

Environmental Risk Management Framework

1. Objective

Climate-related risks pose a potential threat to the long-term resilience of investment portfolios and has become a critical part of investment firms' risk management practices. In addition, the Monetary Authority of Singapore (MAS) has laid out guidelines that aim to enhance the resilience of funds and segregated mandates managed by Asset Managers, by setting out sound environmental risk management practices that Asset Managers are encouraged to adopt. Sundaram Asset Management Singapore (SAMS) recognizes that relevant and material environmental issues can meaningfully affect investment performance, and these factors will need to be critical components of its research analysis, decision-making, and ongoing monitoring. In this context, SAMS has drafted the Environmental Risk Management (ERM) Framework to understand the impact of climate-related and environmental risks for its funds/mandates.

2. Governance

Environmental factors drive new investment opportunities and are a material contributor to both risk mitigation and long-term investment returns. The Board of Directors of SAMS will put in place the ERM Framework and exercise oversight over practices implemented. The Board will be informed about climate-related issues in the portfolios, if any, on a semi-annual basis via circulation. The day to day responsibility for ongoing risk management will lie with the CIO and the investment team.

ERM framework would apply for all funds/mandates managed by SAMS that have listed securities as its underlying securities. Application and analysis of the funds/mandates will take place on a 6 monthly basis at the very least. Due to implementation constraints at this point of time, ERM framework would not be applicable for Fund of Funds (FoFs) managed by SAMS. Over time SAMS will work on covering the FoFs too under this framework.

This Framework is an evolving document that will be reviewed and updated annually as appropriate to reflect SAMS' experience, strategy and developing capabilities in this regard.

3. Strategy

Due to its current scale of operations, SAMS recognizes that it is at the moment not in a position to fully incorporate the ERM framework into its research and portfolio construction process. Additionally, the research process of the parent, Sundaram India, on which SAMS relies heavily for its portfolio construction, currently does not fully incorporate environmental and climate-related risks into its research process. As a result, SAMS has decided to use a third party data provider to track the environmental risks of its portfolios.

After a careful analysis of the available third party data providers for such a program, SAMS has identified MSCI as the preferred vendor to analyse the Climate Risks for its portfolios.

SAMS recognizes that use of a third party data provider for inputs has its risks, most specifically relating to their methodology and interpretation. Hence for key holdings where SAMS has a significant difference of view from the rating/metrics generated by the third party provider, SAMS will try and use either its own research or the research of Sundaram India to generate its own ratings.

The Climate Risk Report tool subscribed by SAMS from MSCI would be used for its portfolios that have listed equity securities as its underlying. The tool provides Carbon Footprint Metrics, Weighted Average Carbon Intensity, Low Carbon Transition Risk and Revenue exposure between Fossil Fuels and Green Energy which would be tracked by SAMS for the respective portfolios. In addition, the Energy and Power sector exposure within the portfolio is also assessed specifically as these sectors are key to environmental risk management in the long term.

The MSCI tool will specifically cover the following:

(i) **Carbon Footprint metrics:** The two metrics tracked under this parameter are:

(a) Carbon emissions measures the Scope 1 + 2 carbon emissions per \$million invested, apportioned by ownership (% market capitalization). Scope 1 covers direct emissions from owned or controlled sources. Scope 2 covers indirect emissions from the generation of purchased electricity, steam, heating and cooling consumed by the reporting company.

(b) Carbon intensity measures the carbon efficiency of a portfolio, defined as the total carbon emissions of the portfolio normalized per \$million of portfolio sales.

(ii) **Weighted Average Carbon Intensity** measures a portfolio's exposure to carbon-intensive companies and is computed as the sum product of the portfolio companies' carbon intensities (normalized over sales) and portfolio weights.

