Colchester®
GLOBAL INVESTORS

Sustainability Report

December 2022

1. Foreword

Keith Lloyd
CEO & Deputy CIO

Colchester has a great responsibility and opportunity to support investment and assist the development of countries to improve people's standards of living and protect our environment. Innovation with the goal of advancing economic growth is key if we are to leave future generations a sustainable and vibrant ecosystem. Climate change, food, water and resource management, global health, and equal opportunities are essential ingredients in providing better economic, social and living conditions for all. Since becoming a supporter of the Task Force on Climate-related Financial Disclosures (TCFD), Colchester's TCFD Advisory Committee has worked towards their goal of improving transparency and reporting on climate-related risks and opportunities. This year we have implemented CO_2 and Greenhouse Gas Emissions reporting across our portfolios and funds, established our Environmental & Sustainability Champions Program and launched a new Global Green Bond Fund in Australia. As a proud sponsor and member of the Assessing Sovereign Climate-related Opportunities and Risk (ASCOR) Project, we have been delighted to contribute to the release of the Project's first Progress Report. Our second annual Sustainability Report outlines our Group-wide metrics and objectives, our planned activities to meet them, and our achievements to date. In this report we demonstrate our commitment to making meaningful change whilst ensuring full transparency in reporting how we are meeting our climate-related goals.

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Colchester® GLOBAL INVESTORS

2. Highlights From Our Sustainability Journey

2016
- Established our formal ESG Policy Framework
- UN PRI[1] Signatory Dec 2016

2017
- Published our first voluntary PRI Transparency report

2018
- Claudia Gollmeier becomes Chair of the UN PRI Sovereign Working Group

2019
- Launched Colchester's Global Green Bond Fund April
- Became a TCFD supporter May 2019

2020
- Established TCFD Advisory Committee
- Published our Engagement Policy
- Member of the Emerging Markets Investors Alliance (EMIA)

2021
- Member of the Emerging Markets Investors Alliance – Steering Committee Member on Carbon Transition Initiative
- Published our first Social Corporate Responsibility Report
- Published our first Environmental & Sustainability Policy
- Published our first engagement report
- Collaborated with IDB[2] on the Green Bond Transparency Platform
- Member of Advisory Committee to Assessing Sovereign Climate-related Opportunities and Risk (ASCOR) Project
- Supporter of Investors Policy Dialogue on Deforestation
- Member of Nasdaq Sustainable Advisory Board
- Supporter to Transition Pathway Initiative (TPI)

2022
- Established Environmental and Sustainability Champions Program
- Released first Progress report on Assessing Sovereign Climate-related Opportunities and Risk (ASCOR)
- Published first Sustainability Report
- Implemented CO_2 & greenhouse gas emission client reporting across funds and portfolios

ESG Policy

UN PRI Signatory

Chair of the UN PRI Sovereign Working Group

PRI Assessment Report		
Year	Strategy & Governance	Fixed Income - SSA
2017	B	A
2018	A+	A
2019	A+	A+
2020	A+	A+
2021	4 star*	5 star*

*Note: assessment methodology changed in 2021

[1] UN PRI: United Nations Principles for Responsible Investment
[2] IDB: Inter-American Development Bank

3. Who We Are

Colchester Global Investors is one of the world's leading independent investment management firms, founded by Ian Sims in 1999, with an exclusive focus on sovereign bond and currency management. Colchester's rigorous application of its real yield investment strategy, supplemented with in-depth balance sheet analysis and ESG integration, has underpinned the firm's success. Colchester has assets under management in excess of US$ 30bn as at the end of November 2022 across four core strategies: Global Bond, Global Inflation Linked Bond, Local Currency Emerging Markets Bond and an Alpha Program.

Global Sovereign	$17.9bn
Global Inflation Linked	$1.3bn
Emerging Local Markets Debt	$11.6bn
Alpha Program	$0.3bn

Colchester has offices in London, Dublin, New York, Singapore, Sydney and Dubai. Investment Officers are based in our London, Dublin and Singapore offices with the other offices primarily responsible for client service and marketing activities. Our global presence across these locations reduces the need for excessive air travel and supports the firm's commitment to a sustainable operating model.

4. Our Approach To TCFD

In 2015, the Financial Stability Board established the Task Force on Climate-Related Financial Disclosures. The Task Force's final recommendations, published in 2017, include a framework for consistent climate-related financial risk disclosures for companies, banks, asset managers and investors. A key aim of the framework is to bring consistency to different countries' disclosure regimes, making it easier for entities investing in companies in multiple jurisdictions to understand the climate-related risks and opportunities within their portfolios. The framework also aims to benefit the companies implementing the TCFD recommendations, as the analysis that those companies have to conduct helps them better understand the climate-related risks and opportunities facing their business, resulting in improved responses and management decisions. As Colchester only invests in sovereign bonds, the application of a number of the principles, thought process and analysis underpinning TCFD has been challenging. Nonetheless we are encouraged by the evolving body of knowledge in this space, and are delighted to contribute to, and help shape, the industry's understanding of the applicability of a number of these principles to sovereign bond investing.

The core elements of the TCFD Framework

Source: TCFD, 2017

Colchester's Progress in meeting TCFD Recommendations

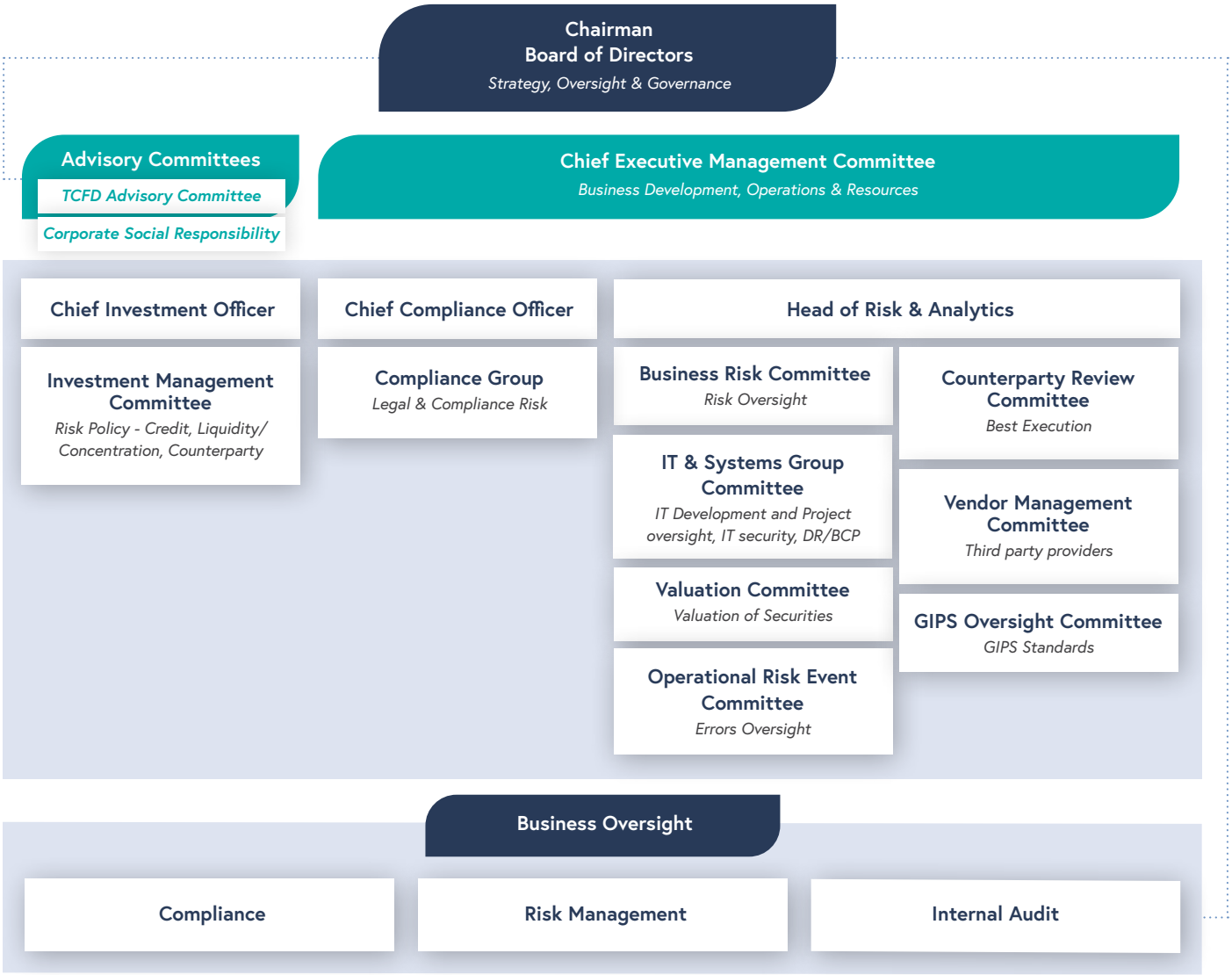
	TCFD Recommendations	Check	Sustainability Report Section
Governance	Disclose the company's governance around climate-related risks and opportunities.		
Board Oversight	Describe the board's oversight of climate-related risks and opportunities.	✓	4.1
Management's role	Describe management's role in assessing and managing climate-related risks and opportunities.	✓	4.1 & 4.2
Strategy	Disclose the actual and potential impacts of climate-related risks and opportunities on the company's businesses, strategy, and financial planning where such information is material.		
Description of climate risks and opportunities	Describe the climate-related risks and opportunities the company has identified over the short, medium and long term.	✓	4.2
Impact of climate risks and opportunities	Describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy and financial planning.	✓	4.2
Resilience to climate risks and opportunities	Describe the potential impact of different scenarios, including a 2°C or lower scenario, on the organisation's businesses, strategy and financial planning.	In progress	4.2 & 4.3
Risk Management	Disclose how the company identifies, assesses and manages climate-related risks.		
Identification and assessment of climate risks	Describe the organisation's processes for identifying and assessing climate-related risks.	✓	4.4
Management of climate risks	Describe the organisation's processes for managing climate-related risks.	✓	4.4
Integration of climate risks	Describe how processes for identifying, assessing and managing climate-related risks are integrated into the organisation's overall risk management.	✓	4.3 & 4.4
Metrics and Targets	Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.		
Climate-related metrics	Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process.	In progress	4.3 & 4.5
Operational emissions	Disclose Scope 1, Scope 2, and if appropriate, Scope 3 greenhouse gas emissions and the related risks.	✓	4.5
Climate-related targets	Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets.	In progress	4.5

Source: TCFD and Colchester

4.1 Our Governance Structure

Colchester's Governance and Risk Management framework consists of several executive committees, which discuss and make the Board aware of any material risk issues when appropriate to do so. Specifically, climate-related risks are discussed within Colchester's TCFD Advisory Committee which is comprised of members from across the various departments of the company. The role of the committee is to assist the Board with the assessment of the TCFD's four core elements of recommended climate-related financial disclosures, namely 1) Governance, 2) Strategy, 3) Risk Management, and 4) Metrics & Targets, according to the TCFD's general guidance for the financial sector, and supplemental guidance for asset managers. The TCFD Advisory Committee has worked with other committees to strengthen the governance measures with regards to climate-related risks and implemented measures within the risk framework. We have also established a Corporate Social Responsibility Advisory Group and an Operational Risk Event Committee. We see this to be a continuous journey and will report on our progress annually.

Governance and Risk Management Structure



Source: Colchester, December 2022.

4.2 Our Strategy

We have identified the key drivers that will support our sustainable growth over the medium term.

4.2.1 Colchester's Climate-Related Risks and Opportunities

Transition risks are the risks stemming from the change in moving from high carbon economies to low carbon economies, due to policy changes and society led changes. Transition risk is the key near-term source of risk and opportunity for our business. This exposure is primarily indirect with the potential to affect revenues and expenses. Although our global offices could be affected by adverse climate events, the financial impact is limited, as facilities are leased, and IT infrastructure is hosted in the Cloud. Colchester maintains business continuity plans to mitigate business disruption caused by physical climate risks. The following tables highlight key climate-related risks and opportunities for Colchester:

Opportunity	Time Horizon	Opportunities From	Potential Financial Impact	Our Approach
Resource Efficiency	Short to medium term	Transition	Low	Colchester is committed to operating sustainably. Our approach to waste reduction, recycling, water usage, energy efficiency and emissions reduction is set out in our Environmental and Sustainability Policy. By reducing waste, increasing recycling, employing energy efficiency strategies, and reducing travel we lower our emissions, minimise the environmental impact and improve operational efficiency. Colchester's employees play a big part within our sustainability drive via the Environmental and Sustainability Champions Program and volunteer days (more detail under sections 4.5.4 & section 6 Our Approach to CSR).
Investment Strategies	Medium to long term	Transition	Medium to high	We have experienced increased interest in sustainable investments as investors seek to focus on climate change/ net zero commitments within their portfolios. We have undertaken many educational meetings with asset owners, consultants and other stakeholders. We also provide customised client solutions with sustainable investment objectives. We offer a lower-carbon solution via our Global Green Bond Strategies (section 4.4.5).
Industry Collaboration & Research	Medium to long term	Transition	Medium to high	We continue improving our integration framework for ESG factors and leverage our ESG database to facilitate product and regulatory reporting requirements. Colchester engages with various stakeholders on many ESG factors, which will feed back into our investment decision making, where relevant, and semi-annually we publish our engagement efforts (see more detail under 4.3). Colchester plays an active industry role as Chair of the PRI Sovereign Debt Advisory Committee and supports industrywide initiatives for sovereigns, such as the ASCOR Advisory Committee. The ASCOR project aims to develop an assessment framework that enables the current and future climate change governance and performance of sovereigns to be fairly and appropriately measured, monitored and compared. The latest ASCOR Project's progress report was released as of mid 2022. We are also a supporter to the IDB Green Bond Transparency Platform and a member of the Nasdaq Sustainable Bond Network.

