Invesco

ENVIRONMENTAL RISK MANAGEMENT POLICY

APPLICABLE TO	Mutual funds / unit trusts managed by with Invesco Hong Kong Limited ("**IHKL**") with discretionary authority and mutual funds / unit trust and mandates managed by Invesco Asset Management Singapore Limited ("**IAMSL**") with discretionary authority and/or passive strategy (Collectively "**Applicable Accounts**")
DEPARTMENTS IMPACTED	Investment Teams in HK, Singapore and other jurisdiction who manage or advise the applicable funds and mandates under IHKL / IAMSL, Asia Pacific Investment Risk Team, Global Investment Risk Team (including, but not limited to, Risk Measurement Team), AP ESG Team, Compliance
RISK ADDRESSED BY POLICY	This policy addresses the environmental risk that include climate change, loss of biodiversity, pollution and changes in land use. Environmental risk may represent physical risks which stem from the impact of weather events and long-term or widespread environmental changes and transitional risks associated with the transition to a low-carbon economy.
RELEVANT LAW & RELATED RESOURCES	• Fund Manager Code of Conduct and corresponding circular issued by the Securities and Futures Commission in Hong Kong • Guidelines on Environmental Risk Management issued by the Monetary Authority of Singapore ("MAS")
APPROVED BY	• Greater China Risk Management Committee ("GCRMC"): Apr 2024
EFFECTIVE DATE	April 2024

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1. Environmental risk management governance structure

This policy addresses the environmental risk that include climate change, loss of biodiversity, pollution and changes in land use. Environmental risk may represent physical risk which stem from the impact of weather events and long-term or widespread environmental changes and transitional risk associated with the transition to a low-carbon economy.

a. Physical risk stems from the direct impact of extreme weather events and progressive, longer-term shifts in the environmental pattern. For instance, rising frequency and severity of extreme weather events could impair the value of assets held by companies or indirectly impact supply chains, thus affecting companies' operations and profitability, and potentially their viability.

b. Transitional risk arises from the process of adjustment to an environmentally sustainable economy, including changes in public policies, disruptive technological developments, and shifts in consumer and investor preferences. For instance, the transition to a low-carbon economy can impair the profitability of companies in carbon-intensive businesses. Punitive actions taken against companies that pollute the environment (e.g., revocation of operational permits for companies involved in open burning practices) could have a material impact on the valuation of companies in these sectors and result in stranded assets.

Due to the varying regulatory requirements for this topic by the respective Hong Kong and Singapore Regulators, Invesco has adopted a master risk oversight approach which is applied to the Applicable Accounts. For the avoidance of doubt, the IHKL's managed mutual funds / unit trusts will be adhered towards the relevant Securities & Futures Commission of Hong Kong ("HKSFC") requirements which focus on the climate-related risks. Similarly, the IAMSL managed mutual funds/mandates will be adhered towards the relevant Monetary Authority of Singapore ("MAS") requirements which stipulate a broader scope of environmental risk.

The Board of IHKL and IAMSL (the "Board") maintains the overall oversight responsibility of environmental risk issues for the purpose of setting the direction from the top. The Board is responsible:

a. approving the environmental risk management framework and policies to assess and manage the environmental risk of the assets managed

b. setting clear roles and responsibilities of the Board and senior management, including personnel and functions responsible for oversight of environmental risk of the assets managed

c. ensuring that directors have adequate understanding of environmental risk, and senior management is equipped with appropriate expertise for managing environmental risk

