

Statement on principal adverse impacts of investment decisions on sustainability factors

Financial market participant Name: J.P. Morgan SE (“JPMSE”); LEI: 549300ZK53CNGEEI6A29

Summary

J.P Morgan SE (“JPMSE”), LEI: 549300ZK53CNGEEI6A29 considers principal adverse impacts (“PAIs”) of its investment decisions on sustainability factors. The present statement is the consolidated statement on principal adverse impacts on sustainability factors of JPMSE.

This statement on principal adverse impacts on sustainability factors covers the reference period from 1 January to 31 December 2022.

The EU Sustainable Finance Disclosure Regulations (SFDR)¹ aims to help investors by providing more transparency on sustainability-related topics. SFDR requires specific disclosures regarding how financial market participants (FMPs) consider PAIs, which are defined as negative effects that investment decisions or investment advice could have on sustainability factors. FMPs are required to describe the PAIs associated with their investment decisions as well as policies with reference to indicators covering the environment and social issues that may, by way of example, include respect for human rights, anti-corruption and anti-bribery matters.

This statement covers activity where JPMSE is the Financial Market Participant (FMP) as defined under SFDR. The underlying products covered within this legal entity report, include any instrument held in a discretionary investment management account within the JPMSE entity. This would encompass the following types of products:

Product family	Examples of products within family
Cash Equities	Equities which are traded on exchanges globally
Cash Fixed Income	Fixed Income securities (investment grade and high yield) issued by governments, agencies and entities globally
Structured Products	Structured Products issued by financial counterparties and offered on a private placement basis
Over The Counter Derivatives	FX forwards (PAIs are not considered for this product type)
Mutual Funds, Exchange Traded Funds (ETFs) and Exchange Traded Commodities (ETCs)	Mutual Funds, ETFs and ETCs
Hedge Funds	Hedge Funds

With regards to JPMSE’s discretionary investment management business, JPMSE has enhanced its due diligence procedures to create a focused PAI outreach process. This outreach process involves asking third-party managers and investment advisors, on a periodic basis, a series of questions designed to identify the current and potential PAIs of funds/strategies approved for use in JPMSE’s products. Please note the source of the data contained within this report and in the table below was MSCI Inc., MSCI ESG Research LLC, or their affiliates (“MSCI”²), a third party data provider.

¹ Regulation (EU) 2019/2088 of the European Parliament and of the Council of 27 November 2019 on sustainability - related disclosures in the financial services sector

² This disclosure was developed using information from MSCI ESG Research LLC or its affiliates or information providers. Although JPMSE and its affiliates' information providers, including without limitation, MSCI ESG Research LLC and its affiliates (the “ESG Parties”), obtain information (the “Information”) from sources they consider reliable, none of the ESG Parties warrants or guarantees the originality, accuracy and/or completeness of any data herein and expressly disclaim all express or implied warranties, including those of merchantability and fitness for a particular purpose. The Information may only be used for your internal use, may not be reproduced or redisseminated in any form and may not be used as a basis for, or a component of, any financial instruments or products or indices. Further, none of the Information can in and of itself be used to determine which securities to buy or sell or when to buy or sell them. None of the ESG Parties shall have any liability for any errors or omissions in connection with any data herein, or any liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) even if notified of the possibility of such damages.

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Within this legal entity report 18 mandatory ³ and 2 voluntary PAI ⁴ indicators, as defined by SFDR, are shown:																											
<table><tr><th>Mandatory PAI indicators</th></tr><tr><td>Mandatory PAIs within this report that apply to investee companies</td></tr><tr><td>1. GHG emissions</td></tr><tr><td>2. Carbon footprint</td></tr><tr><td>3. GHG intensity of investee</td></tr><tr><td>4. Companies exposure to companies active in the fossil fuel sector</td></tr><tr><td>5. Share of non-renewable energy consumption and production</td></tr><tr><td>6. Energy consumption intensity per high impact climate sector</td></tr><tr><td>7. Activities negatively affecting biodiversity-sensitive areas</td></tr><tr><td>8. Emissions to water</td></tr><tr><td>9. Hazardous waste and radioactive waste ratio</td></tr><tr><td>10. Violations of UN Global Compact principles and Organisation for Economic Cooperation and Development (OECD) Guidelines for Multinational Enterprises</td></tr><tr><td>11. Lack of processes and compliance mechanisms to monitor compliance with UN Global Compact principles and OECD Guidelines for Multinational Enterprises</td></tr><tr><td>12. Unadjusted gender pay gap</td></tr><tr><td>13. Board gender diversity</td></tr><tr><td>14. Exposure to controversial weapons (anti-personnel mines, cluster munitions, chemical weapons and biological weapons)</td></tr><tr><td>Mandatory PAIs that apply to Sovereign/Supranationals</td></tr><tr><td>15. GHG intensity</td></tr><tr><td>16. Investee countries subject to social violations</td></tr><tr><td>Mandatory PAIs that apply to investments in Real Estate Assets</td></tr><tr><td>17. Exposure to fossil fuels through real estate assets</td></tr><tr><td>18. Exposure to energy-inefficient real estate assets</td></tr></table>	Mandatory PAI indicators	Mandatory PAIs within this report that apply to investee companies	1. GHG emissions	2. Carbon footprint	3. GHG intensity of investee	4. Companies exposure to companies active in the fossil fuel sector	5. Share of non-renewable energy consumption and production	6. Energy consumption intensity per high impact climate sector	7. Activities negatively affecting biodiversity-sensitive areas	8. Emissions to water	9. Hazardous waste and radioactive waste ratio	10. Violations of UN Global Compact principles and Organisation for Economic Cooperation and Development (OECD) Guidelines for Multinational Enterprises	11. Lack of processes and compliance mechanisms to monitor compliance with UN Global Compact principles and OECD Guidelines for Multinational Enterprises	12. Unadjusted gender pay gap	13. Board gender diversity	14. Exposure to controversial weapons (anti-personnel mines, cluster munitions, chemical weapons and biological weapons)	Mandatory PAIs that apply to Sovereign/Supranationals	15. GHG intensity	16. Investee countries subject to social violations	Mandatory PAIs that apply to investments in Real Estate Assets	17. Exposure to fossil fuels through real estate assets	18. Exposure to energy-inefficient real estate assets	<table><tr><th>Voluntary PAI indicators</th></tr><tr><td>Other indicators for PAIs on Sustainability factors</td></tr><tr><td>19. Exposure to areas of high water stress</td></tr><tr><td>20. Lack of human rights policy</td></tr></table>	Voluntary PAI indicators	Other indicators for PAIs on Sustainability factors	19. Exposure to areas of high water stress	20. Lack of human rights policy
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³ Mandatory PAIs refers to the PAIs that need to be reported on, as long as they apply to the entities' line of business at a legal entity level according to Table 1 of Annex 1 of the SFDR Regulatory Technical Standards

