Morgan Stanley

Registered number: 02068222

Registered office:
25 Cabot Square
Canary Wharf
London
E14 4QA

Morgan Stanley & Co. International plc

Report and financial statements

31 December 2022

Table of contents

STRATEGIC REPORT 3
Group and Company Overview 3
The Company, Governance and Stakeholders 3
Supervision and Regulation 3
Risk Factors and Business Environment 4
Financial Performance and Condition 6
Performance Indicators 6
Overview of 2022 Financial Results 7
Key Accounting Estimates and Judgements 9
Capital and Liquidity Resource Management and Regulation 10
Regulatory Capital and Leverage Requirements 10
Funding and Liquidity Management 11
Recovery and Resolution Planning 12
Regulatory Developments 13
Risk Management 15
Risk Strategy and Appetite 15
Risk Management Framework 15
Market Risk 17
Credit Risk 18
Liquidity Risk 20
Operational Risk 21
Legal, Regulatory and Compliance Risk 21
Conduct Risk 22
Model Risk 22
Climate and Environmental Risks 23
Sustainability 26
Sustainability Strategy and Disclosures 26
Environmental Matters 27
Operational Sustainability 28
Environmental and Social Risk Management 29
Human Rights in the Supply Chain 30
Anti-corruption and Bribery 30
Our People 31
Giving Back to the Community 32
Corporate Governance 34
Corporate Governance Framework 34
Stakeholder Engagement and Section 172(1) Statement 38
DIRECTORS' REPORT 40
INDEPENDENT AUDITOR'S REPORT 44
PRIMARY FINANCIAL STATEMENTS 52
NOTES TO THE FINANCIAL STATEMENTS 59

The Directors present their Strategic Report for Morgan Stanley & Co. International plc (the "Company") and all of its subsidiary undertakings (together "the Group") for the year ended 31 December 2022.

Group and Company Overview

The Company, Governance and Stakeholders

The ultimate parent undertaking and controlling entity of the Company is Morgan Stanley, which together with the Group and Morgan Stanley's other subsidiary undertakings, forms the "Morgan Stanley Group". Morgan Stanley is a global financial services firm authorised as a Financial Holding Company and regulated by the Board of Governors of the Federal Reserve System in the United States of America.

Morgan Stanley International Limited ("MSI") is the ultimate United Kingdom ("UK") parent undertaking of the Company. MSI, together with all of its subsidiary undertakings, forms the "MSI Group".

The Company operates within the financial services industry and is subject to extensive supervision and regulation. The Company shares elements of its corporate governance and its supervision with MSI and the MSI Group. Throughout the Strategic Report, the Directors may refer to policies, procedures and practices of MSI and the MSI Group that are relevant to the Group and/or Company.

These policies, procedures and practices are consistent with the Morgan Stanley Group to the extent permissible by local law and regulation. More information on Morgan Stanley is available at www.morganstanley.com.

The Group follows the core values of the Morgan Stanley Group. The core values are designed to guide decision making and ensure alignment to the expectations of stakeholders. The core values are:

Put Clients First

Do the Right Thing

Lead with Exceptional Ideas

Commit to Diversity and Inclusion

Give Back

Further detail on the engagement with stakeholders by the Board of Directors ("Board") and the Company's section 172(1) statement is in the 'Corporate Governance' section within the Strategic Report.

Principal Activity

The principal activity of the Group is the provision of financial services to a global client base consisting of corporations, governments and financial institutions. There has been no change to the Group's principal activity during the year and no significant change is expected.

The Group is a key contributor to the execution of the Morgan Stanley Group's global Institutional Securities segment strategy. The Group provides investment banking, sales and trading, and other services to its clients. Investment Banking services consist of capital raising (including underwriting of debt, equity and other securities) and financial advisory services (including advice on mergers and acquisitions, restructurings and project finance). Sales and Trading services include sales, financing, prime brokerage and market-making activities in equity and fixed income as well as the provision of secured lending to sales and trading customers. Other services include Asset Management.

The Company conducts business from its headquarters in London, UK and operates branches in the Dubai International Financial Centre, the Qatar Financial Centre, South Korea, France and Switzerland. Details of the Company's subsidiaries can be found in note 14 and in the Appendix.

Supervision and Regulation

As a UK-based financial services provider, the Company is authorised by the Prudential Regulation Authority ("PRA") as a PRA-designated investment firm and is regulated by the PRA and the Financial Conduct Authority ("FCA").

As a provider of services to global clients, the Company is registered with the Securities and Exchange Commission ("SEC") as a Securities Based Swap Dealer ("SBSD"). The Company is also provisionally registered with the Commodity Futures Trading Commission ("CFTC") as a Swap Dealer. The CFTC are developing specific requirements to allow provisionally registered swap dealers to meet CFTC requirements by reference to local prudential standards. This work is country specific with a draft proposal for the UK still to be published. The provisional status exists until rules are finalised. These swap dealer registrations provide a comprehensive regulatory framework applicable to the Company's US-related swap and security-based swap dealer activities.

During the year, the Company ceased its structured notes issuance on the London Stock Exchange ("LSE") and is, therefore no longer subject to the FCA Disclosure and Transparency Rules. The Company continues to trade on European Union ("EU") regulated markets and to be subject to the Luxembourg Law of Transparency Requirements.