The Board delegates the environmental risk management oversight responsibility to the Greater China Risk Management Committee ("GCRMC") covering both IHKL and IAMSL, which is required to supervise and monitor the integration of environmental-related considerations into the investment and risk management processes. The delegated Committee is responsible for:

a. ensuring the development and implementation of an environmental risk management framework and policies, as well as tools and metrics to monitor exposures to the risk, including integration of environmental risk considerations in its investment research, portfolio construction, risk management and stewardship practices across different asset classes and investment strategies

b. regularly reviewing the effectiveness of the framework, policies, tools and metrics and making appropriate revisions

c. establishing an internal escalation process for managing environmental risk, and that appropriate and timely actions are taken to address the risk

d. allocating adequate resources with appropriate expertise to manage the environmental risk of the assets managed

e. updating the Board on material environmental risk issues in a timely manner

Invesco has put the three lines of defense model in place to oversee environmental risk. Business line should take environmental risk into consideration when establishing and managing funds, particularly if they invest in sectors with higher environmental risk. The Risk Management Function would monitor the business line's implementation of environmental risk management policy, including challenging practices and decisions where appropriate, while Compliance will ascertain the established policies and procedures adherence to applicable rules and regulations. The Internal Audit Function will consider as part of its independent review, the robustness of the asset manager's risk management framework in managing environmental risks.

Asia Pacific Investment Risk Team and Global Investment Risk Team ("Risk Team") work together to integrate environmental risk into the investment risk oversight process through assessing, monitoring and escalating material and relevant environmental related risks to the fund managers, senior leaders of investment function, the Greater China Risk Management Committee (or such other appropriate internal committee as may be designated from time to time) and the Board on a regular basis. The material and relevant environmental related risks will be discussed in the portfolio review meeting facilitated by Risk Team with the key participants including senior leaders of investment team and fund managers.

The AP ESG Team works with various departments to ensure proper environmental risk disclosure is met on both entity and fund level according to the requirements stipulated by the regulator and internal policy. The disclosure includes both the entity level environmental risk management policy and fund level environmental risk metrics. If a fund deviates from the environmental risk management policy, it shall be subject to the regular assessment with rationale being disclosed.

On at least an annual basis, or as and when required, the Risk Team reviews the Environmental Risk Management Policy to determine whether the policy in place is still adequate and updates it if needed. The Environmental Risk Management Policy is then presented to the Greater China Risk Management Committee ("GCRMC") for approvals.

2. Investment management process

Investment teams are required to properly manage environmental risk according to the investment objective and the environmental risk management policy. Due to the rapidly evolving nature of environmental-related risk management methodologies, it is difficult to provide a single set of practice which is universally applicable across the investment teams. Therefore, each investment team is required to integrate the environmental risk into their investment process by properly identifying material and relevant environmental related risk, such as physical and transitional risks, for each investment strategy and fund they manage, factoring the material environmental related risks into the investment management process and taking reasonable steps to assess the impact of these risks on the performance of underlying investments. Investment teams shall apply their professional expertise to define what is deemed as material and relevant from an environmental risk perspective.

In considering the materiality of environmental risk with respect to the different asset classes, asset managers can take reference to international best practice. For instance, fund manager should consider environmental related risk including but not limited to the level of Greenhouse Gas (“GHG”) emissions, vulnerability to extreme weather events, and linkages to unsustainable energy practices, deforestation and pollution. For portfolio construction, fund manager should consider measurement and management of the various environmental risk metrics that are present in a portfolio on an aggregate basis, when it is material. For example, fund manager can monitor the total GHG emissions of a portfolio against the benchmark.

Should there be developments that could materially affect the operations and financials of an investee company, fund manager should re-assess the risk and return profile of the investment or portfolio. It allows the fund manager to make an informed decision on whether to continue with the investment, make adjustments to the composition of the portfolio, or put in place other mitigating measures to better manage the environmental risk in the investment or portfolio.

Fund manager should consider environmental scenario analysis results of portfolios for risk management purposes. The analysis includes an assessment of physical and transitional risks across a range of climate-related scenarios, including increases in global temperature, and whether the transition to a low-carbon economy occurs in an orderly or disorderly fashion. For example, on physical risk, an asset manager could assess the impact on revenue and profitability of investee companies that are more exposed to sea level rise (such as companies owning seafront properties) or extreme weather events (such as agricultural companies). On transitional risk, asset managers could assess the level of sensitivity of an investee company’s cost of doing business to higher carbon price.

