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Independent Accountants' Review Report

To the Board of Directors and Management of Northern Trust Corporation

Report on the Statement of Greenhouse Gas Emissions for the year ended December 31, 2023

Conclusion

We have reviewed whether Northern Trust Corporation's (the Corporation) Statement of Greenhouse Gas Emissions and the related notes (Statement of Greenhouse Gas Emissions) for the year ended December 31, 2023 have been prepared in accordance with the criteria set forth in Note 1 (the Criteria).

Based on our review, we are not aware of any material modifications that should be made to the Statement of Greenhouse Gas Emissions for the year ended December 31, 2023 in order for it to be prepared in accordance with the Criteria.

Our conclusion on the Statement of Greenhouse Gas Emissions does not extend to any other information that accompanies or contains the Statement of Greenhouse Gas Emissions and our report.

Basis for conclusion

Our review was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants, in the versions of AT-C section 105, *Concepts Common to All Attestation Engagements*, and AT-C section 210, *Review Engagements* that are applicable as of the date of our review. We are required to be independent and to meet our other ethical requirements in accordance with relevant ethical requirements related to the engagement. We believe that the evidence we have obtained is sufficient and appropriate to provide a reasonable basis for our conclusion.

Responsibilities for the Statement of Greenhouse Gas Emissions

Management of the Corporation is responsible for:

- designing, implementing and maintaining internal control relevant to the preparation of the Statement of Greenhouse Gas Emissions such that it is free from material misstatement, whether due to fraud or error;
- selecting or developing suitable criteria for preparing the Statement of Greenhouse Gas Emissions and appropriately referring to or describing the criteria used; and
- preparing the Statement of Greenhouse Gas Emissions in accordance with the Criteria

Inherent limitations in preparing the Statement of Greenhouse Gas Emissions

As described in Note 2: Estimation Uncertainties, emissions data included in this Statement of Greenhouse Gas Emissions are subject to measurement uncertainties resulting from limitations inherent in the nature and the methods used for determining such data. The selection of different but acceptable measurement techniques can result in materially different measurements. The precision of different measurement techniques may also vary.

Our responsibilities

The attestation standards established by the American Institute of Certified Public Accountants require us to:

- plan and perform the review to obtain limited assurance about whether any material modifications should be made to Statement of Greenhouse Gas Emissions in order for it to be prepared in accordance with the Criteria; and
- express a conclusion on Statement of Greenhouse Gas Emissions based on our review.

Summary of the work we performed as the basis for our conclusion

We exercised professional judgment and maintained professional skepticism throughout the engagement. We designed and performed our procedures to obtain evidence that is sufficient and appropriate to provide a basis for our conclusion. Our procedures selected depended on our understanding of the Statement of Greenhouse Gas Emissions and other engagement circumstances, and our consideration of areas where material misstatements are likely to arise. In carrying out our engagement, we performed procedures that consisted primarily of:

- inquiring of management to obtain an understanding of the methodologies and inputs used in preparing the Statement of Greenhouse Gas Emissions
- evaluating management's application of the methodologies;
- performing analytical procedures;
- recalculating a selection of the Greenhouse Gas Emissions;
- inspecting a selection of supporting documentation related to the Statement of Greenhouse Gas Emissions;
- considering the appropriateness of emission factors used and estimates; and
- comparing the disclosures in the Statement of Greenhouse Gas Emissions to the underlying methodologies, inputs and assumptions reviewed.

The procedures performed in a review vary in nature and timing from, and are substantially less in extent than, an examination, the objective of which is to obtain reasonable assurance about whether the subject matter information is prepared in accordance with the criteria, in all material respects, in order to express an opinion. Because of the limited nature of the engagement, the level of assurance obtained in a review is substantially lower than the assurance that would have been obtained had an examination been performed.