The key regulations impacting the financial soundness of the Company are as follows:

Capital and Liquidity Standards: Until 31 December 2020, the Company was subject to risk-based capital, leverage and liquidity standards for EU regulated financial institutions prescribed in the Capital Requirements Directive ("CRD") and the Capital Requirements Regulation ("CRR"), as implemented by the PRA. These are largely based on the standards developed by the Basel Committee on Banking Supervision ("BCBS"). Following the UK's withdrawal from the EU, a Temporary Transitional Power ("TTP") ensured that EU law largely continued to apply in the UK. Discussion of the standards impacted by the TTP and their management can be found in 'Capital and Liquidity Resource Management and Regulation'. The TTP period expired on 31 March 2022. From 1 April 2022, the Company has been subject to the UK on-shored regulatory obligations, predominantly unchanged from the EU CRR.

Recovery and Resolution: The Company is subject to regulatory requirements on recovery and resolution planning set by the PRA and the Bank of England ("BOE"), as part of the UK's recovery and resolution framework, established through the UK Banking Act 2009 and related legislation. This includes regulatory requirements that apply directly to the Company, and those regulatory requirements that apply to the MSI Group and therefore, indirectly apply to the Company. The Company is also within the scope of the resolution strategy adopted by the Morgan Stanley Group. Refer to 'Capital and Liquidity Resource Management and Regulation – Recovery and Resolution Planning' for further information.

Risk Factors and Business Environment

The business results of the Group's operations may be impacted by exposure to risk factors and the current business environment in which it operates.

Risk Factors

Risk is an inherent part of the Group's business activity. The Group seeks to identify, assess, monitor and manage each of the various types of risk involved in its business activities, in accordance with defined policies and procedures.

The Group Risk Appetite Statement articulates the aggregate level and type of risk that the Group is willing to accept to execute its business strategy and protect its capital and liquidity resources.

The Group has an established Risk Management Framework to support the identification, monitoring and management of risk, including any risk acceptances.

The primary risk areas for the Group include Market, Credit, Operational and Liquidity risks. Climate risk is one of the drivers of these risks. A description of these and other principal risks and how these risks are managed is outlined in the 'Risk Management' section.

Business Environment

During 2022, the global economic and geopolitical environment in which the Group operates has been characterised by elevated inflation, rising interest rates and volatility in global financial markets and these factors have continued into 2023. These factors had a mixed impact on the performance of the Group - see 'Overview of 2022 Financial Results'.

In addition to the aforementioned conditions, certain institutions have come under significant stress in early 2023. While the full impact of these events in the banking sector remains uncertain, there has so far been limited impact on the results and financial condition of the Group.

Russia and Ukraine War

The Group continues to monitor the war in Ukraine and its impact on the world economies and the financial markets. During the year the Group recognised expected credit losses ("ECL") of $144 million (31 December 2021: $nil) in relation to cash and margin cash deposited with banks and exchanges in Russia, see 'Overview of 2022 Financial Results'. Following the recognition of these ECL, the Group's direct exposure to Russia and Ukraine is de minimis.

Morgan Stanley is not entering into any new business onshore in Russia and Morgan Stanley's activities in Russia are limited to helping global clients address and close out pre-existing obligations.

Replacement of London Interbank Offered Rate ("LIBOR") and Replacement or Reform of Other Interest Rate Benchmarks

Central banks around the world, including the BOE and the Federal Reserve, have sponsored committees in recent years to replace LIBOR and replace or reform other interest rate benchmarks (collectively, the "IBORs"). The Morgan Stanley Group continues to implement its IBOR transition plan. At 31 December 2022 and 2021, the Group's exposure to financial instruments which did not contain fallback provisions to allow for the transition to alternative reference rates upon the cessation of the applicable IBOR rate was not significant.

Future Developments

The Strategic Report contains certain forward-looking statements and information on future developments. These statements are made by the Board in good faith, based on the information available at the time of the approval of the report and such statements should be treated with caution due to the inherent uncertainties, including both economic and business risk factors, underlying any such forward-looking information.

Financial Performance and Condition

Performance Indicators

To assess the effectiveness of the execution of the Group's strategy, the Board monitors the results of the Group by reference to a range of performance and risk based metrics, including, but not limited to the following:

Key Performance Indicators

Return on Shareholders' Equity (Group)

in $ millions	2022	2021
Total shareholders' equity at beginning of the year	22,175	21,021
Profit after tax	1,396	1,351
Return on shareholders' equity	6.3%	6.4%

Tier 1 Capital Ratio (Company)

in $ millions	2022	2021
Risk-weighted assets ("RWAs")	124,739	136,746
Tier 1 capital	22,202	20,522
Tier 1 capital ratio	17.8%	15.0%

Leverage Ratio (Company)

in $ millions	2022	2021
Leverage exposure	416,138	496,231
Tier 1 capital	22,202	20,522
Leverage ratio	5.3%	4.1%

Liquidity Coverage Ratio (Company)

in $ millions	2022	2021
Liquidity buffer - High quality liquid assets ("HQLA")	41,800	40,982
Liquidity coverage ratio(1)	184%	196%

1. Calculated as the average of the preceding twelve months

Net Stable Funding Ratio (Company)

in $ millions	2022
Net Stable Funding Ratio ("NSFR")	110%

From 1 January 2022, the Company was required to maintain a minimum NSFR of 100%.

Senior Unsecured Credit Ratings (Company)

At 31 December 2022 and 31 December 2021, the Company's senior unsecured ratings were as follows:

	Short-Term Debt	Long-Term Debt	Rating Outlook
Moody's Investor Service, Inc	P-1	Aa3	Stable
Standard & Poor's Rating Service	A-1	A+	Stable

The explanation behind the movements in the performance indicators can be found in 'Overview of 2022 Financial Results', as well as the 'Capital Resources' and 'Regulatory Liquidity and Funding Requirements' sections of 'Capital and Liquidity Resource Management and Regulation'.

