

GLOBAL EVOLUTION CLIMATE AND NATURE REPORT

INTEGRATED TCDF & TNFD
DISCLOSURES

2024



GlobalEvolution

Contents

1.	Introduction	3
1.1.	About this report.....	3
2.	Governance	5
3.	Strategy	6
3.1.	Climate and nature-related consideration in Global Evolution’s corporate operations	6
3.2.	Climate and nature-related considerations in investment management.....	9
3.2.1	Climate-related risks for sovereign and corporate issuers (TCFD)	10
3.2.2.	Nature-related risks in investments (TNFD)	12
	Nature-related impact and dependency of investments.....	15
3.3.	Scenarios and resilience.....	16
4.	Risk Management	18
4.1	ESG negative screening	18
4.2	ESG integration and positive screening	19
4.3.	Engagements.....	26
5.	Metrics and Targets	28
5.1.	Metrics	28
	Understanding climate and nature-related metrics in an emerging markets context.....	28
	Reporting of metrics	30
5.2.	Targets.....	33
6.	Moving forward.....	34
7.	Definitions of Indices.....	35
8.	Disclaimer & Important Disclosures.....	36

1. Introduction

As an emerging and frontier markets fixed income investment manager, we are on a dual mission to generate attractive returns for our clients whilst contributing to sustainability in the countries and companies where we invest. Our commitment to sustainability reflects the importance of climate and nature for these countries' development and the important role they play for global biodiversity and low-carbon transition.

Natural resources play crucial roles in the development of countries, being foundational for livelihoods, economic activities, and societal progress. Being rich in natural resources, emerging markets have unique opportunities to harness nature-related initiatives for socio-economic development. Meanwhile, biodiversity loss and ecosystem degradation jeopardize hard-earned advancements, underscoring the importance of sustainable management of natural resources to ensure that their benefits extend to future generations for long-term prosperity.

Fossil fuel dependencies and large populations of many emerging markets coupled with rising energy demand along their development journeys underscore the importance of emerging markets' low-carbon transition that can detach growth from rising carbon emissions to avoid increases in global emissions. Meanwhile, the geographical locations of emerging markets make them vulnerable to climate change with rising temperatures, extreme weather, and biodiversity loss, posing risks to economic stability and community resilience. Hence, addressing environmental challenges and opportunities is key to emerging markets' resilience, sustainable development and portfolio management.

Since 2021, we have disclosed climate risks following the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) to provide our stakeholders with a clear view of the climate-related risks and opportunities that we as a corporate entity and asset manager is exposed to. This year, we are pleased to expand our sustainability commitment by adopting the framework set forth by the Taskforce on Nature-related Financial Disclosures (TNFD). Through this new commitment, we are strengthening our focus on biodiversity and ecosystem health, that are vital to the emerging markets' development.

Our decision to combine the TCFD and TNFD frameworks in this report reflects our understanding of the deep interconnections between climate and nature. By considering both climate and biodiversity risks, we gain a more comprehensive picture of the complex environmental challenges and opportunities across our portfolios. We believe that an integrated approach will strengthen our risk management practices and help us identify investment opportunities.

We view this as an ongoing journey, with this report representing an important step in our efforts to enhance sustainability-related risk and opportunity management. As we refine our approach, we remain committed to transparently sharing our progress with stakeholders through comprehensive disclosures.

1.1. About this report

We view the frameworks of the Task Force on Climate-related Financial Disclosures (TCFD) and the Taskforce on Nature-related Financial Disclosures (TNFD) as essential tools to help identify, assess, and manage the climate and nature-related risks and opportunities that impact Global Evolution as a corporate entity and our investments. These frameworks provide robust guidance for integrating environmental considerations into financial decision-making, enhancing our ability to respond proactively to emerging challenges and capitalize on opportunities.

Aligned with the TNFD requirements, we disclose the starting point for this report, including materiality, scope of disclosures, location of nature-related issues, integration with other sustainability-related disclosures, time horizon under consideration, and the engagement of indigenous communities:

- **Materiality:** We apply the principle of double materiality into our sustainability efforts. With this approach, we evaluate both how sustainability-related risks impact the financial performance of our investments and how the investments themselves impact the environment and society.
- **Scope of disclosures:** This report includes Global Evolution's considerations as both a corporate entity and as an investment manager. As a corporate entity we continuously monitor how our business activities are affected by climate and sustainability-related risks and opportunities and take action accordingly. As an investment manager we conduct in-depth analysis of how we simultaneously can deliver long-term risk adjusted returns for our clients whilst contributing to sustainability in the countries and companies we invest. This report includes both of our asset classes, i.e. emerging markets sovereign and corporate fixed income investments. Given that our investment activities are our core activities and source of revenues, we give this proportionally greater focus in this report.
- **Location of nature-related issues:** Global Evolution's head office is located in Kolding, Denmark. We also have offices in London, Singapore, Luxembourg, and New York. With our offices being located in urban areas, we do not consider our direct operations to be highly interlinked with nature. The greatest interaction with nature is through our investments, which are located across emerging markets. In our nature-related assessment of our investments and issuers, we rely on third-party data estimates and the level of aggregation provided.
- **Integration with other sustainability-related disclosures:** TCFD and TNFD considerations will be integrated into our annual sustainability report. TCFD and TNFD data disclosure overlaps with data disclosures under the Sustainable Finance Disclosure Regulation (SFDR) Level II requirements for Article 8.
- **Time horizon:** We consider climate risk over the short (<5 years), medium (5-10 years), and long term (>10 years).
- **Engagement with Indigenous peoples, local communities, and affected stakeholders:** Our engagement efforts are focused towards governments and corporates in which we invest. Given that our direct operations are located in urban office buildings, we do not find it applicable to conduct engagements with Indigenous people and local communities regarding our direct operations.

This remaining report is structured around the four pillars of the recommended TCFD and TNFD disclosures including governance, strategy, risk management, and metrics and targets. We consider our sustainability approach as ever evolving, and we look forward to continuing the journey in collaboration with our clients.

2. Governance

Global Evolution has integrated environmental issues and dynamics into our investment process for several years, and the TCFD recommendations are well-designed to complement our investment process and consequently an initiative that we endorse and support. Since part of the company's philosophy is to leave a legacy of impact investing in partnership with our investors, which assists in the process of lifting nations out of poverty, the Board is involved in tracking, informing, and leading this path.

We believe that strong governance and ethical business practices are fundamental to ensure clients' and stakeholders' trust, and to maintain successful investment activities.

Global Evolution's Environmental, Social, Governance ("ESG") governance framework is structured as follows:

- The Board of Global Evolution Asset Management A/S exists partly to ensure that the investment process reflects the company's values and targets. The Board approves sustainability-related policies.
- The Executive Management is responsible for ensuring that ESG-related policies are in place and approved by the Board of Directors. ESG related Business Procedures are approved by Executive Management.
- The Research Department of the company is leading, developing, and implementing sustainability-related work. Led by the Research Director, the department is responsible for the entire ESG research and implementation for the sovereign and corporate emerging and frontier markets debt including the reporting to the TCFD, the PRI, the UN Global Compact, relations with the World Bank, and the Emerging Market Investor Alliance (EMIA). The responsibility for the work related to SFDR is shared responsibility with the Head of Legal and Compliance.
- The Middle Office ensures the implementation of all ESG restrictions on funds and mandates, and Legal & Compliance monitors compliance with the ESG governance framework.
- All employees at Global Evolution are responsible for carrying out the firm's ESG objectives and upholding the firm's policies and procedures.

3. Strategy

Climate change and the ongoing degradation of nature are among the most critical issues of our time. They endanger the essential aspects of life, including e.g. clean water, food security, and economies. Rising global temperatures and environmental destruction are jeopardizing access to clean water, as water sources dry up or become contaminated. Food security becomes affected, as changing weather patterns, water stress, and soil degradation impact agricultural productivity, putting communities at risk of hunger. Furthermore, these issues risk destabilizing economies worldwide, as industries reliant on natural resources, such as farming, fishing, and tourism, face difficulties.

Nature and climate are tightly interconnected. Disruptions to natural ecosystems weakens their ability to absorb carbon and protect against extreme weather, accelerating climate impacts. To exemplify, mangroves provide protection from storms and forests and wetlands absorb and store carbon. Reversely, climate change contributes to the loss of ecosystem services and shifting of habitats and species, e.g. through wildfires.

Climate change and natural degradations entail risks and opportunities to our business and portfolios. Global Evolution is committed to understanding these risks and opportunities, as well as managing risks material to our clients' portfolios.

In line with TCFD and TNFD, we direct our attention to physical and transition risks. Table 1 lists our overall understanding of these risks.

Table 1: Overview over TCFD and TNFD risk categories

Climate-related changes	Category	Description
Physical risks	Carbon-related (TCFD)	Carbon-driven physical risks are the risks of damage to physical assets resulting from rising temperatures and climatic changes. Risks can be both event-driven (e.g. storms and floodings) and longer-term shifts in climate patterns (e.g. rising temperatures and heat waves).
	From biodiversity loss (TNFD)	Physical risks from biodiversity loss result from the degradation and/or depletion of natural capital and associated changes to ecosystem services, such as food and water supply.
Transition risks	Carbon-related (TCFD)	Carbon transition Risks refers to risks arising from the global low-carbon transition as economies shift toward reducing carbon emissions. These include regulatory changes, shifting market demands, technological disruptions, and reputational impacts associated with the transition.
	Nature-related (TNFD)	Nature-related transition risks refer to the challenges businesses face as economies shift toward protecting and restoring natural ecosystems. These risks arise from changes in regulations, market preferences, or technologies aimed at addressing biodiversity loss, deforestation, water scarcity, and other environmental issues.

Prepared by Global Evolution

In the following sections, we address these risks in relation to 1) Global evolution's activities as a corporate entity, and 2) our investments.

3.1. Climate and nature-related consideration in Global Evolution's corporate operations

We recognize that Global Evolution as a corporate entity is affected by climate and nature-related risks, and we hold ourselves accountable by reviewing and taking climate action in relation to our own corporate activities and emissions.

In table 2 we provide an overview of our assessment of potential risks and opportunities for Global Evolution as a corporate entity. Our analysis is rooted in our belief that changing nature and climate patterns can have material risks that should be managed systematically, while at the same time the same global trends create opportunities for our activities. We have identified four key categories with material risks and opportunities to Global Evolution:

- **Resource:** Companies are increasingly expected to use resources in a sustainable manner to reduce GHG emissions.
- **Market and products:** Changing climate-related trends can lead to shifting client preferences, which can affect the demand of companies' current product offerings and provide opportunities for new offerings.
- **Reputation:** How companies manage climate risks and opportunities can influence the public's perception of the company.
- **Regulatory:** The urgency for a global low-carbon transition leads to changing legislation to reduce the adverse impacts of climate change.

In line with TCFD and TNFD recommendations, we consider short, medium, and long-term horizon of risks and opportunities. We consider short as <5 years, medium term as 5-10 years, and long term as >10 ye

Table 2: Overview of climate risks and opportunities for the organization

Category	Risk assessment	Opportunity assessment	Time horizon
Resource	As a corporate entity, Global Evolution is expected to pursue sustainable operations, e.g. reducing GHG emissions. Not finding the right balance could interfere with investments from missing information, e.g. from fewer investor trips that are high in GHG emissions.	As a corporate entity, Global Evolution can continue to pursue resource efficiency in operations and seek carbon neutral certifications.	Short to long-term
Market and products	Global Evolution may not be able to meet client demands of climate and nature-related products, especially given limited data availability in Emerging Markets ("EM").	Global Evolution can continue to work on new product offerings to meet growing client demand for sustainability-aligned products.	Medium to long-term
Reputation	Divergent views between Global Evolution and investors on EM issuers' carbon and nature profiles and sustainability actions could create reputational risks and impact Global Evolution's client relationships.	Global Evolution can strengthen its thought leadership status in the EM fixed income context, advocating for the importance of a just transition where no country should sacrifice growth and prosperity to reach net zero.	Medium to long-term
Regulatory	New environmental and sustainability disclosure requirements could increase compliance costs and interfere with investment strategies. Failing to comply with regulations could result in fines for Global Evolution and reputational risks.	Global Evolution continues to adapt to legal frameworks and actively use frameworks to strengthen its ESG analysis.	Short-term

Global Evolution in-house assessment.