KPMG LLP

Chicago, Illinois
October 30, 2024

2023 Statement of Greenhouse Gas (GHG) Emissions

CORPORATE SUSTAINABILITY AT NORTHERN TRUST

Statement of Greenhouse Gas (GHG) Emissions

For the year ended December 31, 2023

CO_2e Emissions Metric Tons (MT)

TABLE 1

	FOR THE YEAR ENDED DECEMBER 31				
	2019	2020	2021	2022	2023
Scope 1 Direct	7,774	7,423	7,272	7,350	4,391
Scope 2 Indirect (Market-Based)	35,149	24,151	23,622	28,068	29,982
Scope 2 Indirect (Location-Based)	37,380	26,374	20,303	26,657	27,822
Gross Scope 1 and 2 (Market-Based)	42,923	31,574	30,894	35,418	34,373

The accompanying notes on pages 2 to 16 form an integral part of this GHG emissions statement.

Notes to the Statement of Greenhouse Gas Emissions

NOTE 1: THE COMPANY

Organization

Northern Trust Corporation (the Corporation or Northern Trust) is a leading provider of wealth management, asset servicing, asset management and banking solutions to corporations, institutions, families and individuals. The Corporation is a financial holding company conducting business through various U.S. and non-U.S. subsidiaries, including The Northern Trust Company (the Bank). The

Corporation was originally formed as a holding company for the Bank in 1971. The Corporation has a global presence with offices in 24 U.S. states and Washington, D.C. and across 22 locations in Canada, Europe, the Middle East and the Asia Pacific region.

Basis of Presentation

The Statement of Greenhouse Gas Emissions has been prepared based on a calendar reporting year that is the same as Northern Trust's fiscal reporting period. The Corporation presents gross scope 1, gross scope 2 (location-based and market-based), and certain[1] categories of scope 3 emissions. Emissions are reported on an absolute basis.

GHG emissions have been presented in accordance with the following (collectively referred to as the "GHG Protocol"):

- World Resources Institute (WRI), World Business Council for Sustainable Development (WBCSD) Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard, Revised Edition.
- WRI/WBCSD GHG Protocol Scope 2 Guidance: An amendment to the GHG Protocol Corporate Standard.

Scope 1 represents direct GHG emissions that occur from sources that are owned or controlled by the Corporation. Scope 2 accounts for GHG emissions from the generation of purchased electricity consumed by the Corporation. Scope 3 includes certain indirect GHG emissions (not included in Scope 2) that occur in the value chain of the Corporation, including both upstream and downstream emissions. Upstream emissions are indirect GHG emissions related to purchased or acquired goods and services while downstream emissions are indirect GHG emissions related to sold goods and services.

In addition to Scope 1 and Scope 2 GHG emissions, the Corporation has elected to present certain Scope 3 emissions, Category 1: Purchased Goods & Services (partial); Category 3: Fuel-and Energy-Related Activities (partial); Category 5: Waste Generated in Operations; Category 6: Business Travel (partial), Category 7: Employee Commuting including Hybrid Working.

NOTE 2: ESTIMATION UNCERTAINTIES

Emissions data included in the Statement of Greenhouse Gas Emissions are subject to measurement uncertainties resulting from limitations inherent in the nature and the methods used for determining such data. The selection of different but acceptable

[1] Please refer to Table 6.

measurement techniques can result in materially different measurements. The precision of different measurement techniques may also vary.

Consumption is based on raw data when available. When raw electricity and gas data is unavailable, the Corporation estimates energy consumption based on the Real Estate Environmental Benchmark (REEB 2020) and Energy Star benchmark[2].

NOTE 3: GHG REPORTING

Organizational Boundaries

The Corporation presents its emissions under the operational control approach, accounting for emissions from operations over which it, or one of its subsidiaries, has the full authority to introduce and implement its operating policies.

Operational Boundaries

The operational boundary of this report includes leased and owned offices and data centers under operational control in all domestic and global regions within which the Corporation operates. This also includes employee activities such as business travel and employee commuting.

[2] This methodology was introduced in 2022 as a more precise way to estimate energy consumption in the absence of raw data; previously energy consumption was estimated using a location-based square footage method. The change was not significant and GHG emissions for 2019 - 2021 were not recalculated.