Other Indicator

The PRA requires the Group to disclose the Return on Assets ratio, as per the PRA Rulebook for CRR firms. This is not an indicator that the Board monitors to assess the effectiveness of the execution of the Group's strategy.

Return on Assets (Group)

in $ millions	2022	2021
Return on assets		
Total assets at beginning of the year	567,186	597,789
Profit after tax	1,396	1,351
Return on assets	0.25%	0.23%

Overview of 2022 Financial Results

Income Statement

Set out below is an overview of the Group's financial results for the years ended 31 December 2022 and 31 December 2021.

in $ millions	2022	2021	Increase/ (decrease)	Variance %
Investment Banking	738	1,801	(1,063)	(59%)
Sales and Trading	1,252	1,347	(95)	(7%)
Other	56	75	(19)	(25%)
Fee and Commission Income	**2,046**	**3,223**	**(1,177)**	**(37%)**
Sales and Trading net trading income	**5,076**	**4,342**	**734**	**17%**
Net revenue	**7,122**	**7,565**	**(443)**	**(6%)**
Staff related expenses	1,805	2,154	(349)	(16%)
Non-staff related expenses	3,456	3,473	(17)	(1%)
Net impairment loss/ (reversal) on financial instruments	148	(2)	150	N/M
Non-interest expenses	**5,409**	**5,625**	**(216)**	**(4%)**
Net gain on investment in subsidiary	4	—	4	N/M
Profit before tax	**1,717**	**1,940**	**(223)**	**(11%)**
Income tax expense	321	589	(268)	(46%)
Profit after tax	**1,396**	**1,351**	**45**	**3%**

Non meaningful ("N/M")

The consolidated income statement for the year is set out on page 52 and the geographical split is in 'Segment reporting' note 25.

The Group reported an 11% decrease in profit before tax for the year, driven by lower investment banking activity and fee and commission income as a result of the uncertain macroeconomic environment partially offset by higher Sales and Trading net trading income.

2022	Net revenues ($ millions / %)		Profit before tax ($ millions / %)	
EMEA	4,645	65%	700	41%
Asia	2,012	28%	820	48%
Americas	465	7%	197	11%
Total	**7,122**		**1,717**	
2021				
EMEA	5,174	68%	1,138	59%
Asia	2,014	27%	701	36%
Americas	377	5%	101	5%
Total	**7,565**		**1,940**	

The profit before tax for 2022 reflects the continued strong performance of equity products in the Group's Asia segment.

Net Revenue

Investment Banking

Investment Banking fee income is derived from client engagements in which the Group acts as an advisor in relation to mergers and acquisitions, divestitures and corporate restructurings, underwriter of equity and fixed income securities or distributor of capital.

Investment Banking revenue decreased 59% reflecting lower underwriting and advisory revenues in line with market levels, reflecting a decline in global volumes.

Sales and Trading

Sales and Trading income consists of fee and commission income of $1,252 million (2021: $1,347 million) and net trading income of $5,076 million (2021: $4,342 million).

Sales and Trading fee and commission income arises from arrangements in which the client is charged commission for executing and clearing transactions related to securities and other listed products. Sales and Trading fee and commission income decreased 7%, primarily in equity products due to lower client activity amid challenging market conditions.

Sales and Trading net trading income is comprised of 'Net gains from financial instruments at fair value through profit or loss ("FVPL")' and 'Net interest expense' as set out in the consolidated income statement on page 52. These revenues can be affected by a variety of interrelated factors, including market volumes, bid-offer spreads and the impact of market conditions on positions held to facilitate client activity, as well as the effect of hedging activity.

Sales and Trading net trading income increased by 17%, reflecting an increase from equity and fixed income products.

- The equity revenues increased, benefiting from higher client activity notably in derivative products and the impact of market conditions on positions held to facilitate client activity.
- The fixed income product revenues increase was primarily in macro products across all regions as a result of higher client activity

partially offset by credit products from lower client activity.

- 'Net interest expense' increased as a result of interest rates increasing, notably in United States Dollar ("USD"), British pound ("GBP") and Euro ("EUR") markets. Refer to note 6.

Operating Expenses

Staff-Related Expenses

Staff-related expenses include: base salaries and fixed allowances, discretionary incentive compensation, amortisation of deferred cash and equity awards, changes in the fair value of investments to which certain deferred compensation plans are referenced, carried interest allocated to employees, severance costs, and other items such as health and welfare benefits. Incentive compensation is determined following the assessment of the Morgan Stanley Group's, business unit's and individual's performance.

For the Group, staff-related expenses primarily reflect those of the European, the Middle East and Africa ("EMEA") segment. The impact to the Group of staff-related expenses for the Asia and Americas segments is primarily reflected in transfer pricing payments to the employing entities which are reflected within net revenues. Refer to 'Related Party Disclosures' note 34 for further details on Morgan Stanley's Global Transfer Pricing Policies.

Staff-related expenses decreased by 16%. This decrease was mainly driven by the mark-to-market on deferred equity compensation.

Non Staff-Related Expenses

Non-staff related expenses decreased by 1%, reflecting a decrease in transaction taxes, partially offset by increase in Asia and EMEA brokerage fees and litigation provisions.

Refer to 'Operating expense' note 7 for further detail.

Net Impairment Loss/(Reversal) on Financial Instruments

During the year, the Group recognised $148 million of ECL, predominantly related to cash and margin cash deposited with banks and exchanges in Russia.

Income Tax Expense

The Group's tax expense represents an effective tax rate ("ETR") of 18.7% (2021: 30.4%), which is lower than the average standard rate of UK corporation tax (inclusive of the UK Banking surcharge) of 27% (2021: 27%). The main reasons that the effective tax rate is lower than the statutory rate are the allocation of UK group relief from UK entities outside of the Group for nil consideration, and the impact of the tax deductible AT1 coupons.