⁴ Voluntary PAIs refers to the PAIs listed in Table 2 and Table 3 of Annex 1 of the SFDR Regulatory Technical Standards, where one environmental indicator in Table 2 and one social indicator in Table 3 needs to be selected at minimum.

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JPMSE utilises a third party data provider, MSCI, to obtain the PAI data used in this legal entity report and to calculate the PAI metric values. This third party data is used in conjunction with JPMSE’s internal portfolio position level data utilising snapshots taken at 31 March, 30 June, 30 September and 31 December of the relevant year. For this report, the final PAI value was calculated using PAI values from MSCI as of 31 December 2022 except for board gender diversity, investee countries subject to social violations and lack of human rights policy PAI indicators, which were sourced from MSCI as of 28 February 2023 together with exposure to areas of high-water stress PAI indicator, which was sourced from MSCI as of 30 April 2023.			
AUM for the underlying portfolios within JPMSE varied throughout the reference period. Please see below for reference as to AUM variance throughout the year- all figures are in reflected in EUR.			
31 March 2022	30 June 2022	30 September 2022	31 December 2022
27,784,299,668	25,196,995,518	25,076,820,181	25,110,765,242
The PAIs of JPMSE investments varied throughout 2022, fluctuating in values across the four aforementioned quarterly periods for which JPMSE collected data.			
Across the four quarterly periods of the reference period, the total PAI exposures for ten indicators decreased between the first quarter and fourth quarter ⁵ , notwithstanding any coverage limitations for each of the individual PAIs. The values for the following five indicators carbon footprint, GHG intensity for investee companies, GHG intensity for sovereigns, UNGC/OECD Violations, and board gender diversity increased. We do not consider the PAIs related to real estate assets as they are not held within JPMSE discretionary investment management accounts. The aggregate exposure in a number of PAIs may have been impacted over the course of the year by changes in the current value of investments driven by major geopolitical developments and global financial market volatility. As JPMSE continues to monitor its PAI exposures over time, the actions planned to enhance its process are outlined in the following table. Please refer to additional disclosures noted in the section “Description of policies to identify and prioritise principal adverse impacts on sustainability factors” for information about the limitations of the data and associated commentary in this legal entity report.			

Agency Securities Financing (as defined below)

For the agency securities financing (“Agency Securities Financing”) business, JPMSE (acting through its Luxembourg Branch) (“JPMSE Luxembourg”) acts as an agent lender with limited discretion by re-investing cash collateral in accordance with investment guidelines approved by its clients (“Portfolio Management Activities”). Due to the limited discretion afforded to JPMSE Luxembourg as an agent lender, it does not consider the PAIs of its investment decisions on sustainability factors for the Agency Securities Financing business’ Portfolio Management Activities.

Description of the principal adverse impacts on sustainability factors

Indicators applicable to investments in investee companies						
Adverse sustainability indicator		Metric	Impact 2022	Impact 2021	Explanation	Actions taken, and actions planned and targets set for the next reference period
CLIMATE AND OTHER ENVIRONMENT-RELATED INDICATORS						
Greenhouse gas emissions	1. GHG emissions	Scope 1 GHG emissions	860,263 Tons of CO2 equivalent emissions	N/A	Scope 1 emissions are emissions caused directly by an organisation’s activities (e.g. company facilities/vehicles) GHG emissions are calculated according to following formula using data obtained from MSCI $\sum \frac{\text{Current Value of Investments in investee company}}{\text{Investee company's enterprise value}} \times \text{Investee companies scope(x) GHG emissions}$ Please note this PAI figure is based on data coverage of 64% of the total AUM in scope for PAI legal entity reporting and reflects PAI values as of 31 December 2022 and AUM values as of 31 December 2022	Actions taken in 2022 <ul style="list-style-type: none">Expanded PAI data sources to include information from third-party vendor(s) and third-party managers;Enhanced outreach by requesting descriptions
		Scope 2 GHG emissions	173,284 Tons of CO2 equivalent emissions	N/A	Scope 2 emissions are indirect emissions resulting from an organisation’s energy consumption (e.g. purchased electricity).	