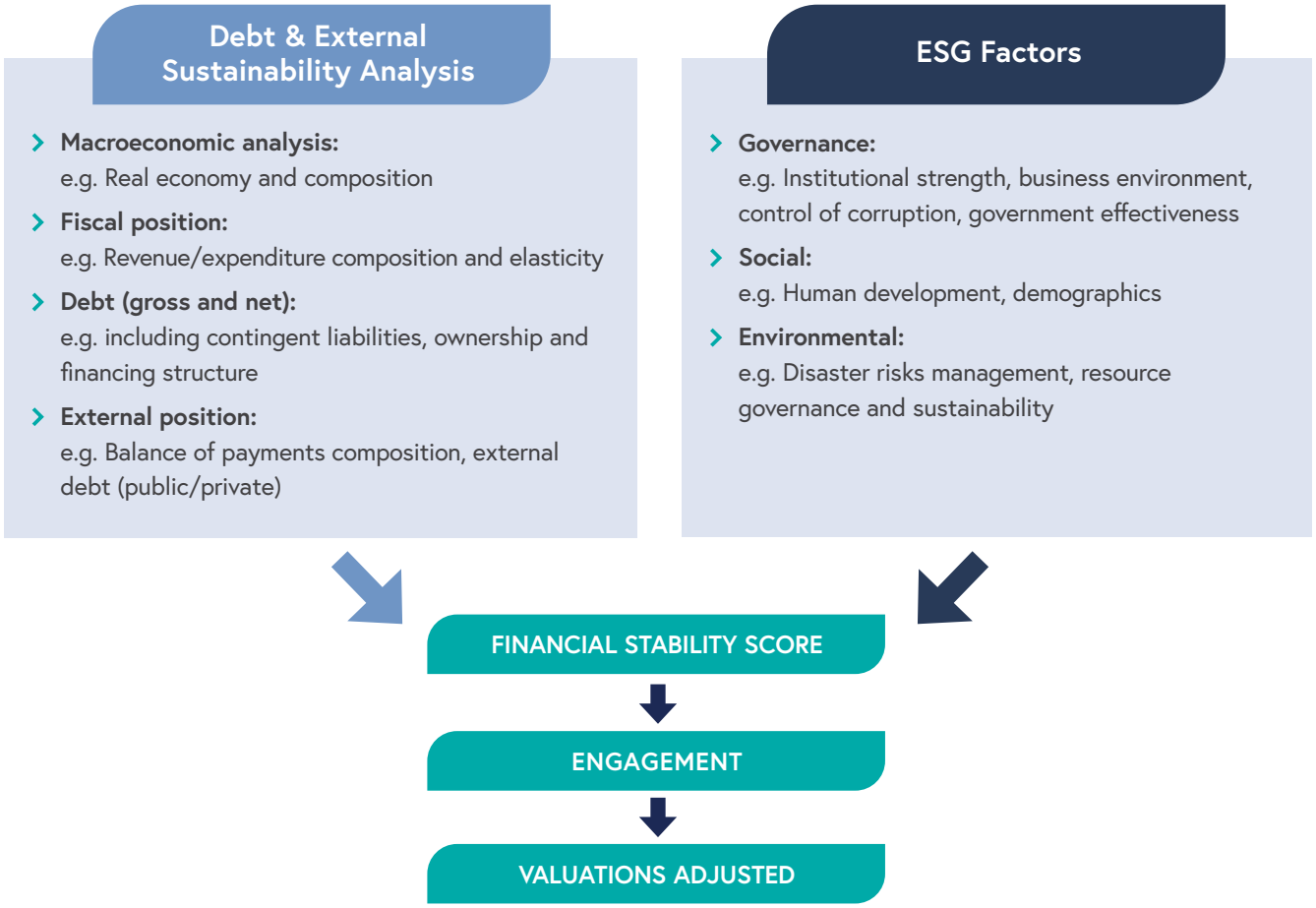
Risk	Time Horizon	Climate Risk	Potential Financial Impact	Our Approach & Mitigating Factors
Market	Short to medium term	Transition Risk	Medium to high	Climate-related risks can impact asset valuation as the economy adjusts towards a low-carbon economy. This can further impact Colchester's AUM and hence income. To mitigate these risks, we consider climate risk within our investment process and have developed an initial in-house simple climate scenario analysis (see more details under section 4.3 responsible investment).
Investment Strategies	Short to long term	Transition Risk	Medium to high	The development of new strategies to meet climate-related demand from clients can expose Colchester to reputational harm, additional costs or operational risk. Changes in client preferences and/or changes to regulation to which clients are exposed can reduce demand for standard Colchester strategies. To mitigate these risks, Colchester has launched new strategies, further detail of which can be found in section 4.4.5.
Regulatory & Reputational	Medium to long term	Transition Risk	Medium to high	Environmental and sustainability disclosure requirements, or regulations (see section 5) applicable to investment products, can increase compliance costs, change the competitive landscape, reduce the attractiveness of Colchester's strategies and expose the firm to penalties or sanctions.
Extreme Weather Events (Acute & Chronic Physical Risk)	Short term to long term	Physical Risk	Low	More frequent and severe climate-related events can affect operations and disrupt business travel. Colchester has business continuity plans to facilitate ongoing business in the event of disruptions and building insurance to cover assets and infrastructure, travel and offices. Furthermore, we have enhanced our operational risk framework (see more in section 4.4 Risk Management).

4.3 Our Responsible Investing Approach

4.3.1 Investment Process and ESG integration

Colchester is a value-oriented asset manager. At the heart of Colchester's philosophy is the belief that investments should be valued in terms of the income they will generate in real terms, adjusted by our proprietary Financial Stability Score (FSS). The FSS considers a country's balance sheet assessment and ESG factor assessment. We believe that traditional sovereign credit analysis should be supplemented with the systematic integration of ESG factors to assist us in identifying countries' risks and opportunities. Colchester believes that countries with better ESG standards tend to produce better economic outcomes, more stable balance sheets and better long-term and sustainable financial outcomes. Our engagement process complements our FSS and forms an integral part of our investment valuation framework (see Figure 1). We publish our engagement activities semi-annually – for the latest report please see ESG Engagement Report July 2022.

Figure 1:



Responsible investing is an integral part of the investment process however Colchester never makes investment decisions based solely upon ESG factors. Unless specified in the client Investment Management Agreement or offering documents, specific assets with poor ESG ratings may not be excluded from portfolios. For more detail on ESG factors please see our ESG Policy.

Colchester has published several case studies on ESG integration. Some examples include Russia and Italy.

4.3.2 Sovereign climate risk assessment through the lens of our Financial Stability Score framework

Colchester looks at climate risk to sovereigns holistically, considering geophysical, physical and transition climate risks, in conjunction with the governance and social aspects. We are aware that the Intergovernmental Panel on Climate Change (IPCC) released its Sixth Assessment Report in August 2021 and finalised the second part of the Report, Climate Change in February 2022. The reports warn of increased average global temperatures. Climate change effects can already be seen with more global extreme weather events, such as increases in the frequency and intensity of heatwaves, droughts, flooding, etc as well as biodiversity loss. This informs our perspective of the challenges facing all countries.

As investors in sovereign debt, we assess these material risks through the lens of our FSS framework, which combines both balance sheet fundamentals and ESG factors. Anthropogenic climate change is likely to impact many countries' economies via physical and transition risks over different time horizons. Whilst these outcomes are uncertain with respect to their timing and severity, they could result in economic and financial losses to corporates, households and governments. Hence, regulators and policy makers are implementing more adaptive and mitigation policies to safeguard for financial stability, amongst other considerations. Colchester believes the level of governance, level of development, and countries' willingness and ability to adjust and mitigate against climate change events are particularly important when assessing the economic impact on countries' balance sheets. We explore some of these issues in a number of climate risk case studies.

4.3.3 Geophysical Risks within our Financial Stability Score Framework

We consider physical climate-related and non-climate-related geophysical risks, such as from earthquakes in our FSS assessment. Geophysical risks can have equally adverse balance sheet effects. Colchester has historically used external data sources such as the WorldRiskIndex[3] and continually evaluates new sources as they evolve. The WorldRiskIndex assesses a country's vulnerabilities, its adaptability as well as its emergency response capabilities, disaster recovery strategies and other contingencies and plans in the event of a natural disaster. Generally, countries with a higher level of development and standards of governance tend to be better prepared in dealing with these events and therefore tend to react more effectively to mitigate the economic impact and humanitarian loss stemming from natural disasters (for more details see Colchester's Sustainability Report January 2022).

The WorldRiskIndex ranking shows the strong relationship between disaster risk and geographic location[4] The WorldRiskIndex 2022 amended its model for the first time since 2011 to provide more flexibility and have included a wider range of data sets as they became available. The indicators incorporated have increased from 27 to 100. Some of the additional factors include how populations have been impacted by disasters and conflicts over the past five years. On the exposure side, tsunamis have been added to the hazards (which include earthquakes, hurricanes, floods, droughts and sea level rise) as well as the distinction between coastal and riverine flooding has been made. Furthermore, its terms and definitions are more closely aligned with those of the United Nations Office for Disaster Risk Reduction (UNDRR 2022).

The disaster risk index covers 193 countries and therefore 99% of the world's population. Its latest findings highlight that Asian countries such as the Philippines, India and Indonesia and within the Americas Colombia and Mexico are expected to face the highest disaster risks. (Table 1)

Table 1: Median WorldRiskIndex Results 2022 by Region and Income Group

Country grouping categories		WRI	Exposure	Vulnerability	Susceptibility	Lack of coping	Lack of adaptation
Continent (based on United Nations)	Oceania	4.15	1.23	13.20	9.85	10.90	33.39
	Africa	4.33	0.70	31.26	30.18	14.80	60.43
	The Americas	9.99	4.29	20.39	16.21	11.08	44.21
	Asia	5.93	1.60	21.99	15.87	12.98	43.77
	Europe	2.14	0.19	21.99	15.87	12.98	29.30
World		4.11	1.05	20.39	15.86	11.77	44.35

Source: Bündnis Entwicklung Hilft / IFHV (2022): WorldRiskReport 2022. Berlin: Bündnis Entwicklung Hilft[1]

[3] The WorldRiskIndex is the product of a close cooperation between scientists and practitioners, it was developed by Birkmann and Welle for the Bündnis Entwicklung Hilft (The Alliance Development Works). For further information, please see https://www.ireus.uni-stuttgart.de/en/International/WorldRiskIndex/

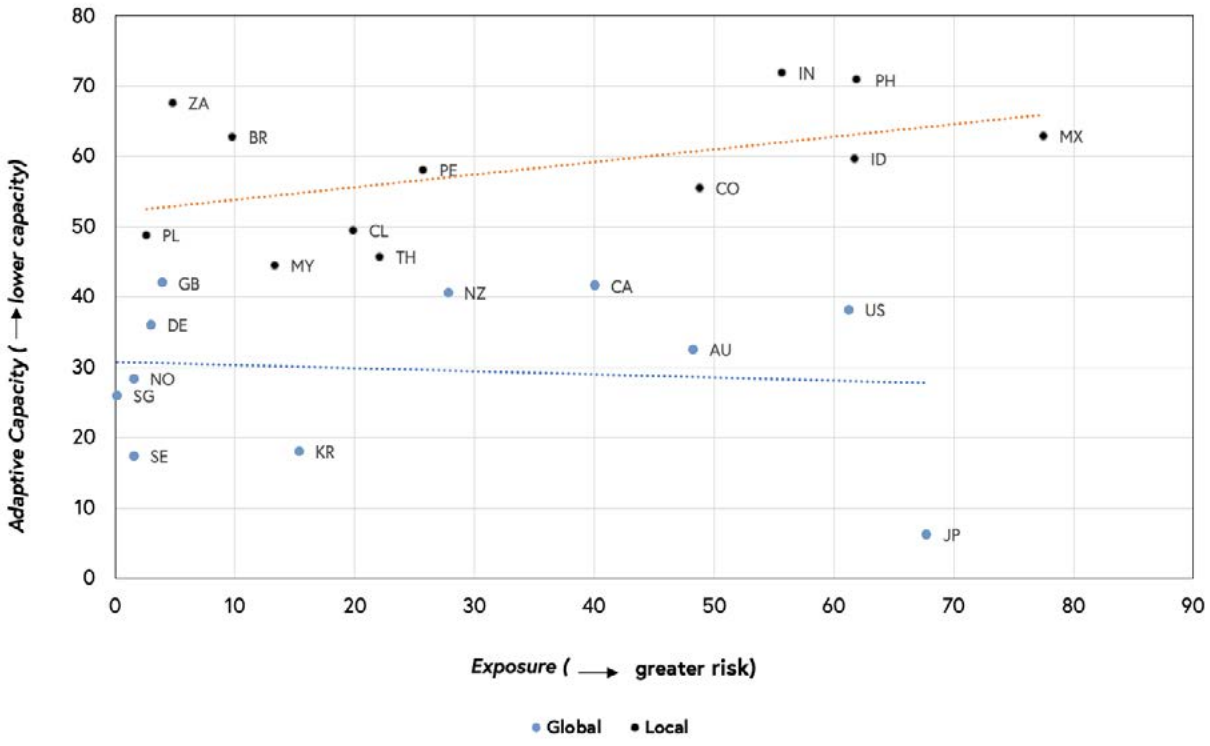
[4] WorldRiskIndex Report 2022

4.3.4 Physical Climate Risk to Sovereigns

When we consider physical climate risk to sovereigns, we consider both acute and chronic risks, and estimate how they may impact on a country's fiscal cost, macroeconomic environment and debt sustainability. The interlinkage between the fundamental balance sheet analysis and our FSS is clear, as certain economic sectors are more vulnerable to physical climate risks, all else being equal, than others. For more details see Colchester Sustainability Report Jan 2022. One sector more at risk of physical climate change is the agricultural sector, which might be negatively affected in some countries by increasing temperatures, sea-level rise, and extreme weather events resulting in reduced crop yield and loss of arable land.