Resources

Since 2022, our parent company Conning Holdings Limited and its subsidiaries, including Global Evolution, has been certified carbon neutral using high-quality instruments¹. Through these efforts, Global Evolution contributed to the following projects

- Gas Distribution Leak Reduction, Bangladesh
- Kulera REDD+ and Cookstoves, Malawi
- Water Filtration and Improved Cookstoves, Guatemala
- Industrial Process Emissions Reductions, USA
- Renewable Energy Portfolio, Global



As part of our CarbonNeutral[®] Company Certification in 2022, we began calculating our company carbon footprint and plan to continue to do so going forward. This footprint was reviewed by a qualified independent third party in line with the requirements of The CarbonNeutral[®] Protocol. We report on our carbon emissions under ‘Metrics & Targets’.

Our head office building in Kolding is equipped with photovoltaic solar panels, and renewable energy is sourced outside peak hours. In 2023, electric vehicle chargers were installed to make electric transportation an easier choice.

Products

Global Evolution is committed to continuously evaluating and refining its product portfolio to align with evolving client demands and preferences. We are in continuous dialogue with our clients on their appetite for sustainability-focused strategies to ensure that our offerings remain relevant and responsive to the market's needs, particularly in areas of increasing importance such as sustainability. In line with this commitment, all our strategies comply with the Sustainable Finance Disclosure Regulation (SFDR) Level II requirements for Article 8.

Reputation

As an investment manager specialized in frontier and emerging markets and with ESG as part of our DNA, we have extensive knowledge of challenges and opportunities in these markets. We are committed to staying at the forefront of global trends, analyzing their implications for emerging markets, and proactively incorporating these insights into our strategies. Our internal research plays a key role in this process, offering valuable perspectives that we regularly share with our investors to foster informed decision-making. We actively engage in meaningful dialogue with our clients to advocate for a fair representation of emerging markets within the broader context of climate and sustainability-related risks. Through these discussions, we aim to align expectations regarding the measures we implement to manage such risks effectively.

¹ CarbonNeutral[®] company certification: Conning Holdings Limited (CHL) and its subsidiaries (together, “Conning”) are certified as carbon neutral through the use of high-quality instruments, in accordance with The CarbonNeutral Protocol (<https://www.carbonneutral.com/the-carbonneutral-protocol>) and the GHG Protocol Scope 2 Guidance. All credits adhere to standards approved by the International Carbon Reduction and Offset Alliance (ICROA). To achieve this certification, Conning works with Climate Impact Partners, a specialist in carbon market solutions for climate action. As part of this certification, the firm’s global operations complete an independent assessment of their greenhouse gas emissions.

Navigating the regulatory landscape

Compliance is a fundamental pillar of Global Evolution's business success and Global Evolution's sustainable future and we believe that strong governance and ethical business practices are fundamental to ensure clients' and stakeholders' trust, and to maintain successful investment activities.

In the area of sustainability integration both in our inward sustaining of the future success of our organization, and the outward, sustainability of the entities in which we invest, compliance is key to provide stewardship and controls in order to protect the interests of our clients and shareholders. Consequently, the areas of risk management, IT, operations, and investment management undergo substantial oversight and reporting requirements to ensure compliance with laws and regulations in the relevant areas.

3.2. Climate and nature-related considerations in investment management

As an asset manager, the key climate and nature-related risks are found in our investments and portfolios. Being focused on emerging markets sovereign and corporate fixed income, we are particularly attentive to emerging markets' position in climate change and biodiversity crisis.

Emerging markets' development trajectory plays an important role for the entire world. They contain most of the world's biodiversity² and fossil fuel reserves³ and therefore play a pivotal role in the global biodiversity and carbon future. At the same time, carbon emissions and ecosystem services are intrinsically connected to development and growth: Fossil fuels have historically provided the fuel generating industrial activity and rising living standards,⁴ while in turn development have had negative externalities to the natural environment, e.g. through increased pollution and urbanization. Meeting global demands for commodities in e.g. agriculture, mining, forestry, and fossil fuel sectors are often foundational to developing countries' economic output and growth. Yet, this frequently leads to deforestation, habitat destruction, and rising carbon emissions. In other words, biodiversity loss and climate vulnerability become negative externalities of economic development.

Emerging markets are typically more exposed to climate and nature-related risks due to their geographical location in regions affected more by extreme weather events, and where food security and water scarcity are already worrying challenges.⁵

As a result, emerging markets are caught between the urgent need for economic development, the growing necessity to detach growth from rising carbon emissions and natural environmental degradation to preserve the natural systems, and the need to strengthen their resilience to the physical consequences of climate change. Significant investments are required to support emerging markets' low-carbon transition⁶ and biodiversity⁷ and ecosystem conservation; however, many emerging markets lack the financial resources needed.

In the following, we go into more detail as to how climate and nature-related risks could materialize in our investment universe. We analyze key risks and opportunities for our two asset classes: Sovereign- and corporate fixed income.

² Adenle, A. A., Stevens, C., & Bridgewater, P. (2015). Global conservation and management of biodiversity in developing countries: An opportunity for a new approach. *Environmental Science & Policy*, 45, 104-108.

³ Dudley, B. (2019). BP statistical review of world energy 2016. *British Petroleum Statistical Review of World Energy*, BpLc. editor, Pureprint Group Limited, UK.

⁴⁴ <https://www.iea.org/commentaries/the-relationship-between-growth-in-gdp-and-co2-has-loosened-it-needs-to-be-cut-completely>

⁵ World Bank Group (2016). Shock waves. Managing the Impacts of Climate Change on Poverty

⁶ Standard Chartered (2022). Just in time. <https://www.sc.com/en/insights/just-in-time/>

⁷ BloombergNEF (2024). Biodiversity Finance Factbook

Understanding the materiality of transition risks is a challenging undertaking and is based on a variety of assumptions. As explained in the 'Risk Management' chapter, we monitor transition risk trends from top-down and bottom-up approaches. From a top-down perspective, transition risk trends are monitored on a more global level, while the bottom-up approach gives nuances to country-specific risks and opportunities.

3.2.1 Climate-related risks for sovereign and corporate issuers (TCFD)

There is a general expectation for emerging market countries to play an important role in the global low-carbon transition by not following the same development path as that of advanced economies whose economic growth historically has been linked with rising carbon emissions. With an estimated financing gap of 95 trillion USD for emerging markets to reach net zero⁸, investments in emerging markets are urgently needed to support their low-carbon transition in a fair and inclusive manner without these countries having to sacrifice growth and prosperity.

At the same time, the low-carbon transition and climate change more broadly entail financial risks and opportunities for investments. We are therefore of the conviction that climate and sustainability analysis is integral to navigating the complexity of the global climate change trajectory and delivering long-term risk adjusted returns for our clients.

As an asset manager specialized in emerging markets sovereign- and corporate fixed income investments, we are attentive to the risks and opportunities climate change entails for both sovereign and corporate entities as these can affect our portfolios through changes in issuers' credit worthiness and bond spreads. Table 3 provides an overview of key physical and transition risks that we have identified to potentially influence issuer credit worthiness and spreads.

⁸ Standard Chartered (2022). Just in time. "<https://www.sc.com/en/insights/just-in-time/>

Table 3: Key climate-related risks

Category	Sovereign issuer risk	Corporate issuer risks	Risk time horizon
Climate-related physical risks	<ul style="list-style-type: none"> • Disruption of economic activities from extreme weather events, straining governments fiscal position • Increased public spending for repairs and upgrades as result of infrastructure damages • Human capital levels affected by reduced productivity from e.g. health crisis and economic displacement • Social and political tensions in vulnerable regions affecting governments ability to govern effectively 	<ul style="list-style-type: none"> • Operational disruptions from extreme weather events • Supply chain vulnerability as natural disaster and changing weather patterns can lead to shortage of raw materials and components • Increased costs associated with preparing for, responding to, and recovering from climate-related events 	Short to long-term
Climate-related transition risks	<ul style="list-style-type: none"> • Declining exports from decreased demand and cross-border carbon taxes • Increased public spending to meet carbon reduction targets • Stranded assets from lacking demand for fossil fuels and carbon-intensive product • Increased fiscal spending for e.g. unemployment • Shifting geopolitics from shifting demands for fossil fuels and minerals 	<ul style="list-style-type: none"> • Increased regulatory and compliance costs • Declining revenues from shifting demand preferences towards sustainable products and production processes • Increased expenses related clean technology and sustainable practices across supply chains • Stranded assets, e.g. production machinery from carbon-intensive production processes 	Medium to long-term
Climate-related opportunities	<ul style="list-style-type: none"> • Diversification of economies away from fossil fuel revenues • Transitioning to a low-carbon economy • Mineral-rich countries benefiting from increasing demand • Building adaptive capacity to climate change • Green and sustainability-linked bonds 	<ul style="list-style-type: none"> • Increased sector-specific demands, e.g. renewables and mining • Long-term cost savings through investments in renewable energy and energy efficiency • Green and sustainability-linked bonds 	Medium to long-term

Source: Global Evolution in-house assessment.

Climate-related physical risks will be felt both in the short term with acute climate-related natural disasters and in the longer term as climate patterns are changing.

In the context of sovereign fixed-income investments, acute weather events can disrupt economic activities, straining a government's fiscal position and potentially leading to the re-pricing of sovereign debt. Increased public spending for repairs of physical (e.g. infrastructure) damage adds further fiscal pressure on vulnerable countries, raising the risk of default in extreme cases. Over the longer term, chronic climate risks can negatively impact economies through reduced productivity, lost revenues and increased social spending, particularly as human capital could be affected by health crises and economic displacement. Additionally, climate-related social and political tensions in vulnerable regions can further impact governments' ability to govern effectively, compounding fiscal vulnerabilities and increasing investment risks in sovereign bonds.⁹

⁹⁹ Volz, U. et al. (2020). Climate Change and Sovereign Risk. London, Tokyo, Singapore, and Berkeley, CA: SOAS University of London, Asian Development Bank Institute, World Wide Fund for Nature Singapore, and Four Twenty Seven

In the context of corporate fixed-income investments, extreme weather events and changing climate patterns can have significant implications for supply chains, industrial processes, and transportation infrastructure. Operational disruptions from extreme weather can interrupt production, leading to delays and increased costs. Additionally, supply chains are particularly vulnerable as natural disasters and shifting weather patterns create shortages of raw materials and essential components, impacting industries dependent on timely and consistent inputs. Consequently, companies face increased costs not only from preparing for and responding to climate-related events but also from recovery efforts in the aftermath of disruptions. Corporate bond prices are therefore likely to be influenced by a combination of company-specific, industry-wide, and sovereign vulnerabilities.

Climate-related transition risks could have a material impact on emerging market fixed income investing. In particular, economies and businesses that are carbon-intensive and/or dependent on fossil fuel revenues are at greater risk from reduced demand for fossil fuels and cross-border carbon policies.

Sovereign bonds could be subject to re-pricing as transition risks materialize for economies heavily reliant on carbon-intensive industries and fossil fuel revenues. As the global economy transitions towards low-carbon, economies could face reduced revenues and stranded assets from declining fossil fuel and carbon-intensive exports as effect of cross-border carbon taxes and shifting demand preferences. Public spending could increase from rising unemployment and investments in low-carbon infrastructure. Sovereign bond yield shocks from transition risks depends on the extent of countries' dependency on these carbon-intensive sectors and their preventive efforts to mitigate transition risks.

Transition risks can also impact bond prices for carbon-intensive companies and economies reliant on fossil fuels, with certain sectors being more exposed than others. For example, energy and mining, as high-emission sectors, face increased regulatory and compliance costs as they adapt to new carbon regulations and potential taxes. Additionally, shifting customer and investor preferences toward sustainable products could lead to declining revenues for companies that are slower to adopt sustainable practices and technologies. To remain competitive, companies may incur significant expenses by investing in clean technology and implementing sustainable practices across supply chains, further affecting profitability.

Climate-related opportunities emerge along the low-carbon transition. Interestingly, the global low-carbon transition could be shifting geopolitics, as nations rich in resources like minerals, which is typically concentrated in a few areas, could benefit significantly from rising demand for materials essential to renewable technologies. Countries can also benefit from successfully transitioning to a low-carbon economy, enhancing long-term economic resilience and attracting sustainable investment, benefiting fiscal stability and international competitiveness. For companies, some sectors, such as renewable energy, mining, and waste management, are better positioned to benefit from the green transition, capturing new market opportunities as demand grows for eco-friendly solutions. Even companies in traditionally carbon-intensive sectors can benefit by proactively reducing emissions and implementing sustainable practices, potentially leading to reduced costs, higher revenues and improved investor confidence.

Importantly, there are also opportunities associated with the physical consequences of climate change. Governments can introduce climate policies to strengthen the adaptive capacity and reduce vulnerabilities, which could trigger innovation and spur growth throughout the implementation. Companies can access capital for sustainable projects, e.g. through green and sustainability-linked bonds, and they can seize new investment opportunities as governments invest in strengthening their adaptive capacity.