⁵ Noting that PAI values is taken as of the dates indicated in the table and the AUM values are as outlined above

					<p>GHG emissions are calculated according to following formula using data obtained from MSCI.</p> $\sum \frac{\text{Current Value of Investments in investee company}}{\text{Investee company's enterprise value}} \times \text{Investee companies scope(x) GHG emissions}$ <p>Please note this PAI figure is based on data coverage of 64% of the total AUM in scope for PAI legal entity reporting and reflects PAI values as of 31 December 2022 and AUM values as of 31 December 2022</p>	<p>from third-party managers and investment advisors of any actions taken that avoid or reduce any PAIs identified;</p> <ul style="list-style-type: none"> Technology infrastructure enhancements for the collection of PAI data were completed, including the aggregation of PAI indicators at legal entity level for reporting purposes; <p>Actions planned in 2023</p> <ul style="list-style-type: none"> Continue to expand PAI data sources to include information from third-party vendor(s), third-party managers and other external channels; Enhance due diligence processes to request additional information regarding third-party manager and advisor actions to reduce PAI exposure, including in relation to the voluntary PAIs selected; JPMSE plans to prioritise carbon footprint as a key indicator
		Scope 3 GHG emissions	6,309,801 Tons of CO2 equivalent emissions	N/A	<p>Scope 3 emissions are all other indirect emissions including. value chain (e.g. leased assets, business travel, distribution).</p> <p>GHG emissions are calculated according to following formula using data obtained from MSCI.</p> $\sum \frac{\text{Current Value of Investments in investee company}}{\text{Investee company's enterprise value}} \times \text{Investee companies scope(x) GHG emissions}$ <p>Please note this PAI figure is based on data coverage of 64% of the total AUM in scope for PAI legal entity reporting and reflects PAI values as of 31 December 2022 and AUM values as of 31 December 2022</p>	
		Total GHG emissions	7,343,348 Tons of CO2 equivalent emissions	N/A	<p>Total GHG emissions is the sum total annual Scope 1, Scope 2 and estimated Scope 3 GHG emissions associated with the market value of the portfolio. Companies' carbon emissions are apportioned across all outstanding shares and bonds (based on the most recently available enterprise value including cash).</p> <p>Please note this PAI figure is based on data coverage of 64% of the total AUM in scope for PAI legal entity reporting and reflects PAI values as of 31 December 2022 and AUM values as of 31 December 2022</p>	
	2. Carbon footprint	Carbon footprint	292 Tons CO2/EUR million invested	N/A	<p>Carbon footprint has been calculated according to following formula using data obtained from MSCI.</p> $\sum \frac{\frac{\text{Current Value of Investments in investee company}}{\text{Investee companies enterprise value}} \times \text{sum of investee company's scope 1,2,3 GHG Emissions}}{\text{current value of all investments (€M)}}$ <p>The total annual Scope 1, Scope 2 and estimated Scope 3 GHG emissions associated with 1 million EUR invested in the portfolio. Companies' carbon emissions are apportioned across all outstanding shares and bonds (based on the most recently available enterprise value including cash).</p> <p>Please note this PAI figure is based on data coverage of 64% of the total AUM in scope for PAI legal entity reporting and reflects PAI values as of 31 December 2022 and AUM values as of 31 December 2022</p>	
	3. GHG intensity of investee companies	GHG intensity of investee companies	994.82 Tons of Scope 1, 2, and estimated 3 GHG emissions/EUR million revenue	N/A	<p>GHG intensity of investee companies is the portfolio's weighted average of its holding issuers' GHG intensity (Scope 1, Scope 2 and estimated Scope 3 GHG emissions/EUR million revenue). This has been calculated according to following formula using data obtained from MSCI:</p> $\sum \frac{\text{Current Value of Investments in investee company}}{\text{current value of all investments (€M)}} \times \frac{\text{investee company's scope 1,2,3 GHG Emissions}}{\text{Investee companies revenue (€M)}}$	

					<p>Please note this PAI figure is based on data coverage of 64% of the total AUM in scope for PAI legal entity reporting and reflects PAI values as of 31 December 2022 and AUM values as of 31 December 2022</p>	<p>within its discretionary investment management activities, and is developing further research to assess the severity, probability of occurrence, and potentially irredeemable character of the impacts of climate change via the carbon footprint. The proposed approach is expected to also be consistent with leading industry standards</p> <ul style="list-style-type: none"> The actions above are relevant to any instrument held within a JPMSE discretionary investment management account. In addition, with respect to investment management strategies which promote environmental and/or social characteristics (classified as Article 8 under SFDR) or which have a sustainable investment objective (classified as Article 9 under
	4. Exposure to companies active in the fossil fuel sector	Share of investments in companies active in the fossil fuel sector	7.76% of investments exposed to fossil fuel activities	N/A	<p>Exposure to companies active in the fossil fuel sector has been calculated using the following MSCI formula, with MSCI data:</p> $\sum \frac{\text{current value of investments in companies active in fossil fuel sector}}{\text{current value of all investments (€M)}} \times 100$ <p>This represents the percentage of the portfolio's market value exposed to issuers with fossil fuels related activities, including exploration, extraction, mining, storage, distribution and trading of oil and gas, production and distribution of thermal coal, and production, distribution, storage and reserves of metallurgical coal</p> <p>Please note this PAI figure is based on data coverage of 66% of the total AUM in scope for PAI legal entity reporting and reflects PAI values as of 31 December 2022 and AUM values as of 31 December 2022</p>	
	5. Share of non-renewable energy consumption and production	Share of non-renewable energy consumption and non-renewable energy production of investee companies from non-renewable energy sources compared to renewable energy sources, expressed as a percentage of total energy sources	57.03% of investments in non-renewable energy consumption and production	N/A	<p>Share of non-renewable energy consumption and production has been calculated using the following MSCI formula with MSCI data:</p> $\sum \frac{\text{Current Value of Investments in investee company}}{\text{Current value of all investments (€M)}} \otimes \frac{\text{Investee companies total \% non-renewable energy consumption and/ or non renewable energy production}}{\text{Investee companies total \% non-renewable energy consumption and/ or non renewable energy production}}$ <p>This represents the portfolio's weighted average of issuers' energy consumption and/or production from non-renewable sources as a percentage of total energy used and/or generated. Non-renewable resources are defined as per definition (7) in this document.</p> <p>Please note this PAI figure is based on data coverage of 56% of the total AUM in scope for PAI legal entity reporting and reflects PAI values as of 31 December 2022 and AUM values as of 31 December 2022</p>	
	6. Energy consumption intensity per high impact climate sector	Energy consumption in GWh per million EUR of revenue of investee companies, per high impact climate sector:	See below per sector	N/A	<p>NACE (Nomenclature of Economic Activities) is the European statistical classification of economic activities / industry sectors.</p> <p>Energy consumption has been calculated for each high-impact climate sector as defined by Regulation (EC) No 1893/2006, which are associated with NACE Codes A-H and L, shown below. NACE are comparable at European level and at world level is closely aligned with the United Nations' International Standard Industrial Classification (ISIC).</p> <p>All figures have been calculated using MSCI data in the following formula:</p> $\sum \frac{\text{Current Value of Investments in investee company}}{\text{Enterprise value of investee company}} \otimes \frac{\text{Investee companies energy consumption per million EUR}}{\text{Investee companies energy consumption per million EUR}}$	

