.4 ˚C / (~0.7 ˚F).[7] In September 2023, the NOAA forecasted a more than 70% chance of a strong El Niño at over 1.5 ˚C / (~2.7 ˚F) above average temperatures. There is even a 30% chance that the 2024 El Niño will exceed 2.0 ˚C / (~3.6 ˚F), which would put ocean temperatures in a tier with some of the strongest El Niños since 1950.[8]

The Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) forecasted that the country's winter wheat crop production would decrease by -34% in 2023–24, after three consecutive years of record production. This indicates that Australia’s current outlook is already bleak. According to the Bureau, the reduced projections are due to the expected emergence of an El Niño weather pattern.[9]

Projections for Malaysia suggest a mild El Niño could reduce the country’s palm oil production by 10%, while a severe one could reduce crop yield by as much as 20%. Malaysia’s palm oil production declined -20% during the 2015-16 El Niño.[10]

El Niño: Don't Be Exposed

A country's exposure to food costs is calculated as a percentage of that country's CPI. India's exposure to food costs is 45.9%, the second-highest exposure after Nigeria. It makes sense why the government of India banned the export of certain types of rice to try cutting costs. If the price of food had grown 25%, its CPI could have risen 11.5%! Such an increase could misguide monetary policy action toward further benchmark interest rate increases to stop inflationary pressures, raising the cost of borrowing for consumers, businesses, and the government.

Developed economies have a significantly lower CPI exposure to food; for the US and Germany, their exposures are 7.7% and 9.7%, respectively.[11]

Egypt: A Particular Emerging Market Outlier

While a strong El Niño is likely for 2024, its effects will differ for various countries and regions. Egypt is especially vulnerable, given the country's fiscal standing, significant need for foreign (external) financing, skyrocketing inflation, and extreme

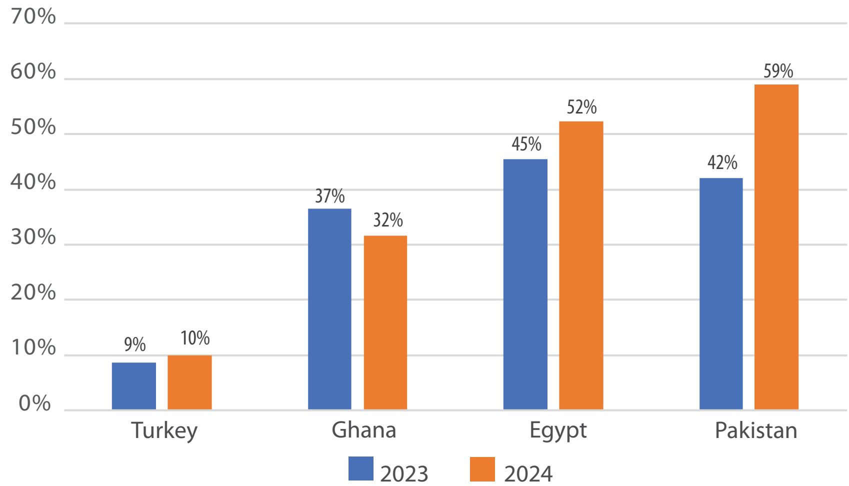
Count	Country	Food Costs as a % Weighting to CPI Benchmark
1	Nigeria	49.1%
2	India	45.9%
3	Sri Lanka	44.0%
4	Ghana	43.1%
5	Thailand	40.4%
6	Philippines	38.3%
7	Pakistan	34.6%
8	Vietnam	33.6%
9	Egypt	32.7%
10	Kenya	32.0%
11	Russia	31.7%
12	Romania	30.7%
13	Malaysia	29.5%
14	Poland	27.8%
15	Peru	27.5%
16	Japan	26.3%
17	Brazil	26.0%
18	Turkey	25.9%
19	Mexico	25.8%
20	Indonesia	25.0%

sensitivity to food prices. Egypt's estimated financing needs in fiscal 2024 are a staggering $24 billion.[12]

In October 2023, Egypt's inflation rate surged to 35.8% year-over-year, burdening households and companies. Food prices in Egypt increased by 71.3% over the previous year, requiring the government to allocate its constrained budget to food subsidies for already-strained consumers.