3.2.2. Nature-related risks in investments (TNFD)

Biodiversity is an important asset for many low-income countries and communities, creating jobs and contributing to Gross Domestic Product (“GDP”) through industries such as agriculture, forestry, and ecotourism.

Biodiversity underpins sustainable development through food security, human health and economic livelihood that are integral to societal productivity; and the loss of biodiversity and ecosystem degradation jeopardizes hard-earned advancements. This leaves emerging markets governments and companies a complex route to growth and to navigate.

As global environmental concerns grow, fixed income investments increasingly become exposed to nature-related risks, with governments and companies under pressure to address biodiversity loss, ecosystem degradation, and evolving regulations on natural resource protection. Deteriorating ecosystems can negatively affect business performance and economic stability, impacting the value of fixed income assets. Additionally, stricter environmental standards, such as carbon reduction and biodiversity preservation laws, may raise costs and alter market dynamics. These changes present both challenges and opportunities for investors, who must consider nature-related risks when evaluating the long-term viability of their portfolios.

Table 4 gives an overview of key nature-related physical and transition risks identified in our portfolios comprising sovereign and corporate fixed income investments. We have identified the key risks and opportunities, which we believe can have material impact on issuers' credit worthiness and bond spreads.

Table 4: Nature-related risks for sovereign and corporate issuers

Category	Sovereign issuer risk	Corporate issuer risk	Risk time horizon
Nature-related physical risks	<ul style="list-style-type: none"> Economic disruption of sectors heavily reliant on natural resources Declining revenues as biodiversity loss affect availability and quality of nature-dependent goods Reduced human capital levels (health and productivity) as diseases spread from ecosystem change and poor water quality Social unrest, political instability, and interstate tensions from resource scarcity and food insecurity 	<ul style="list-style-type: none"> Lower production output from biodiversity and ecosystem loss Shortages or disruptions in the availability of natural or nature-dependent resources Increased costs and operational inefficiencies from disrupted supply chains as ecosystems degrade and biodiversity decline. 	Short to long-term
Nature-related transition risks	<ul style="list-style-type: none"> Reduced economic growth and revenue as global standards shift toward nature-positive practices. Job losses and reduced GDP in natural capital-dependent countries from stricter biodiversity regulations Increased public spending for restoration and protection of ecosystems to meet both domestic and international environmental commitments. Poorly-rated countries risk losing foreign investments as investors seek towards high-performers 	<ul style="list-style-type: none"> Increased costs to comply with stricter regulations Increased operational costs throughout supply chains adapting to stricter regulations Financial penalties from non-compliance with biodiversity regulations Higher borrowing costs for companies with significant biodiversity impacts as investors may seek to reduce negative impacts of portfolios Declining sales and consumer boycotts as corporates fail to adapt to changing consumer preferences 	Medium to long-term
Nature-related opportunities	<ul style="list-style-type: none"> Biodiversity conservation initiatives Diversification of economies away from natural resource dependence Green and sustainability-linked bonds 	<ul style="list-style-type: none"> Reducing risks through proactive management Gaining competitive advantage through innovative, nature-positive products and business models Green and sustainability-linked bonds 	Short to long-term

Source: Global Evolution in-house assessment

Nature-related physical risks includes the degradation and/or depletion of natural capital and associated changes to ecosystem services, such as food and water supply.

For sovereign bonds, risks are greater in economies heavily dependent on natural resources. Nations reliant on industries such as agriculture, forestry, fisheries, and mining are particularly vulnerable to biodiversity loss, which disrupts ecosystem stability. These countries may face declining revenues from lower productivity, reduced tax income, and weakened export earnings. Meanwhile, spending is likely to increase as governments fund biodiversity restoration and welfare costs from unemployment and health-related expenditures linked to environmental degradation. This combination of declining revenues and higher expenditures can weaken fiscal stability, raising investor concerns about debt repayment. Resource scarcity, especially food and water, threatens political stability – potentially leading to social unrest and even cross-border tensions. Overall, fiscal and political instability may widen sovereign bond spreads as investors seek higher returns to offset increased credit risk.

Similarly, for corporate bonds, risks are higher for companies reliant on natural resources and stable ecosystems throughout the value chain. Disruptions in resource availability in the supply chain could lead to increased costs, operational inefficiencies, lower production outputs, and declining revenues. Corporations may also need to allocate funds toward costly restoration and sustainability initiatives, resource management, and risk mitigation strategies. Declining revenues and rising costs squeeze profit margins and limit cash flow for debt servicing, and could lead to credit rating downgrades, as rating agencies account for environmental risks and weakened financial performance. This trend underscores the need for companies to proactively manage environmental risks to sustain investor confidence.

Nature-related transition risks arise as global standards shift towards greater protection and restoration of biodiversity and ecosystems in response to the global biodiversity crisis.

Sovereigns that rely heavily on natural capital may experience reduced economic growth and revenues when biodiversity regulation becomes stricter, e.g. from limiting logging, mining, and fishing quotas and imposing more strict land use policies on farmers. This could result in job losses and reduced economic output. Governments may also need to increase public spending on ecosystem restoration and protection to meet both domestic and international environmental commitments, placing further strain on fiscal health. Additionally, countries with poor environmental ratings could lose foreign investments, as investors could seek towards more sustainable, high-performing markets. This combination of economic pressures, increased spending, and diminished investor confidence could lead to wider bond spreads for affected sovereigns.

Corporates relying on natural resources face higher costs as stricter biodiversity regulations require investments in sustainable practices and compliance across supply chains. Companies that fail to meet new regulation and standards risk financial penalties. Failure to adapt to changing consumer preferences for sustainable products can lead to declining sales and even boycotts, further hurting profitability and reputation. This combination of increased costs, regulatory pressures, and reduced consumer demand could lead to wider credit spreads, lower bond prices, and heightened risks for corporate bond investors.

Nature-related opportunities are also highly relevant to consider. Nature-dependent economies can diversify economies by reducing dependence on natural resource extraction and promoting sectors such as renewable energy, sustainable agriculture, and eco-tourism, fostering resilience and innovation. Governments can also invest in protecting and restoring ecosystems to maintain ecological balance and support sustainable livelihoods. Corporations can gain a competitive edge by developing innovative, nature-positive products and business models that align with growing demands for sustainability. By proactively managing environmental risks, companies can reduce potential disruptions from climate change, resource scarcity, and regulatory shifts, ensuring greater operational stability. To finance these efforts, governments and companies can utilize

green and sustainability-linked bonds, attracting environmentally conscious investors while directing capital towards nature-enhancing projects.

Nature-related impact and dependency of investments

Following the TNFD recommendations, we have analyzed and mapped our investments’ nature-related dependencies and impacts, and hence our analysis is based on the principles of double materiality. We have conducted the assessment for our sovereign and corporate investments respectively, to help identify areas of our investments that may have high concentrations of higher-risk dependencies and impacts.

In our assessment of nature-related dependencies and impacts of our **sovereign** investments, we have relied on indicators that we find to be key to understanding nature-related risks for sovereign bonds. Among dependencies, we assess countries’ dependency on nature for economic output including agriculture, forestry, fishing, minerals and fossil fuels, as we find these areas to be at highest risk among emerging markets. Our assessment of nature-related impacts includes water withdrawal for economic activity, land use (agriculture land), and deforestation. In our view, those are the most important factors, although we could also have included other available indicators such as threatened species, and critical habitats. We have also included a dimension that considers the protection of environment and local communities’ rights.

In our evaluation of nature-related dependencies and impacts on **sovereign** investments, we have relied on key indicators deemed essential for understanding nature-related risks associated with sovereign bonds. Regarding dependencies, we assess each country's reliance on natural resources for economic output, focusing on agriculture, forestry, fishing, minerals, and fossil fuels, which we identify as the most exposed sectors within emerging markets. Our analysis of nature-related impacts encompasses water withdrawal, land use (particularly agricultural land), and deforestation. While we regard these as the most significant factors, other indicators, such as the status of threatened species and critical habitats, could also be considered. Additionally, we have incorporated a dimension that evaluates governments’ levels protection of the environment and the rights of local communities. This helps us identify risks of environmental degradation and civil unrest, which represents risk to GDP growth and bond prices.

For the purpose of this report, we have mapped dependencies, impacts, and protections on a regional level (based on an average of all countries within a region) as depicted in figure 1. However, countries within a region can have very different dependencies, impacts and protective measures with some countries exhibiting very high risks and other countries very low risk. We are therefore more attentive to idiosyncratic country profiles and average levels in our portfolios.

Figure 1: Nature dependence and impact heat map for sovereigns¹⁰

	Dependencies	Impacts						Protection (risk assessment)		
		Agriculture, forestry and fishing rents	Mineral rents	Fossil fuel rents	Water intensity	Land use	Water Pollution	Deforestation	National environment policy	Indigenous Peoples' Rights
Africa	22.0%	Medium	Low	Low	Medium	Medium	Medium	Medium	Medium	Very High
Asia	25.1%	Low	Low	Low	Medium	Medium	Medium	Low	Medium	High
Caribbean	3.7%	Low	Very Low	Medium	Low	Low	Low	Low	High	Low
Eastern Europe	14.8%	Low	Low	Low	Medium	Medium	Medium	Low	Low	Very High
Latin America	24.6%	Low	Low	Low	Medium	Low	Medium	Medium	Low	High
Middle East	6.3%	Low	Very Low	Medium	Medium	Low	High	Low	Medium	High
North America	0.9%	Very Low	Low	Medium	Medium	Low	High	Very Low	Low	Medium
Western Europe	0.0%	Very Low	Very Low	Very Low	Low	Medium	Medium	Low	Low	Low

Sources: World Bank and Verisk Maplecroft. Prepared by Global Evolution

¹⁰ Sources: World Bank and Verisk Maplecroft. Prepared by Global Evolution

In our evaluation of the nature-related dependencies and impacts of our **corporate** investments, we have utilized the ENCORE database, following the assessment framework recommended by the Taskforce on Nature-related Financial Disclosures (TNFD). Dependencies and impacts were initially analyzed at the level of each relevant subsector, and subsequently aggregated at the sector level as depicted in figure 2. This methodology ensures that the risk assessment for each sector is confined to the risks stemming from its pertinent subsectors.

One of the largest sector exposures within emerging markets **corporate** investment universe lies within the financial sector, which presents low or very low nature-related risks. However, we also have some exposure to sectors with significant nature-related dependencies, including metals and mining, commodities pipelines, and construction materials. Additionally, we hold investments in sectors that have substantial negative impacts on nature, notably exploration and production, integrated oils, and chemicals. Crucially, we evaluate the ESG efforts of the companies in our portfolio, acknowledging that firms can manage their dependencies and mitigate negative impacts to varying extents, depending on their level of ambition and commitment to sustainability.

Figure 2: Nature dependence and impact heat map for corporate sectors

Sectors	% of GE's Portfolio*	Dependencies		Impacts				
		Soil Quality	Water	Land Use	Water Use	Pollution		
				Land Use	Water Use	Solid Waste Pollution	Soil Pollution	Water Pollution
Biotechnology	0.2%	Medium	High	Low	Medium	Medium	Medium	Medium
Chemicals	6.5%	Medium	Medium	Low	Medium	Medium	Very High	Very High
Coal Operations	0.0%	Medium	High	Medium	Medium	Medium	High	High
Communications	6.3%	Low	Very Low	Very Low	Very Low	Very Low	Low	Low
Construction Materials...	0.5%	Low	High	Low	High	High	Very High	Very High
Consumer Discretionary	6.9%	Medium	Low	Low	Low	Low	Very Low	Low
Consumer Staples	2.6%	High	Medium	Medium	High	Low	Low	Low
Containers & Packaging	0.0%	Low	Medium	Low	Medium	High	Medium	Medium
Exploration & Production	5.4%	Low	Medium	Low	Medium	Medium	Very High	Very High
Financials	24.6%	Very Low	Very Low	Low	Very Low	Very Low	Low	Low
Forest & Paper Products...	0.5%	Low	Medium	Low	Medium	High	Medium	High
Government	13.3%	Very Low	Low	Medium	Medium	Medium	Low	Low
Health Care Facilities &...	0.1%	Low	Medium	Low	Low	Medium	Low	Low
Industrials	3.8%	Low	Low	Medium	Low	Very Low	Low	Low
Integrated Oils	7.6%	Low	Medium	Low	Medium	Medium	Very High	Very High
Metals & Mining	5.2%	Medium	High	Medium	Medium	High	High	High
Oil & Gas Services &...	1.6%	Low	Low	Low	Low	Medium	Medium	Medium
Pipeline	2.7%	High	Low	Medium	Medium	Medium	Medium	Medium
Refining & Marketing	1.9%	Medium	Low	Low	Low	Medium	Very High	Very High
Renewable Energy	0.4%	Medium	Low	Medium	Low	Very Low	Low	Low
Technology	1.1%	Low	Medium	Low	Medium	Low	High	High
Utilities	8.8%	Medium	Medium	Medium	Low	Medium	High	High

Source: ENCORE database. Prepared by Global Evolution

3.3. Scenarios and resilience

Global Evolution considers three key scenarios, which each would have implications for the extent and severity of transition and physical risks to our portfolios. The scenarios provide a basis for our top-down monitoring of the developments in transition and physical risks and our bottom-up country assessments (as further elaborated upon in the chapter on 'Risk Management'). The scenarios are presented in table 5, which includes an overview of the underlying assumptions of the scenarios, implications for transition and physical risks, as well as considerations to Global Evolution's exposure and resilience under the three scenarios.