Engagement with company management and proxy voting play a fundamental role in our efforts to help manage, bolster, and enhance the value of Invesco’s clients’ investments. The proxy voting process at Invesco, focuses on protecting clients’ rights and promoting governance structures and practices that reinforce the accountability of corporate management and boards of directors to shareholders. Voting decision lies with our portfolio managers and analysts with input and support from our Global ESG team and Proxy Operations functions. Invesco’s approach to engagement is investment team-led, which is defined as where investment teams participate in dialogue with issuers. As active owners and good stewards, Invesco considers engagement with issuers as a powerful and effective tool to promote long-term value creation, for the benefit of our clients. For issuers that have financially material ESG risks including environmental and climate-related risks that may be material for fixed income security valuations or impact significantly on an issuer ability to meet its debt obligation, engagements may include dialogue on these matters taking into account relationship with the investee company and the investee company's willingness and ability to improve its environmental risk profile, as well as the availability of alternative options to effectively mitigate the investment's exposure to environmental risk. Momentum trend for each's issuer ESG grade is also assessed relative to sector pace for each issuer.

3. Environmental risk management framework

Risk Team has implemented an environmental risk management framework that entails the following key aspects. Risk Team is responsible for:

a. evaluating the material and relevant environmental related risk against benchmark (when there is an official benchmark or applicable proxy benchmark) for the investment strategy managed. Risk Team looks at multiple environmental risk metrics to assess the risks from a holistic perspective taking into consideration the availability of the data and international best practice.

b. monitoring the environmental risk metrics of the portfolio against benchmark on a regular basis. If there are any material and relevant environmental related risks, Risk Team will report to the fund managers for their consideration. Further, the risks will be discussed in the portfolio review meeting, facilitated by Risk Team, with participants including the senior leaders of investment team and the fund managers.

c. using third-party data providers, such as ISS for carbon footprint data and Planetrics for temperature alignment and scenario analysis data on each security/issuer. Also, Invesco has implemented a proprietary ESG platform called ESGintel covering both equity and fixed income universe that assigns environmental, social and governance risk rating on individual security/issuer. Risk Team uses a bottom-up approach to compute the overall environmental score of portfolio/benchmark by using the individual security's environmental risk rating from ESGintel.

d. conducting scenario analysis for portfolios and benchmarks on a regular basis based on the third-party data provider. Risk Team selects six scenarios following the recommendation of The Network of Central Banks and Supervisors for Greening the Financial System ("NGFS") and simulates portfolio's physical, transitional and combined impact to the environmental risks under different pathways.

e. where it is assessed that environmental risks are irrelevant to certain types of investment strategies or funds under management, maintaining appropriate records to explain why environmental risks are irrelevant in those cases.

A. Risk monitoring

After defining a set of environmental risk metrics, Risk Team uses Invesco's internal risks system, i.e., Multi Analytics Platform ("MAP"), to compare the selected metrics of a portfolio against its benchmark on a monthly basis.

For the portfolios without an official benchmark, Risk Team would try to assign a proxy benchmark (if applicable) to the portfolio for comparison. If a certain metric of a portfolio performs worser than the benchmark, MAP will automatically send an email to summarize the metric to the fund manager for their reference and consideration. While no immediate action is mandated, it is important for fund managers to remain mindful of the potential increased risk due to change in external risk factors.

Risk Team monitors the scenario analysis results of the portfolios and benchmarks on a monthly basis. If the impact to the portfolio is worse than the benchmark by 10% under either the NDCs or Net Zero 2050 scenarios, the portfolio is considered to be having material environmental risks. The material risk incident will be reported to the next GCRMC meeting and will be discussed during the regular portfolio review.

B. Portfolio review

The environmental risk report is included as part of the portfolio review materials to be circulated before the regular portfolio review meeting which is a forum for discussion of investment and performance related issues including the environmental risk and ESG issues. During the review meeting, both Risk Team and/or ESG specialist will highlight the material and relevant environmental risk within the portfolio. Fund manager should take reasonable steps to assess the impact of the risks on the performance of underlying investments and determine if remediation is required.