(iii) **Low Carbon Transition Risk:** The Intergovernmental Panel on Climate Change (IPCC) Special Report on Global Warming of 1.5°C published in October 2018 re-iterated that achieving the Paris agreement target of 1.5°C warming level would require rapid, far-reaching and unprecedented transitions in all aspects of society. The "Low Carbon Transition" refers to the necessary transition of the global economy from carbon intensive operations and energy sources to zero or low carbon operations and energy sources. MSCI Low Carbon Transition Categories classify companies in four categories that highlight the predominant risks and opportunities they are most likely to face in the transition to a low carbon economy. The categories are Solutions, Operation Transition, Product Transition and Asset Standing.

(iv) **Revenue exposure between Fossil Fuels and Green Energy:** Fossil fuel-based revenue is the weighted average of revenue exposure to thermal coal extraction, unconventional and conventional Oil & Gas extraction, Oil & Gas refining as well as revenue from thermal coal power generation. Green revenue is the weighted average of revenue exposure to alternative energy, energy efficiency, green building, pollution prevention, sustainable water and sustainable agriculture.

(v) **Exposure to Energy and Power sector:** The Paris Agreement calls for coordinated efforts ensuring global temperature rise as a result of GHG emissions is limited to 1.5°C or below. Hence these two sectors are assessed in detail to understand how the portfolio is positioned towards this goal.

4. Portfolio Risk Management

(i) Ongoing monitoring

Through the Climate Risk Report tool, SAMS' portfolios would be compared against their respective Reference Benchmarks on at least a six monthly basis. SAMS would aim to perform better than the Reference Benchmark in the metrics tracked for climate risk. The tool would also aid SAMS in tracking the exposure to companies with proactive carbon risk mitigation initiatives. Companies have a variety of strategies to reduce emissions, including setting targets for reductions, using cleaner energy sources and managing energy consumption. While these efforts vary considerably across companies,

they are categorized under (i) No efforts (ii) Some efforts and (iii) Aggressive efforts to make them more comparable across the portfolio and Reference Benchmark.

(ii) Scenario Analysis

The Climate Risk report that SAMS has subscribed from MSCI provides a scenario analysis module which assesses the Climate Value at Risk (Climate VaR) for different scenarios. It aggregates the Climate VaR for the portfolios from (i) Policy Climate VaR (ii) Technology Opportunities Climate VaR and (iii) Physical Climate VaR.

The Warming Potential metric encapsulates a company's contribution to rising temperatures. The metric aims to quantify the alignment of a company's activities against pathways commensurate with future temperature goals and allows for standardized comparison between companies. The aggregate warming potential of the portfolio is calculated through the tool and is monitored to be in line with the Paris agreement goal. The portfolio companies and sectors with the highest and lowest warming potential are also identified.

The scenario analysis module also helps provide an understanding of the sector-level risks found within the portfolio. Though this, SAMS can identify the most at-risk sectors and those sectors where an optimization of the portfolio's exposure is possible by re-allocating capital to holdings with a lower Climate VaR.

(iii) Capacity Building

SAMS recognizes that it is important to equip its staff through capacity building and training to assess, manage and monitor environmental risk in a timely and efficient manner. Staff will be encouraged to upskill themselves in Environmental/ESG-related topics. Over time, SAMS expects to build its own in-house capabilities for supplementing the efforts of the third party data provider.

5. Disclosure

Disclosure Policy of SAMS will work towards being as per the Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD) framework which includes the following parameters:

- a. Governance, including the Board's oversight and management's role in assessing and managing climate-related risks and opportunities;
- b. Strategy, in relation to the actual and potential impact of climate-related risks and opportunities, relevant products and investment strategies, where such information is material;
- c. Risk management initiatives adopted by SAMS to identify, assess, and manage climate-related risks; and
- d. Metrics and targets, to assess and manage relevant climate-related risks and opportunities where such information is material

For funds managed by SAMS, disclosures on the above will be made in SAMS website and updated on at least a six monthly basis upon completion of our analysis. For the segregated mandates and discretionary portfolio management accounts, disclosures would be shared with clients on an agreed basis.