Given the strong interconnection between climate-related and nature-related risks, the three scenarios address both types of risks. However, we recognize that the ambition levels and speed of implementation of

climate and nature policies may vary and do not always align. This creates numerous intermediate combinations of scenarios. Yet, to simplify understanding, we have structured the scenarios under the assumption that climate and nature policies are pursued with equal levels of ambition.

Table 5: Global Evolution Climate and Nature Scenarios

Drivers	Orderly	Disorderly	Too little too late
Policy action	Early, ambitious action: Climate and nature-related policies are introduced early and becomes gradually more stringent	Late, disruptive, and unanticipated action: Climate and nature-related policies not introduced until 2030, but with urgent implications	NDC or current policies: Climate and nature-related policies are implemented in some jurisdictions, but insufficient
Temperature	1.5°C	<2°C	2.6°C (NDCs) – >3°C (current policies)
Carbon emissions	Carbon emissions are gradually reduced	Rapid reduction of emissions	Emissions will continue to increase before eventually decreasing slightly
Transition risks implications	Economies and companies adapt to the low-carbon and nature-positive transition resulting in lower GDP loss from planned action	Economies and companies are not prepared for sudden carbon policies, resulting in higher GDP loss	Economies and businesses continue as usual and adapts to current climate and nature-related policies
Market pricing: Transition risks	Smooth price-in	Sudden price-in triggered by rapid policy action	Less significant price-in
Physical risks implications	Economies and companies will adapt to the rising temperatures and changing weather patterns. Extreme weather events will continue as usual without significant surge. Nature loss will be low to moderate with continued provision of ecosystem services.	Delayed action will cause biodiversity and ecosystem degradation as well as a surge in extreme weather events. Possibility of severe collapse in a single ecosystem (e.g. pollination)	Extreme weather events will be more frequent and severe over time from higher temperatures. Nature loss will become severe over time and several ecosystems at high risk of collapsing.
Market pricing: Physical risks	Less significant price-in	Progressive price-in	Progressive but more severe price-in
Global Evolution Exposure and Resilience	<p>Many EM countries are dependent on fossil fuels and natural resources for economic output. EM countries also have the largest reserves of minerals needed for the green transition.</p> <p>The smooth transition allows for and adjust portfolios according to risks and opportunities.</p>	<p>The market value of Global Evolution’s portfolios could take a sudden drop as businesses and economies suddenly would need to adapt to sudden policies and possible ecosystem collapse.</p> <p>Although policy action and reduction of emission is sudden compared to other scenarios we expect signals to show, allowing for some risk adjustment; however this scenario holds greatest risks to our portfolios.</p>	<p>Exposure to carbon and fossil fuel dependent EM economies does not entail significant risk as economies will need to adjust less and over longer time to the low-carbon transition.</p> <p>Severe price-in of physical risks is likely to hit EM countries the hardest due to their vulnerability to climate change and dependence on nature.</p> <p>The slow transition allows for adjusting portfolios according to risks and opportunities.</p>

Source: Global Evolution in-house assessment. Inspired by NGSF scenarios 2022¹¹

¹¹ NGFS (2022). Climate Scenarios Database: Technical Documentation V.3.1. Accessed through https://www.ngfs.net/sites/default/files/media/2022/11/21/technical_documentation_ngfs_scenarios_phase_3.pdf and NGFS (2022) Scenarios for central banks and supervisors. Accessed through https://www.ngfs.net/sites/default/files/medias/documents/ngfs_climate_scenarios_for_central_banks_and_supervisors.pdf.pdf

4. Risk Management

We understand the critical importance of assessing and managing climate and nature-related risks that may impact both our business operations and our investors. In the chapter on Strategy within this report, we outlined our current efforts to enhance resilience against these risks as a corporate entity, along with general considerations of how environmental risks could influence our investments. Recognizing that our investment activities face the highest exposure to such risks, this chapter on Risk Management focuses on our approach to evaluating and addressing the risks associated with our investments rather than as a corporate entity.

Given the potential significant impact on our portfolios, we are committed to integrating environmental risks into our decision-making processes alongside other financial and non-financial factors. Climate and nature-related risks are becoming increasingly important in our investment strategies, and we are dedicated to continuously deepening our understanding of these challenges while refining our methodologies for addressing them.

To manage environmental risks, as well as broader ESG risks, we employ a three-pillar approach: negative screening, ESG integration, and active engagement. Table 6 provides a summary of these pillars, and the remainder of the chapter elaborates on how each is applied to effectively manage risks within our investment framework.

Table 6: Managing ESG risks in investment decisions

Pillar	Objective	Approach
Negative screening	To exclude issuers with exceptional poor ESG performance	<ul style="list-style-type: none"> Our proprietary exclusion framework monitors basic ESG criteria, including environmental considerations, which are required to be above a certain threshold to be included into our investment universe.
ESG integration	To integrate climate-related risks and opportunities into our investment decisions	<ul style="list-style-type: none"> Proprietary analytical frameworks for holistic sovereign and corporate ESG assessment across a variety of ESG issues Country and company deep dives Thematic analysis on relevant ESG topics impacting investments, including physical and transition risks Quantitative models Portfolio monitoring
Engagement	To engage with governments on key risks and opportunities	<ul style="list-style-type: none"> Direct engagement with issuers Indirect engagement through organizations

Source: Global Evolution

4.1 ESG negative screening

Our negative screening analysis excludes countries and companies with exceptionally poor ESG levels. By design we only exclude a small part of our defined universe, as our investment philosophy favors issuers with opportunities for improvements, even when improving from very low levels.¹²

¹² ESG considerations thus play an important role in our assessment of creditworthiness along other factors such as macro-economic, financial and commodities. Consequently, even though we aim to achieve a positive ESG impact in the countries where we invest, there may be situations where we invest in countries where non-ESG factors outweigh a possible ESG downsides.

For our sovereign investments, we conduct a negative screening on a quarterly basis with a holistic view on environmental, social, and governance factors, using a combination of a quantitative model, qualitative assessment, and sanctions check. First, our quantitative model includes an assessment of the robustness of countries' environmental regulatory frameworks. Countries below a certain threshold are excluded from investments. Second, based on our additional qualitative assessment, we may decide to exclude countries when we find that the central government is extremely weak, ineffective, and/or negligible of human rights, however which is not captured in our quantitative framework. Lastly, we screen countries against the legally required sanction lists, and the nature of sanctions are reviewed, which can lead to a country being excluded from our investment universe.

Our corporate investments are subject to 3 levels of exclusion, including sanctions, sectors, and high-risk assessment. First, companies under applicable sanctions are excluded. Second, we exclude companies that derive any of their revenues from controversial sectors (weapons, tobacco, pornography) or more than 25% of revenues from coal mining or tar sands. Lastly, companies are excluded when they in our corporate ESG framework are identified as high risk with a negative outlook.

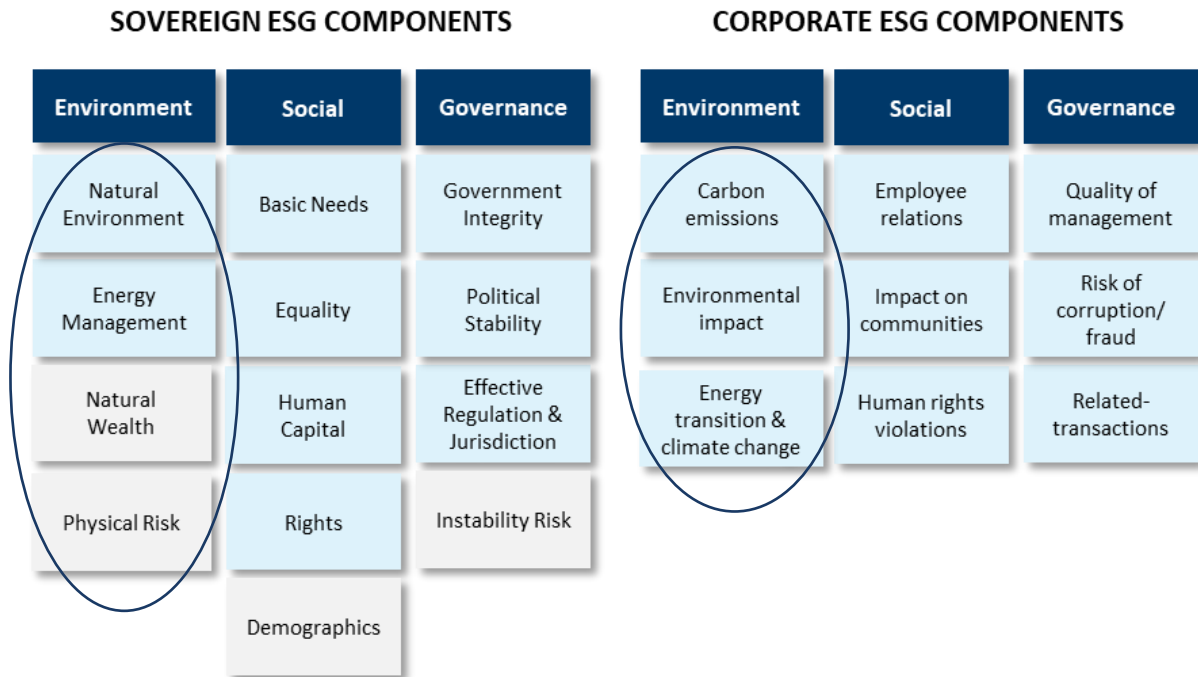
4.2 ESG integration and positive screening

As a frontier and emerging markets investor, ESG considerations have been included in our investment decisions since our inception. Given emerging markets' lower income levels, ESG conditions are typically less developed and hence play an important role for countries' socio-economic and financial development. Therefore, by incorporating ESG factors alongside financial and non-financial considerations into our analysis, we form a more complete picture of risks and opportunities facing emerging markets countries and companies. The key approaches include ESG ratings, thematic analysis, qualitative country and company deep-dives, quantitative models, and portfolio monitoring.

ESG ratings

In our investment process, we include insights from our extensive sovereign and corporate analytical ESG frameworks, which are designed to give detailed information of countries and companies' ESG metrics considered relevant to guide and shape portfolio managers' understanding of investment risks and opportunities. Both our sovereign and corporate ESG assessment frameworks include climate and nature-related components as highlighted in figure 3.

Figure 3: Global Evolution ESG assessment frameworks



Source: Global Evolution

Global Evolution’s sovereign ESG framework integrates key climate and nature-related dimensions. The blue boxes in figure 3 represent ESG dimensions that can largely be influenced through government interventions, whereas the grey boxes represent risks of more exogenous nature to a country that governments will need to navigate and build resilience to. Climate and nature-related dimensions represented in our sovereign ESG assessment framework include the following underlying indicators:

- *Natural environment*: Natural Environment Policy, Deforestation, and Water (stress and pollution)
- *Energy management*: Decarbonization Policy Support, Carbon Consumption per Capita, Carbon Intensity of Economy, and Renewable Energy
- *Natural wealth*: Valuation of nonrenewable assets (fossil fuel and minerals) and renewable assets (agricultural land, forests, mangroves, fisheries, and protected areas) per capita and per GDP.
- *Physical risk*: Adaptive Capacity to Climate Change, Climate Change Exposure, and Climate Change Sensitivity

Recognizing that companies’ sustainability risks are highly affected by country-level risk, our corporate sustainability analysis also relies on the insights from our sovereign ESG framework, while our separate corporate ESG framework addresses climate- and nature related dimensions relevant for assessing corporate entity-specific risks. Environmental considerations include a variety of metrics related to companies’ emissions, their environmental impacts, and their exposure to transition and climate change. The framework’s climate and nature-related dimensions include:

- *Carbon emissions*: Industry level of emissions, issuer vs. peers, carbon intensity trend and reduction objectives
- *Environmental impact*: Industry level of waste and pollution, issuer vs. peers, controversies / risk of litigation

- *Energy transition and climate change:* Industry and issuer exposure to energy transition and to climate change, and ability to manage these risks.