4. Environmental risk oversight report

For the environmental risk assessment, Invesco adopts several metrics to assess and monitor the environmental risk of the portfolio against the benchmark (if applicable). These metrics include:

a. Carbon footprint
b. Temperature alignment
c. Environment risk rating
d. Scenario analysis

Risk Team produces the customized environmental risk report by using the internal Multi-Analytics Platform "MAP" which is hosted in HK. The report is made available to various internal users including the Investment Team, Product Team, ESG Team and Sales Team via MAP. Thresholds on environmental risk exposures are set in the MAP for regular monitoring and reporting. If the threshold is exceeded, MAP will send email to notify the fund manager. The different environmental risk metrics will be discussed in the following sections.

A. Carbon footprint

Risk Team calculates the portfolio and benchmark level carbon footprint on a regular basis according to the regulatory requirement. The formula of the carbon footprint is shown as below.

$$\sum_{i}^{N} \frac{\left(\frac{\textit{Current value of investment}_i}{\textit{Investee company's enterprise value}_i} \text{ x } \textit{Investee company's Scope 1, 2 and 3 Greenhouse gas emissions}_i\right)}{\text{Current Portfolio Value (\$ million)}}$$

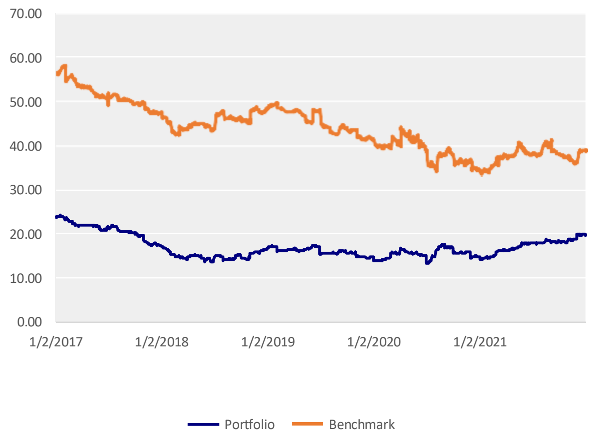
Scope 1, 2 and 3 greenhouse gas emission data from ISS is presented in the report. The current portfolio and benchmark level carbon footprint is calculated against their historical range for comparison. The report also includes the top 5 contributors to the carbon footprint of the portfolio for the fund manager to consider.

(3) Carbon Footprints

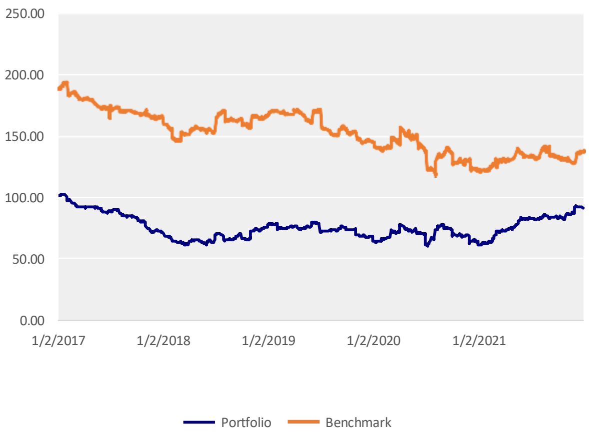
Emissions

	Portfolio	Benchmark	Relative
Scope 1 Emissions	7.82	25.31	-17.49
Scope 2 Emissions	11.97	13.59	-1.61
Scope 3 Emissions	71.94	97.83	-25.90
Scope 1+2 Emissions	19.79	38.90	-19.10
Scope 1+2+3 Emissions	91.73	136.73	-45.00
Carbon Intensity			
Covered % of AUM	99.74%		

5-Year Historical Scope 1+2 Emissions



5-Year Historical Scope 1+2+3 Emissions



Top 5 Carbon Emissions Contributors

No.	Sedol	Name	MSCI Sector	Port %	Bmk %	Active	Scope 1	Scope 2	Scope 1+2	Scope 3	Scope 1+2+3
1		Company A	Consumer Disc	2.30	0.52	1.78	1.5	1.7	3.2	17.7	20.9
2		Company B	Consumer Disc	2.47	0.14	2.32	0.6	2.2	2.8	15.7	18.6
3		Company C	Industrials	3.18	0.99	2.19	2.1	0.7	2.8	7.5	10.3
4		Company D	Materials	2.71	0.20	2.51	1.3	1.5	2.8	3.8	6.6
5		Company E	Industrials	4.41	1.10	3.32	0.8	1.5	2.2	6.0	8.2