Balance Sheet

in $ millions	2022	2021	Increase/ (decrease)	Variance %
Cash and short term deposits	18,754	28,532	(9,778)	(34%)
Trading financial assets	329,382	332,635	(3,253)	(1%)
Secured financing	129,779	125,895	3,884	3%
Trade and other receivables	81,780	79,334	2,446	3%
Other assets	696	790	(94)	(12%)
Total Assets	**560,391**	**567,186**	**(6,795)**	**(1%)**
Trading financial liabilities	298,690	300,325	(1,635)	(1%)
Secured borrowing	93,966	97,262	(3,296)	(3%)
Trade and other payables	97,150	94,052	3,098	3%
Debt and other borrowings	45,682	52,679	(6,997)	(13%)
Other liabilities	670	693	(23)	(3%)
Total Liabilities	**536,158**	**545,011**	**(8,853)**	**(2%)**
Total Equity	**24,233**	**22,175**	**2,058**	**9%**

Assets and Liabilities

The decrease in 'Cash and short term deposits' is mainly due to a decrease in cash held with central banks as part of the management of the Group's liquidity reserve.

The decreases in 'Trading financial assets' and 'Trading financial liabilities' were primarily driven by a reduction in cash securities as a result of lower client activity towards the end of the year and market movements across the EMEA and Asia segments. Partially offsetting the decrease in cash securities, derivative products increased largely due to fair value movements caused by an increase in interest rates and changes in foreign exchange rates as the USD strengthened against major currencies, including EUR.

The increase in 'Secured financing' is due to an increase in reverse repurchase agreements held as part of the Group's liquidity reserve, partially offset by lower client activity towards the end of the year.

The decrease in 'Debt and other borrowings' is due to a decrease in unsecured funding as business activity decreased towards the end of the year.

Equity

Total Equity increased by $2,058 million, primarily reflecting profit after tax of $1,396 million, the issuance of $800 million of AT1 capital in the year and a gain of $137 million in the 'Debt valuation reserve' within Other Comprehensive Income ("OCI") as a result of widening credit spreads. This was partially offset by dividends paid of $236 million.

Key Accounting Estimates and Judgements

Throughout 2022, in the preparation of the financial results, management is required to make accounting estimates and assumptions (see note 2 for further details). Of the significant accounting policies (see note 3), the following policies involved a higher degree of judgement and complexity, and consequentially greater consideration by management.

Valuation of Financial Instruments at Fair Value

Given the extent to which the Group recognises financial instrument assets and liabilities at fair value, the preparation of the Group's consolidated financial statements requires management to consider on an on-going basis the key valuation metrics and judgements involved in the determination of fair value. To the extent that valuation is based on models or inputs that are less observable or unobservable in the market, the determination of fair value requires more judgement.

Management have reviewed the key valuation metrics, assumptions and methodologies involved in the determination of the fair value of financial instruments and determined that the valuations were reasonable.

Refer to accounting policy note 3(d) and note 30 for more detail on the Group's fair value measurement and valuation methods.

Tax and Litigation Provisions

The preparation of the Group's consolidated financial statements requires management to make judgements, estimates and assumptions regarding the outcome of matters that are uncertain, including those relating to tax and litigation. The Group has provisions arising on a number of uncertain tax and litigation matters, for which management has made judgements and interpretations when determining these provisions. Whilst a range of outcomes is foreseeable, management considers the amount provided to be a reasonable estimate of expected future liabilities after consideration of all pertinent facts.

Refer to accounting policy note 3(k) and note 18 for more details.

Capital and Liquidity Resource Management and Regulation

The Company manages and monitors its capital and liquidity in line with established policies and procedures and in compliance with local regulatory requirements. Consistent with the Morgan Stanley Group capital management policies, the MSI Group manages its capital position based upon, among other things, business opportunities, risks, capital availability and rate of return together with internal capital policies, regulatory requirements and rating agency guidelines.

Further information is available in the Pillar 3 Regulatory Disclosures Report of the MSI Group, available at https://www.morganstanley.com/about-us-ir/pillar-uk. The MSI Group's Pillar 3 report includes specific disclosure of the Company as a significant subsidiary.

Regulatory Capital and Leverage Requirements

The Company is subject to minimum capital requirements calculated in accordance with PRA rules – referred to as Pillar 1. The Company is also subject to a Pillar 2 supervisory review process, including a requirement to undertake an Internal Capital Adequacy Assessment ("ICAAP"), assessed by the PRA, for risks not covered in Pillar 1.

The MSI Group conducts an ICAAP at least annually. The ICAAP is a key tool used to inform the MSI Board and executive management on risk profile and capital adequacy. The MSI Group ICAAP includes specific consideration of the Company as a significant subsidiary.

The PRA reviews the ICAAP through its Supervisory Review and Evaluation Process ("SREP") and sets a Total Capital Requirement ("TCR") comprising Pillar 1 and Pillar 2A, which establishes the minimum level of regulatory capital for the MSI Group and the Company.

As at 31 December 2022, the Company's TCR was $13,634 million, equivalent to 10.9% of RWAs. In addition, the PRA sets a buffer, which is available to support the Company in a stressed market environment.

Set out below are the Company's minimum risk-based capital requirements.

in $ millions	2022	2021
TCR	13,634	15,015

The Company's capital is monitored on an ongoing basis to ensure compliance with these requirements. The Company complied with all of its capital requirements during the year.