TABLE 2

Emissions Scope	Source Description	Emissions Source	Boundary Description
Scope 1	Scope 1 emissions are direct emissions from the combustion of fuel from sources inside the organizational boundary.	Natural gas (stationary combustion)	Boilers
		Diesel fuel (stationary combustion)	Generators
		Fleet vehicles (mobile combustion)	Company-leased vehicles
		Fugitive emissions (refrigerants)	Leaks from air conditioning and chillers
Scope 2	Scope 2 emissions are indirect emissions from the generation of acquired and consumed electricity occurring at sources outside of the organizational boundary as a consequence of activities from sources inside the organizational boundary.	Purchased electricity	Data centers, owned and leased office spaces
Scope 3	Scope 3 emissions are indirect emissions from the generation of fuel from sources outside the organizational boundary as a consequence of activities of the Corporation. The Corporation has elected to include five categories of scope 3 emissions in its GHG emissions statement.	Category 1: Purchased goods and services - water	Production, transportation and distribution of water usage
		Category 3: Fuel-and-energy- related activities not included in Scope 1 or 2	Transmission and distribution losses from the generation of electricity
		Category 5: Waste in operations	Disposal and treatment of municipal solid waste and recycling generated in offices
		Category 6: Business travel	Air, hotels, car rentals, rail and shuttle transportation of employees for business-related activities (Business travel in employee-owned vehicles is excluded)
		Category 7: Employee commuting, including hybrid working	Motorcycle, car, bus, rail and ferry when employees commute between home and work sites. Also includes emissions from employee teleworking

Base Year

The GHG emissions base year applies to Scope 1, Scope 2 (location- and market-based) and reported Scope 3 emissions as set out above. In 2022, the Corporation reset its base year to 2019.

Per the GHG Protocol, the emissions base year is subject to recalculation should a significant change in total base year emissions be identified due to factors including, but not limited to, inorganic growth and a change in methodology. Northern Trust set a 5% cumulative Scope 1, Scope 2 (location- and market-based), and reported Scope 3 significance threshold for determining whether to adjust and/or recalculate its base year.

Greenhouse Gases

All GHG emissions figures are in metric tons of carbon dioxide equivalent (CO_2e). In accordance with the GHG Protocol, the Corporation has included in its reporting, carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and hydrofluorocarbons (HFCs) which are the relevant gases for the Corporation. Perfluorocarbons (PFCs), sulfur hexafluoride (SF_6) and nitrogen trifluoride (NF_3) emissions have been omitted as they are not relevant sources of greenhouse gases for the Corporation.

In 2022, the Corporation began reporting on fugitive (F-gas) emissions from refrigerant gases updating its baseline and subsequent years to include hydrofluorocarbons (HFCs), in MT of CO_2e. Fugitive emissions (refrigerants) is a required Scope 1 source of emissions; the Corporation previously did not disclose fugitive emissions from refrigerants as it was estimated to be immaterial.

In 2023, the Corporation updated its source of data for calculating fugitive emissions from refrigerants as follows:

- Offices: The refrigerant charge is estimated using intensity factors from the 2016 BRE Client Report for the Department of Energy and Climate Change.
- Data Centers: The actual installed refrigerant gas charge per square foot is used for calculations.

Prior periods were not revised as the change in estimated CO_2e per square foot under the updated methodology did not result in a material change in total emissions as per the significance threshold for recalculating the prior periods.

Market-Based Approach

Market-based method is based on emission factors derived from contractual instruments, which meet the 'Scope 2 Quality Criteria'. These include supplier-specific emission factors and factors denoted through renewable energy certificates (RECs) and Power Purchase Agreements (PPAs) for sourcing of 100% renewable energy. When these factors are not available, residual mix factors from

the 2023 Green E-Residual Mix Emission Rates and Association of Issuing Bodies (AIB) are applied to U.S. sites and European sites, respectively. This is with the exception of the U.S. state of Illinois which utilizes the 2023 average of the PJM Interconnection Residual Mix Rate.

Locations outside of United States and Europe that do not have contractual instruments reflect the average emissions intensity of the grids on which energy consumption occurs.

Location-Based Approach

The location-based method reflects the average carbon emissions intensity ($kgCO_2e/kWh$) of electricity grids on which electricity consumption physically occurs.

Global Warming Potentials

GHG emissions were calculated using the Global Warming Potentials (GWP) from the International Panel on Climate Change (IPCC) Sixth Assessment Report for CO_2, CH_4, N_2O and HFCs.