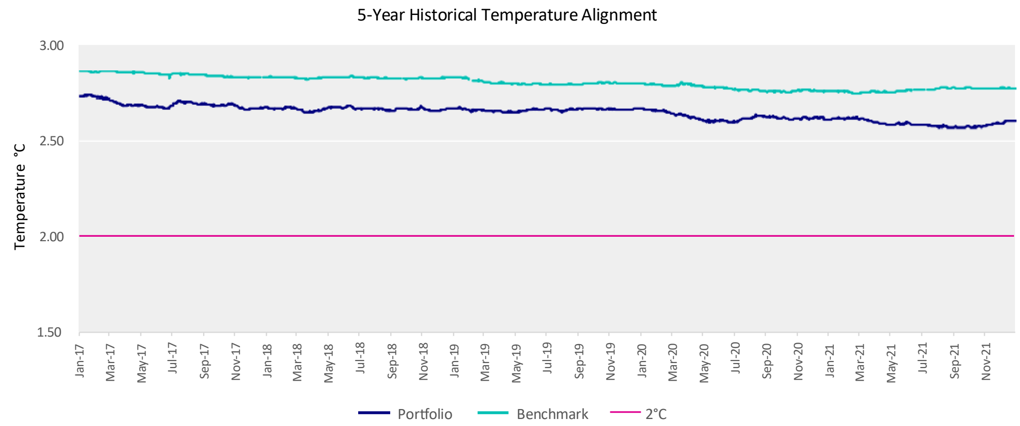
B. Temperature alignment

The temperature alignment is a forward-looking metric that attempts to convey the future trajectory of greenhouse gas emissions of a given entity or portfolio in terms of its estimated global temperature rise from pre-industrial levels. The report also shows the trend of temperature alignment of the portfolio against the benchmark level over the past 5 years for comparison. The temperature alignment is calculated from a bottom-up approach taking into consideration the security weight (excluding uncovered assets and rebase to 100%). The report also compares the percentage of the time the portfolio's temperature alignment is above/below the benchmark over the past 5 years. It helps the fund manager to understand the trend of temperate alignment of the portfolio against the benchmark, and assess if there is any material and relevant environmental related risk.

The report includes the percentage of the AUM of the portfolio and benchmark with temperature alignment below 2°C and the top 10 contributors to the temperature alignment in the portfolio.