		NACE Code A (Agriculture, Forestry and Fishing)	0.0342 GwH/million EUR revenue	N/A	<p>The portfolio's weighted average of Energy Consumption Intensity (GwH/million EUR revenue) for issuers classified within NACE Code A (Agriculture, Forestry and Fishing)</p> <p>Please note this PAI figure is based on data coverage of 1% of the total AUM in scope for PAI legal entity reporting and reflects PAI values as of 28 February 2023 and AUM values as of 31 December 2022</p>	<p>SFDR), at the product level, JPMSE will continue to evaluate the potential for further incorporation of PAIs within the investment process.</p>
		NACE Code B (Mining and Quarrying)	0.7179 GwH/million EUR revenue	N/A	<p>The portfolio's weighted average of Energy Consumption Intensity (GwH/million EUR revenue) for issuers classified within NACE Code B (Mining and Quarrying)</p> <p>Please note this PAI figure is based on data coverage of 2% of the total AUM in scope for PAI legal entity reporting and reflects PAI values as of 28 February 2023 and AUM values as of 31 December 2022</p>	
		NACE Code C (Manufacturing)	0.7004 GwH/million EUR revenue	N/A	<p>The portfolio's weighted average of Energy Consumption Intensity (GwH/million EUR revenue) for issuers classified within NACE Code C (Manufacturing)</p> <p>Please note this PAI figure is based on data coverage of 20% of the total AUM in scope for PAI legal entity reporting and reflects PAI values as of 28 February 2023 and AUM values as of 31 December 2022</p>	
		NACE Code D (Electricity, Gas, Steam and Air Conditioning Supply)	5.0493 GwH/EUR million revenue	N/A	<p>The portfolio's weighted average of Energy Consumption Intensity (GwH/million EUR revenue) for issuers classified within NACE Code D (Electricity, Gas, Steam and Air Conditioning Supply)</p> <p>Please note this PAI figure is based on data coverage of 2% of the total AUM in scope for PAI legal entity reporting and reflects PAI values as of 28 February 2023 and AUM values as of 31 December 2022</p>	
		NACE Code E (Water Supply; Sewerage, Waste Management and Remediation Activities)	0.4741 GwH/EUR million revenue	N/A	<p>The portfolio's weighted average of Energy Consumption Intensity (GwH/million EUR revenue) for issuers classified within NACE Code E (Water Supply; Sewerage, Waste Management and Remediation Activities)</p> <p>Please note this PAI figure is based on data coverage of 0.2% of the total AUM in scope for PAI legal entity reporting and reflects PAI values as of 28 February 2023 and AUM values as of 31 December 2022</p>	
		NACE Code F (Construction)	0.1064 GwH/EUR million revenue	N/A	<p>The portfolio's weighted average of Energy Consumption Intensity (GwH/million EUR revenue) for issuers classified within NACE Code F (Construction)</p> <p>Please note this PAI figure is based on data coverage of 0.4% of the total AUM in scope for PAI legal entity reporting and reflects PAI values as of 28 February 2023 and AUM values as of 31 December 2022</p>	
		NACE Code G (Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles)	0.0827 GwH/EUR million revenue	N/A	<p>The fund's weighted average of Energy Consumption Intensity (GwH/million EUR revenue) for issuers classified within NACE Code G (Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles)</p> <p>Please note this PAI figure is based on data coverage of 3% of the total AUM in scope for PAI legal entity reporting and reflects PAI values as of 28 February 2023 and AUM values as of 31 December 2022</p>	

		NACE Code H (Transportation and Storage)	0.8740 GwH/EUR million revenue	N/A	<p>The portfolio's weighted average of Energy Consumption Intensity (GwH/million EUR revenue) for issuers classified within NACE Code H (Transportation and Storage)</p> <p>Please note this PAI figure is based on data coverage of 1% of the total AUM in scope for PAI legal entity reporting and reflects PAI values as of 28 February 2023 and AUM values as of 31 December 2022</p>
		NACE Code L (Real Estate Activities)	0.2111 GwH/EUR million revenue	N/A	<p>The portfolio's weighted average of Energy Consumption Intensity (GwH/million EUR revenue) for issuers classified within NACE Code L (Real Estate Activities)</p> <p>Please note this PAI figure is based on data coverage of 1% of the total AUM in scope for PAI legal entity reporting and reflects PAI values as of 28 February 2023 and AUM values as of 31 December 2022</p>
Biodiversity	7. Activities negatively affecting biodiversity-sensitive areas	Share of investments in investee companies with sites/operations located in or near to biodiversity-sensitive areas where activities of those investee companies negatively affect those areas	0.0221% of investments negatively affecting biodiversity-sensitive areas	N/A	<p>Activities negatively affecting biodiversity sensitive areas has been calculated using the following MSCI formula with MSCI data:</p> $\sum \frac{\text{Current Value of Investments in companies with sites/operations located in or near to biodiversity-sensitive areas negatively affecting those areas}}{\text{Current value of all investments (€M)}} \times 100$ <p>This represents the percentage of the portfolio's market value exposed to issuers' that reported having operations in or near biodiversity sensitive areas and have been implicated in controversies with severe or very severe impacts on the environment. For more information on the underlying methodology involved in determining 'severity' please refer to pages 5 to 7 of the "MSCI ESG Controversies and Global Norms Methodology" public document, especially Exhibit 2.</p> <p>Please note this figure is based on PAI data coverage of 66% of the total AUM in scope for PAI legal entity reporting and reflects PAI values as of 31 December 2022 and AUM values as of 31 December 2022</p>
Water	8. Emissions to water	Tons of emissions to water generated by investee companies per million EUR invested, expressed as a weighted average	1.9623 Metric Tons/EUR million invested	N/A	<p>Emissions to water has been calculated using the following MSCI formula, with MSCI data:</p> $\sum \frac{\text{Current Value of Investments in investee company}}{\text{Current value of all investments (€M)}} \times \frac{\text{Investee companies total emissions to water}}{\text{Investee company's enterprise value (in €mm)}}$ <p>This represents the total annual wastewater discharged (metric tons reported) into surface waters as a result of industrial or manufacturing activities associated with 1 million EUR invested in the portfolio. Companies' water emissions are apportioned across all outstanding shares and bonds (based on the most recently available enterprise value including cash).</p> <p>Please note this PAI figure is based on data coverage of 6% of the total AUM in scope for PAI legal entity reporting and reflects PAI values as of 31 December 2022 and AUM values as of 31 December 2022</p>
Waste	9. Hazardous waste and radioactive waste ratio	Tons of hazardous waste and radioactive waste	2.46 Metric Tons/EUR million invested	N/A	<p>Hazardous waste and radioactive waste ratio has been calculated using the following MSCI formula, with MSCI data:</p>