The WorldRiskIndex (Chart 1) shows below that countries with high exposures to physical climate risk include Mexico, Colombia, the Philippines, India and Indonesia, as well as some high-income countries, such as the US, Australia and Japan. However, the latter group manages to mitigate these disaster risks better as they typically have stronger institutions and better financial capacity. This in turn helps reduce the impact on economic growth, or social factors such as the loss of human lives and the displacement of parts of a country's population as their livelihood or means of subsistence is impaired.

Chart 1: WorldRiskIndex

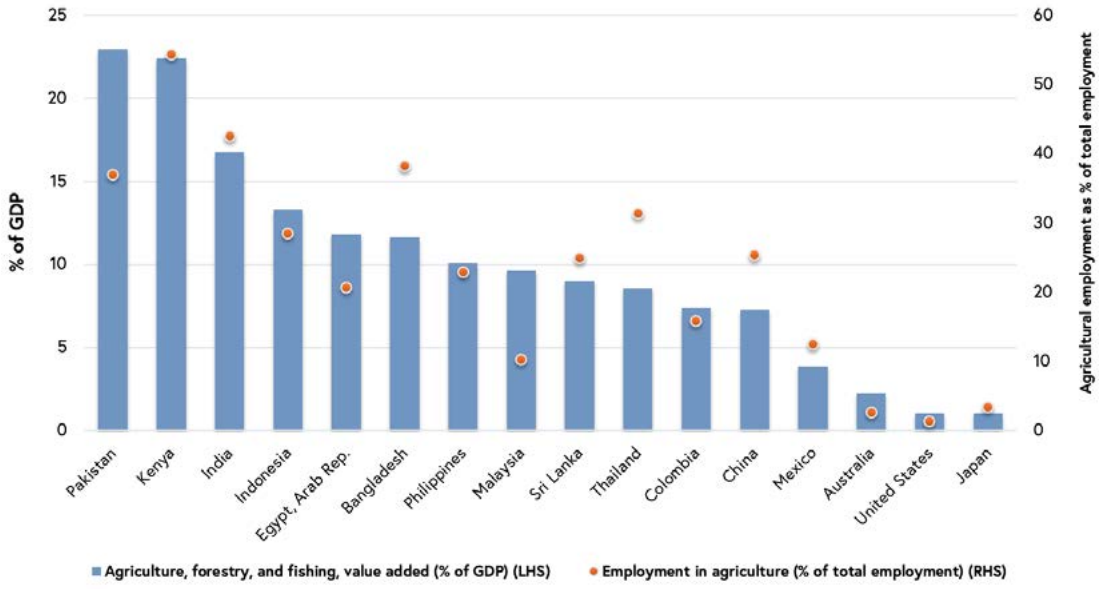


Source: WorldRiskIndex 2022. Note: Countries selected were based on Colchester's Global Bond and Local Emerging Markets Bond Universe dotted blue line are trend line for Global Bond Universe and dotted brown trend line for Local Emerging Markets Bond Universe.

Country Legends: AU: Australia, BR: Brazil, CA: Canada, CL: Chile, CO: Colombia, DE: Germany, GB: United Kingdom, ID: Indonesia, IN: India, KR: South Korea, MY: Malaysia, MX: Mexico, NO: Norway, NZ: New Zealand, PE: Peru, PL: Poland, PH: Philippines, SE: Sweden, SG: Singapore, TH: Thailand, US: United States of America, ZA: South Africa.

In contrast to the higher-income countries the agricultural sector provides a big part of the economic growth and employment sector of lower income/developing countries. The agricultural sector represents 17% of GDP in the case of India, 12% in Indonesia and 10% in the Philippines. In terms of employment this sector offers jobs ranging between 43% to 23% of total employment for these three countries.

Chart 2: Agriculture is a significant economic sector in some countries

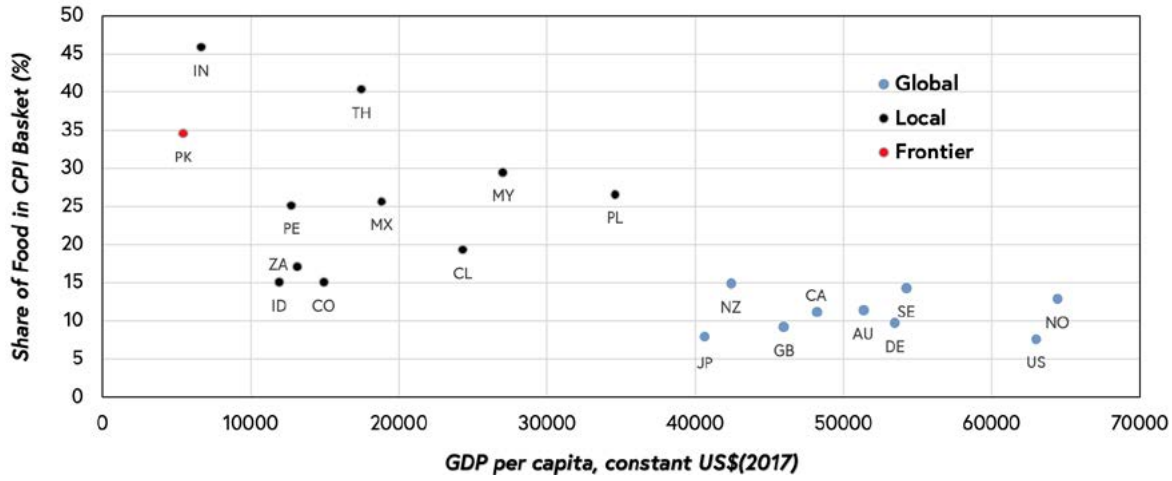


Source: World Bank - World Development Indicators, employment data as of 2019 and % of GDP as of 2020.

Physical climate risks can not only significantly impact domestic economies, but can also affect food security at the global, regional and local level. For example, India experiences flooding and landslides, which cost lives, damage crops and infrastructures. The International Disasters Database EM-DAT, 2018, reported 278 floods from 1980-2017, affecting more than 750 million people in India and caused ca. US$58.7bn in losses.

These effects may be exacerbated on a global basis via supply chain distortions such as the Covid pandemic and the Ukraine/Russia conflict. In summary, physical climate risks can have negative impacts on GDP, but also raise inflation and in particular food prices. Whilst these food price rises might have been of a more temporary nature in the past, as the frequency and severity of these natural disasters might rise, the impacts could be more pronounced in the future. This is especially true in countries where food and non-alcoholic beverages have a larger weight within the CPI basket, as evident in Chart 3. These macro-economic variables do feed into countries' debt sustainability analysis.

Chart 3: Share of food in CPI basket by country



Source: IMF World Economic Outlook October 2022, IMF CPI Database, various country statistics, Colchester.

Country Legends: AU: Australia, BR: Brazil, CA: Canada, CL: Chile, CO: Colombia, DE: Germany, GB: United Kingdom, IN: India, KR: South Korea, MY: Malaysia, MX: Mexico, NO: Norway, NZ: New Zealand, PK: Pakistan, PE: Peru, PL: Poland, PH: Philippines, SE: Sweden, SG: Singapore, TH: Thailand, US: United States of America, ZA: South Africa.

Case Study: Pakistan an example of the "perfect storm" of physical climate risk impacting economic growth

Prior to the floods in Pakistan during Q3 2022, economic growth was on a solid footing with real GDP of around 6% for FY 2022, as estimated by the World Bank. This growth was very welcome as Pakistan was faced with difficult adjustments to regain macroeconomic and fiscal stability under the US$6.5bn IMF programme.

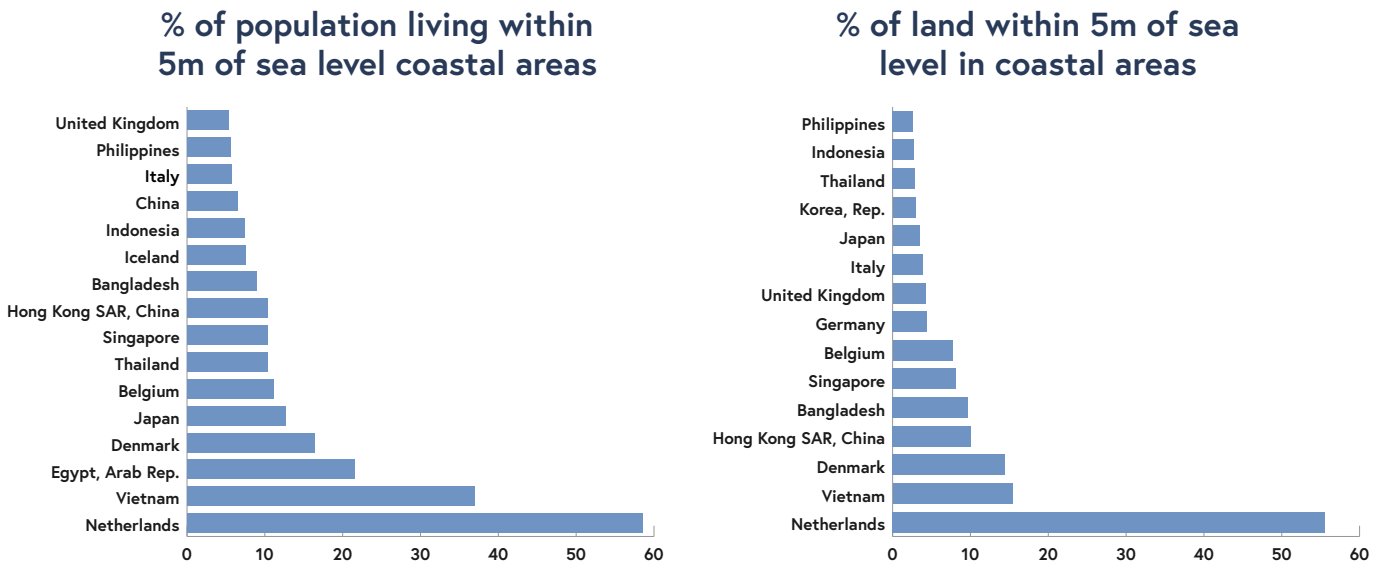
Pakistan's economy is expected to be severely negatively impacted by the floods in many ways. The agricultural sector contributes around 23% to GDP and employs 37% of the total workforce (see Chart 3). It is estimated that 9.4 million acres of crops have been affected with losses to cotton, date, wheat and rice crops and one million livestock are also estimated to have been lost. A further knock on effect will be that the textile industry will experience cotton shortage. The textile and apparel sectors contribute around 25% of total industry production and around 50% of goods exports. Pakistan's crop destruction will weigh on growth as the sector constitutes around 25% of goods exports.

These export losses represent a significant foreign exchange loss for the country and weigh on the deterioration of the trade and current account, as food and cotton shortage leads to higher imports with exports dwindling. The destruction of infrastructure increases transportation costs, which in turn add to already elevated inflation at a rate of 21.3% in June 2022, as well as further currency depreciation.

The fiscal deficit is expected to widen as flood relief packages are rolled out, tax revenues are reduced, and slower economic activity is expected to last for some time with the World Bank estimating FY2023's real growth to be only 2% and 3.2% in 2024. These factors are expected to lead to delays in fiscal consolidation and increase the risks to fiscal and debt sustainability, in conjunction with high inflation, a current account deficit and political uncertainty. Rating agencies have downgraded Pakistan's foreign currency credit rating to Caa1 and CCC+ in October 2022 citing concerns over reduced FX reserves, external liquidity and funding conditions partly due to widespread floods.

This example clearly shows how weaker balance sheet factors combined with physical climate risks can lead to the perfect storm of significantly impacting a country's macroeconomic and fiscal sustainability factors.

Other indicators considered within our climate change risk framework are the estimate of the percentage of a country's population living less than 5 meters above the sea in coastal areas, as well as the percentage of coastal land less than 5 meters above the sea. These show that not only emerging countries are at risk of sea level rise, but some advanced economies as well. Of note within our investment universe, both Vietnam and the Netherlands fall into this category. The Netherlands has higher income and better governance standards than Vietnam, suggesting it should be better prepared to cope as threats develop.