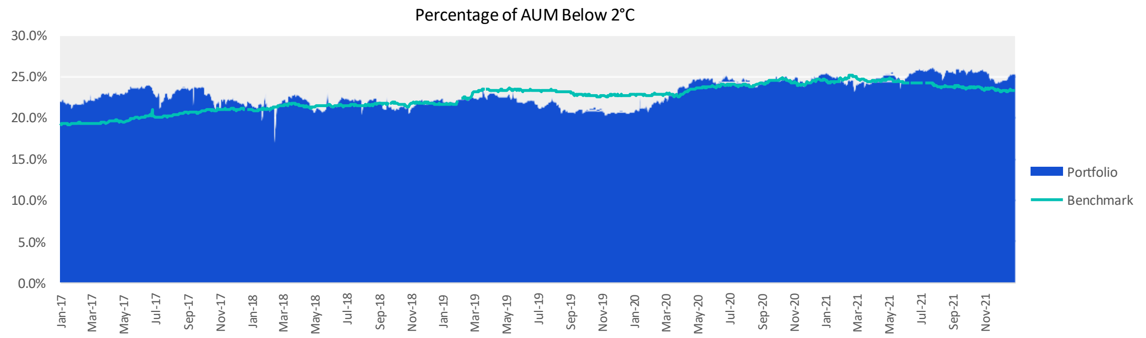
(2) Temperature Alignment

Historical Temperature Alignment



Current Temperature °C	
Portfolio	2.60
Benchmark	2.77

% of Time Above/Below Bmk	
Below Bmk	100%
Above Bmk	0%



Top 10 Temperature Contributors

No.	Sedol	Name	MSCI Sector	Port %	Bmk %	Active	P Adj%	B Adj%	°C	%Contrib to temp
1		Company A	Industrials	4.41	1.10	3.32	4.43	1.10	3.71	6.31
2		Company B	Financials	4.13	0.52	3.62	4.15	0.52	3.21	5.12
3		Company C	Consumer Discretionar	4.22	0.13	4.09	4.23	0.13	2.72	4.42
4		Company D	Materials	2.71	0.20	2.51	2.72	0.20	3.68	3.85
5		Company E	Consumer Discretionar	2.56	3.91	-1.35	2.57	3.92	3.52	3.47
6		Company F	Industrials	3.62	1.22	2.40	3.63	1.22	2.42	3.37
7		Company G	Consumer Discretionar	2.47	0.14	2.32	2.47	0.14	3.53	3.35
8		Company H	Information Technolog	3.08	0.65	2.43	3.09	0.65	2.70	3.20
9		Company I	Financials	3.36	0.29	3.08	3.37	0.29	2.38	3.09
10		Company J	Communication Servic	2.54	0.08	2.46	2.55	0.08	3.13	3.06
		Top 10 Total		**33.12**	**8.24**	**24.88**	**33.21**	**8.25**		**39.25**

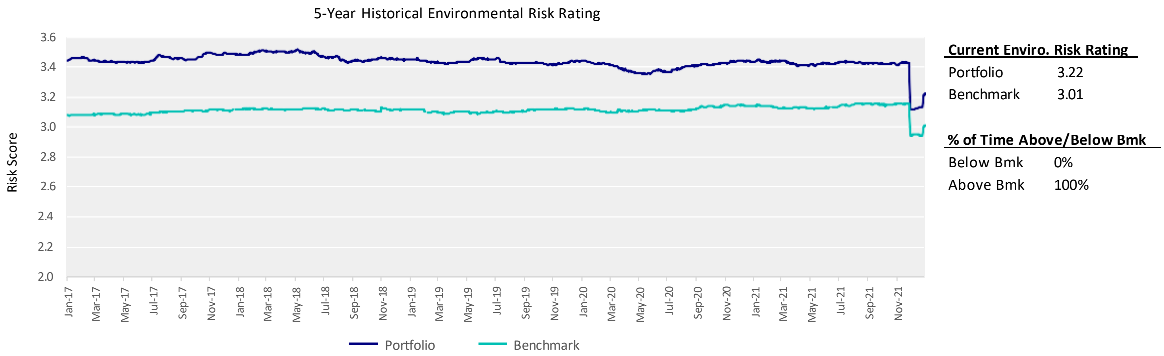
C. Environment risk rating

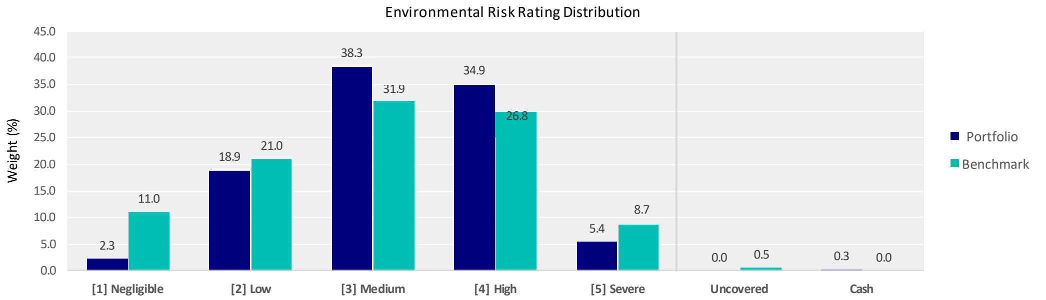
The report shows the environmental score from the ESGintel (Invesco internal proprietary ESG platform). The environmental risk rating has five-scale points, which are:

- Negligible (Score 1)
- Low (Score 2)
- Medium (Score 3)
- High (Score 4)
- Severe (Score 5)

(1) Environmental Risk Score (Lower the better)

Historical Environmental Risk Score





Top 1(Environm ental Risk Score

No.	Sedol	Name	MSCI Sector	Port %	Bmk %	Active	P Adj%	B Adj%	Rating	%Contrib to total score
1		Company A	Consumer Discretionar	1.88	0.03	1.85	1.89	0.03	5	2.9
2		Company B	Consumer Discretionar	1.31	0.02	1.28	1.31	0.02	5	2.0
3		Company C	Industrials	1.30	0.01	1.29	1.30	0.01	5	2.0
4		Company D	Health Care	0.89	0.50	0.39	0.89	0.51	5	1.4
5		Company E	Industrials	4.41	1.10	3.32	4.43	1.11	4	5.5
6		Company F	Financials	4.13	0.52	3.62	4.15	0.52	4	5.1
7		Company G	Industrials	3.62	1.22	2.40	3.63	1.23	4	4.5
8		Company H	Information Technolog	3.08	0.65	2.43	3.09	0.65	4	3.8
9		Company I	Consumer Discretionar	2.67	0.04	2.63	2.68	0.04	4	3.3
10		Company J	Communication Servic	2.54	0.08	2.46	2.55	0.08	4	3.2
		Top 10 Total		**25.84**	**4.18**	**21.67**	**25.91**	**4.20**		**33.83**

The environmental risk rating is calculated from a bottom-up approach based on the security weight (excluding uncovered assets and rebase to 100%). The lower the environment risk rating, the better it is. Risk Team calculates the 5-year historical environment risk rating for the portfolio and benchmark (if applicable) based on the historical holdings to see how the trend evolves over time.

Further, the report shows the distribution of the assets under different environmental risk rating against the benchmark to assess if the portfolio has any high exposures to the high or severe categories as well as the top 10 contributors to the portfolio environmental risk rating. It helps fund manager to understand the overall risk profile against the benchmark and assess the environmental risk for those stocks with high environmental risk rating.

D. Scenario analysis

The report compares the scenario analysis results of the portfolio against the benchmark. The scenario analysis helps fund manager to understand the resilience of the investment strategy to the environmental risk under different pathways based on the portfolio holdings. The six scenarios recommended by NGFS is chosen for the portfolios scenario analysis as shown in the table below.

#	Scenario	Description
1	Net Zero 2050	Global CO2 emissions are at net-zero in 2050.
2	Divergent Net Zero	Optimal carbon prices in line with long-term targets are implemented after 2020 to bring the median temperature below 1.5°C in 2100.
3	Below 2°C	Optimal carbon prices in line with long-term targets are implemented after 2020 and keeps 67-percentile of warming <2°C throughout the 21st century.
4	Delayed Transition	The next 10 years see a "fossil recovery" and thus follow the trajectory of the current policies scenario until 2030.
5	NDCs ("National Defined Commitment")	Currently pledged unconditional NDCs are implemented fully, and respective targets on energy and emissions in 2025 and 2030 are reached in all countries.
6	Hot House World	Existing environmental policies remain in place, and there is no strengthening of ambition level of these policies.

The scenario analysis simulates the impact of environmental related physical, transitional risk and the combination of both risks on the portfolio against the benchmark, from a bottom-up approach based on the security weight (excluding uncovered assets and rebase to 100%) under different environmental pathways. Also, the environmental risk report highlights the top 5 valuation detractors in the portfolio.