		generated by investee companies per million EUR invested, expressed as a weighted average			<div><div><div><div><div>Σ</div><div>Current Value of Investments in investee company</div></div><div><div></div><div>Current value of all investments (€M)</div></div></div><div><div><div>\otimes</div><div>Investee companies total hazardous waste ratio</div></div><div><div></div><div>Investee company's enterprise value (in €mm)</div></div></div></div></div> <div>The total annual hazardous waste (metric tons reported) associated with 1 million EUR invested in the portfolio. Companies' hazardous waste is apportioned across all outstanding shares and bonds (based on the most recently available enterprise value including cash).</div> <div>Please note this PAI figure is based on data coverage of 22% of the total AUM in scope for PAI legal entity reporting and reflects PAI values as of 30 April 2023 and AUM values as of 31 December 2022</div>	
Adverse sustainability indicator		Metric	Impact 2022	Impact 2021	Explanation	Actions taken, and actions planned and targets set for the next reference period
INDICATORS FOR SOCIAL AND EMPLOYEE, RESPECT FOR HUMAN RIGHTS, ANTI-CORRUPTION AND ANTI-BRIBERY MATTERS						
Social and employee matters	10. Violations of UN Global Compact principles and Organisation for Economic Cooperation and Development (OECD) Guidelines for Multinational Enterprises	Share of investments in investee companies that have been involved in violations of the UNGC principles or OECD Guidelines for Multinational Enterprises	0.56% of investments with UNGC/OECD violations	N/A	<div><div><div><div><div>Σ</div><div>Current Value of Investments in investee companies that have been involved in violations of the UNGC principles or OECD Guidelines for Multinational Enterprises</div></div><div><div></div><div>Current value for all investments (€M)</div></div></div><div><div><div>\times</div><div>100</div></div></div></div></div> <div>This represents the percentage of the portfolio's market value exposed to issuers with severe or very severe controversies related to the company's operations and/or products. For more information on the underlying methodology involved in determining 'severity' please refer to pages 5 to 7 of the "MSCI ESG Controversies and Global Norms Methodology" public document, especially Exhibit 2.</div> <div>Please note this PAI figure is based on data coverage of 66% of the total AUM in scope for PAI legal entity reporting and reflects PAI values as of 31 December 2022 and AUM values as of 31 December 2022</div>	Actions taken in 2022 <ul style="list-style-type: none">• Expanded PAI data sources to include information from third-party vendor(s) and third-party managers;• Enhanced outreach by requesting information from fund managers to demonstrate actions taken that avoid or reduce any PAIs identified;• Technology infrastructure enhancements for the collection of PAI data were completed, including the aggregation of PAI indicators at legal entity level;
	11. Lack of processes and compliance mechanisms to monitor compliance with UN Global Compact principles and OECD Guidelines for Multinational Enterprises	Share of investments in investee companies without policies to monitor compliance with the UNGC principles or OECD Guidelines for Multinational Enterprises or grievance /complaints handling mechanisms to address violations of the UNGC principles or OECD	38.73% of investments with lack of processes to monitor UNGC/OECD	N/A	<div><div><div><div><div>Σ</div><div>Current Value of Investments in investee companies without policies to monitor compliance with the UNGC principles or OECD Guidelines for Multinational Enterprises....</div></div><div><div></div><div>Current value for all investments (€M)</div></div></div><div><div><div>\times</div><div>100</div></div></div></div></div> <div>The percentage of the portfolio's market value exposed to issuers that are not signatories in the UN Global Compact, not in compliance with UN Global Compact principles, or not in compliance with OECD Guidelines.</div> <div>Please note this PAI figure is based on data coverage of 66% of the total AUM in scope for PAI legal entity reporting and reflects PAI values as of 31 December 2022 and AUM values as of 31 December 2022</div>	Actions planned in 2023 <ul style="list-style-type: none">• Continue to expand PAI data sources to include information from third-party vendor(s), third-party managers and other external channels;

