

Consideration of Principal Adverse Impacts (PAIs)

Consideration of Principal Adverse Impacts (PAIs)

PAIs describe the negative impacts caused by investment decisions or advice on various sustainability factors covering environmental, social and governance issues.

Where you express a preference for certain PAIs to be considered as part of your investment portfolio, this document will help you understand the type of data that is considered. All the PAIs below may potentially be used for monitoring equities and corporate bonds, while government bonds and real estate assets have a more limited selection of PAIs to choose from. We also review data coverage issues, which may limit the applicability of a specific PAI. Please see the Appendix for a more comprehensive list of PAIs. Please note we do not recommend tracking PAIs with poor data availability (less than 50%); however, we include them on the list for completeness and will update them if and when data availability increases.

For ease of understanding, we have grouped the PAIs into four major groups:

- Climate Change
- Environmental
- Social
- Governance

There is considerable overlap between the above groups, particularly between climate and environmental, and social and governance. Therefore, clients will be able to select PAIs from the full list in Appendix I regardless of whether they have shown a preference for a particular group of PAIs or otherwise as part of their sustainability preferences.

Climate Change-related PAIs

This group of PAIs can help you understand the impact from your investment portfolio on climate change. Some of the most frequent PAIs used to measure climate change impacts are:

Greenhouse gas (GHG) emissions: GHGs are gases in the earth's atmosphere that trap heat and therefore raise the temperature of the planet. Carbon dioxide accounts for the largest percentage of GHG (82%), followed by methane (10%), nitrous oxide (6%) and other gases (3%). Sources of GHG emissions include electricity production, transportation, industry, commercial and residential, and agriculture.

GHG emissions are split into three categories, scope 1, 2 and 3. In the case of a company, Scope 1 emissions refer to direct emissions from the combustion of fossil fuels, such as coal/gas burning, and the petrol used by company cars.

Scope 2 emissions refer to those related to electricity purchased by a company. Scope 3 emissions encompass all other emissions associated with the company's value chain, e.g., from buying products from its suppliers, and from its products when customers use them. Scope 3 emissions can at times account for more than 70% of a company's carbon footprint. It is important to note that while Scope 1 and 2 are mostly within a company's control, business have less control of how Scope 3 emissions are addressed.

Carbon Footprint: Captures an investor's exposure to carbon emissions by quantifying the GHG emissions associated with a portfolio's underlying holdings.

GHG Intensity: Refers to the amount of GHG emissions emitted per unit of economic output or activity. In the case of a company, GHG intensity measures the amount of GHG emitted per 1 million euro of sales. For a utility company, it refers to the total GHG emissions released to produce a kilowatt hour (kWh) of electricity.

Environmental-related PAIs

This group of PAIs can help you understand the impact from your investment portfolio on environmental themes such as biodiversity, water and waste. Some of the most common PAIs used to measure environmental impacts are:

Activities Negatively Affecting Biodiversity-Sensitive Areas: This PAI seeks to understand the exposure of your portfolio to companies with sites/operations located in or near biodiversity-sensitive areas, where activities of those investee companies negatively affect those areas.

Emissions to Water: This PAI measures direct emissions of substances such as nitrogen, and pesticides that are released by companies into water bodies through their economic activities. This metric would mostly apply to sectors with heavy pollutants usage such as chemicals, pharmaceuticals, materials and agriculture. Only reported data is used for this PAI. Where reported data is available it tends to be for large cap companies in sectors such as Pharmaceuticals, Automobile Manufacturers, Personal Care Products, Industrial Conglomerates, and Semiconductors.

Hazardous Waste ratio: This PAI measures the amount of toxic waste (e.g., radioactive waste), which can be damaging to human health and the environment, discharged by a company as part of their economic activities. Examples of industry sectors that generate the most hazardous waste include Basic Chemical Manufacturing, Petroleum and Coal Products Manufacturing, Waste Treatment and Disposal, and the semiconductor industry.

Similarly to the Emissions to Water, there is low coverage of company reported data for this PAI.

Social-Related PAIs

This category groups PAIs that will help you understand the impact from your investment portfolio on social and employee matters. Examples include:

Exposure to Controversial Weapons: Controversial weapons are those that cause indiscriminate or disproportionate harm such as anti-personnel mines, cluster munitions, chemical weapons and biological weapons. This PAI targets companies involved in weapons that are subject to international treaties and conventions due to their harmful impact or potential risks.

Violations of UN Global Compact principles and Organisation for Economic Cooperation and Development (OECD) Guidelines for Multinational Enterprises: This PAI identifies companies that have been involved in violations of international guidelines for fundamental responsibilities of business in the areas of human rights, labour rights, environmental and corruption matters.

Governance-Related PAIs

Unadjusted Gender Pay Gap: This PAI seeks to measure the difference between the average gross hourly earnings of the company's male and female employees as a percentage of male gross earnings. Reporting on this metric is inconsistent, however, as pay gap reporting scope varies from company to company.

Board Gender Diversity: Measures the average ratio of female to male board members in a company and is expressed as a percentage of all board members.

Appendix 1

Below is a list of the main 14 PAIs applicable to investee companies and two main PAIs for sovereign issuers. We also show two PAIs applicable to real estate assets; however, data here is limited and not available through our main ESG data provider. PAI data can be based on data reported by companies, estimates (based on industry standards/international frameworks), location-based prediction models, controversy cases recorded by NGOs and the media, and so on.

Climate and Other Environment-Related Indicators		
Theme	Indicator	Availability of Data
Greenhouse gas emissions	1. GHG emissions	Good data availability (>90%) Reported and estimated data
	Scope 1 GHG emissions	
	Scope 2 GHG emissions	
	Scope 3 GHG emissions	
	Total GHG emissions	
	2. Carbon footprint	Good data availability (>90%)
	3. GHG intensity	
	4. Exposure to companies active in the fossil fuel sector	Good data availability (>90%)
	5. Share of non-renewable energy consumption and production	Low data coverage (<50%)
	6. Energy consumption intensity per high impact climate sector	Low data coverage (<50%)
Biodiversity	7. Activities negatively affecting biodiversity-sensitive areas	Good data availability (>90%)
Water	8. Emissions to water	Low data coverage (<50%)
Waste	9. Hazardous waste ratio	Low data coverage (<50%)

Indicators for Social and Employee, Respect for Human Rights, Anti-Corruption and Anti-Bribery Matters		
Theme	Indicator	Availability of Data
Social and employee matters	10. Violations of UN Global Compact principles and Organization for Economic Cooperation and Development (OECD) Guidelines for Multinational Enterprises	Good data availability (>90%)
	11. Lack of processes and compliance mechanisms to monitor compliance with UN Global Compact principles and OECD Guidelines for Multinational Enterprises	Good data availability (>90%)
	12. Unadjusted gender pay gap	Low data coverage (<50%)
	13. Board gender diversity	Good data availability (>90%)
	14. Exposure to controversial weapons (anti-personnel mines, cluster munitions, chemical weapons and biological weapons)	Good data availability (>90%)

Indicators Applicable to Government Bonds Issuers		
Theme	Indicator	Availability of Data
Environmental	15. GHG Intensity	Good data availability (>90%)
Social	16. Investee countries subject to social violations	Good data availability (>90%)

Indicators Applicable to Investments in Real Estate Assets		
Theme	Indicator	Availability of Data
Fossil Fuels	17. Exposure to fossil fuels through real estate assets	No data
Energy Efficiency	18. Exposure to energy-inefficient real estate assets	No Data