Capital Resources

The capital managed by the Company includes share capital, AT1 capital instruments, subordinated debt and reserves.

To maintain or adjust its capital structure, the Company may pay dividends, return capital to its shareholders, issue new shares, or issue or repay AT1 capital instruments or subordinated debt.

Set out below are details of the Company's Capital Resources, as at 31 December 2022 and 31 December 2021:

in $ millions	2022	2021
Total Company equity	24,214	22,330
Regulatory adjustments	(2,012)	(1,808)
Tier 1 Capital	22,202	20,522
Of which		
CET1	*17,902*	*17,022*
AT1	*4,300*	*3,500*
Tier 2 Capital	6,874	5,376
Total Capital Resources	**29,076**	**25,898**
RWAs	124,739	136,746
CET1 capital ratio	14.4 %	12.4 %
Tier 1 capital ratio	17.8 %	15.0 %
Total capital ratio	23.3 %	18.9 %

The increase in the Total capital ratio reflects the increase in total Company equity (Refer to 'Overview of 2022 Financial Results') and from lower RWAs, see below. Regulatory adjustments includes deductions applied based on the prudential filters in compliance with the PRA Rule book (CRR).

RWAs

Set out below are details of the Company's RWAs.

in $ millions	2022	2021
Credit RWAs	64,770	77,267
Market RWAs	49,162	49,412
Operational risk RWAs	10,807	10,067
Total RWAs	**124,739**	**136,746**

RWAs decreased by $12,007 million over the year, due to broad reductions in business and market activity as well as a decrease in affiliate concentration risk. This was partially offset by increases driven by the implementation of the Capital Requirements Regulation ("CRRII").

Leverage Ratio

The leverage ratio is a supplementary measure to the risk-based capital requirements calculated as the ratio of Tier 1 capital to total leverage exposure (certain assets plus certain off-balance sheet exposures adjusted for Tier 1 capital deductions). Although there was no binding leverage requirement for 2022, the Group managed its risk of excessive leverage through the application of business unit leverage exposure limits and leverage ratio early warning trigger levels. Limits are calibrated in line with legal entity capacity and ensure that leverage exposure remains within the MSI Board's risk appetite.

From 1 January 2023, the Company became subject to a minimum leverage ratio of 3.25% as part of the UK's implementation of the prudential standards included in the CRRII.

The Company's leverage ratio is detailed below.

in $ millions	2022	2021
Tier 1 Capital	22,202	20,522
Leverage Exposure	416,138	496,231
Leverage Ratio	5.3%	4.1%

Leverage exposure decreased over the year primarily driven by the introduction of the standardised approach to counterparty credit risk ("SA-CCR") calculation and the deduction of central bank claims, implemented into the PRA rulebook (CRR) on 1 January 2022.

Funding and Liquidity Management

Funding and Balance Sheet Management

Liquidity and funding risk refers to the risk that the Group is unable to meet its financial obligations without experiencing significant business disruption or reputational damage that may threaten its viability as a going concern, as well as the associated funding risks triggered by the market or idiosyncratic stress events that may negatively affect our liquidity and may impact our ability to raise new funding.

The Group manages its funding in a manner that reduces the risk of disruption to its operations. The Group pursues a strategy of diversification of secured and unsecured funding sources (by product and investor) and attempts to ensure that the tenor of its liabilities equals or exceeds the expected holding period of the assets being financed.

The Group funds itself through diverse sources. These sources may include equity capital, long-term debt, securities sold under agreements to repurchase, securities lending and deposits. The MSI Group has active financing programs for both standard and structured products, targeting global investors and currencies.

In managing both the Morgan Stanley Group's and the Group's funding risk, the composition and size of the entire balance sheet, not just financial liabilities, is monitored and evaluated. The liquid nature of the marketable securities and short-term receivables arising principally from sales and trading activities in the Institutional Securities business provide the Morgan Stanley Group and the Group with flexibility in managing the composition and size of its balance sheet.

Credit Ratings

The Company relies on external sources to finance a significant portion of its daily operations. The cost and availability of financing generally are impacted by the Company's credit ratings, among other variables. In addition, the Company's credit ratings can have an impact on certain trading revenues, particularly in those businesses where longer-term counterparty performance is a key consideration, such as certain over the counter ("OTC") derivative transactions. When determining credit ratings, ratings agencies consider both company-specific and industry-wide factors. The Company's unsecured credit ratings are included in 'Financial Performance and Condition'.

Regulatory Liquidity and Funding Requirements

The Company is subject to the liquidity regulations prescribed by the PRA which include the Liquidity Coverage Ratio ("LCR"), Pillar 1 and Pillar 2 requirements.

The Pillar 2 requirements are assessed by the PRA for risks not captured in Pillar 1. Pillar 2 risks are identified by the Company and documented in the Internal Liquidity Adequacy Assessment Process ("ILAAP"), reviewed and assessed by the PRA as part of the Liquidity Supervisory Review Process ("L-SREP"). From 1

January 2022, the PRA required the Company to maintain a regulatory minimum NSFR of 100%.

Throughout the year, the Company held adequate liquidity in the form of HQLA and maintained an appropriate funding profile to meet LCR and NSFR regulatory requirements.

The Company complied with all liquidity requirements during the year.

in $ millions	2022	2021
Liquidity buffer - High quality liquid assets ("HQLA")	41,800	40,982
Liquidity coverage ratio(1)	184%	196%

1. Calculated as the average of the preceding twelve months

in $ millions	2022	2021
NSFR	110%	N/A(1)

(1) NSFR not disclosed for 2021 as PRA requirement from 1 January 2022.

Recovery and Resolution Planning

The UK Banking Act 2009 and related legislation established a recovery and resolution framework for UK institutions, including the Company.