		Guidelines for Multinational Enterprises				
	12. Unadjusted gender pay gap	Average unadjusted gender pay gap of investee companies	8.71 EUR average gap between male and female pay	N/A	<p>Average unadjusted gender pay gap of investee companies has been calculated using the following MSCI formula with MSCI data:</p> $\sum \frac{\text{Current Value of Investments in investee companies}}{\text{Current value for all investments (€M)}} \times \text{Investee companies gender pay gap ratio}$ <p>This represents the portfolio holdings' weighted average of the difference between the average gross hourly earnings of male and female employees.</p> <p>Please note this PAI figure is based on data coverage of 13% of the total AUM in scope for PAI legal entity reporting and reflects PAI values as of 31 December 2022 and AUM values as of 31 December 2022</p>	<ul style="list-style-type: none"> Enhance due diligence processes to request additional information regarding fund manager actions to reduce PAI exposure, including in relation to the voluntary PAIs selected; The actions above are relevant to JPMSE's discretionary investment management account. In addition, with respect to Article 8 or 9 ESG strategies, at the product level, JPMSE will continue to evaluate the further incorporation of PAIs within the investment process.
	13. Board gender diversity	Average ratio of female to male board members in investee companies, expressed as a percentage of all board members	28.24 number of women on board per 100 men	N/A	<p>Board gender diversity has been calculated using the following MSCI formula with MSCI data</p> $\sum \frac{\text{Current Value of Investments in investee companies}}{\text{Current value of all investments (€M)}} \times \text{Board gender diversity ratio}$ <p>This represents the portfolio holdings' weighted average of the ratio of female to male board members, expressed as a percentage of all board members.</p> <p>Please note this PAI figure is based on data coverage of 65% of the total AUM in scope for PAI legal entity reporting and reflects PAI values as of 31 December 2022 and AUM values as of 31 December 2022</p>	
	14. Exposure to controversial weapons (anti-personnel mines, cluster munitions, chemical weapons and biological weapons)	Share of investments in investee companies involved in the manufacture or selling of controversial weapons	0.1813% of investments with exposure to controversial weapons	N/A	<p>Exposure to controversial weapons has been calculated using the following MSCI formula with MSCI data:</p> $\sum \frac{\text{Current value of investments in investee companies involved in the manufacture or selling of controversial weapons}}{\text{Current value of all investments (€M)}} \times 100$ <p>This represents the percentage of the portfolio's market value exposed to issuers with an industry tie to landmines, cluster munitions, chemical weapons or biological weapons. Note: Industry ties includes ownership, manufacturing and investments. Ties to landmines do not include related safety products.</p> <p>Please note this PAI figure is based on data coverage of 66% of the total AUM in scope for PAI legal entity reporting and reflects PAI values as of 31 December 2022 and AUM values as of 31 December 2022</p>	
Adverse sustainability indicator		Metric	Impact 2022	Impact 2021	Explanation	Actions taken, and actions planned and targets set for the

						next reference period
INDICATORS APPLICABLE TO INVESTMENTS IN SOVEREIGNS AND SUPRANATIONALS						
Environmental	15. GHG intensity	GHG intensity of investee countries	82.27 Tons of Scope 1, 2, and 3 emissions/EUR million revenue	N/A	<p>GHG intensity of sovereigns and supranational investments has been calculated using the following MSCI formula with MSCI data:</p> $\sum_i \left(\frac{\text{current value of investment}_i}{\text{current value of all investments (€M)}} \times \frac{\text{The country's Scope 1, 2 and 3 GHG emissions}_i}{\text{Gross Domestic Product}_i(\text{€M})} \right)$ <p>This represents the portfolio's weighted average of sovereign issuers' GHG Emissions Intensity (Scope 1, 2 and 3 emissions/ EUR million GDP), where "GDP" refers to the nominal gross domestic product of a country.</p> <p>Please note this PAI figure is based on data coverage of 37% of the total AUM in scope for PAI legal entity reporting and reflects PAI values as of 28 February 2023 and AUM values as of 31 December 2022.</p>	<p>Actions taken in 2022</p> <ul style="list-style-type: none"> • Expanded PAI data sources to include information from third-party vendor(s) and third-party managers; • Enhanced outreach by requesting information from fund managers to demonstrate actions taken that avoid or reduce any PAIs identified; • Technology infrastructure enhancements for the collection of PAI data were completed, including the aggregation of PAI indicators at legal entity level; <p>Actions planned in 2023</p> <ul style="list-style-type: none"> • Continue to expand PAI data sources to include information from third-party vendor(s), third-party managers and other external channels; • Enhance due diligence processes to request additional information regarding fund manager actions to reduce PAI exposure, including in relation to the voluntary PAIs selected; • The actions above are relevant to JPMSE's discretionary investment management account. In addition, with respect to Article 8 or 9 ESG strategies, at the product level,
Social	16. Investee countries subject to social violations	Number of investee countries subject to social violations (absolute number divided by all investee countries), as referred to in international treaties and conventions, United Nations principles and, where applicable, national law:	7 unique countries in the portfolio	N/A	<p>Investee countries subject to social violations has been calculated through the sum of the unique count of issuers where European Union sanctions apply. This represents the portfolio's absolute number of unique sovereign issuers with European External Action Service (EEAS) restrictive measures (sanctions) on imports and exports.</p> <p>Please note this PAI figure is based on data coverage of 23% of the total AUM in scope for PAI legal entity reporting and reflects PAI values as of 28 February 2023 and AUM values as of 31 December 2022.</p>	