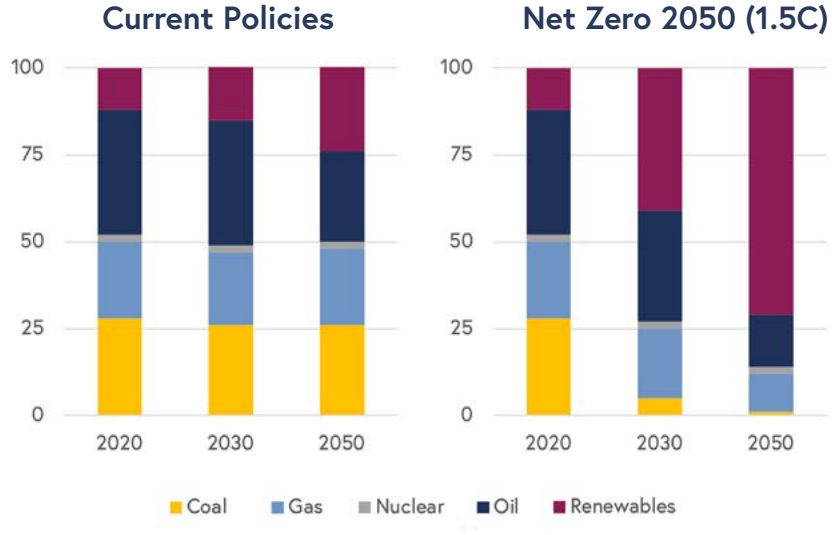
Source: World Bank, Center for International Earth Science Information Network (CIESIN)/Columbia University, 2013. Colchester, latest data available 2010.

4.3.5 Colchester is looking at Transition Risks and Opportunities for Sovereigns

Transition risks are associated with transitioning to a lower carbon economy and tend to be of slower speed and have more medium to longer term uncertain economic implications for sovereigns. Net Zero 2050-70 target commitments along with other pledges, require countries to reduce their GHG emissions.

The International Institute for Applied Systems Analysis (IIASA) forecast of global primary energy mix by scenario in Chart 4 shows that there will need to be changes to the global energy mix adopted to meet these commitments. Analysis performed by IIASA and included in the Network for Greening the Financial System (NGFS) document - NGFS Climate Scenarios for central banks and supervisors June 2021 - would seem to indicate that countries with fossil fuel dependent economies may be left with stranded assets in the future, and many countries utilising fossil fuels for energy will have to fund the transition to renewable or alternative energy sources. However, we note that in this space, things are changing constantly. For example, South Africa and Indonesia have obtained funding from the Climate Investment Fund (CIF) and other Partnerships to help them transition their electricity generation away from coal to renewables earlier.

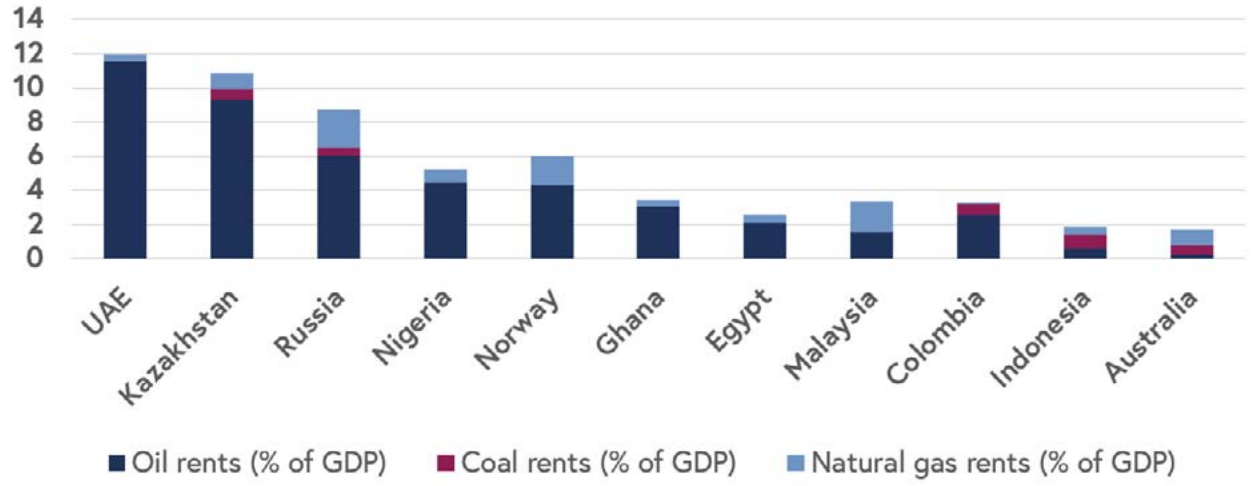
Chart 4: Change in global primary energy mix by scenario



Source: IIASA Network for Greening the Financial System (NGFS) Climate Scenarios Database, June 2021

Approaches we undertake include looking at the largest GHG producers, their policy commitments as well as economic structure. Given the demand for fossil fuels is expected to decline over the coming decades based on pledges and commitments from some governments, major fossil fuel exporting countries may eventually face a loss of revenue from these commodities (depending on future market pricing) and will need to diversify into other economic sectors. Some of the economies most exposed to fossil fuels within our investment universe are shown in Chart 5.

Chart 5: Fossil Fuel Rent % of GDP as of 2020



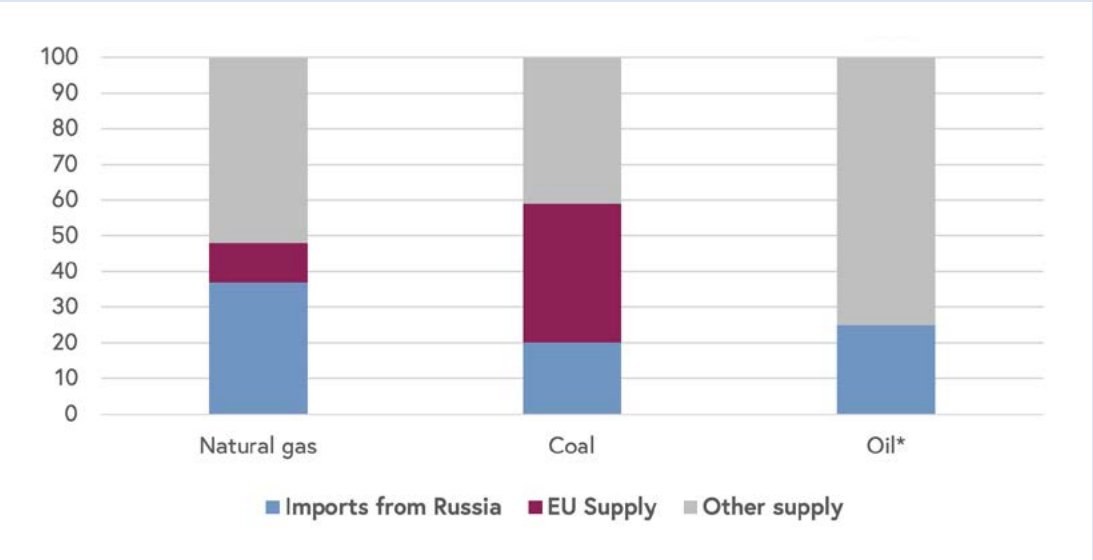
Source: World Bank Indicators, Colchester, as of 2020. Note: "Oil or Coal or Natural gas rents are the difference between the value of crude oil or coal or natural gas production at regional prices and total costs of production," as defined by the World Bank for the purposes of this data source.

As can be seen in Chart 5, countries such as the UAE, Kazakhstan, Russia, Nigeria and Norway are heavily reliant on fossil fuel rents as a percentage of GDP, and in particular on oil. It follows that they are at risk of future revenue shortfalls to sustain private sector and government activities in the absence of diversifying their economies. Lastly, it is also worth noting that not just the structure of the economy is important to mitigate transition risks, but that resource governance also has an important part to play.

Case Study: Energy Transition - An opportunity or renewed energy security risk?

Whilst exporting hydrocarbon economies face transition risks, fossil fuel importing economies have most recently been faced with energy security in the aftermath of the Russia/Ukraine conflict. Europe has been identified as one of the more dependent regions on Russian fossil fuel imports, with 37% of natural gas, 20% of coal and 25% of oil supplies coming from Russia. Germany, Hungary, and the Czech Republic are predominantly dependent on Russian gas imports for heating. Whilst the Czech Republic's natural gas (ca. 18%) as a share of its energy mix is lower compared to Hungary's (35%), its imports are 100% dependent on Russia versus 95% in the case of Hungary. Germany's gas imports from Russia accounted for about 55% in 2021, however this has since been reduced significantly and Germany has declared that it will stop Russian gas imports by mid-2024.

Chart 6: E-27's energy dependence on Russia and others



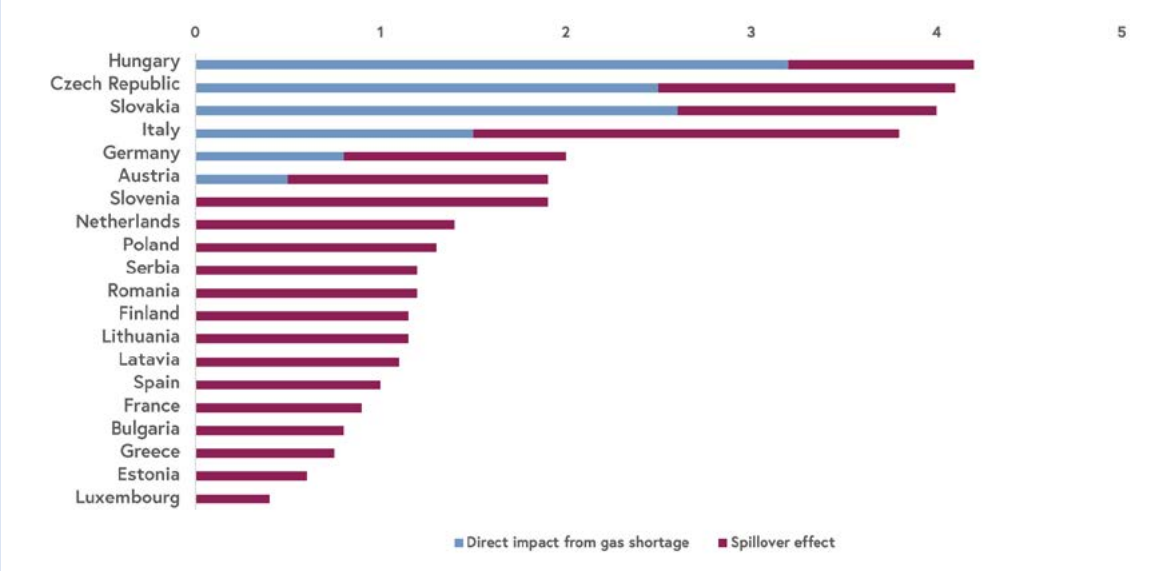
Source: BP Statistical Review of World Energy, 2022, *Crude and products. May include re-exports of product and oil that is stored but not processed.

The economic knock-on effects of such energy supply disruption can be significant, which won't be reversible any time soon even if the war would stop. The IMF estimated the potential GDP loss for the EU countries due to gas shortage from Russia in a paper in July 2022. Germany's economic direct loss, as an energy intensive economy, is estimated to be around 2% pf GDP. There have been further ramifications with energy prices pushing up the cost of living for the general population and pushing some domestic energy suppliers to seek government funding.

In April 2022, the German government announced several measures to increase future energy security. Whilst in the short term, phase out of coal plants has temporarily been delayed from the end of 2022, other ambitious measures should accelerate Germany's decarbonisation paths. These measures include a significant energy policy reform, whereby the share of renewable energy is expected to be at least 80% with the aim of almost 100% by 2035. This is a significant change from previously having a share of renewable energy of 65% by 2030 – note renewables account for about 37% currently.

Chart 7: Potential output losses by country

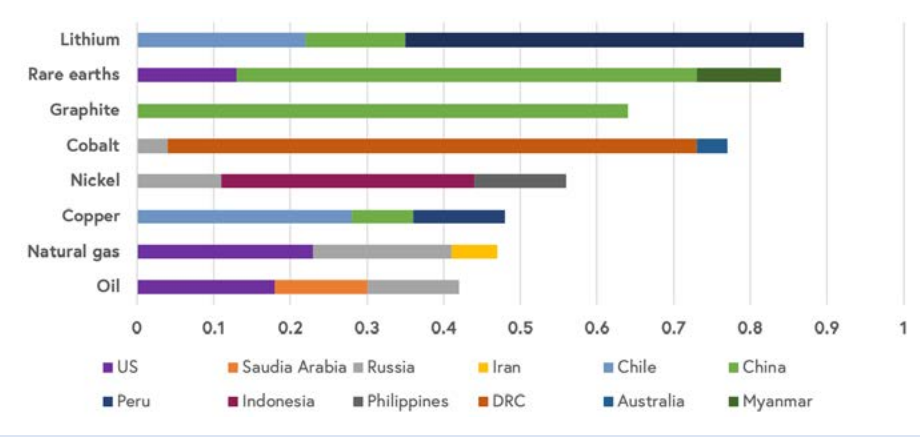
Output Loss (Percent of GDP)



We also recognise that the transition to a lower carbon economy may provide opportunities and benefits to countries. As highlighted by the International Energy Agency (IEA), clean energy technologies, such as electric vehicles (EV) & battery storage , solar panels and wind turbines, are more mineral intensive than fossil fuel energy. This could lead to opportunities in fiscal revenues for some countries like the Democratic Republic of the Congo (DRC) and China which accounted for 70% and 60% respectively of the global production of cobalt and rare earth elements, which are critical elements used in current battery technology and electric engines.