Annually, the MSI Group prepares a recovery plan which identifies mitigation tools available in times of severe stress. The Company is covered in the recovery plan and is identified as a material legal entity of the MSI Group.

The MSI Group and the Company produce information required for resolution purposes by the BOE, as the UK Resolution Authority in accordance with UK statutory and regulatory requirements. The Company also complies with relevant BOE and PRA rules on resolution planning and resolvability, including requirements under the BOE's Resolvability Assessment Framework, and the Minimum Requirement for own funds and Eligible Liabilities ("MREL") set by the BOE (see following sub-section).

The Morgan Stanley Group has developed a resolution plan in accordance with the requirements of Section 165(d) of Title I of the Dodd-Frank Wall Street Reform and Consumer Protection Act and its implementing regulations adopted by the Federal Reserve Board and the Federal Deposit Insurance Corporation. The resolution plan presents Morgan Stanley's strategy for resolution of Morgan Stanley upon material financial distress or failure. The Company is a Material Operating Entity of the Morgan Stanley Group and is within the scope of the single point of entry resolution strategy adopted by the Morgan Stanley Group.

MREL and Total Loss Absorbing Capacity ("TLAC")

MREL, as implemented by the BOE, and TLAC, as implemented by the EU and on-shored into UK law, are broadly consistent measures that are designed to enhance the resilience of the financial system by ensuring firms have sufficient capital instruments and eligible liabilities to absorb losses and appropriately recapitalise entities in the case of resolution. They reflect the recommendations of the Financial Stability Board on TLAC standards for global systemically important banks and as reflected within the EU's Bank Recovery and Resolution Directive.

MREL requirements apply to the Company on an individual level and to the MSI Group on a consolidated basis. TLAC applies to the MSI Group only.

The Company and MSI Group have issued senior subordinated loans to ensure compliance with these requirements.

Regulatory Developments

The Company continues to monitor the changing political, tax and regulatory environment, with specific changes expected as part of the BOE implementation of Basel III standards, as described below. Whilst the Company continues to engage with various stakeholders, it remains difficult to predict the exact impact these changes and other changes will have on its business, statement of financial position, results of operations and cash flows for a particular future period. The Company expects to remain subject to extensive supervision and regulation.

Finalising Basel III Reforms

BCBS sets the standard for international banking prudential regulation in a series of accords ("Basel Accords") that are implemented in the UK via the PRA Rulebook including retained EU Law under the European Union (Withdrawal) Act 2018. This includes the CRR as amended but also other technical standards issued by EU bodies, such as European Banking Authority, that were in place as at 31 December 2020.

Following the UK's withdrawal from the EU, the PRA issued its final rules, to implement key components of the Basel III reforms that were previously finalised in the EU, effective 28 June 2021. This includes but is not limited to: Standardised Approach to Counterparty Credit Risk, Net Stable Funding Ratio, revised Leverage Ratio, revised Large Exposure Framework, and revised Pillar 3 disclosure requirements. These were effective and fully implemented from 1 January 2022.

Following the impact of the COVID-19 pandemic and its impact on the global banking system, the BCBS decided to defer the remaining standards of the Basel III reform package (referred to as "Finalisation of Basel III") by one year to 1 January 2023. The key remaining amendments include revised market RWA requirements through the Fundamental Review of the Trading Book, new Credit Valuation Adjustments ("CVA") RWA requirements, revisions to the credit RWA calculations covering both standardised and advanced treatments, and a new RWA requirement for operational risk. They also include an aggregate floor for RWA generated by the internal models, which will be set at 72.5% of total standardised RWA. The output floor will be phased in over five years. Banks will also need to disclose their RWA based upon the standardised approaches.

The PRA issued their draft rules to implement these final standards, which are referred to as Basel 3.1, for consultation on 30 November 2022. These rules are expected to be effective from 1 January 2025. The proposed rules are largely consistent with the Basel III reform package with some adjustments to address UK specificities. Pending the publication of the final rules, expected in 2023, there remains some uncertainty as to the final requirements and overall impact.

Environmental, Social and Governance ("ESG")

On 28 November 2022, the European Commission adopted the Corporate Sustainability Reporting Directive ("CSRD") which replaces the existing reporting requirements of the Non-financial Reporting Directive ("NFRD"). The CSRD extends the scope of entities required to report on non-financial matters and introduces a requirement to report according to mandatory EU sustainability reporting standards. The CSRD was published in the Official Journal of the EU on 16 December 2022 and EU Member States have 18 months to transpose the CSRD into their national laws. The requirements will apply to financial years commencing on or after 1 January 2024. As a UK entity, the Company is subject to the CSRD from the financial year ending 31 December 2024, as a result of having securities listed on an EU regulated market and also meeting the size criteria of the CSRD scoping requirements.

The Taxonomy Regulation (Regulation (EU) 2020/852) ("Taxonomy Regulation") entered into force on 12 July 2020 and establishes criteria for determining whether an economic activity is "environmentally sustainable". Article 8 of the Taxonomy Regulation requires certain companies to report on how, and to what extent, their activities are associated with environmentally sustainable economic activities. The Company is subject to Taxonomy Regulation reporting requirements from the financial year ending 31 December 2024 as a result of the scoping criteria of the CSRD outlined above.