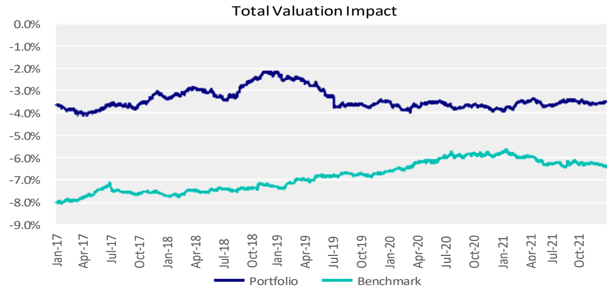
(4) Scenario Analysis

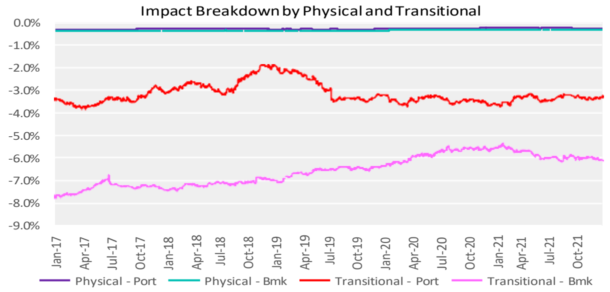
Net Zero 2050 - Global CO2 emissions are at net-zero in 2050

	Physical	Transitional	Combined	Covered %
Impact on Portfolio	-0.25%	-3.30%	-3.54%	99.7%
Impact on Benchmark	-0.32%	-6.17%	-6.42%	100.0%
Relative Valuation Impact	0.07%	2.87%	2.89%	

Physical risk: The direct shocks due to climate change come in the form of both chronic and acute hazards.

Transitional risk: The primary direct shock to assets from transition risk is carbon pricing.





Top 5 Valuation Impact Contributors

No.	Sedol	Name	MSCI Sector	Port %	Bmk %	Active	P Adj%	B Adj%	Total Impact	%Contrib to total impact
1		Company A	Consumer Discretionar	2.56	3.91	-1.35	2.57	3.92	-39.7%	15.34
2		Company B	Consumer Discretionar	2.11	0.37	1.74	2.12	0.37	-45.5%	14.48
3		Company C	Materials	1.67	0.20	1.47	1.67	0.20	-30.0%	7.54
4		Company D	Industrials	2.28	1.29	1.00	2.29	1.29	-20.0%	6.89
5		Company E	Industrials	3.18	0.99	2.19	3.19	0.99	-13.2%	6.32
		Top 5 Total								50.58

Revision History:

- Jun 2022 – Initial Adoption of policy
- Apr 2024 – Update the ESG engagement description, the yellow limit definition, and description on risk monitoring and portfolio review. Add the definition of material environmental risks, the clause of "Reviewing the policy at least on an annual basis and present to Greater China Risk Management Committee ("GCRMC") for approval" and the GCRMC Membership in Annex 1.

Annex 1

Greater China Risk Management Committee Membership

The Committee shall consist of the following members (with the membership being subject to change from time to time at the direction of the Senior Managing Director and Head of Asia Pacific):

Chief Executive Officer, GC, SEA & Kor
Chief Administrative Officer, GC, SEA & Kor
General Manager, Taiwan
Director, Product Line Management
Chief Investment Officer, Asia ex Japan
Investment Director, Investment Management, HK & China
Head of HK Pensions & Solutions Strategist
Head of Asia Pacific - IFI
Director, Head of Trading, AP
Head of Client Relations, Institutional Sales
Director, Head of Intermediary Sales, HK
Director, Regional Head of IRM & Quant Rese
Head of Marketing, Asia ex-Japan & Communications
Director, Global Distribution Services, Asia Pacific
Director of Portfolio Services, Asia Pacific
Head of Finance, Greater China
Head of Human Resources, Greater China
Senior Manager, Infra CX and/or Senior Manager, Eng AP
Head of Legal, Greater China
Head of Compliance, Hong Kong & Singapore
Head of Fund Services, HK, CHN & SEA
Sr Operational Risk Officer, AP
Internal Audit Director
Head, Security & Resilience, AP and/or Officer, Business Security AP

The Chief Executive Officer, GC, SEA & Kor shall be the Chairman. Director, Regional Head of IRM & Quant Rese will be the Vice-Chairman.

The Secretary shall be appointed from time to time by the Committee.

Committee members may appoint alternates to attend meetings on their behalf.