At the same time Chart 8 shows the production of these minerals has an even higher concentration of producing countries compared to oil and gas. This situation could bring political agendas to the forefront, as countries take advantage of their own supplies of critical elements to benefit their positions, knowing that for example the EU and several countries are mandated to transition to cleaner energy sources.

Chart 8: Percentage of top 3 producing countries



Source: IEA, data as of 2019

4.3.6 Sovereign climate-related risks and evolving frameworks

It is worth noting that Colchester's investment process recognises that assessing and quantifying climate-related risks is a work in progress, not just for central banks and financial regulators, but also for asset owners and managers such as Colchester. We recognise that more data sources, applicable measures, frameworks and analysis that are more directly relevant to an assessment of a sovereign are currently being developed. We encourage and are actively involved in helping the industry devise an appropriate framework and prism within which to assess sovereign assets.

An example of this industry framework development is the collaborative industry initiative 'Assessing Sovereign Climate-related Opportunities and Risk Project' – known as "ASCOR" Colchester has joined as a member of the Advisory Committee at ASCOR. This joint project pulls together the Principles for Responsible Investment (PRI), the Transition Pathway Initiative (TPI), asset owners and managers, and aims to provide investors and stakeholders with a common lens and framework to understand sovereign exposure to climate risk and how governments plan to transition to a low-carbon economy. The ASCOR group aims to devise a framework and set of tools that will enable the current and future climate change governance and performance of sovereigns to be fairly and appropriately measured, monitored and compared. This assessment framework will then be used to produce an annual public assessment of the climate change governance and climate change performance of sovereigns[5]

1) Emissions pathways alignment - the focus is on assessing governments against their commitments.
2) Climate policies - the group identifies economy wide and sectoral mitigation and adaptation policies to assess potential transition and physical risks.
3) Funding Opportunities - attempting to identify indicators which could help in highlighting countries' transition opportunities and physical-related funding needs.

20 pilot countries have been identified for testing these metrics and the initial assessment results are expected to be published by Q2 2023.

"The work that the PRI initiated with its sovereign debt advisory committee flagged the need for a tool like the ASCOR project to enable investors to move from 'why' to 'how' to incorporate climate change in their investment decisions. We are pleased to see such a tool now being developed, allowing investors to frame climate change in a more structured way."

Claudia Gollmeier

Managing Director – Singapore
Senior Investment Officer

[5] https://www.unpri.org/news-and-press/announcing-the-advisory-group-for-the-assessing-sovereign-climate-related-opportunities-and-risk-ascor-project/8550.article

4.3.7 Industry Initiatives and Collaborations

At Colchester, we undertake direct engagement with issuers as well as engaging with industry initiatives and other collaborations to complement our FSS assessment and shape future sovereign frameworks. A number of those initiatives are listed below:

Industry Initiatives/ Collaborations	Aka	Description
Principles for Responsible Investment	PRI	Colchester is a signatory to the PRI, a UN-supported network of investors that works to promote sustainable investment through the incorporation of environmental, social and governance considerations.
Task Force on Climate-related Financial Disclosures	TCFD	Colchester is a supporter to TCFD since May 2019 and this is our second Sustainability Report providing a status report of our progress.
Transition Pathway Initiative	TPI	Colchester is a supporter of TPI – a global, asset-owner led initiative which assesses companies' preparedness for the transition to a low carbon economy. However, as a sovereign only asset manager, we are a research funding partner to develop a sovereign climate assessment framework via the ASCOR project.
Emerging Market Investors Alliance	EMIA	Colchester is a member of the Alliance, a not-for-profit organisation that enables institutional emerging market investors to support good governance, promote sustainable development, and improve investment performance in the governments and companies in which they invest. We are a member of the steering committee of the carbon transition initiative.
Green Bond Transparency Platform	GBTP	Colchester is a supporter to the GBTP by the Inter-American Development Bank (IDB) and IDB Invest. IDB Invest is an innovative digital tool that brings greater transparency to the green bond market in Latin America and the Caribbean. GBTP supports the harmonisation and standardisation of green bond reporting, boosting investors' confidence that the proceeds from bond issuances are being spent on green projects whose impact are adequately measured.
Assessing Sovereign Climate-Related Opportunities and Risks Project	ASCOR	The project goal is to develop an assessment framework that enables the current and future climate change governance and performance of sovereigns to be fairly and appropriately measured, monitored and compared.
Investors Policy Dialogue on Deforestation	IPDD	The objective of the IPDD initiative is to ensure long-term financial sustainability of investments in the countries they are invested in by promoting sustainable land use and forest management and respect for human rights. The IPDD will engage with relevant government authorities, and industry associations and other relevant stakeholders to encourage adoption and implementation of regulatory frameworks that ensure protection of tropical forests and human rights.
Investment Management Association Singapore	IMAS	Colchester is a member of the Singapore Funds Industry Group (SFIG): Capabilities and Training Working Group. This initiative tries to build industry capabilities and knowledge supporting the growth and development of Singapore's asset management industry and fund ecosystem. Furthermore, the Group is trying to identify and address capabilities gaps by introducing new and relevant training for asset management professionals, with an initial focus on ESG/green funds and digital training.
Nasdaq Sustainable Bond Network Advisory Board	NASDAQ	Colchester is a member for the Nasdaq Sustainable Bond Network. It connects issuers of sustainable bonds with investors, empowering them to evaluate impact and make informed investment decisions on sustainable bonds.

As of November 2022

4.3.8 Climate change scenario modelling

Trying to assess the impact that climate change will have on economic and financial systems has many uncertainties. The forward-looking nature and the inherent uncertainty of these events make it difficult to assess them using standard risk modelling methodologies. Scenario analysis offers a flexible 'what-if' methodological framework that is better suited to exploring the risks that could crystallise in different possible futures. Like other practitioners in the field, our work will undoubtedly have to make many assumptions and simplifications, but we believe that it will enhance our understanding and help us to better assess these risks in our overall investment framework.

Modelling of Physical Risks

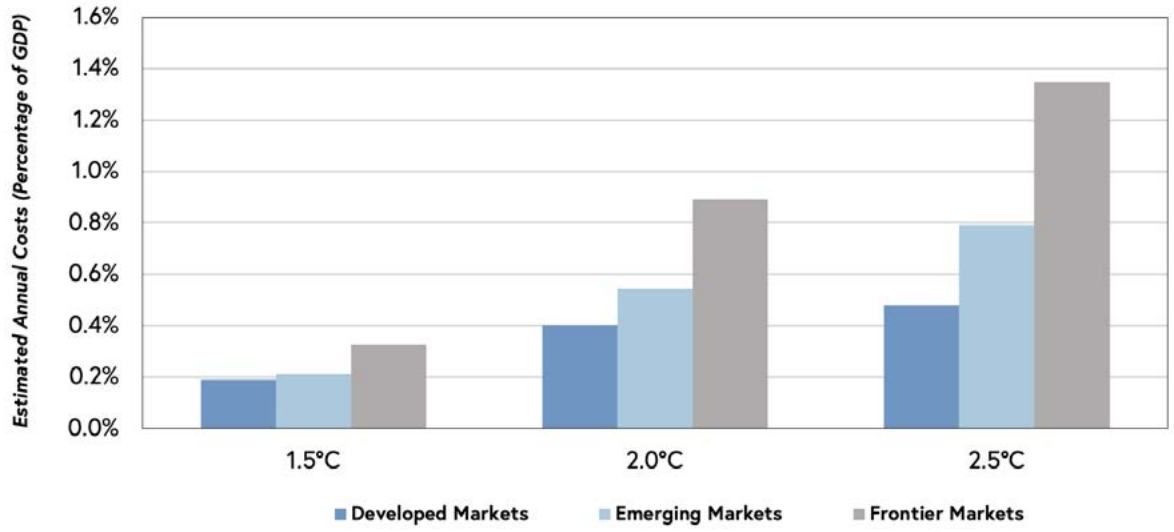
For assessing the possible impact of physical risk, we have developed a scenario analysis that uses a physical risk index that measures the susceptibility, coping and adaptation scores to extreme natural events. We use the WorldRiskIndex together with historical costs to develop scenarios with an aim to better understand each country's debt profile by highlighting the fiscal impact of physical risk on a country's financial stability. Our physical risk analysis is based on three scenarios for global temperatures:

1. Meeting of net zero <=1.5°C
2. Divergent from net zero 2°C
3. Disorderly away from net zero >=2.5°C

Meeting the net zero objective implies that policies are introduced early and are orderly, limiting the global temperature to 1.5°C above pre-industrial levels and the physical risk impact on government balance sheets. In contrast, the disorderly third scenario, where only current mitigation and adaptive policies are preserved, will imply high physical risks and costs for countries. To help us assess the differences in the potential costs across the scenarios, we have referenced a study by Swiss Re, which estimates the regional impacts on the debt to GDP across the scenarios (we have not analysed their extreme 3.2°C scenario).

Colchester estimates the physical risk impacts upon each country's fiscal balance, under each temperature scenario and we use this analysis to further estimate the impact this may have on annual government debt balances. Under these three scenarios shown in Chart 9, the government debt balances for both the emerging and frontier countries are more likely to be more negatively impacted by increases in global temperatures than the developed markets, although the impact varies by country within each asset class. There will likely be an accelerated increase in government debt under our 2.5°C Disorderly Scenario. By our estimations, under the Disorderly Scenario, where the global temperature is allowed to rise to 2.5°C or beyond, government debt could rise by approximately 0.05% annually for developed markets, 0.08% annually for emerging markets and around 0.19% annually for frontier markets, according to our projections to 2050. Therefore, many climate experts view the cost of transition towards a cleaner world not as a 'cost,' but as an investment in the future.

Chart 9: Estimated physical risk costs as a percentage of GDP



Source: Swiss Re, EM-DAT, CRED, WorldRiskIndex World Bank and Colchester, as of 2020.

Modelling of Transition Risks

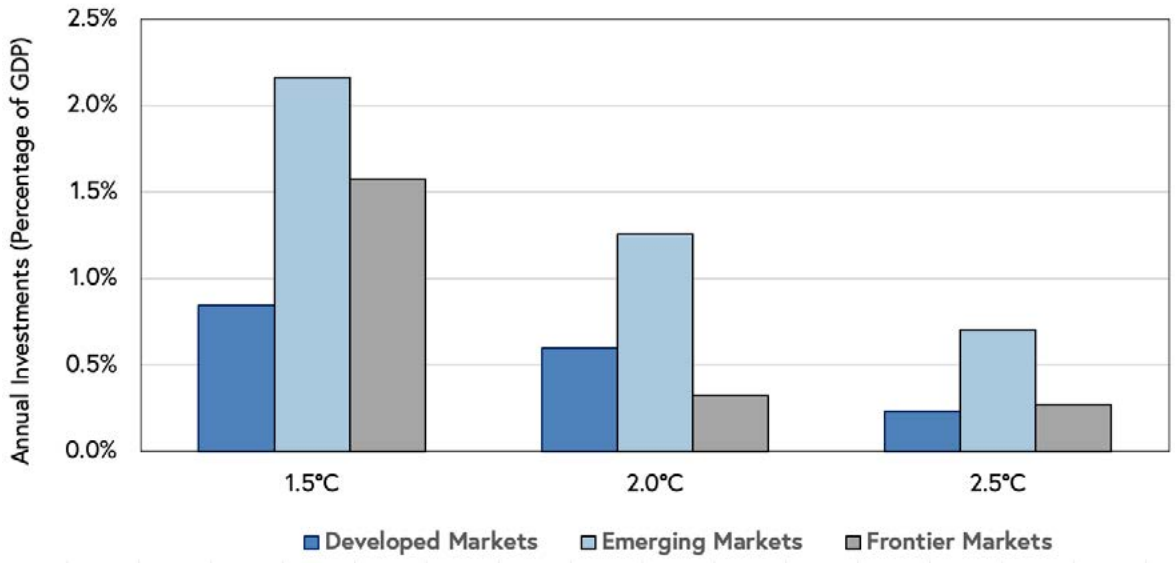
Transitioning towards a cleaner world will be expensive and we see that the official estimates of these costs vary widely. Colchester's scenario analysis for transition risk focuses on the government costs of increasing spending on clean energy and the potential implication. The reduction in C02 emissions and replacing fossil fuel, such as coal and oil with clean energy sources, such as wind, solar and hydro energies, requires funding and hence may have implications on countries' balance sheets. According to the IEA, only 17% of total annual global energy use is from clean energy.