The UK is also introducing ESG-related regulation of which the Company is in-scope. FCA Policy Statement 21/24 was published on 17 December 2021 and applies on a phased basis from 1 January 2022, with the requirements applying to the Company from the financial year ending 31 December 2023. It introduces required disclosures on an annual basis consistent with the recommendations of the Taskforce on Climate-related Financial Disclosures ("TCFD") at both the entity level and the product or portfolio level. The Companies (Strategic Report) (Climate-related Financial Disclosure) Regulations 2022 ("Regulations") were published on 17 January 2022 and apply to financial years commencing on or after 6 April 2022. The Regulations introduce required disclosures on an annual basis consistent with the recommendations of the TCFD at entity level.

Temporary Transitional Power ("TTP")

Following the end of the transition period of the UK's withdrawal from the EU on 31 December 2020, His Majesty's Treasury decided to retain the regulators' TTP, which was introduced via the Financial Services and Markets Act 2000 (Amendment) (EU Exit) Regulations 2019.

The TTP allowed the BOE, the PRA and the FCA to phase-in changes to UK regulatory requirements so that firms can adjust to the UK's post-Transition Period regime in an orderly way.

The TTP was effective from 1 January 2021 and expired on 31 March 2022. During this period, from a prudential regulatory rules perspective, requirements as implemented by the EU largely continued to apply in the UK in the same way as prior to 31 December 2020. From 1 April 2022, there were some further changes that were not material to the Company. The Company continues to be compliant with the UK on-shored regulatory obligations, predominantly unchanged from the EU CRR.

Risk Management

Risk is an inherent part of the Group's business activities. The Group seeks to identify, assess, monitor and manage each of the various types of risk involved in its business activities, in accordance with defined policies and procedures.

The Company's Board is assisted in its oversight of the Group's risk management by the MSI Audit Committee, the MSI Risk Committee and the executive management EMEA Risk Committee in addition to a number of management level committees. The corporate governance structure between MSI and the Company, including the executive and management-level Committees (associated with Risk Governance) is described in further detail within the 'Corporate Governance' section.

Note 26 provides additional qualitative and quantitative disclosures about the Group's management of, and exposure to, certain financial risks.

Risk Strategy and Appetite

The Group Risk Appetite Statement articulates the aggregate level and types of risk that the Group is willing to accept to execute its business strategy and protect its capital and liquidity resources. The combination of qualitative risk appetite and tolerance statements and quantitative limits aims to ensure that the Group's businesses are carried out in accordance with the risk appetite approved by the Board, and to protect the Group's reputation in both normal and stressed environments.

The Group has no risk appetite for conduct risk or reputational risk. It acknowledges, however, that conduct and reputational risk remain inherent in conducting business and thus cannot be entirely eliminated.

The Group risk appetite is set by the Board in conjunction with its business strategy and in consideration of its capital and liquidity resource adequacy framework.

Risk Management Framework

Risk of loss is an inevitable consequence of the Group's business activities and effective risk management is vital to the Group's success. The Group has an established Risk Management Framework, which leverages the risk management policies and procedures of the MSI Group and the Morgan Stanley Group, to support the identification, monitoring and management of risk.

The Risk Management Framework includes a well-defined, comprehensive risk governance structure with appropriate risk management expertise, including processes for periodically assessing the efficacy of the Risk Management Framework. The key components of the framework are set out below.

Risk Policies and Processes

Morgan Stanley Group has a number of well-established policies and processes which set out the standards that govern the identification, assessment, monitoring, management and mitigation of the various types of risk involved in its business activities. Specific risk management policies have been implemented to address local business and regulatory requirements where appropriate. These policies are approved by the MSI Board and are reviewed at least annually.

These policies include:

- EMEA and MSI Group Risk Management Principles
- MSI Group Market Risk Management Policy
- MSI Group Credit Policy
- MSI Group Liquidity Risk Oversight Policy
- MSI Group Operational Risk Management Policy

Control Framework

The Group operates a control framework consistent with the "Three Lines of Defence" model, with clear delineation of responsibilities between the Business Units and Support Functions (First Line), Independent Risk Management and Control Functions (Second Line) and the Internal Audit Department (Third Line).

Business Units are responsible for managing their strategy and business activities in accordance with the Group's risk appetite and its principles. Business Units establish controls to comply with the Group's risk policies and procedures, establish monitoring and escalation processes and establish review processes for new business ventures and unique, complex or significant transactions. Support Functions (such as Operations, Technology, and Treasury) are independent of the Business Units and, in whole or in part, support strategy execution of the Group's revenue-generating activities. These functions are accountable for risks associated with their activities and are responsible for actively assessing and managing these risks.

Independent Risk Management and Control Functions identify, measure, monitor and control risks. Independent Risk Management and Control Functions include, for example, functions performed by the Risk Division and the Compliance Department.

The Internal Audit Department is the Third line of defence, and is an independent source of assurance to the Board on controls over financial and non-financial (predominantly Operational and Compliance) risks, operational, and compliance controls. The Internal Audit Department reports to the MSI Audit Committee and is independent of the Business Units and Support Functions and Independent Risk Management. The Internal Audit Department provide independent assurance over the design quality and operating effectiveness of the Group's internal control environment, risk management and governance systems and control processes using a risk-based audit coverage model and audit execution methodology developed in line with professional auditing standards.

Culture, Values and Conduct of Employees

Employees of the Morgan Stanley Group are accountable for conducting themselves in accordance with the Morgan Stanley Group's core values. The Morgan Stanley Group is committed to reinforcing and confirming adherence to the core values through its governance framework, tone from the top, management oversight, risk management and controls, and Three Lines of Defence structure.

The Morgan Stanley Group's Board is responsible for overseeing the Morgan Stanley Group's practices and procedures relating to culture, values and conduct, with support from senior management committees that report regularly to the Morgan Stanley Group's Board, as set forth in its corporate governance policies. A fundamental building block of this program is the Morgan Stanley Group's Code of Conduct, which establishes standards for employee conduct that further reinforce the Morgan Stanley Group's commitment to integrity and ethical conduct. All employees are required to certify their understanding of and adherence to the Code of Conduct annually.