To enhance accessibility and usability, country overviews and detailed ESG data are seamlessly integrated into our internal ESG platform. This platform provides real-time access to ESG indices, allowing users to monitor levels, trends, and developments across key metrics. By centralizing this information, the platform supports dynamic analysis and fosters a more agile investment decision-making process. Furthermore, it enables us to track changes in ESG performance over time, helping to identify emerging risks and opportunities.

Qualitative country and company deep-dives

While our ESG assessment frameworks provide crucial insights into risk levels, we recognize the inherent challenges associated with data availability and timeliness, particularly in emerging markets where robust ESG data can often be limited or slow to reflect changes. To address these gaps, a key component of our risk assessment process is our in-house qualitative analysis of corporate and sovereign issuers. This qualitative approach allows us to go beyond the numbers, enabling a deeper understanding of recent developments that may not yet be captured in quantitative data.

Through this method, we gain insights into the underlying drivers shaping a country's ESG conditions and trajectory. By analyzing political, social, and environmental dynamics, we can form forward-looking views on potential outcomes and their implications. For example, the election of a new president in a country may result in a series of impactful reforms targeting governance, social equity, or environmental sustainability. While such reforms are likely to have significant socio-economic and ESG implications, these changes often take years to manifest in traditional ESG ratings or datasets. Our qualitative assessments bridge this gap, ensuring that our investment decisions reflect the most current and nuanced understanding of both risks and opportunities in the markets we operate.

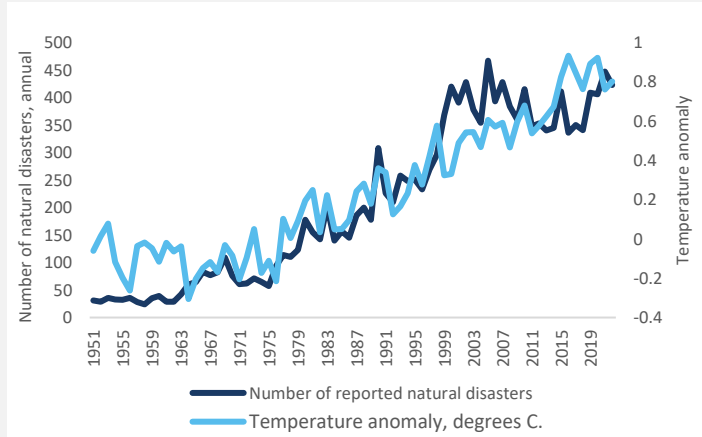
Thematic analysis

Our thematic analyses are aimed at understanding a variety of ESG issues that influence our investments. These analyses take the shape of both short insight briefings on current events and more thorough analysis of global trends. While our ESG frameworks do provide insights into climate and sustainability-related risks, we find that understanding physical and transition risks, require deeper insights which we develop through more thorough analysis and tools. We take a combination of top-down and bottom-up approaches to assessing climate-related analysis. Our top-down analysis provides us a wider context to understanding global climate-related developments, which can have material implications for emerging markets fixed income funding costs. Our bottom-up analysis is focused on issuer-specific risks and opportunities under the global climate-related developments. The following pages specific examples of Global Evolution's top-down and bottom-up analysis related to physical and transition risks.

Physical risks analysis

Global Evolution seeks to form a nuanced view of physical risks and the impact on investments. Physical risks are taken into account from both top-down and bottom-up perspectives to understand the wider context of physical risks and more country-specific idiosyncrasies. Below are examples of thematic risk analysis related to physical risks.

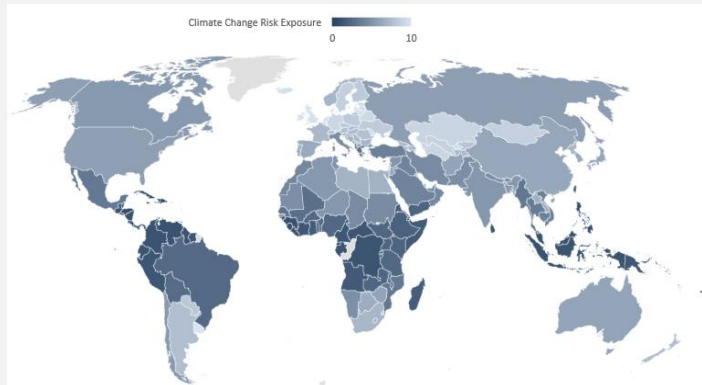
Figure 4: Natural disaster events and temperature anomaly



Top-down considerations: Global Evolution stays updated on the developments in climate change, e.g. temperature anomalies, weather conditions, and natural disaster events. Along with rising temperature anomalies, the number of natural disaster events across the world have risen ten-fold since the mid-1900s, although a more steady number of annually reported natural disasters have been reported over the past decades. Temperature anomalies have continued an upward trend, however with a small drop in 2020 and 2021.

Source: World in Data and Met Office Hadley Center. Prepared by Global Evolution

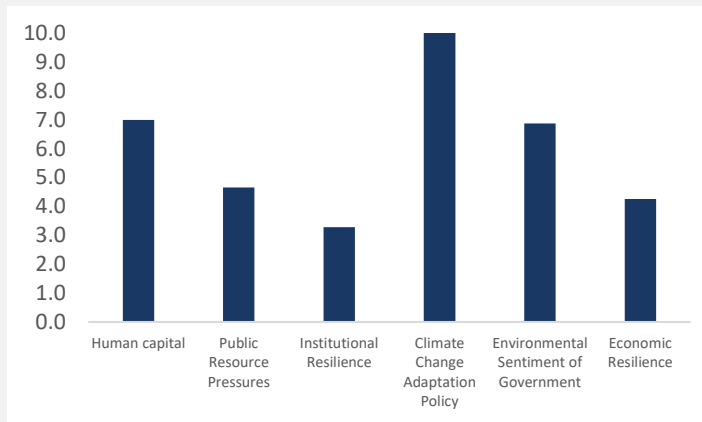
Figure 5: Exposure to climate change



Bottom-up country comparison: Comparing countries' exposure to the physical impacts of climate extremes and future changes in climate change over the coming decades, emerging markets are identified as particularly exposed, despite those countries having contributed the least to climate change. This makes physical risks a key topic for more in-depth analysis for investment risk management.

Source: Verisk Maplecroft, Q4-2023. Prepared by Global Evolution

Figure 6: Climate Change Adaptivity, Brazil



Bottom-up country analysis: Countries also differ in abilities to adjust to and take advantage of the physical consequences of climate change. Factors such as human capital, economic and institutional capacity and resilience are important factors to consider. Such indicators comprise a 'Climate Change Adaptivity' index, used to understand country-specific physical risk nuances.

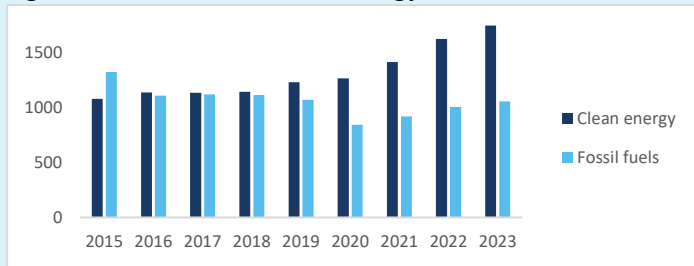
Source: Verisk Maplecroft, Q4-2024. Prepared by Global Evolution

These macro and country-level insights are also important for providing the context for company-specific exposure to physical risks.

Transition risks: Top-down analysis

Transition risks and opportunities transpire from the global transition towards a low-carbon economy. Such transition is expected to lead to stricter regulation, such as cap-and-trade system, more extensive cross-border carbon taxes, and lower demand for fossil fuels. The consequences of such developments could mean that fossil fuel producing nations will see fewer future revenues for their further development and asset diversification as well as stranded labor and fossil fuel assets. Carbon-intensive economies, i.e. economies dependent on fossil fuels for generating economic output, could be challenged from businesses' increased operational costs, decreased profitability, and stranded assets from non-viable business models. Such developments are likely to affect sovereign and corporate funding costs, and hence it is key for us to understand developments in the global low-carbon transition. Below are a few examples of Global Evolution's top-down transition risk monitoring.

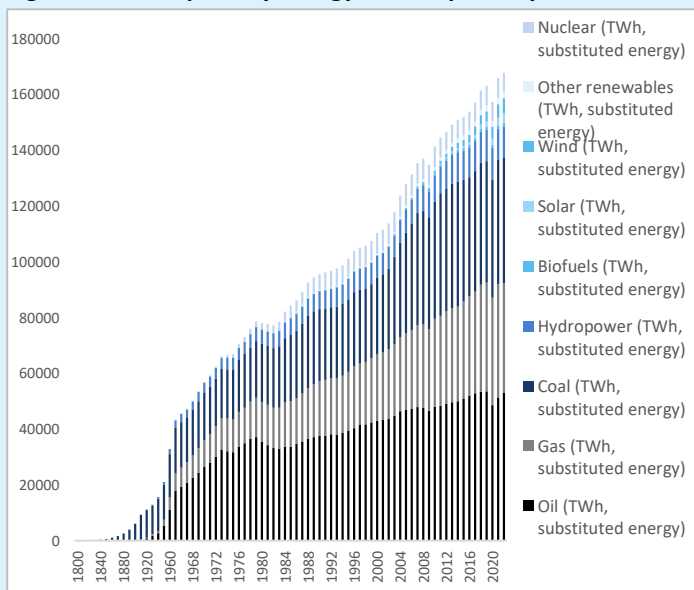
Figure 7: Investments in clean energy vs. fossil fuels , USD bn



Source: IEA

Investments in clean energy have peaked up notably since 2020 and is estimated to reach USD 1.6 trillion in 2023 – by far surpassing investments in fossil fuels. However, spending on upstream oil and gas is expected to rise by 7% in 2023, taking it back to 2019 levels, which is significantly higher than levels needed to reach net-zero by 2050.¹³

Figure 8: Global primary energy consumption by source, TWh



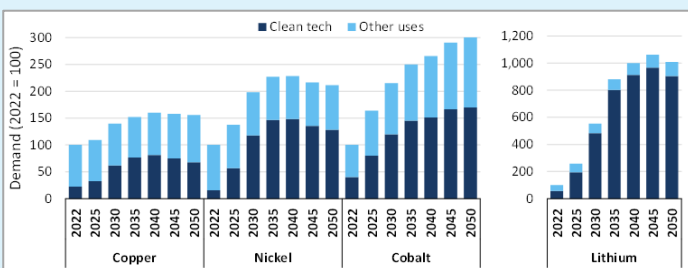
Source: Energy Institute Review of World Energy.

So far, renewable energy has only been an addition to fossil fuel output that has been growing on an annual basis except the drop in 2020 as consequence of the COVID-19 pandemic.

Indeed, fossil fuel consumption will need to decline to reduce global emissions to a level compatible with the Paris Agreement, however the trajectory towards reaching the goals is uncertain, can take many shapes, and actual success in reaching the goals is not guaranteed.

Monitoring global energy consumption provides signals related to the developments in the global low-carbon trajectory.

Figure 9: Global demand for selected metals



Source: USGS

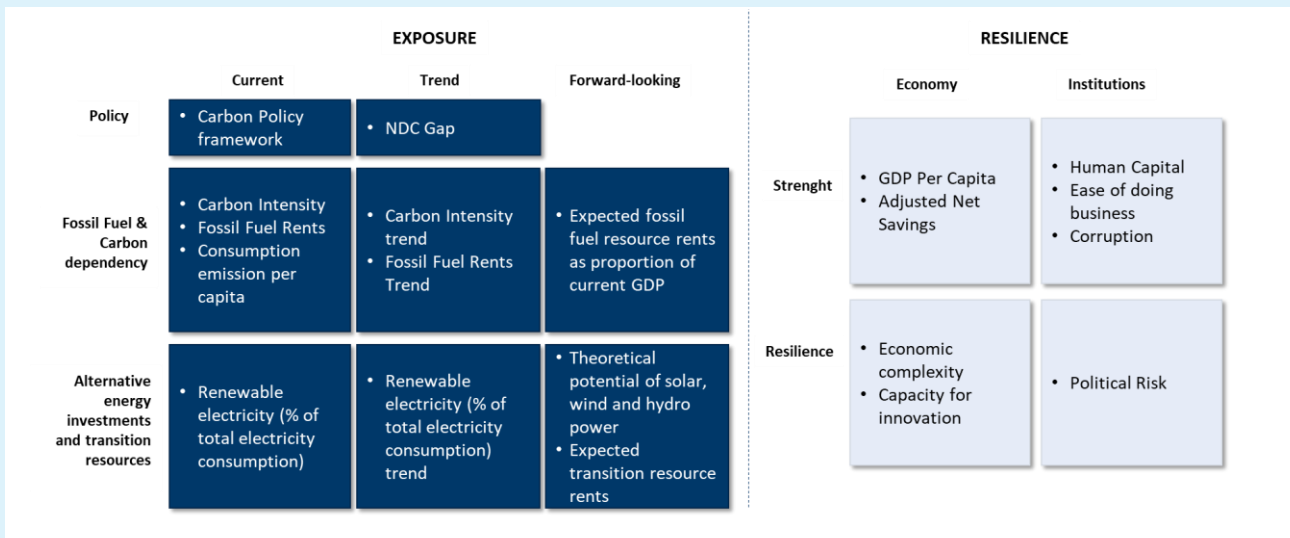
Under the net-zero emissions 2050 scenario, demand for key metals is set to accelerate, driven by investments in clean technologies such as batteries and solar and wind energy. EM countries are the most important producers of these metals, and hence increased clean energy investments will generate further investments into EM, which can contribute to further socio-economic development.