NOTE 4: GHG EMISSIONS BY REGION (MT CO_2e)

TABLE 3

FOR THE YEAR ENDED DECEMBER 31, 2023				
	North America	Europe Middle East	Asia Pacific	**Total**
Scope 1	3,119	597	675	**4,391**
Scope 2 Market-Based Approach	23,069	844	6,069	**29,982**
Scope 2 Location-Based Approach	16,917	1,571	9,334	**27,822**
Reported Scope 3	13,349	5,011	20,582	**38,942**
Total Scope 1, Scope 2 (Market-Based) and Reported Scope 3	39,537	6,452	27,326	**73,315**

NOTE 5: CO_2e INTENSITY

The Corporation has selected global full-time equivalent (FTE) employee as the basis for its GHG emissions intensity calculation. One FTE represents an employee working a forty-hour work week as of December 31 for each year presented.

MARKET BASED: MT CO_2e PER FTE EMPLOYEE

TABLE 4

FOR THE YEAR ENDED DECEMBER 31					
	2019	2020	2021	2022	2023
Scope 1 - per FTE Employee	0.391	0.356	0.342	0.311	0.190
Scope 2 - per FTE Employee	1.775	1.158	1.112	1.189	1.298
Reported Scope 3 - per FTE Employee	1.843	1.536	1.614	1.830	1.686
Total - per FTE Employee	4.009	3.050	3.068	3.330	3.174
Total FTE Employees	19,800	20,864	21,243	23,600	23,095

NOTE 6: MT CO_2e 2023 GHG EMISSIONS BY TYPE

TABLE 5

FOR THE YEAR ENDED DECEMBER 31, 2023					
	Carbon Dioxide (CO_2)	Methane (CH_4)	Nitrous Oxide (N_2O)	Hydro-fluorocarbons (HFCs)	**Total**
Scope 1	1,859	2	5	2,525	**4,391**
Scope 2 Market-Based Approach	29,829	51	102	0	**29,982**
Scope 2 Location-Based Approach	27,645	55	122	0	**27,822**
Reported Scope 3	38,760	25	157	0	**38,942**
Total Scope 1, Scope 2 (Market-Based) and Reported Scope 3	70,448	78	264	2,525	**73,315**

NOTE 7: SCOPE 3 REPORTING (MT CO_2e)

TABLE 6

FOR THE YEAR ENDED DECEMBER 31						
	Category	2019	2020	2021	2022	2023
1	Purchased Goods and Services (partial)	258	138	121	46	45
2	Capital Goods	Relevant, not yet calculated				
3	Fuel- & Energy- Related Activities (partial) (Not included in Scope 1 or 2)	3,381	2,416	1,936	2,061	2,574
4	Transportation & Distribution	Not relevant				

5	Waste Generated in Operation	751	720	2,409	553	699
6	Business Travel - Total	16,874	3,541	1,238	7,848	11,385
	Business Travel - Air	11,056	2,198	642	5,408	5,715
	Business Travel - Car Rental	484	168	122	162	201
	Business Travel - Hotel Stays	1,235	229	96	437	605
	Business Travel - Rail (partial)	— Relevant, not yet calculated —			6	4
	Business Travel - Shuttle	4,099	946	378	1,835	4,860
7	Employee Commuting including Hybrid working	15,232	25,242	28,574	32,677	24,239
8	Leased Assets	Not relevant				
9	Transportation & Distribution	Not relevant				
10	Processing of Sold Products	Not relevant				
11	Use of Sold Products	Not relevant				
12	End of Life	Not relevant				
13	Leased Assets	Not relevant				
14	Franchises	Not relevant				
15	Investments	— Relevant, not yet calculated —				
	Total Reported Scope 3	**36,496**	**32,057**	**34,278**	**43,185**	**38,942**