The IEA reported in their World Energy Outlook 2021, that the Announced Pledges Scenario[6] (2°C) will lift global clean energy production to 78% in 2050, mainly due to the reduction of coal and oil energy sources. This varies by region/scenario, with the developed world expected to do more as the temperature increases. The IEA also show that there needs to be a significant increase in annual investment spending from around US$ 1 trillion over 2016-2020 to nearly US$ 4-5 trillion total spend by 2030 and around 30% of this investment will need to be carried out by the public sector. Of the US$ 4-5 trillion required investment, the public sector is therefore expected to need to increase the rate of investment from US$ 363 billion (0.45% of global GDP) in 2020 to US$ 1.2 trillion annually by 2030 (1.5% of global GDP). Under the 2.0°C scenario, governments are expected to pay ca. US$ 708 billion per year (31% of the total share). Finally, the public sector bill under the 2.5°C scenario is projected to be US$ 363 billion per year (status quo). These public sector costs should plateau at around the same level for the period between 2030 to 2050. Our scenarios are centred and modelled on these estimations. This scenario requires the world to increase the rate of clean energy generation to 78% of total energy use by 2050, as implied by the IEA Net Zero emissions study. The 2.0°C scenario requires a 44% target whilst the 2.5°C scenario requires 31% clean energy.

We estimate the government investment on clean energy transition using the scenarios reported by IEA in their World Energy Outlook 2021. These detail the energy mix by different countries over time for the different scenarios. Some countries are closer to those targets and would require less investment than other countries. The model also takes into account the cost of various energy sources as well as cost reductions on new technologies over time. Chart 10 summarises our transition risk investment estimates for each of the three temperature scenarios.

[6] https://www.iea.org/reports/global-energy-and-climate-model/announced-pledges-scenario-aps

Chart 10: Estimated government transition investments by 2050



Source: International Energy Agency, OurWorldInData, World Bank and Colchester Global Investors.

We at Colchester accept that our climate change assumptions will need to be updated overtime, but the scenarios do give us some insight into the scale of the potential contingent liabilities on each country's financial balance sheets. Over time we will look to improve our analysis by incorporating the country specific cost of migrating towards clean energy sources. We recognise that, over time, the cost of investment in new technologies might fall and hence it could be that our estimated costs are overestimated. Equally, the physical risks that we outline could be larger or smaller and may impact government balance sheets sooner or later than we have anticipated. At Colchester our financial stability analysis is evidence based and we will probably revise our assumptions as and when we receive new information.

Lastly, Colchester is an active participant in industry efforts to devise appropriate sovereign frameworks. An example of this industry framework development is the collaborative industry initiative of the 'Assessing Sovereign Climate-related Opportunities and Risk Project' – the ASCOR Project (for more information see section 4.3.6).

4.4 Risk Management

A consistent Risk Management Framework is embedded across Colchester and all its entities, comprising our governance, risk management process and risk appetite. Colchester's Risk Management Framework emphasises and balances strong central oversight and control of risk with clear accountability for and ownership of risk within each operational area. This includes risk oversight committees with clear roles and responsibilities. The three lines of defence are the risk structure deployed by the firm for the risk management, risk oversight and independent assurance that the risk framework is operating effectively. The Group's risk framework has added climate and sustainability risks within the Risk Framework taxonomy. The risk assessment process takes a structured approach to identify the individual climate and sustainability risks and their mitigating controls on a risk register and it assesses the risks on an inherent (before controls) and residual risk (after controls) basis in terms of a scaled likelihood and impact (financial, client, regulatory and reputational).

This risk assessment and risk register along with proposed actions is presented at the Business Risk Committee & TCFD Advisory Committee on an annual basis. The Risk department utilises the risk register to perform their ongoing independent measurement of the risk and the efficacy of the controls for the risk mitigants. The Investment Team are responsible for evaluating environmental, social and governance risks and opportunities for all markets.

The Risk Team measures and monitors risks, including climate risks, against limits. In addition to producing quantitative analysis, the Risk Team works to support the Investment Team to ensure that portfolio risks are well understood, and are consistent with the investment process. This helps to ensure that such risks are understood and deliberate. Internal audit provides independent assurance of the effectiveness and adequacy of the risk management, control and governance processes employed.

Business Continuity and Disaster Recovery Plan

Business Continuity ("BC") is defined as the capability that allows a business to continue production processing without material disruption to clients or client information during a business interruption. Disaster Recovery ("DR") refers to those technology-related processes that facilitate recovery of the production computing environment in the event of a disaster. In the event of a business interruption, Colchester has a duty of care to its staff, clients, stakeholders and the broader community. Colchester continuously invests time and resources into business continuity and disaster recovery planning so that it is able to sustain its activities in the event of an unexpected shock or dislocation. The overriding aim of Colchester's BC/DR Plan is to ensure continuation, with minimal interruption, of its critical business operations. Its BC/DR arrangements are managed by the BC/DR Committee which is led by the Chief Operating Officer.

4.5 Metrics and Targets

4.5.1 Operational metrics and targets

As part of our ongoing commitment to environmental sustainability, Colchester has completed an exercise of estimating greenhouse gas (GHG) emissions, including relevant indirect emissions, across the Group. The analysis was undertaken again by a third party, Engeco. The analysis shows that whilst unsurprisingly, Covid had a meaningful impact on energy consumption in Colchester's offices, the post-Covid working environment has been carefully managed.

It is anticipated that the retirement of both Colchester's on-premises servers and UK disaster recovery site as well as its travel policy will provide a positive impact on Colchester's emissions.

4.5.2 Introduction and methodology

The emissions calculations completed represent the GHG impact of Colchester for the 2021/22 reporting year (May 2021 – April 2022). The same calculation methods have been applied as per the previously created baseline.

GHG emissions are classified as either Scope 1, Scope 2 or Scope 3. Scope 1 emissions are direct emissions that occur from a company's facilities e.g., fuel combustion, fugitive emissions, industrial processes, etc. Scope 2 emissions are indirect emissions associated with purchased energy e.g., purchased electricity, purchased heat or purchased cold energy. As the direct (Scope 1) emissions are generated by the producer of that energy, these are accounted for as indirect emissions. Scope 3 emissions are the remainder of indirect emissions that occur as a result of company operations. There are 15 categories of Scope 3 emissions in total, ranging from purchased goods and services through to downstream use of products.

When developing the GHG emissions inventory for Colchester, the first step was to set the organisational boundaries, followed by the facility boundaries. From an organisational point of view, Colchester Global Investors Limited was taken as the parent entity for the inventory. It is acknowledged that different companies exist in the corporate Group under the parent organisation, but all emissions are ultimately assigned to the parent in this case. To draw the organisational and

facility boundaries, the principles of the GHG Protocol[7] were used. With respect to the GHG Protocol, the principle of operational control[8] was used to determine the facility boundaries and set what is a Scope 1, Scope 2 and Scope 3 emission. As a result of a high-level assessment of operational control, it was deemed that the office locations that Colchester has make up the facilities for the purposes of GHG reporting. These are:

- United Kingdom – 1st floor, Savile Row, London
- United Kingdom – 4th floor, Savile Row, London
- Singapore – #40-02A Battery Road
- USA – Third Avenue, New York
- UAE – Index Tower, Dubai
- Australia – Hunter Street, Sydney
- Ireland – Ballsbridge, Dublin

The Ballsbridge facility was only added recently – and for the reporting year was only operational for a short amount of time.

Emissions associated with direct fuel combustion and purchased energy at these facilities are Scope 1 and 2 emissions respectively. In each of these cases, Colchester is leasing tenancies from the building owner, so it does not have operational control of plant and equipment such as central boilers. A check of emissions points with each tenancy indicated that there are no direct emissions from each, so therefore no Scope 1 emissions are reportable. Similarly, Colchester does not own any vehicles so there are no recordable Scope 1 emissions from those either.

Scope 2 emissions are therefore the only contributor to the emissions inventory from these facilities. To estimate these, purchased electricity data was used – combined with the grid emissions factors available for each of the locations of the offices. As with all grid emissions factors, they change from year to year, so the relevant published information for the grid emissions intensity in each year was used.

To estimate Scope 3 emissions, the first step was to determine the materiality of the Scope 3 emissions categories. Of the 15 scope 3 emissions categories, the following were determined to be most material:

- Purchased goods and services – embodied emissions associated with operating purchases
- Purchased capital goods – embodied emissions associated with purchased capital items
- Waste generated – emissions associated with treatment of waste
- Business travel – emissions associated with business travel
- Employee commuting – emissions associated with employees travelling from home to work

It is noted that the most material Scope 3 emissions source of all are those associated with investments – given the nature of Colchester's business. While this was not included in this year's emissions inventory, emissions estimation methods are being developed and these emissions may form part of future emissions inventories.

To estimate the Scope 3 emissions for Colchester, the guidance provided in the GHG Protocol Scope 3 Standard was utilised. Calculations completed were in line with this guidance and used GHG Protocol tools where appropriate – supplementing with additional calculation techniques were necessary. Emissions factors used were from reputable sources and databases and noted within Colchester's emissions reporting tools.

[7] The GHG Protocol, by the World Resources Institute, is a global standard to development of GHG emissions inventories.

[8] In this, the person with authority to introduce and implement operational, environmental and health and safety policy is the person with operational control.

4.5.3 Key Results

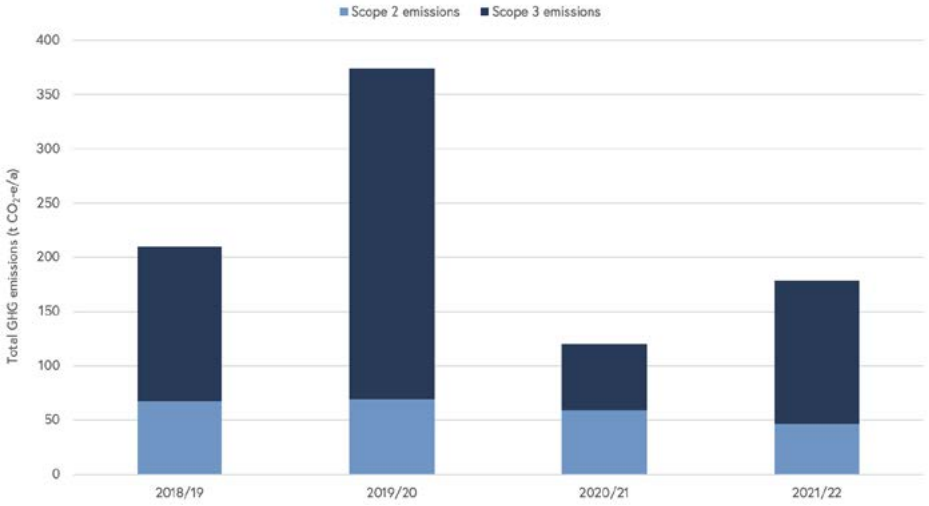
For the 2021/22 reporting year (1st May 2021 to 30th April 2022), the key results for the overall emissions are shown below.

All data is presented in tonnes of CO_2-equivalent.

Emissions Scope	2021/22 emissions	2020/21 emissions	% change
Scope 2 emissions	46.4 t CO_2-e	59.1 t CO_2-e	-21.5%
Scope 3 emissions	132.0 t CO_2-e	61.1 t CO_2-e	+116%
Total	**178.4 t CO_2-e**	**120.2 t CO_2-e**	**+48.4%**

A Chart 11 shows 2021/22 emissions and the previous three years.

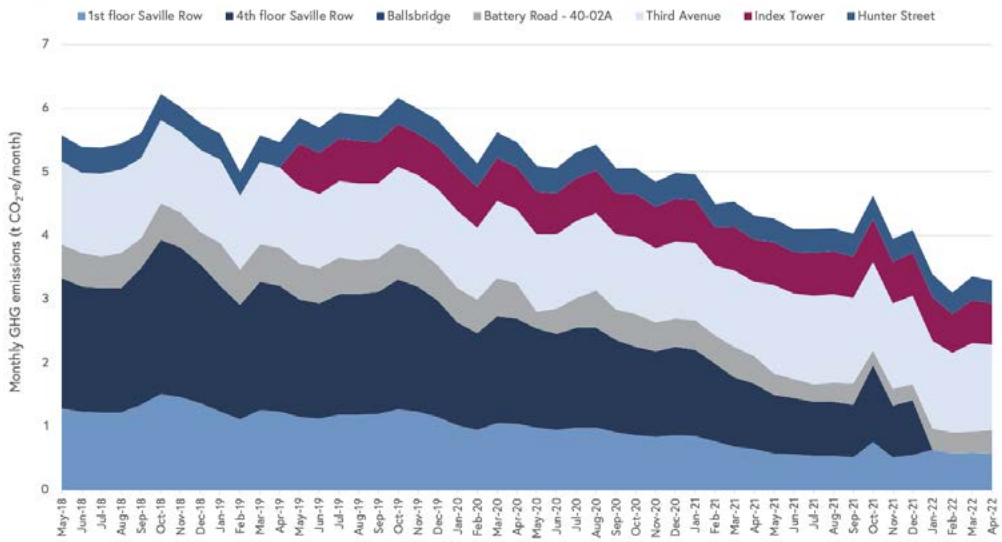
Chart 11: Total emissions by year



Total emissions are higher than the previous year – with this increase being seen in Scope 3 emissions primarily. The primary cause for this is an increase in emissions relating to business travel.

The trend of Scope 2 emissions on a monthly basis, organised by office, is shown in Chart 12.

Chart 12: Scope 2 monthly emissions by office



Scope 2 Monthly Emissions by Office

The emissions estimations for Third Avenue, Index Tower and Hunter Street were generated using industry standards for energy intensity of buildings in those locations and the rented floor area in each case. Individual metering of these locations was unavailable, so estimates were required to determine the energy consumption and therefore emissions.