¹³ <https://www.iea.org/news/clean-energy-investment-is-extending-its-lead-over-fossil-fuels-boosted-by-energy-security-strengths>

Transition risks continued.: Country bottom-up analysis

Assessing sovereign transition risks is no simple task and involves a variety of considerations. Deepening our understanding of potential risks, we have developed a proprietary transition risk assessment framework. Inspired by Peszko et al. (2020), we assess both exposure and resilience to transition risks. Exposure refers to the extent to which countries are exposed to economic hardship from a low-carbon transition, their position to transition away from fossil fuels, and their potential to benefit from a global low-carbon transition. Resilience relates to countries' capacity to respond to risks and opportunities, relating to the quality of institutions and flexibility of economic structures. Our transition risk framework comprises of 12 components divided into transition risk exposure (8 components) and transition risk resilience (4 components), as depicted in figure 10 below.

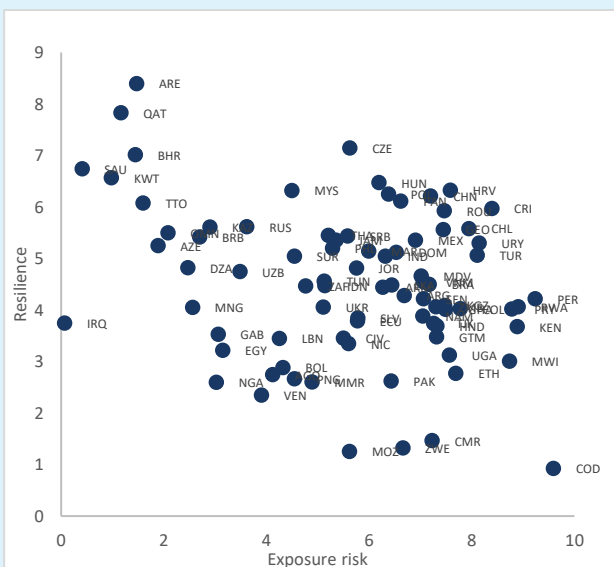
Figure 10: Global Evolution Transition Risk Framework



Notes: In assessing sovereign transition risk exposure, we take into consideration three dimensions; 1) sovereign policy frameworks for low-carbon transitions, 2) sovereign economies' fossil fuel and carbon dependency, and 3) renewable energy resources. We take a dynamic assessment approach by considering current levels, a 5-year trend, and a forward-looking view. Source: Global Evolution

Based on this framework, we are able to rate countries' exposure and resilience relative to each other as depicted in figure 11 below.

Figure 11: Transition Risk Exposure and Resilience

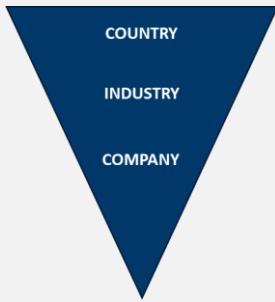


While our transition risk framework assists in identifying the extent of countries exposure and resilience relative to each other, the value of the framework lies as much in the identification of the underlying nature of risks and opportunities as outlined in the framework components. The nature of Qatar and UAE's transition risk exposure differs from that of South Africa and Indonesia, and so do their resilience. Qatar and UAE's exposure is explained by the exceptionally high dependence on fossil fuel rents that are at risk of being compromised as effect of reduced demand and prices. South Africa and Indonesia have much lower fossil fuel rents at risk, yet economic activities and infrastructure in these countries are carbon heavy. A low-carbon transition would require retirement of infrastructure and machinery leading to stranded assets. Global Evolution's internal ESG platform provides an overview of country-specific risks and opportunities pertaining to the global low-carbon transition.

Note: Transition risk exposure and resilience is normalized to scales 0-10 where 0= highest exposure / lowest resilience and 10=lowest exposure / highest resilience.

Source: Global Evolution proprietary framework

Physical and transition risks considerations for corporate investments



Our climate-related risk analysis for sovereign investments follows a top-down approach. Based on our sovereign ESG framework, we identify climate change and energy transition risks at the country level.

Within each country, we give considerations to the exposures of each industry’s exposure to climate change and transition risks.

Finally, we analyze company-specific exposure and resilience to the climate-related risks within the industries in the context of the country-specific risks.

Examples of country-specific considerations

Some countries such as Chile have a clear roadmap for the energy transition, and the power generation sector is making progress to phase-out fossil fuels. Coal-fired power plants have difficulties finding new contracts and are dispatched after all other power sources are already used. Other countries, in the Middle East and Asia, have a high share of fossil-fuel in their electricity mix. Introduction of carbon pricing and investments needed to meet these countries’ energy transition goals will also create challenges for many companies, while creating opportunities for others. Industries with high abatement costs (high costs to reduce their carbon footprint) include Cement, Steel, Chemicals, and Transportation. Other sectors, such as the Oil & Gas or Coal mining, suffer from reduced financing options because of the energy transition, as banks and capital market participants are restricting more and more their investments in these sectors. Regarding the power generation sector, countries have very different electricity mix. For example, LATAM countries tend to have a relatively high proportion of hydroelectric power generation capacity, sometime creating water rights issues with the agricultural sector. Production is regularly impacted by droughts.

Examples of industry-specific considerations

The agricultural sector is particularly impacted negatively by extreme weather events destroying crops or reducing yields and is dependent on the availability of water for irrigation.

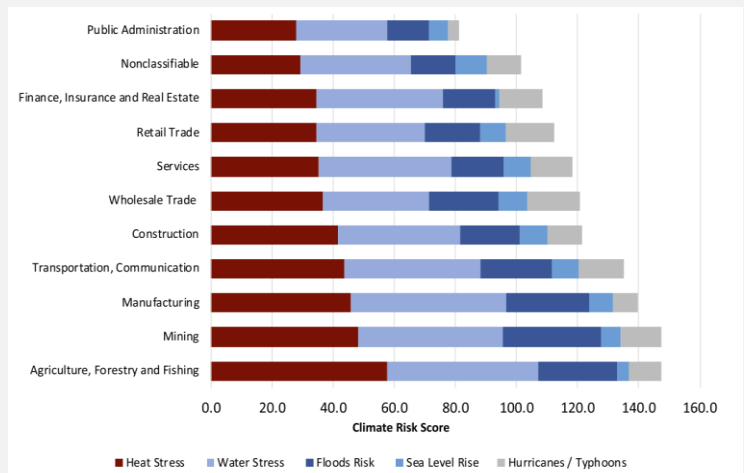
The mining industry is also highly exposed to climate change with infrastructure, equipment, and operations being exposed to damage from natural disasters, and reduced amounts of water being available for mining processes.

Other sectors are impacted, directly and indirectly, by climate change. The financial cost of adapting to climate change ultimately impacts the credit profile of companies to varying degree.

Company-specific analysis

We monitor company-specific risks through our corporate ESG framework with data available in our in-house ESG platform. We supplement risk considerations with qualitative assessments based on a variety of sources to better understand a company’s exposure and resilience to climate-change risks.

Figure 12: Sector-specific exposure to climate change



Source: Li & Gallagher (2022)¹⁴

Figure 13: Company-specific analysis (snapshot from framework)

Global Evolution Risk Score: Medium +				
Environment Data Fields				
Data Field	Value	Unit	Source	Description
Carbon Emission				
Share of non-renewable energy consumption	94.69	%	Sustainalytics	This metric as
GHG Emissions Intensity	27.0412	Carbon Intensity per EVIC	Sustainalytics	This metric as
Carbon intensity scope 1&2	12.6579	Carbon Intensity per EVIC	Sustainalytics	This metric as

¹⁴ Li, X., & Gallagher, K. P. (2022). Assessing the climate change exposure of foreign direct investment. Nature communications, 13(1), 1451.

Quantitative models

By integrating fundamental macroeconomic, financial and ESG factors into our valuation models, we estimate signals for valuations of sovereign credit spreads and currencies. Importantly, the approach we have developed integrates ESG factors directly into our valuation models. We believe and can econometrically document that such approach adds value in terms of estimating more accurate trade signals to inform our investment process.

Portfolio Monitoring

We have developed a tool to monitor environmental indicators, transition risks, and physical risks at the portfolio level. By tracking these metrics, we gain valuable insights into how our investments are exposed to environmental risks. Importantly, portfolio-level environmental indicators represent aggregated data from individual issuers' metrics. While these aggregates provide a high-level view of potential exposures, understanding the unique characteristics and risk profiles of individual issuers is often of even greater importance. Nonetheless, portfolio-level aggregates serve as a useful tool for identifying potential overexposures to specific environmental risks. They act as a starting point for deeper analysis, enabling us to pinpoint areas requiring further investigation and proactive management.

4.3. Engagements

Engagement is an integrated part of our investment process for both our sovereign and corporate investments. Global Evolution prioritizes engagements efforts to gain essential insights to our bottom-up country and company analysis. Seeking out more information on issuers' commitment and attitudes towards sustainability issues helps us become better informed around risks and opportunities.

As fixed income investors in emerging markets, we can provide crucial financing for governments and corporates in the world's less developed countries and raise awareness of global best practices with our focused ESG engagement. We are not prescriptive on issuers' expenditure; however, we do engage in mutually respectful discussion around which initiatives and policies related to the environment, citizens' wellbeing, and governance practices could provide long-term benefits for all stakeholders.

We take the opportunity to convey our views on key ESG risks and opportunities in various settings. We engage directly with sovereign policy makers and companies individually or as part of small groups and as an active member of the Emerging Markets Investor Alliance (EMIA). Through EMIA, we collaborate with other asset managers on building advocacy campaigns targeted specific issuers. Among others, we are an active participant in a working committee focused on engagement with emerging markets governments to strengthen and achieve their Nationally Determined Commitments (NDCs) under the Paris Accord.

Example of Global Evolution sovereign engagement: Deforestation in Paraguay

Background: Paraguay is home to two of South America's most vital ecosystems: the Gran Chaco and the Atlantic Forest. These ecosystems are crucial not only for Paraguay's environmental health but also for the livelihoods of local communities and indigenous populations. Deforestation in Paraguay is primarily driven by agricultural expansion, cattle ranching, illegal logging, and weak enforcement of land-use regulations. These activities are contributing to the fragmentation of these critical ecosystems. In response, Paraguay has implemented initiatives such as the "Zero Deforestation Law" to protect its forests, but enforcement challenges remain. Sustainable agriculture and conservation efforts, such as agroforestry and reforestation projects, offer opportunities to mitigate these pressures while promoting economic development

Engagement: In our engagement with the Ministry of Economy, we focused on key drivers of deforestation in Paraguay and the weak enforcement of environmental regulations, emphasizing the long-term economic and environmental risks of inaction. We recommended strengthening enforcement of the "Zero Deforestation Law" in eastern regions and improving monitoring in western Chaco. We advocated for sustainable agricultural practices, such as agroforestry and sustainable cattle ranching, to balance productivity with environmental preservation. Integrating tree planting into agriculture and promoting reforestation were highlighted as ways to reduce pressure on forests. We also encouraged financial incentives like carbon credits and drew on international examples, such as Uruguay's ESG bonds, to suggest how Paraguay could leverage green finance and global initiatives like REDD+ to support forest conservation.

Comment: We recognize the significant challenges Paraguay faces in balancing economic growth with environmental conservation. We acknowledge that it can be difficult to impose strict deforestation measures while addressing the economic needs of rural communities and the global demand for agricultural products. However, we are encouraged by Paraguay's willingness to engage in open dialogue on these issues and appreciate the constructive nature of our discussions with the Ministry of Economy. We are confident that Paraguay will make meaningful progress in protecting its ecosystems, and we are eager to follow and support these improvements.