NOTE 8: METHODOLOGY

TABLE 7

Scopes	GHG Protocol Calculation Methodology	Methodology Notes
1	Fuel-based and distance-based	• Fuel-based and distance-based Scope 1 encompasses stationary combustion emissions including natural gas and diesel, where the kilowatt of energy consumed is multiplied by a relevant emissions factor. • Fugitive emissions from refrigeration and air conditioning are calculated utilizing the intensity factors from the 2016 BRE Client Report for the Department of Energy & Climate Change and the actual installed refrigerant gas per square foot for our offices and data centers. We have estimated CO_2e per square foot based on average leakage rate from UK Government SECR Environmental Reporting Guidance and multiplied it by total square feet of the Corporation's space.
2	N/A	• Location-based method based on actual and estimated purchased electricity consumption for all offices and data centers in the reporting boundary, where the kilowatt of energy consumed is multiplied by regional (state, province, or country-level) electricity grid emissions factor. • Market-based method based on actual and estimated purchased electricity consumption (per location-based method calculations) and grid emission factor associated renewable energy contracts in place for the offices and data centers in the reporting boundary, where the kilowatt of energy consumed is multiplied by a relevant emissions factor. Residual electrical energy that does not have the contractual agreement applied uses the residual mix emission factors where available (United States and Europe). 2019 – 2022 U.S. market-based electricity utilized eGRID, with the exception of the state of Illinois which utilized PJM. From 2023 U.S. market-based electricity utilizes Green-e Residual Mix Emissions Rates, except for Illinois. Locations outside of the United States and Europe use location-based emissions factors. Refer to Note 3: GHG REPORTING, Market-Based Approach.

Scope 3 Category			GHG Protocol Calculation Methodology	Methodology Notes
Upstream Scope 3 Emissions	1	Purchased Goods & Services (partial)	Hybrid method	Currently, this figure only reflects Northern Trust water purchased. Actual data is gathered from Facility Manager uploads to external data recording platforms. The carbon is calculated using DEFRA and a value of water supply and treatment.
	3	Fuel- and Energy- Related Activities (partial) (Not included in Scope 1 or 2)	Average-data method	The applicable category 3 activities are transmission and distribution losses. This involves the generation of electricity that is consumed (i.e., lost) in a transmission and distribution system. These emissions were calculated using an average-data method.
	5	Waste Generated in Operations	Average-data method	Every site in the portfolio has trash and recycling values associated with it and is included in the emissions calculation for waste, which means that even if no 'actual' waste data exists for the site, an estimate will be generated. Estimates are based on actual data which is extrapolated on a regional basis to create an average kg of waste/recycling per square foot per year. Actual data is gathered from Facility Manager uploads to our data recording platforms. For municipal waste, a landfill emissions factor is assumed, unless notified otherwise. For recycling and food waste the respective emissions factors are applied.
	6	Business Travel - Air	Distance-based method	A third-party travel vendor supplies flight mileage data split out by region, as well as CO_2e figures calculated using GHG Protocol Cross Sector Transport Tool. From this data, fuel consumption is back calculated and carbon factor applied to give breakdown into respective greenhouse gases (CO_2,CH_4, N_20).
		Business Travel - Car Rental	Distance-based method	Two third party travel vendors supply car rental mileage data. From this data, an emissions factor is applied.

	6	Business Travel - Hotel Stays	Average-data method	Methodology is based on number of hotel nights, multiplied by average gas consumption and electricity consumption. The number of hotel nights is provided by the Corporation's travel-vendor, however all other inputs to the calculation are based on assumptions. Hotel specific data, such as room size or how the room is heated or cooled is assumed from a US EPA CHP hotel analysis paper from 2005 - EPA CHP (Environmental Protection Agency Combined Heat and Power) Partnership, "CHP in the Hotel and Casino Market Sectors." December 2005. Prepared by Energy and Environmental Analysis, Inc. Table 16.
		Business Travel - Rail (partial)	Distance-based method	Northern Trust started to calculate data for rail travel beginning April 5, 2022. Data figures before April 5, 2022, are not available. Calculation is based on distance and emissions provided by the Corporation's travel vendor.
		Business Travel - Shuttle	Fuel-based method	Shuttle bus services are provided in Chicago, Pune and Bangalore offices for commuting and inter office travel for Northern Trust's employees. Fuel and mileage provided by third party vendors.
	7	Employee Commuting including Hybrid working	Hybrid method	Employee commuting constitutes employee travelling from their home location to their office. Commuting mode of transport is provided by employee surveys, with commuting distances estimated. The number of employees commuting to their office location is provided through employee badge swipes. Hybrid working constitutes Northern Trust partners working from home. The number of employees working from home is provided through total FTE employee number assigned to the office minus partner badge swipes. We have based workstation energy, lighting, percentage of occupied homes, heating and cooling from the Homeworking Emissions Whitepaper - Ecoact 2020. Number of working hours is based off US holidays, Northern Trust annual leave and assumption of 2 sick days. The number of months a year that home heating or cooling is required is based off city specific climate data. Employee commuting and working from home have been calculated at an office level and may include contractors on site.