There has been a relatively clear trend of reducing energy consumption (and therefore reducing emissions) over the years shown in Chart 12, which includes the three years prior to the current reporting year. Some of the reduction in the 2020/21 period may be due to the impacts of Covid and the move to working from home, but there have also been initiatives deployed by Colchester to reduce electricity consumption in the offices. In particular, Colchester has moved its infrastructure to the Cloud and shut down on site servers. This has had a reasonable impact on electricity consumption. Smart lighting with occupancy sensors and energy efficient bulbs have been deployed, as have hot water taps with sleep function.

The UK offices, being the largest offices, have seen the largest reduction in emissions over this time period. The electricity supply for the 4th floor office in Saville Row has changed in the last part of the current reporting year – to a 100% renewable power plan. As such, emissions are reduced to zero.

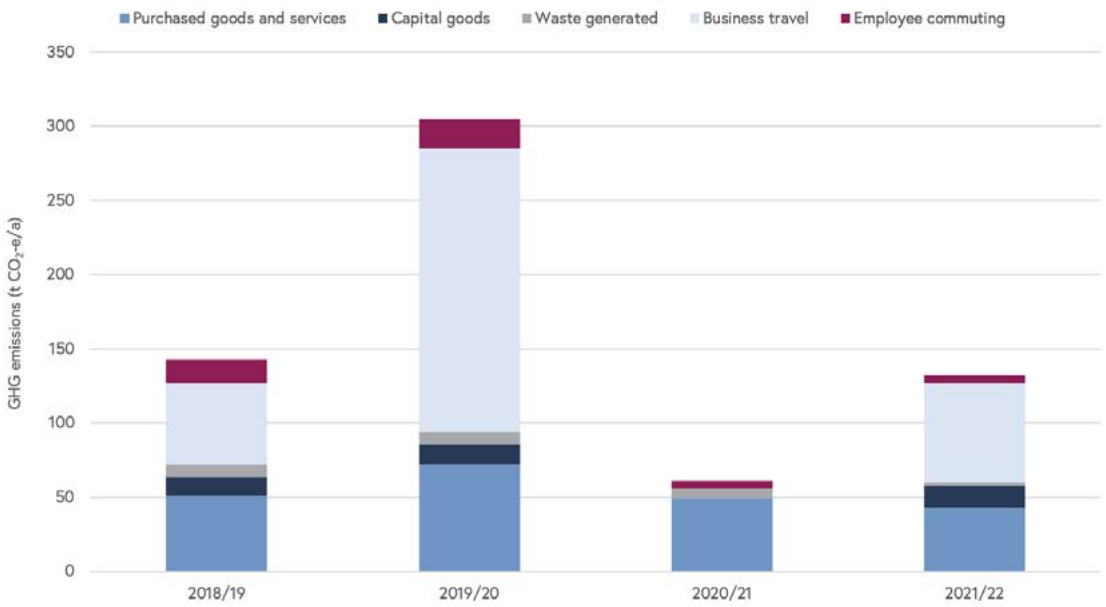
Grid emissions factors in the UK and Australia have decreased in the 2021/22 reporting year – also contributing to a reduction in emissions overall (Scope 2 emissions). The grid emissions factor in the US, however has increased over that time by comparison, while the UAE grid emissions factor is similar to previous years.

The breakdown of Scope 2 emissions by country is shown in Chart 13.

Chart 13: Scope 2 emissions by country

The breakdown of Scope 3 emissions by category is shown in Chart 14.

Chart 14: Scope 3 emissions by category



Scope 3 Emissions by Category

As previously mentioned, the increase in business travel emissions is driving an overall increase in Scope 3 emissions compared to the previous year. Business travel emissions are high, but lower than those in 2019/20. It is possible that business travel emissions continue to increase as travel returns to previous levels – but a program to utilise technology instead of travel may mean that these emissions are limited wherever possible. In addition, there may be opportunities to acquire offsets for necessary travel.

Capital goods have seen an increase compared to 2020/21 emissions – but this relates largely to the start-up of the new office in Ireland, which has required an increase in capital goods purchased. Other emissions sources remain at similar levels to previous years. Employee commuting emissions have remained lower than pre-pandemic levels and may represent a permanent reduction in emissions if company policies allow for increased use of working from home – minimising employee commuting emissions.

4.5.4 Initiatives and targets

Colchester has implemented a number of initiatives that should improve the company's emissions. These include the energy savings and efficiency opportunities already detailed, but also initiatives aimed to minimise business travel on an ongoing basis, recycling programs in waste management and water savings devices. Colchester has already made some progress in purchasing renewable energy from energy providers used for the various offices and more work may be done in this area. Emissions are currently calculated using grid emissions intensity factors. In the future, instruments such as renewable energy credits from energy providers could be used to change to a market-based emissions factor for Scope 2 emissions – which will reduce these emissions to zero when deployed. Colchester is exploring the potential of broadening the breadth of the Scope 3 emissions inventory and including the emissions intensity of investments in the calculations. This may also be done in conjunction with addressing aspects of climate change risk and alignment with the disclosure frameworks as developed by the Task Force on Climate-Related Financial Disclosures.

Colchester is continuing to explore the possibility of setting emissions reduction targets and ways to potentially achieve net-zero emissions to support international climate change and decarbonisation goals as per the Paris Agreement. In principle, this will involve reducing emissions as far as possible and then utilising high quality offsets where appropriate. We recognise however that decarbonisation and sustainability are a journey and commit to incrementally improve over time now that this baseline of performance has been set. As a responsible corporate citizen, Colchester is committed to managing the business economically whilst working towards environmental sustainability.

Other Operational Measures:

Energy providers

Colchester is only able to select the energy provider for the 4th floor of its London office at this time and this floor has transitioned to use renewable energy. In all other instances the landlord selects the energy provider, but Colchester continues to reach out to these landlords to ascertain their plans to move to renewable energy.

The Cloud

Colchester moved its infrastructure to the Cloud, using Microsoft Azure, in 2021. Microsoft has been carbon neutral across the world since 2012 and commits to being carbon negative, water positive and a zero-waste company by 2030. Their goal is to promote sustainable development and low-carbon business practices globally through their sustainable business practices and cloud-enabled technologies. Colchester's move to the Cloud saves us from needing to replace our servers every 3-5 years and will make Colchester more energy efficient given the removal and recycling of on-premises servers in London, New York, Singapore and at our retired BCDR data centre.

Travel Policy

Colchester is committed to reducing the environmental impact of travel. Where appropriate, staff use video conferencing software, public transport, fly economy (given the large reduction of carbon emissions per mile by flying economy compared to business class) and plan research and client trips efficiently.

Retirement of the UK-based dedicated disaster recovery site

Given the successes of remote working over the last 2-3 years, Colchester retired its 18-seat dedicated DR site in the UK in March 2022, recycling the furniture and IT equipment.

Recycling

Colchester partners with First Mile for waste management in London, where Colchester's Head Office is located. First Mile recycles batteries, printer toner cartridges, IT equipment, recyclable materials (plastic, paper, cardboard etc), confidential paper and food waste. The general waste (everything else) collected by First Mile is sorted further for recyclables and the remaining waste is safely incinerated. Electricity and heat are captured from the process. Electricity is sent to the UK's National Grid, while the heat is used to provide heating and hot water to over 100,000 homes. The ash by-products from this process are used in the construction industry. First Mile also use electric waste vehicles, meaning their waste collection has an even smaller environmental impact.

As at 30th April 2022, Colchester's London recycling rate was 79% over the previous 12 months (meaning 79% of Colchester's waste was recycled and 21% was incinerated producing energy and construction products).

Colchester recycles waste in its other global offices but is unable to select the waste management companies involved as they are selected by the local landlord.

Volunteering/ Environmental and Sustainability Champions Program

Colchester's global offices have been involved in volunteering for various local community projects, some of which aim to have a positive environmental impact. Singapore office staff spent time cleaning up a local shoreline, and in the UK staff have contributed to river cleaning and harvesting surplus fruit and redistributing to local communities.

Singapore office beach clean up

Other opportunities suggested by the environmental and sustainability champions, some of which have been implemented include the use of recycled stationery and office supplies. The **Environmental and Sustainability Champions**, are a team of Colchester staff that play an essential role in supporting our sustainability values, goals and strategies by identifying ways that both Colchester and its staff can become more environmentally and sustainability focused.

The cycle to work scheme has been re-promoted in the London office to encourage sustainable journeys to work.

Reconditioned IT equipment

Where possible and appropriate, Colchester endeavours to purchase reconditioned IT equipment. Given Colchester's move to the use of Windows Virtual Desktops, physical desktop PCs do not need to be as powerful or replaced as regularly as they might need to be otherwise. 100% of work from home PCs supplied by Colchester are reconditioned.

4.4.5 Sustainable product solutions

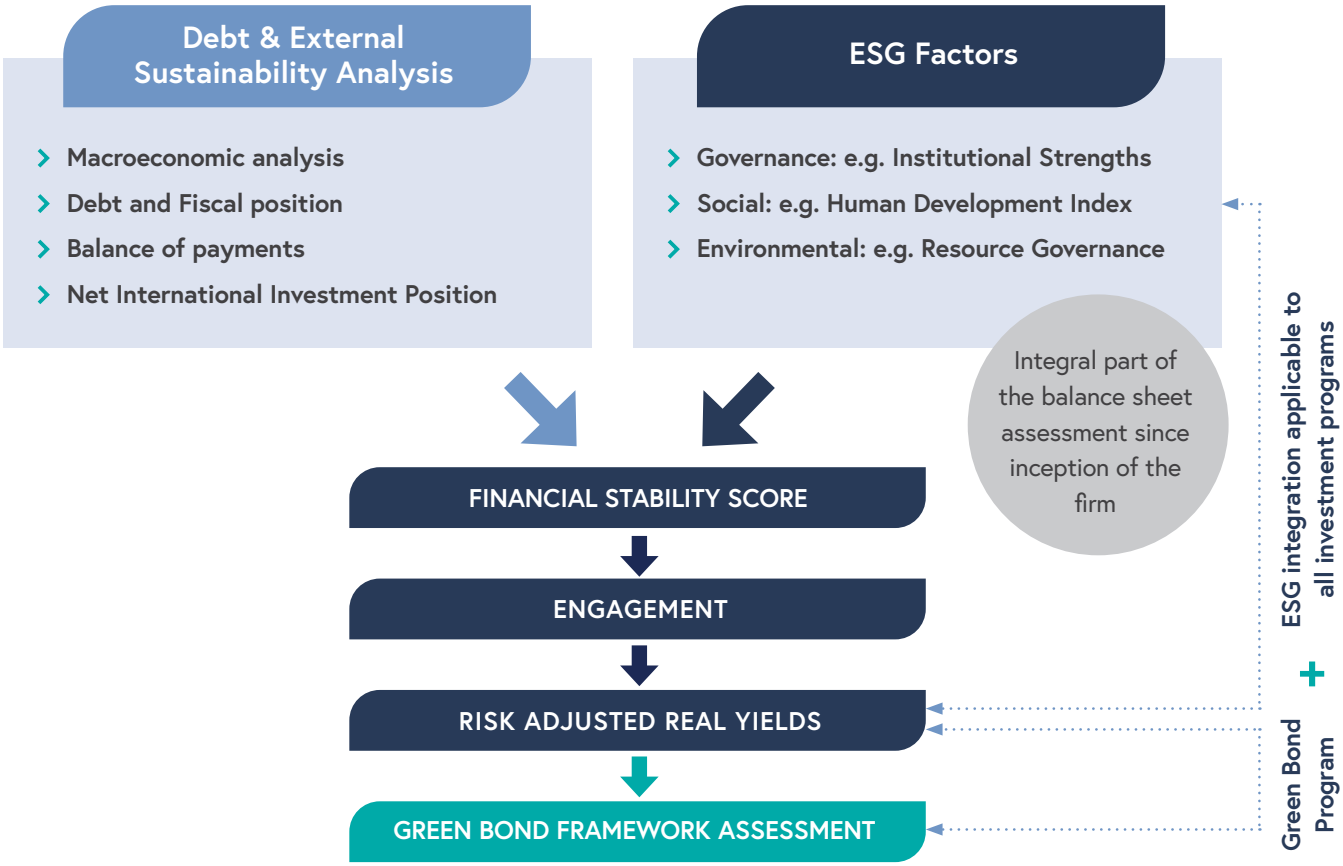
Whilst we haven't set explicit carbon reduction targets across all the investment strategies that we manage, we work closely with our clients to provide customised sustainable solutions in order to reduce the carbon footprint or to achieve other objectives. These solutions include our Global Green Bond Strategy and specific strategies designed to solve client requirements.

The Colchester Global Green Bond Program

Our Global Green Bond Program uses the same valuation framework, portfolio construction and risk management techniques as our other investment programs. We then apply two additional steps that impact on which bonds are considered within the opportunity set, and our ongoing willingness to continue to hold them.

1. Firstly, we make an assessment to determine whether an issuer's green bond framework is aligned with International Capital Market Association (ICMA)'s Green Bond Principles[9] or any other national standards (including the future EU Green Bond Standard). We then assess that the issuer has arranged for an independent second party opinion on the labelling of the issue as "green" or in the absence of an independent second party opinion we will make our own determination if the issuer's green bond framework is aligned with accepted practices.
2. Secondly, we will monitor on an annual basis issuers' use of proceeds reporting by looking at their allocation report. In the absence of an allocation report we will either engage with the issuer or make an appropriate determination based on the information available.