Example of Global Evolution corporate engagement: PEMEX sustainability trajectory

Background: PEMEX, Mexico's state-owned oil and gas company, is working through several environmental, social, and governance (ESG) challenges. The company has been noted for its relatively high greenhouse gas emissions and has faced criticism from stakeholders regarding its environmental impact. Issues such as oil theft have also posed challenges for the company alongside health and safety issues, contributing to its relatively poor ESG rank

Engagement: Our engagement with PEMEX throughout 2024 has been multifaceted, involving both in-person meetings and written correspondence. Our engagements have focused around several ESG topics, including PEMEX's efforts to address its environmental impact, particularly its greenhouse gas emissions and operational sustainability. We discussed efforts to reduce methane emissions and improve gas flaring practices. The company has made progress, reducing gas flaring from 8% to 6%, and is targeting further reductions (2%) in the near future. PEMEX reiterated its commitment to achieving net-zero emissions by 2050, and the new administration appears committed to aligning PEMEX's operations with Mexico's broader environmental goals, all while maintaining the company's profitability.

Comment: While we acknowledge the significant challenges the company faces, we are encouraged by the progress PEMEX has made in addressing some of its ESG issues. However, these improvements are still in the early stages, and we will continue to monitor their implementation closely. PEMEX's recent publishing of a Sustainability Plan makes us cautiously optimistic about a more positive ESG trajectory over the coming years.

5. Metrics and Targets

This chapter introduces climate and nature-related metrics monitored by Global Evolution and a discussion of these metrics in the context of emerging markets.

5.1. Metrics

We have adopted a variety of metrics – both externally sourced and internally constructed – that help us monitor our investments with a nuanced view. With frontier and emerging markets being the context for our investments, key challenges for us to overcome include data availability, quality and bias.

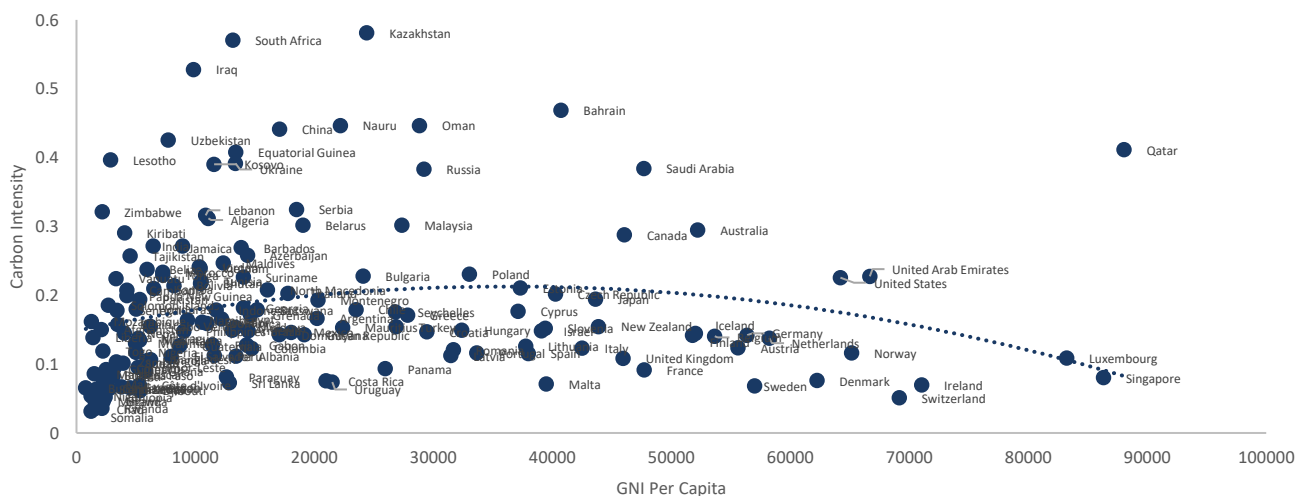
Data availability and quality is a key challenge in emerging markets. Given that the sustainability agenda is further advanced in developed countries, corporations in these countries are under stricter disclosure regulation as compared to emerging markets corporations. Many emerging markets corporates do not have neither resources nor incentives to collect and result ESG data. Also, a lacking standardized reporting framework entails the risk of data being inaccurate. This is particularly true for corporate metrics, while sovereign metrics are often reported by international organizations collaborating with government officials or local NGOs on reporting data based on a particular framework or estimate data themselves, which allows for greater data consistency across countries, although data is often estimates.

Understanding climate and nature-related metrics in an emerging markets context

Emerging markets face a dual challenge of advancing their economies while meeting rising expectations to commit to net-zero ambitions and mitigate environmental degradation. Advanced economies have had the advantage of advancing their economies without modern climate expectations. Historically, economic growth in advanced economies has been accompanied by rising environmental pollution. Yet, these economies later decoupled growth from emissions and environmental harm as they reached income levels sufficient to invest in new technologies, diversify industries, and develop human capital—a pattern theorized as the “environmental Kuznets curve.”¹⁵ Many EMs remain at an earlier stage of this curve, where industrialization correlates with increasing carbon emissions and environmental pollution.

Mapping countries along this curve in Figure 14, using carbon intensity of the economy as an example, shows that a vast number of EMs have yet to undergo development, making their performance on environment-related metrics reflective of structural development realities and not necessarily a lack of commitment. This lack of contextualization unfairly disadvantages EMs.

Figure 14: Environmental Kuznets curve

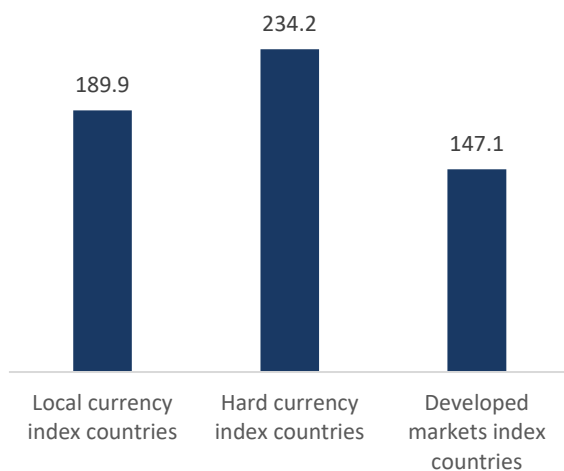


Source: Prepared by Global Evolution using data from The Global Carbon Project, IMF, and World Bank

¹⁵ Cole, M. A., & Neumayer, E. (2005). 19 Environmental policy and the environmental Kuznets curve: can developing countries escape the detrimental consequences of economic growth?. *Handbook of Global Environmental Politics*, 298.

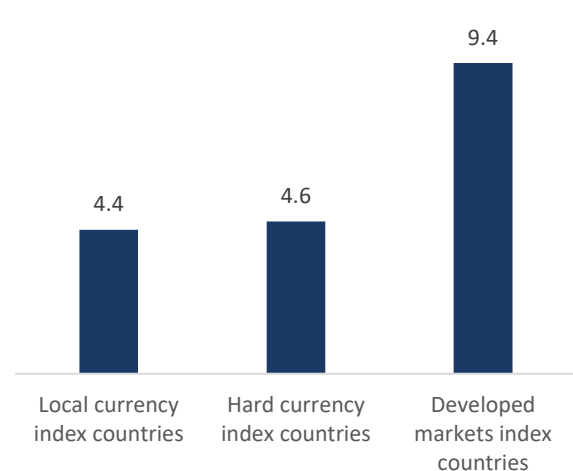
It is therefore important to recognize that different carbon metrics lead to different conclusions and therefore should be drawn mindfully. The 'carbon intensity' indicator used to illustrate the environmental Kuznets curve in Figure 14 is widely used in the industry and is a required reporting metric under European SFDR. Not only does this metric not consider countries' development stage as alluded to in the above, but it also overlooks the fact that many advanced countries have outsourced their carbon-intensive manufacturing and resource extraction to EMs, artificially lowering their domestic carbon intensity metrics while continuing to drive global demand for high-emission products. This "offshoring" of emissions shifts the environmental burden onto producing countries, leaving EMs to bear the environmental and social costs of meeting international consumption demands, despite contributing less to global emissions per capita. It is therefore no surprise that developed market countries' economies are less carbon intensive than emerging markets as illustrated in figure 15. When adjusting carbon emissions data for imported and exported emissions and taking into account the size of the population, a very different picture is forming as depicted in figure 16: Developed markets' consumption emissions per capita exceed by far those of emerging markets' populations.

Figure 15: Co2 intensity, kilo tons per GDP¹⁶



Note: Calculated as equally-weighted averages of index countries
Source: Global Carbon Project, IMF

Figure 16: Co2 consumption, tons Co2 per capita¹⁷



Note: Calculated as equally-weighted averages of index countries
Source: Global Carbon Project, World Bank

The bias extends to nature-related metrics, as emerging markets often depend heavily on natural resources such as agriculture, forestry, and mining to drive economic development and provide livelihoods for their populations. These activities, while essential for progress, are frequently linked to deforestation, soil degradation, water resource depletion, and biodiversity loss. However, the environmental costs of such industries are disproportionately assigned to the producing countries, even when a share of the extracted or cultivated resources are exported to meet global demand. This creates an imbalance where emerging markets are held accountable for environmental degradation tied to international supply chains, despite their role as suppliers in a broader global economy. As a result, they bear an "environmental penalty" for sustaining consumption patterns and economic activities in developed economies, which often outsource the environmental impacts of their resource needs while benefiting from the final goods and services produced. This dynamic not only misrepresents emerging markets true environmental impact but also ignores the shared responsibility of importing nations in mitigating the ecological consequences of global trade.

¹⁶ GDP is adjusted for purchasing power parity and based on current international dollars. DM Index = ICE BofA Global Government Bond. LC index = JP Morgan GBI-EM Global Diversified. HC Index = JP Morgan EMBI Global Diversified. Please see index definitions at the back of this paper.

¹⁷ See previous footnote for index explanation

In summary, developed economies, which have had decades or centuries to transition to high-value, low-environmental-impact industries, enjoy structural advantages such as advanced infrastructure and more affordable financing. In contrast, EMs face barriers such as limited industrialization and higher costs of capital, making rapid transitions to sustainable structures more difficult.

Given these dynamics, it is critical to approach climate- and nature-related metrics with greater nuance. Rather than focusing solely on absolute impacts, we advocate for analyses that contextualize a country's environmental performance within its stage of development and broader sustainability journey. Recognizing these interdependencies will lead to fairer evaluations and support EMs in achieving both economic and environmental progress.

Reporting of metrics

We are committed to transparency in ESG reporting and have carefully selected a set of climate- and nature-related metrics of our sovereign and corporate investments. We monitor the chosen metrics because they give relevant information to understand fund exposure in relation environmental risks and they help us identify areas for further risk management and engagement priorities.

By tracking these metrics at both the issuer and portfolio levels, we gain an indicative understanding of how well our investments are positioned to manage and adapt to climate and nature-related risks. Monitoring at the issuer level allows us to evaluate the specific risks and opportunities associated with individual entities, providing granular insights into their performance, resilience, and alignment with sustainable practices. At the portfolio level, these metrics offer a broader perspective on the aggregate exposure of our investments to environmental risk. Combined, we gain insights to assess vulnerabilities and identify emerging opportunities for long-term sustainability.

By integrating this analysis into our investment strategy, we can make more informed decisions, enhance risk management, and proactively engage with issuers to encourage practices that mitigate climate and nature-related risks while promoting resilience and value creation. This approach ensures that we remain adaptive and forward-thinking in navigating the dynamic challenges of sustainability.

Additionally, these metrics play a pivotal role in helping us pinpoint areas where enhanced risk management strategies are needed. They guide our engagement priorities by identifying where we can work proactively with stakeholders or investee entities to mitigate risks, promote sustainability, and encourage alignment with global goals. This approach not only strengthens our risk management framework but also ensures that we are contributing to the broader effort to address climate change and drive positive ESG outcomes.

For the purpose of this TCFD/TNFD report, we report weighted-average values for all our investments, although we usually focus on entity and portfolio level. Table 7 outlines key metrics for our sovereign investments, while table 8 outlines key metrics for our corporate investments. We continue to refine and expand our metrics toolbox as we expand our analytical approach and access new data.