						JPMSE will continue to evaluate the further incorporation of PAIs within the investment process.
Adverse sustainability indicator		Metric	Impact 2022	Impact 2021	Explanation	Actions taken, and actions planned and targets set for the next reference period
INDICATORS APPLICABLE TO INVESTMENTS IN REAL ESTATE ASSETS						
Fossil fuels	17. Exposure to fossil fuels through real estate assets	Share of investments in real estate assets involved in the extraction, storage, transport or manufacture of fossil fuels	0%	N/A	Real estate assets are not held within JPMSE entity discretionary investment management accounts. As a result this PAI is not applicable and is being reported with a value of zero.	N/A
Energy efficiency	18. Exposure to energy-inefficient real estate assets	Share of investments in energy inefficient real estate assets	0%	N/A	Real estate assets are not held within JPMSE entity discretionary investment management accounts. As a result this PAI is not applicable and is being reported with a value of zero.	
Adverse sustainability indicator		Metric	Impact 2022	Impact 2021	Explanation	Actions taken, and actions planned and targets set for the next reference period
OTHER INDICATORS FOR PRINCIPAL ADVERSE IMPACTS ON SUSTAINABILITY FACTORS						
Water, waste and material emissions	19. Exposure to areas of high water stress	Share of investments in investee companies with sites located in areas of high water stress without a water management policy	1.8668% of investments in investee companies with sites located in areas of high-water stress without a water management policy	N/A	<p>The percentage of the portfolio's market value exposed to areas of high water stress and lack of water management policy.</p> <p>The environmental voluntary indicator, exposure to areas of high water stress, was selected based on data coverage, correlation between negative investment performance and exposure to high water stress and relevance to investments more broadly.</p> <p>Given that this voluntary indicator was recently selected for use within this legal entity report, historical data from 2022 was not available in our systems. As a result, MSCI data associated with this metric from February 2023 will be mapped across 2022 JPMSE position data in order to create the quarterly snapshot values for this metric that are then aggregated in order to get the value listed within this table here.</p> <p>Please note this PAI figure is based on data coverage of 35% of the total AUM in scope for PAI legal entity reporting and reflects PAI values as of 30 April 2023 and AUM values as of 31 December 2022.</p>	<p>Actions taken in 2022</p> <ul style="list-style-type: none"> • Expanded PAI data sources to include information from third-party vendor(s) and third-party managers; • Enhanced outreach by requesting information from fund managers to demonstrate actions taken that avoid or reduce any PAIs identified; • Technology infrastructure enhancements for the collection of PAI data were completed, including the

Human Rights	20. Lack of human rights policy	Share of investments in entities without a human rights policy	7.4418% of investments in entities without human rights policy	N/A	<p>The percentage of the portfolio's market value invested in entities without a human rights policy.</p> <p>The social voluntary indicator, lack of human rights policy, was selected based on data coverage and alignment with JPMSE's statements on human rights.</p> <p>Please note this PAI figure is based on data coverage of 28% of the total AUM in scope for PAI legal entity reporting and reflects PAI values as of 28 February 2023 and AUM values as of 31 December 2022.</p>	<p>aggregation of PAI indicators at legal entity level;</p> <p>Actions planned in 2023</p> <ul style="list-style-type: none"> • Continue to expand PAI data sources to include information from third-party vendor(s), third-party managers and other external channels; • Enhance due diligence processes to request additional information regarding fund manager actions to reduce PAI exposure, including in relation to the voluntary PAIs selected; • The actions above are relevant to JPMSE's discretionary investment management account. In addition and with respect to Article 8 or 9 ESG strategies, JPMSE will continue, at the product level, to evaluate the further incorporation of PAIs within the investment process.
<p>Description of policies to identify and prioritise principal adverse impacts on sustainability factors</p> <p>A summary of JPMSE's policy to identify and prioritise principal adverse impacts on sustainability factors is set out below.</p> <p>The governing body of JPMSE approved the policy to identify and prioritise principal adverse impacts on sustainability factors (at legal entity level) on 27 June 2023. Responsibility for the implementation of the policy (including within strategies and procedures) is allocated to the Head of ESG EMEA as owner of the policy and to other relevant functions.</p> <p>JPMSE considers principal adverse impacts ("PAIs") of its investment decisions on sustainability factors, where applicable, through the collection of PAI information from third-party fund managers and investment advisors, and dissemination of this information to our portfolio managers in its discretionary investment management (IM) business.</p> <p>The methodologies used to identify and assess PAIs disclosed in this report are based on the 18 mandatory and 2 selected voluntary PAI indicators, as defined in the SFDR Regulatory Technical Standards (RTS), and the methodologies that are used by our data vendor (MSCI) to calculate the relevant PAI indicators. The 2 voluntary PAI indicators that have been selected for inclusion in this report are: (1) exposure to areas of high water stress, and (2) lack of humans rights policy. The explanations regarding why these were chosen can be seen in the 'Explanation' section above.</p> <p>For the reference period of 2022, JPMSE did not prioritise any PAI over the other, or assess the probability or severity of occurrence and potentially irredeemable character of any PAI.</p>						

JPMSE utilises a third party data provider, MSCI⁶, to obtain the PAI data used in this report and to calculate the PAI metric values. This third party data is used in conjunction with JPMSE’s internal portfolio position level data, utilising a snapshot taken on 31 December 2022. Quarterly snapshots were also captured internally for position data as at 31 March, 30 June, 30 September of the relevant year. For this report, the final PAI value was calculated using AUM as at 31 December 2022 and PAI values from MSCI as of 31 December 2022 except where noted for certain PAI indicators noted in the table above. MSCI’s datasets are built based on proprietary methodologies and are informed by data from companies, market and industry peers, media, NGOs, multilateral and other institutions. The following sources are used by MSCI ESG Research to collect company-reported data:

- Company direct disclosure: sustainability reports, annual reports, regulatory filings and company websites;
- Company indirect disclosure: government agency published data, industry and trade associations data and third-party financial data providers; and
- Direct communication with companies.

Data availability and quality varies across asset class. Where information in relation to an indicator was not readily available, JPMSE took the following additional steps:

- Additional third party PAI data providers were considered and monitored throughout the year for data coverage;
- An outreach exercise to fund managers was conducted in certain instances where MSCI had no data coverage:

Where PAI data was not available despite the above steps having been taken, the proportion of assets under management related to that missing data is disclosed as outlined in the coverage percentages noted in the table above.

The underlying products covered within this legal entity report are detailed in the Summary section. JPMSE does not currently conduct any consideration of PAIs pertaining to cash and FX forwards.

The following interpretations from SFDR guidance were made in relation to PAI calculation methodology:

- JPMSE will only consider long positions in our calculations as JPMSE does not have short positions in our discretionary investment management business and MSCI only considers long positions for calculations
- JPMSE will exclude cash and FX forwards as part of ‘current investment value’ calculations in both the numerator and denominator due to lack of data availability for the calculation of derivatives. We have taken the decision to exclude cash and derivatives on both sides of the calculation.
- JPMSE will include AUM from Hedge Funds but put a zero value when calculating Hedge Fund contribution to PAIs where data was not available.