Between 2016 and 2020, food subsidies accounted for roughly 4% of Egypt's public spending. Food subsidies are expected to account for roughly 4.25% for calendar 2024. Given that food expenditures account for about a third of Egypt's CPI and that a strong El Niño could drive up food prices, food subsidy costs may be greater than anticipated.[13]

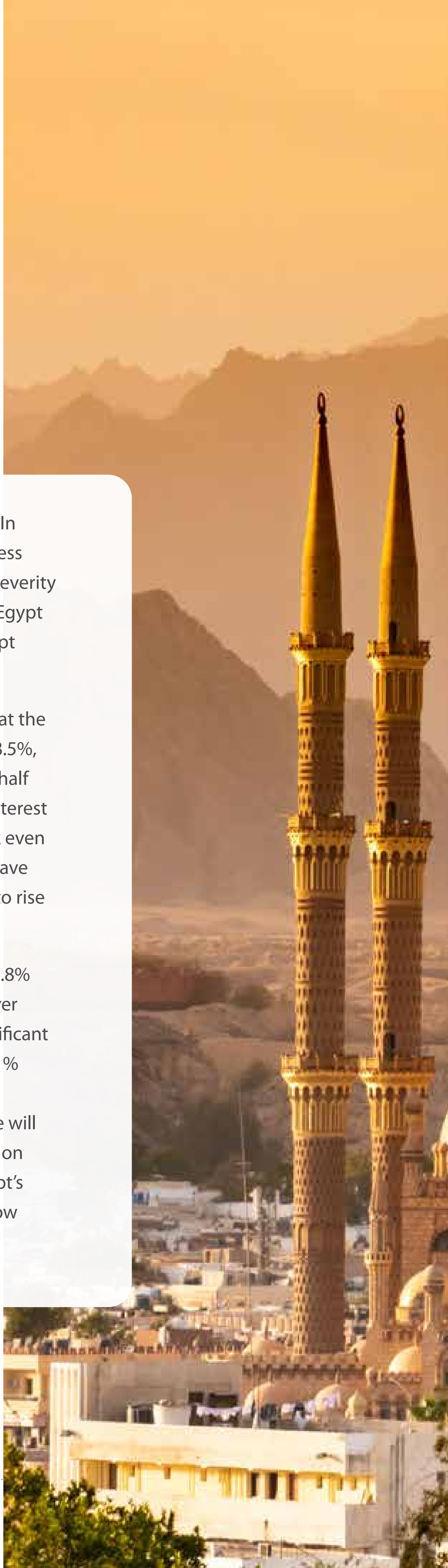
Interest Payments, % of Gross General Government Revenue, 2023 vs. 2024