Table 7: Disclosure of key climate metrics: Sovereign investments

Metric	Description	Data disclosure	Source
Total territorial Co2 emissions	Co2 emissions data include emissions from fossil fuel combustion and cement production within national territory and offshore areas within country jurisdiction. Equivalent to scope 1 and 3 emissions. Reported as million tons Co2.	251	Global Carbon Project/Haver
Carbon intensity	Territorial Co2 emissions divided by GDP at PPP, providing a direct measure of emissions intensity of the economy. Territorial Co2 emissions data include emissions from fossil fuel combustion and cement production. Reported as kilo tons Co2 per billion GDP, PPP, CID	190	Global Carbon Project; IMF/Haver
GHG Intensity	This indicator is monitored as part of European SFDR legislation and includes emissions from energy use and land use, land-use change and forestry, including CO ₂ , CH ₄ , N ₂ O, and F-gases. GHG is divided by GDP, PPP, CID converted from USD to EUR. Reported as kilo tons Co2 equivalent per million GDP, EUR.	388	Verisk Maplecroft; IMF/Haver
CO2 consumption per capita	Average carbon consumption per capita. Calculated as (territorial emissions – exported emissions + imported emissions)/population. Equivalent to scope 1 and 2 emissions divided by population size. Reported as tons Co2 per capita.	4.6	Global Carbon Project/Haver
Renewable electricity	Renewable electricity is the share of electricity generated by renewable power plants in total electricity generated by all types of plants. Reported as % renewable of total electricity supply.	38%	Verisk Maplecroft
Transition risk exposure	The extent to which countries are exposed to economic hardship from a low-carbon transition, their position to transition away from fossil fuels, and their potential to benefit from a global low-carbon transition. Indexed 0-10 (0=lowest exposure, 10=highest exposure)	5.7	Global Evolution proprietary framework
Transition risk resilience	The abilities of countries' capacity to respond to risks and opportunities, relating to the quality of institutions and flexibility of economic structures. (0=poorest adaptive capacity, 10=highest adaptive capacity)	4.7	Global Evolution proprietary framework
Physical risks exposure	The degree to which countries are currently exposed to the physical impacts of climate extremes, the changes in climate extremes, and the future changes in climate over the next three decades. Indexed 0-10 (0=lowest exposure, 10=highest exposure)	4.5	Verisk Maplecroft
Physical risks adaptive capacity	The abilities of a countries' institutions, economy and society to adjust to, or take advantage of, existing or anticipated stresses resulting from climate change. Indexed 0-10 (0=poorest adaptive capacity, 10=highest adaptive capacity)	4.6	Verisk Maplecroft
Freshwater withdrawal intensity	Freshwater intensity of economies. Measured as million cubic meters freshwater withdrawals per GDP, PPP, Bil. CID.	389	World Bank and IMF
Deforestation	Weighted average annual percentage point change in forest area (% of land area).	-0.09	World Bank
Water Pollution	Assesses a wide range of physical and chemical drivers resulting from industrial, agricultural and domestic activities. Reported on a scale 0-10 (0=high pollution, 10=low pollution)	3.0	Verisk Maplecroft
Natural environment policy	We assess the extent to which sovereigns have adopted natural environmental policy framework through a variety of chosen indicators including both national and international policies with largest weighting given to national policies. Reported on a scale 0-10 (0=poor protection, 10=strong protection)	5.8	Verisk Maplecroft

Note: All metrics are reported as weighted average of all Global Evolution sovereign investments as of December 31st 2023. We have obtained 100% coverage for all indicators.

Table 8: Key climate metrics – corporate investments

Metric	Description	Data disclosure	Coverage	Source
Scope 1 GHG emissions	Sum of portfolio companies' Carbon Emissions - Scope 1 (metric tons) weighted by the portfolio's value of investment in a company and by the company's most recently available enterprise value including cash (EVIC).	154,043.76	75.21%	MSCI
Scope 2 GHG emissions	Sum of portfolio companies' Carbon Emissions - Scope 2 (metric tons) weighted by the portfolio's value of investment in a company and by the company's most recently available enterprise value including cash (EVIC).	18,874.74	75.21%	MSCI
Scope 3 GHG emissions	Sum of portfolio companies' Total Emissions Estimated - Scope 3 (metric tons) weighted by the portfolio's value of investment in a company and by the company's most recently available enterprise value including cash (EVIC).	589,411.16	75.21%	MSCI
Total GHG emissions	The total annual Scope 1, Scope 2, and estimated Scope 3 GHG emissions associated with the market value of the portfolio. Companies' carbon emissions are apportioned across all outstanding shares and bonds (based on the most recently available enterprise value including cash).	762,329.58	75.21%	MSCI
Carbon footprint	The total annual Scope 1, Scope 2, and estimated Scope 3 GHG emissions associated with 1 million EUR invested in the portfolio. Companies' carbon emissions are apportioned across all outstanding shares and bonds (based on the most recently available enterprise value including cash).	618.74	75.21%	MSCI
GHG intensity of investee country	The portfolio's weighted average of its holding issuers' GHG Intensity (Scope 1, Scope 2 and estimated Scope 3 GHG emissions/EUR million revenue).	1,373.68	86.65%	MSCI
% of non-renewable energy consumption	Share of non-renewable energy consumption and non-renewable energy production of investee companies from non-renewable energy sources compared to renewable energy sources, expressed as a percentage of total energy sources	84.97%	47.49%	MSCI
Energy consumption intensity per high impact climate sector	The portfolio's weighted average of Energy Consumption Intensity (Gwh/million EUR revenue) for issuers classified within NACE Code A (Agriculture, Forestry and Fishing)	1.16	58.14%	MSCI
Activities negatively affecting biodiversity-sensitive areas	Share of investments in investee companies with sites/operations located in or near to biodiversity sensitive areas where activities of those investee companies negatively affect those areas	0.13%	85.86%	MSCI
Emissions to water	Tonnes of emissions to water generated by investee companies per million EUR invested, expressed as weighted average	0.01	0.68%	MSCI
Hazardous waste and radioactive waste ratio	Tonnes of hazardous waste and radioactive waste generated by investee companies per million EUR invested, expressed as a weighted average	0.62	23.71%	MSCI

Note: All metrics are reported as weighted average of all Global Evolution corporate investments as of December 31st 2023

As part of our CarbonNeutral® company certification¹⁸ in 2022, we began calculating our company carbon footprint and plan to continue to do so going forward. This footprint was reviewed by a qualified independent third party in line with the requirements of The CarbonNeutral Protocol. Table 9 illustrates the calculated estimates of Global Evolution’s Scope 1 (direct emissions), Scope 2 (emissions from energy usage), and elements of Scope 3 (emissions from within the company’s value chain, such as business travel, waste, and employee commutes).

Table 9: Metrics for Global Evolution’s corporate operations

Metric	Metric Value 2023	Metric value 2022	Unit
Scope 1	64	65	Tons Co2 equivalent
Scope 2	38	45	Tons Co2 equivalent
Scope 3	230	187	Tons Co2 equivalent

Source: Proprietary by Global Evolution based on third-party provided estimation. Data is provided for full years 2022 and 2023.

5.2. Targets

There is no doubt that climate and nature action are among the most pressing issues of our times. Climate change and nature degradation have consequences for the livelihoods of billions of people, and developing countries are generally more exposed to physical and transition risks compared to more advanced economies, due to their geographical location and dependence on natural resources for economic output. While the idea of setting climate and biodiversity targets for emerging markets portfolios is well-intended, it raises important questions about fairness and feasibility.

From a **climate perspective**, the idea of setting climate targets for emerging markets portfolios is well-intended, however raises important questions about fairness and feasibility. Setting carbon reduction targets for emerging markets portfolios ignores the historical context of global emissions. Developed countries have built their wealth and infrastructure on decades of carbon-intensive industrialization, contributing significantly to the current climate crisis. In contrast, emerging markets face the dual challenge of fostering economic development and reducing emissions, often with fewer resources and less historical responsibility for the problem. These countries must also invest in adaptive capacity to withstand the climate impacts disproportionately imposed on them by developed nations’ emissions. Adding to this challenge is a significant funding gap: an estimated \$95 trillion is required for emerging markets to transition to net zero;¹⁹ without collective responsibility and substantial support from wealthier nations, this transition is unlikely to succeed. Furthermore, there is no universal metric for setting targets that adequately account for equity, leaving emerging markets at risk of being unfairly burdened in the global transition to a low-carbon economy. We believe

¹⁸ CarbonNeutral® company certification: Conning Holdings Limited (CHL) and its subsidiaries (together, “Conning”) are certified as carbon neutral through the use of high-quality instruments, in accordance with The CarbonNeutral Protocol (<https://www.carbonneutral.com/the-carbonneutral-protocol>) and the GHG Protocol Scope 2 Guidance. All credits adhere to standards approved by the International Carbon Reduction and Offset Alliance (ICROA). To achieve this certification, Conning works with Climate Impact Partners, a specialist in carbon market solutions for climate action. As part of this certification, the firm’s global operations complete an independent assessment of their greenhouse gas emissions.

¹⁹ Standard Chartered (2022). Just in Time.

that a just transition is needed, i.e. a global low-carbon transition where frontier and emerging markets should not sacrifice growth and prosperity as the world moves towards net zero.²⁰

From a **biodiversity and ecosystem perspective**, emerging markets' richness in biodiversity and ecosystems and status of being large producers of goods with high environmental footprints (e.g. fossil fuels, metals, and agriculture) means that they are increasingly being called upon to shoulder a significant burden in protecting the planet's ecosystem. We find that the burden of adopting stringent biodiversity targets often falls disproportionately on emerging markets considering that biodiversity loss is driven both by local and global demand for products and global climate change. Although developed nations have made various pledges to assist emerging markets in achieving environmental perspectives and funding is flowing from the Global North, only a few countries have paid their fair share in biodiversity finance.²¹ Expecting emerging economies to act as stewards of global biodiversity without the necessary financial and technical assistance is unfair and places unrealistic expectations on emerging markets to achieve outcomes they may not have the means to deliver to lower human capital levels and institutional weaknesses. It also leaves them with a trade-off between prioritizing investments in biodiversity or investments in e.g. industrialization and social services and with a risk of poor outcomes.

For these reasons, we do not find it meaningful to set carbon reduction or biodiversity targets for our portfolios. Targets could relatively easily be achieved simply by changing portfolio weightings, tilting towards better-performing countries. However, optimizing an emerging markets portfolio towards high-performers – whether with a focus on current performance or positive trajectory – would typically lead to funding being directed away from countries that have not yet developed the human capital and technological capacity needed for more carbon efficient and nature-positive practices. Directing capital away from these countries does not solve the underlying issue of these countries needing to build the capacity to address environmental challenges would lead to higher costs of capita, which is counter-intuitive to global climate and nature goals and would only deepen global inequalities and social unrest.

We will continue to monitor industry standards in target setting, however, at this point in time, we do not believe there is sufficient knowledge, metrics, nor tools for setting fair and well-informed portfolio targets.

6. Moving forward

As we look ahead, the climate-related (TCFD) and nature-related (TNFD) financial disclosures mark only the beginning of a broader journey toward comprehensive risk and opportunity management. Addressing the interconnected challenges of climate change, biodiversity loss, and ecosystem degradation requires continuous efforts to deepen understanding, refine methodologies, and enhance tools.

The intricate relationships between financial systems, carbon emissions, and ecosystem services necessitate ongoing research and experience. Developing more granular tools to assess risks and dependencies will be essential. For example, integrating nature-related scenarios with climate models can provide a fuller picture of potential systemic impacts. This requires enhancements in data, which often lack quantity and quality in an emerging markets context.

We will continue to focus on our engagement and advocacy, transparent reporting, and exploring areas for improvement.

²⁰ World Economic Forum (2022). Why net zero without a 'just transition' is not an option.
<https://www.weforum.org/agenda/2022/05/why-net-zero-without-a-just-transition-is-not-an-option/>

²¹ <https://odi.org/en/publications/a-fair-share-of-biodiversity-finance-an-update-for-cop16/>

7. Definitions of Indices

Index	Definition
J.P. Morgan EMBI Global Diversified	is the J.P. Morgan EMBI Global Diversified Index (EMBI GD): The index is a market capitalization-weighted total return index of U.S. dollar and other currency denominated Brady bonds, loans, Eurobonds and local market debt instruments traded in emerging markets.
J.P. Morgan GBI-EM Global Diversified	is the J.P. Morgan Government Bond Index for Emerging Markets Global Diversified (J.P. Morgan GBI EM GD) : The index is a comprehensive global local emerging markets index, and consists of regularly traded, liquid fixed-rate, domestic currency government bonds to which international investors can gain exposure.
ICE Bofa Global Government Bond	The index tracks the performance of public debt of investment-grade sovereign issuers, issued and denominated in their own domestic market and currency. It is a market value-weighted measure of these bonds.

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