Figure 2: Colchester's Green Bond Framework



Responsible investing is an integral part of the investment process however Colchester never makes investment decisions based solely upon ESG factors. Unless specified in the client Investment Management Agreement or offering documents, specific assets with poor ESG ratings may not be excluded from portfolios.

[9] Green-Bond-Principles-June-2021-140621.pdf (icmagroup.org)

In addition to our Green Bond Program, we have been exploring how to integrate sustainable investment objectives within dedicated client portfolios and potentially launching other dedicated UCITS funds with explicit sustainable/climate mandates. Sustainable investment objectives can be used as a constraint within a mean/variance optimisation framework. We are able to improve the carbon emissions of a global bond portfolio compared to the FTSE World Government Bond Index (WGBI) or any other global bond index. Carbon intensity can be measured in a number of different ways:

- Tonnes of CO_2
- Tonnes of CO_2 per capita
- Tonnes of CO_2 per GDP
- Change in CO_2 measures over time

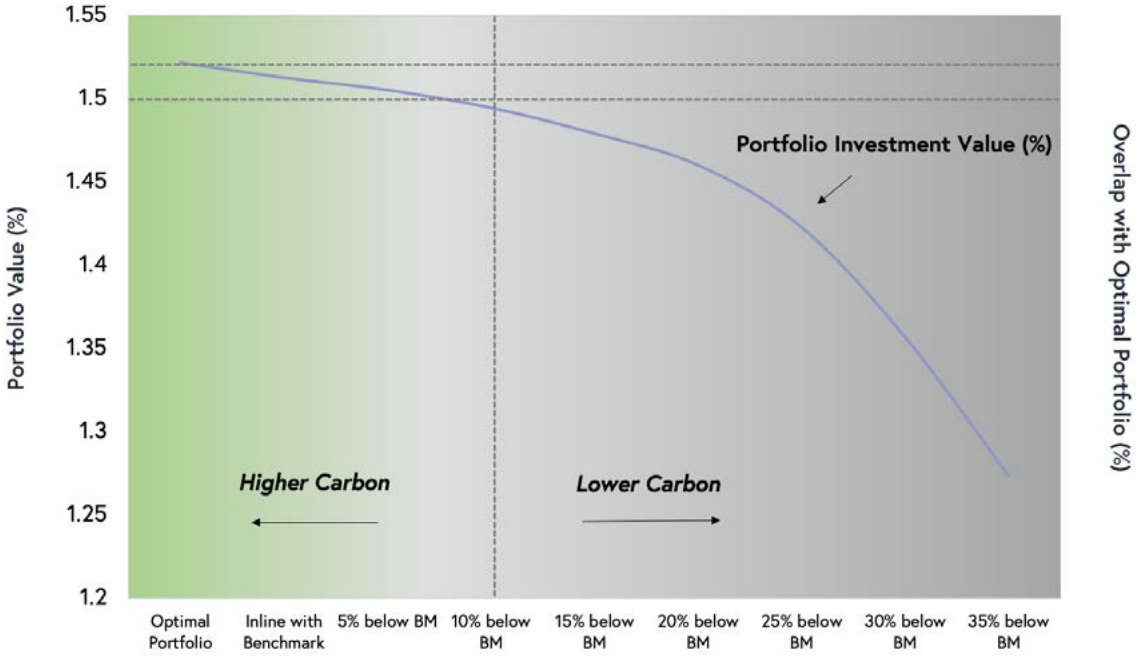
In order to calculate the historical cost of applying a carbon constraint to a portfolio, we run a simulation where we apply a constant set of country limits over time (maximum and minimum weights) for a given tracking error. The historical carbon emissions of this typical portfolio can be compared to the benchmark over time (Chart 15).

Chart 15: Historical Portfolio Carbon Emissions per GDP

We are then able to apply a carbon constraint to this 'typical portfolio' to see the effect this has on the investment value of the portfolio at each point in time. Chart 16 shows the effect that the carbon constraint has on the investment value of the portfolio at various levels (as at the end of September 2022). This 'efficient frontier' highlights the impact of alternative relative benchmark constraint targets on the bond portfolio investment value, at the specific point in time. Colchester's individual country investment value or expected return is determined by combining each source of value added of a country: prospective real yield, sector and duration/maturity. The weighted country investment values provide us with the bond portfolio investment value. It illustrates that there is a potential investment value trade-off as lower carbon outcomes are

envisaged. It is worth noting that the analysis is based on historical carbon emissions, as forward looking equitable carbon emission pathways are currently being developed by the ASCOR project.

Chart 16: Trade off between portfolio value and lower historical portfolio carbon exposure



Source: FTSE World Government Bond Index, EDGAR Database and Colchester Global Investors, as of September 2022

Dotted lines: Show an example of the Portfolio Value (%) for a portfolio with historical carbon exposure of 10% below the Benchmark's carbon exposure

More broadly the framework allows us to potentially improve the characteristics of the actual portfolio versus the sovereign benchmark on various measures. For example, such as historical carbon emissions, governance, social indicators, modern slavery, etc.

5. Evolving Global Climate-Related Regulations

Globally, regulators and lawmakers are placing increased focus on regulations relating to sustainability with the overall aim of reconciling economic performance with a positive social and environmental impact. Colchester is committed to keeping abreast of these developing regulations and ensuring ongoing compliance. This section provides a snapshot of the key regulations impacting Colchester and its global offices.

Colchester has implemented the regulatory disclosures which were brought in by the EU's Sustainable Finance Disclosures Regulation (SFDR) on 10 March 2021. SFDR has ensured sustainability-related disclosures are implemented across the EU and beyond by financial market participants, thus leading to greater transparency for investors and ultimately more ESG focus across the asset management industry. The Level 2 SFDR Regulatory Technical Standards, which specifies the content, methodology and presentation of the SFDR disclosures, will come into force on 1 January 2023. Also in Europe, we have seen the introduction of the Taxonomy Regulation, which expands on these disclosures and establishes a common language to identify whether or not an economic activity should be considered "environmentally sustainable". Additionally, the EU Delegated Acts amending the UCITS Directive, AIFMD and MiFID II were introduced in August 2022 and necessitated the integration of sustainability factors, risks and preferences into certain organisational requirements and operating conditions of investment firms.

Outside of the Eurozone, mandatory ESG disclosures, reporting requirements and the integration of sustainability risks have been brought in by a number of jurisdictions. In Singapore, the Monetary Authority of Singapore's (MAS) "Guidelines on Environmental Risk Management (Asset Managers)" came into force in June 2022. The MAS Guidelines are intended to drive the transition to a green economy through integrating environmental risk considerations in investment decisions. As with TCFD and other regulations, much of the focus of the Guidelines is to ensure proper governance over climate-related issues, and on making adequate disclosures to investors. Colchester Singapore holds a capital markets services licence and as such the MAS Guidelines have been adopted.

In Australia, the Australian Prudential Regulation Authority (APRA) released its prudential practice guide on climate change financial risks, which is designed to assist APRA-regulated entities in managing climate-related risks and opportunities. Such recommendations are aligned with the TCFD, and cover sound practice for governance, risk management, scenario analysis and disclosure for such regulated entities. In New Zealand, the government has passed legislation making climate-related disclosures mandatory for some financial organisations. The goal of these disclosures is to ensure that the effects of climate change are routinely considered in business and investment (amongst others) decisions, to help entities better demonstrate their responsibilities and lead to more efficient allocation of capital, and help smooth the transition to a more sustainable, low emissions economy. Mandatory climate-related disclosures will help New Zealand achieve its target of net zero carbon by 2050. Whilst Colchester is not regulated in New Zealand, we are working with New Zealand based clients to help with their climate-related obligations.

In the UK, the Financial Conduct authority (FCA) published two Policy Statements confirming its final rules and guidance to promote better climate-related financial disclosures, which are aligned with the TCFD. FCA-regulated asset managers will have to disclose how they take climate-related risks and opportunities into account in managing investments; and make disclosures about the climate-related attributes of their products. Asset managers will have a phased implementation, with the rules coming into effect from January 2023 for Colchester, and other similarly sized asset managers. The aim of the UK government is to implement these mandatory TCFD-aligned obligations across the UK economy by 2025. Additionally, in October 2022, the FCA published a consultation paper on 'Sustainability Disclosure Requirements and investment labels' which proposes a product classification, labelling and disclosure regime which has similar aims to the EU's SFDR, with the final rules expected by end-June 2023.

The UAE's leading financial authorities, including the Dubai Financial Services Authority (DFSA), have published the country's first set of 'Guiding Principles on Sustainable Finance' which is intended to serve as a catalyst for the implementation of the UAE's sustainability priorities. The Guiding Principles, which remain voluntary at the moment, include the integration of ESG factors into governance, strategy and risk management, as well as ESG-related reporting and disclosure requirements.

The US Securities and Exchange Commission (SEC) proposed new rules in May 2022 seeking to enhance and standardise disclosures related to ESG factors considered by funds and advisers, and to expand the regulation of naming funds with an ESG focus. The proposed new rules would require certain disclosures to be made in fund prospectuses, annual reports and adviser brochures for funds with ESG claims. Much like the other regulatory developments discussed here, the aim of these proposed enhanced disclosures is to prevent green washing.

As is clear from the developing regulations globally, climate risk is an increasingly important and vital aspect of a financial market participant's operations. The changing regulatory landscape is a push for the finance industry to have a more sustainable focus, and Colchester is committed to meeting these standards.

6. Our Approach to Corporate Social Responsibility (CSR)

Colchester is committed to investing and operating responsibly. As a growing company we aim to manage the business with minimum wastage of resources. Colchester monitors its global operational sustainability and has introduced initiatives and taken measures across its offices to do what it can to reduce our use of energy, water and paper across all our offices to protect the environment and improve sustainability.

Colchester published our annual CSR report in May 2022. The report discusses the nine elements of Colchester's approach to Corporate Social Responsibility encompassing: ESG-Integrated Investment Process; Signatory, Affiliation and Collaboration; Sovereign Engagement; Client Service and Engagement; Stewardship and Corporate Governance; Operational Resilience and Sustainability; Diversity and Inclusion; Employee Engagement and Society.

Having a varied and diverse workforce is crucial for our business, our employees and our clients, and helps to drive innovation, creativity and empathy across the organisation. Colchester is built on our core values which form the foundations of our culture and underpin everything we do. Our policies are designed to promote our values and protect our employees. We pride ourselves on having a culture where differences are not only respected but welcomed. We believe that every one of our employees, clients and stakeholders bring something different to the table and those differences are to be valued. Only by recognising those differences can we attract the best people, develop and use their talents and create a great place to work.

We actively promote integrity, trust and humility, all of which form part of our core values. We understand that being good at what we do takes collaboration, teamwork and respect for each other and we work hard to embed this into our inclusion efforts. All employees complete annual online discrimination and harassment, diversity and inclusion and unconscious bias training to provide the language, tools and resources to enable our employees to recognise unconscious bias, appreciate and value cultural differences and create allyship. We are committed to growing and nurturing diversity within Colchester creating an inclusive environment, where our workforce is truly representative of all sections of society and our employees feel respected and confident to bring their whole selves to work each day.

Achieving gender diversity has always been a priority for Colchester and we are proud of our gender balance across all levels of the organisation with 44% of all employees, 40% of our Board and 40% of our Senior Management Team identifying as female[10]. Over the last year, we have placed additional emphasis on our early careers programmes, working with organisations such as #10,000 Black Interns to encourage those from more diverse backgrounds to join Colchester and consider a career in the Investment Management industry. Although our diversity and inclusion efforts have led to some success, we know there is a lot more work to do. We are working on developing additional metrics to enable us to track diversity, identify changes in appropriate and encourage broader representation across the organisation.

Acting as a responsible corporate citizen is important to Colchester. We offer all employees globally the benefit of volunteer time off to allow them to contribute their ideas, time and expertise to community activities that are important to them and make a meaningful difference to the communities they are part of.

London and Dublin Macmillan Coffee Morning. Both offices raised respectable amounts of £593 and EUR 400 respectively.

[10] As of 1/12/2022. Survey includes only employees who have given permission for this information to be shared.

Our New York office supported the Food Bank

In 2021, we partnered with the CFA Institute and became a sponsor to their Young Women in Investment Programme in Qatar. The training programme provides young women, who may not have previously considered a career in investment management, a route of entry into our industry. In addition to our participation in this programme, we also have our own 8-week summer internship and mentoring programme which provides undergraduate students exposure to Colchester and the financial services industry. In addition, we offer a formal 18-month rotational intern program for recent graduates.

We place a strong emphasis on professional development across all levels of the organisation and offer all staff financial assistance and study leave to support professional qualifications. From April 2021 to April 2022 Colchester supported 53% of all employees with their personal professional development.

7. Contributors and TCFD Advisory Committee

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8) Risk Disclosures

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- Information concerning the calculation of statistics used for portfolio characteristics is available upon request. Various industry standards, indices and industry performance comparative data are provided in this document and are detailed where appropriate. These include indices from FTSE, Bloomberg, MSCI, JP Morgan and ICE. Data is sourced additionally from Bloomberg and Datastream.
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