JPMSE will continue to monitor upcoming regulatory guidance and adapt our methodology as further guidance is issued.

PAI information is included as part of the due diligence process for onboarding and reviewing third party managers and investment advisors. The Due Diligence team sends all third party firms that are being recommended for distribution to EEA clients (via UCITs, AIFs, SMAs and Hedge Funds) an ‘SFDR Addendum’ designed to collate additional firm and strategy level information. This addendum requests information on, among other things, the approach taken to PAI at underlying product level⁷.

This document includes data sourced by JPMSE from third party data providers (i.e. MSCI). Such data may be subject to limitations including, but not limited to: i) limitations in the third-party data provider’s methodologies; ii) data lags, data coverage gaps or other issues impacting the quality of the data; iii) the fact that there are divergent views, approaches, methodologies and disclosure standards in the market, including among data providers, with respect to the identification, assessment, disclosure or determination of PAIs or indicators; iv) the fact that information, including where obtained from third-party data providers, may be based on qualitative or subjective assessments, and any one data source may not in itself present a complete picture relating to the PAI indicator that it represents; v) the fact that such data may be subject to change without notice to JPMSE by the third-party data provider, in which case JPMSE may choose to take such action (or inaction) as it deems appropriate in the circumstances. Furthermore, some data JPMSE obtains from third-party providers may not be obtained directly from investee companies, but rather represents estimated or proxy data that the third-party data provider has prepared using its own proprietary methodologies (e.g. because there is no actual investee company data available to the third-party data provider), which may be subject to limitations. While information contained in this disclosure has been obtained from sources believed to be reliable, no representation or warranty is made by JPMSE as to the quality, completeness or accuracy of such information. Content is presented only as of the date published or indicated and may be superseded by subsequent market events or other reasons.

There may be a margin of error associated with third-party data used which cannot currently be quantified.

Engagement policies

JPMSE’s discretionary investment management business does not directly undertake shareholder engagement activities with investee companies (as it does not typically hold significant positions in investee companies due to the nature of its private wealth business and client base). However, as set out further in the disclosures made under Article 3g of the Directive (EC) 2007/36 of the European Parliament and of the Council, as amended by Directive (EU) 2017/828 of the European Parliament and of the Council of 17 May 2017 (Shareholder Rights Directive II – SRD II), JPMSE engages with external fund managers both before and during the period of investment to collate information as part of the selection and ongoing monitoring processes, including information about the fund managers’ approaches to engagement. JPMSE’s due diligence teams collect information on third party funds via requests for information and manager/strategy level questionnaires. These questionnaires include requests for further information on how each fund

⁶ This disclosure was developed using information from MSCI ESG Research LLC or its affiliates or information providers. Although MSCI ESG Research LLC and its affiliates (the “ESG Parties”), obtain information (the “Information”) from sources they consider reliable, none of the ESG Parties warrants or guarantees the originality, accuracy and/or completeness of any data herein and expressly disclaim all express or implied warranties, including those of merchantability and fitness for a particular purpose. The Information may only be used for your internal use, may not be reproduced or disseminated in any form and may not be used as a basis for, or a component of, any financial instruments or products or indices. Further, none of the Information can in and of itself be used to determine which securities to buy or sell or when to buy or sell them. None of the ESG Parties shall have any liability for any errors or omissions in connection with any data herein, or any liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) even if notified of the possibility of such damages.

⁷ This report includes certain information on JPMSE’s approach to PAIs at an organisational level, which may not be reflected within specific products or strategies offered or managed by JPMSE or J.P. Morgan more broadly. Nothing contained in this report shall be relied on as a promise or representation regarding the historic, current or future position or performance of any JPMSE product. Please refer to product-specific documentation for details of any particular financial product’s approach to PAIs.

manager is taking actions to identify and reduce PAI exposures over time, including in relation to the voluntary PAIs selected. Once a fund or strategy is approved, an ongoing monitoring process commences. For further information, please see a link to [our public SRD II disclosure here](#).

At present, JPMSE’s discretionary investment management business does not exercise voting rights on behalf of clients. However, clients of JPMSE, Frankfurt branch, JPMSE, Milan branch and JPMSE, Madrid branch may exercise their votes on the shares they hold in their investment management account(s) with such branches.

References to international standards

JPMSE is guided by United Nations Universal Declaration of Human Rights and the Guiding Principles on Business and Human Rights as the overarching framework for corporations to respect human rights in their own operations and through their business relationships. In addition, the Management Board of J.P. Morgan SE has affirmed the JPMorgan Chase Modern Slavery Act Statement, re-affirming our commitment to the protection of human rights. The firm is a member of the Wolfsberg Group, an association of 13 global banks that aims to develop frameworks and guidance for the management of financial crime risks, particularly with respect to anti-money laundering and counter-terror financing policies to enhance ethical standards and practices both at the Firm and across the financial services industry.

JPMSE leverages data from MSCI which incorporates international standards for PAI calculations, where applicable. For example, the “Violations of UN Global Compact principles and Organisation for Economic Cooperation and Development (OECD) Guidelines for Multinational Enterprises” and “Lack of processes and compliance mechanisms to monitor compliance with UN Global Compact principles and OECD Guidelines for Multinational Enterprises” mandatory PAIs use the UNGC principles and OECD Guidelines for Multinational Enterprises.

Due to the rapidly evolving regulatory landscape and framework surrounding environmental, social and governance (ESG), JPMSE is developing an approach to consider forward looking climate scenarios, but does not currently use climate scenario analysis in its investment management.

Historical comparison

Not Applicable (N/A), this is the first reference period during which the SFDR RTS are in effect. Historical comparisons will be published in the next PAI statement.