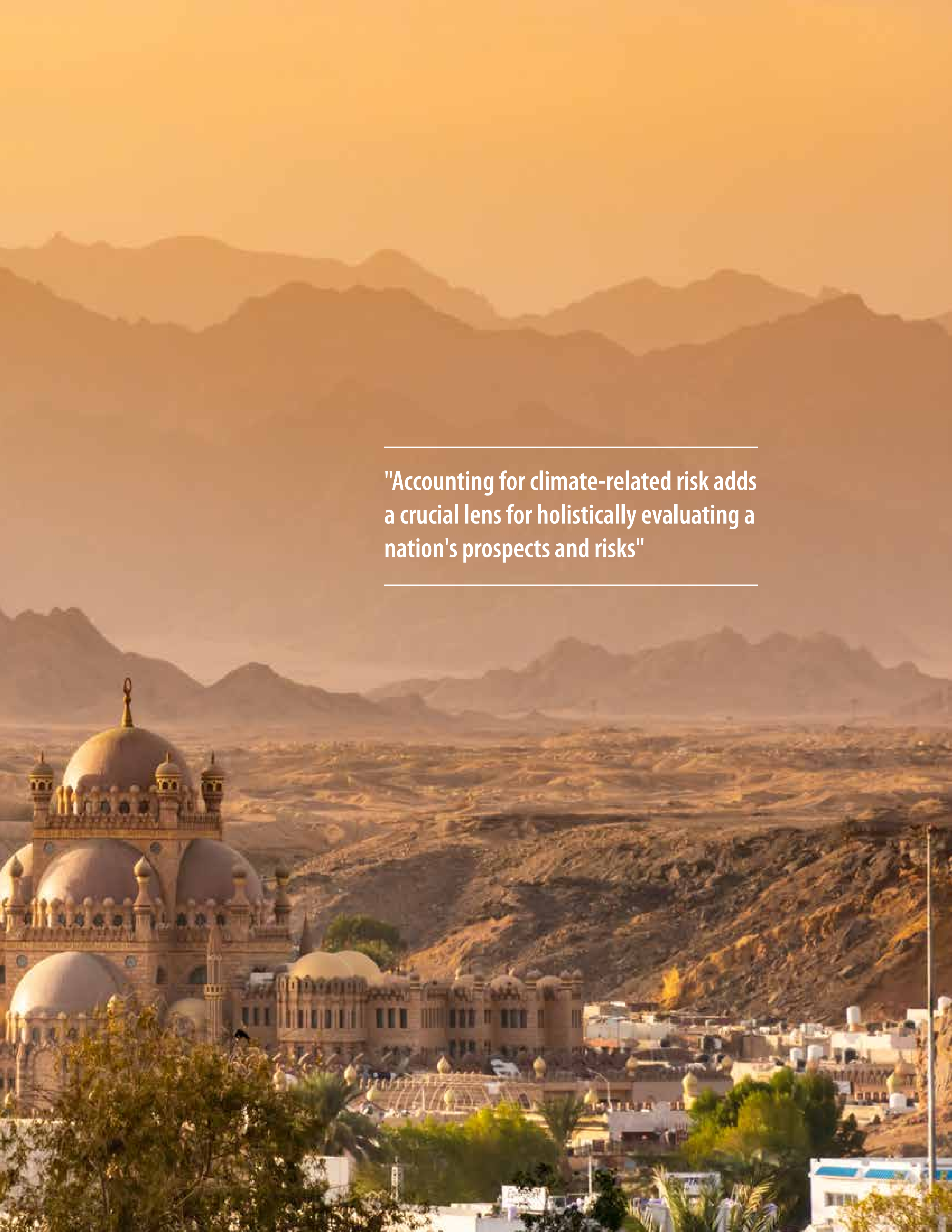


In February 2022, the Central Bank of Egypt's interest rate was 8.25%. In August 2023, the interest rate reached 19.25%, an increase of 11% in less than two years to arrest inflationary pressures. If El Niño increases in severity in 2024, the additional price pressures may cause the Central Bank of Egypt to tighten even further. Such a scenario would be devastating, as Egypt already faces sovereign debt sustainability concerns.

Egypt's 2024 budget, which was published in June 2023, estimated that the average interest on government debt instruments would approach 18.5%, aggravating the government's ability to issue additional debt.[14] Over half of Egypt's gross government revenue is projected to be used to pay interest on outstanding debt in 2024. Egypt's outsized interest payments look even more problematic when compared to Turkey and Ghana, which also have high inflation rates. Egypt's total gross financing needs are expected to rise from 15% of GDP in 2023 to over 35% of GDP in 2024.[15]

During the 2015-2016 El Niño, Egypt's gross public debt increased by 7.8% as a percentage of GDP. Meanwhile, the budget deficit increased by over 14%, or 1.4% of GDP. If past events are any indication, Egypt faces significant challenges in 2024. Agriculture, forestry, and fishing make up about 11% of Egypt's GDP, and all three industries are especially susceptible to El Niños. If the GDP does not reach target estimates, government income will likely decrease, which would increase the burden of interest payments on the government budget. El Niño may have devastating effects on Egypt's economy due to the combination of rising food costs, declining GDP, low interest rates, and preexisting sovereign vulnerability.





"Accounting for climate-related risk adds a crucial lens for holistically evaluating a nation's prospects and risks"

Conclusion

On December 18, 2023, Abdel Fattah el-Sissi was re-elected to a third term as the president of Egypt. President el-Sissi formulated an ambitious eight-point economic agenda for his six-year term spanning 2024 through 2030. One of the agenda's directives aims to lower Egypt's debt-to-GDP from 96% (FY2022-23) to 75% by fiscal year 2029–30. The agenda also includes attaining pricing stability and decreasing inflation to single digits by the end of 2025. The sixth directive of the economic plan, "improving quality of life," increases fiscal spending on social programs from 18% to 23%.[16] Egypt's ambitious economic strategy and dire financial situation offers a crucial case study on how the risks of climate change can impact the well-being and daily lives of citizens.

As active global fixed income managers that integrate ESG factors into the investment process, we find that accounting for climate-related risk adds a crucial lens for holistically evaluating a nation's prospects and risks— a factor that conventional financial analysis may miss.

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Patrick T. Drum, Senior Investment Analyst and Saturna Sustainable Bond and Amana Participation Funds Portfolio Manager, joined Saturna Capital in October 2014. He is a former adjunct professor of finance for the Sustainable MBA Program at the Bainbridge Graduate Institute (BGI) currently known as Presidio Graduate School. Mr. Drum holds a BA in economics from Western Washington University and an MBA from Seattle University Albers School of Business. He is a Chartered Financial Analyst (CFA) charterholder and a Certified Financial Planner™.

Prior to joining Saturna Capital, Mr. Drum led environmental, social, and governance (ESG) research and was director of fixed income portfolio management since 2007 with a private account group at UBS Institutional Consulting Services specializing in investment management for global conservation and national wildlife park endowments as well as sustainable-social screened client portfolios. He is a former Chair of the United Nation's Principles for Investment (UNPRI) Fixed Income Outreach Subcommittee and a current member of the UNPRI's Bondholder Engagement Working Group (BEWG), an advisory committee working to elevate important ESG considerations and best practices among issuers and investors.

Mr. Drum's past experience also includes business valuation at Moss Adams and portfolio management at Washington Mutual Bank. He lives in Bellingham and is a proud father of two. He enjoys sea kayaking, hiking, and being part of the Pacific Northwest community. Mr. Drum is a member of the board of trustees to the Museum of Glass in Tacoma and a member of Rotary.

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Footnotes

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