NOTE 9: GHG EMISSION FACTORS

TABLE 8

Emissions Scope	Emissions Source	Emissions Factor Employed
Scope 1	Natural gas	UK - Department for Environment, Food & Rural Affairs (DEFRA) Conversion Factors 2023
	Diesel fuel	• DEFRA Conversion Factors 2023 - • UK – Average Biofuel Blend, • Non-UK - 100% Mineral Fuel (Due to lack of clarity around biofuel content)
	Fleet Vehicles	UK - Department for Environment, Food & Rural Affairs (DEFRA) Conversion Factors 2023
	Fugitive emissions (refrigerants)	IPCC Global Warming Potential (GWP) 6th Assessment
Scope 2	Purchased electricity (market-based)	• United States – Green-e Residual Mix Emissions Rates (2021 Data) released, 2023-12-12 • Illinois, United States – PJM Interconnection Residual Mix Rate, 2023 Average • International – International Energy Agency (IEA) 2021 released 2023 • United Kingdom & Guernsey – DEFRA Greenhouse Gas Reporting: Conversion Factors 2023 • Residual Mix - Association of Issuing Bodies (AIB) European Residual Mixes 2023 - Version 1.0, 2024-05-30 • IPCC Global Warming Potential (GWP) 6th Assessment (AR6) applied to eGRID CH4 and N2O. • Renewable Electricity – Supplier Specific Carbon Factors

Emissions Scope	Emissions Source	Emissions Factor Employed
Scope 2	Purchased electricity (location-based)	• United States – Emissions & Generation Resource Integrated Database (eGRID), 2022 State File released, 2024-01-30 • International – International Energy Agency (IEA) 2021 released 2023. • United Kingdom & Guernsey – DEFRA Greenhouse Gas Reporting: Conversion Factors 2023. • IPCC Global Warming Potential (GWP) 6th Assessment (AR6) applied to eGRID CH4 and N2O.
Reported Scope 3	Water (purchased)	DEFRA - UK Government GHG Conversion Factors for Company Reporting 2023
	Fuel-and-energy-related activities not included in Scope 1 or 2 (Transmission and Distribution (T&D) losses)	• Transmission and Distribution (T&D) losses • IEA (International Energy Agency) • 2021 released 2023, T&D losses adjustment file
	Waste	DEFRA - UK Government GHG Conversion Factors for Company Reporting 2023
	Business travel	Air - • GHG Protocol Emissions Factors from Cross-Sector Tools (March 2017). • IPCC 2006 Guidelines for National Greenhouse Gas Inventories, (Tables 1-3 of the WRI GHG inventories) • Department for Environment, Food & Rural Affairs (DEFRA) Conversion Factors 2023.

Emissions Scope	Emissions Source	Emissions Factor Employed
Reported Scope 3	Business Travel	**Car Rental -** • Table 14 from GHG Protocol Emissions Factors from Cross-Sector Tools (March 2017). • U.S. vehicles: U.S. EPA Emission Factors for Greenhouse Gas Inventories 2023 • IPCC Global Warming Potential (GWP) 6th Assessment • Global Warming Potentials (GWP) from AR6 applied to eGRID CH4 and N2O.
		Hotels Stays - • The Climate Registry's General Reporting Protocol, v1.1, May 2008, Table 12.1 • The Climate Registry's General Reporting Protocol, v1.1, May 2008, Table 12.3 • Source: GHG Protocol Emissions Factors from Cross-Sector Tools (March 2017) Table 9. US average converted to lb CO2/kWh.
		Rail (partial) - • UK - Department for Environment, Food & Rural Affairs (DEFRA) Conversion Factors. • United States – Environmental Protection Agency (EPA) 2023.
		Shuttles - • GHG Protocol Emissions Factors from Cross-Sector Tools (March 2017)
	Employee commuting including hybrid working	**Working From Home** • DEFRA Conversion Factors 2023
		Commuting • UK Government Travel Statistics • DEFRA Conversion Factors 2023