Morgan Stanley's Global Conduct Risk Management Policy also sets out a consistent global framework for managing conduct risk (i.e. the risk arising from misconduct by employees or contingent workers) and conduct risk incidents.

The employee annual performance review process includes evaluation of employee conduct related to risk management practices and Morgan Stanley's expectations. The Morgan Stanley Group also has several mutually reinforcing processes to identify employee conduct that may have an impact on employment status, current year compensation and/or prior year compensation. Further details of the MSI Group's remuneration policies and practices can be found in the CRR Article 450 Disclosure, available at https://www.morganstanley.com/about-us-ir/pillar-uk.

Limits and Tolerance Framework

The MSI Group Risk Appetite is translated into a comprehensive Risk Limit and Tolerance framework across four primary areas: market risk, credit risk, operational risk and liquidity risk.

The MSI Group maintains risk limits and tolerances at various levels of the governance structure, including for key MSI Group legal entities, as appropriate, to support linkages between the MSI Group's overall risk appetite, which is determined by the MSI Board, and more granular risk-taking decisions and activities. All risk limits are reviewed periodically as appropriate and at least annually. Adherence to these limits and tolerances, as well as any breaches, as tracked, monitored and reported to the appropriate executive risk committees, MSI Risk Committee and the MSI Board. Figure 1 outlines the MSI Group's Risk Limit Framework for specific risk areas.

Figure 1 MSI Group's Risk Limit Framework

	MARKET RISK	CREDIT RISK	OPERATIONAL RISK	LIQUIDITY RISK
RISK METRICS AND LIMITS	• MSI Group-wide macroeconomic scenario loss limits • Legal entity and Division Value at Risk ("VaR") and exposure limits • Granular risk exposure limits are allocated by desk/products • MSI Board-level portfolio Climate Stress Loss Limit	• MSI Group-wide macroeconomic scenario loss limits • MSI Group single name, country and industry credit limits • Climate Risk Industry Limits • Granular product limits for certain business areas	• Quantitative tolerances for each top operational risk and against an aggregate risk tolerance level	• MSI Board Liquidity Limits • Portfolio level liquidity and funding mix limits • Granular business area specific limits on liquidity and funding
	• MSI Board-level portfolio Climate Stress Loss Limit			

Stress Testing

Stress testing is one of the MSI Group's principal risk management tools, used to identify and assess the impact of severe stresses on its portfolios. It provides a flexible approach to understanding the aggregate risk for the MSI Group and assessing the MSI Group's resilience to different scenarios over a range of severities and it informs a number of processes and associated decisions. Stress Testing also complements other MSI Group risk metrics by providing a clear and flexible approach to assessing the MSI Group's resilience in the face of various scenarios over a range of severities, relevant to current market conditions and forward-looking macroeconomic views. Most notably, stress testing is used for:

- *Risk Management:* Identifying areas of potential vulnerabilities in the portfolio, measuring portfolio losses and concentrations as a basis for senior management to review portfolio-level risk and determine risk mitigation actions and set exposure limits.
- *Risk Aggregation:* Estimate aggregate size of losses in adverse shocks.
- *Capital and Liquidity planning:* Informing the proposed stressed capital and liquidity forecasts through severe but plausible stress tests.
- *Strategy Planning:* Identifying business model vulnerabilities through Reverse Stress Testing and identifying the potential mitigating actions available as part of recovery planning.
- *Regulatory Requirements:* Meeting the relevant Regulatory requirements for Stress Testing.

Risk Reporting and Measurement

The MSI Group has a suite of risk reporting across the main risk types highlighted above. The risk reporting includes quantitative measurements and qualitative assessments that enable a comparison of the MSI Group's risk profile against risk limits and risk tolerances. Reporting identifies matters for escalation and highlights emerging risks. Material risk issues are investigated and escalated where appropriate, as per the specific escalation procedures specified by the MSI Group. Escalation triggers have been articulated, with separate triggers for notification and further escalation including to the Board where relevant. The EMEA Risk Division has constituted specific committees which provide senior management review of risk reporting including stress testing and data quality information.

Risk reporting capabilities are supported by a well-controlled infrastructure, including Front Office risk systems and the MSI Group's Risk Management systems.

Market Risk

Definition

Market risk refers to the risk that a change in the level of one or more market prices, rates, spreads, indices, implied volatilities, correlations or other market factors, such as market liquidity, will result in losses for a position or portfolio.

Governance

The Group manages the market risk associated with its trading activities at both a division and an individual product level, and includes consideration of market risk at the legal entity level.

Sound market risk management is an integral part of the Group's culture. The business units and trading desks are responsible for ensuring that market risk exposures are well-managed and monitored. The Market Risk Department ("MRD") ensures transparency of material market risks, monitors compliance with established limits, and escalates risk concentrations to appropriate senior management.

To execute these responsibilities, the Group monitors its market risk against limits on aggregate risk exposures, performs a variety of risk analyses including monitoring Value-at-risk ("VaR") and stress testing analyses, routinely reports risk summaries and maintains the VaR and scenario analysis methodologies. The material risks identified by these processes are summarised and reported to senior management.

The market risk management policies and procedures for the Group are consistent with those of the Morgan Stanley Group and include escalation to the Board and appropriate management personnel.

Additional information on primary market risk exposures, market risk management and measurement and non-trading risks and currency risk together with an analysis of VaR sensitivity is presented in note 26. For information regarding the management of market risk driven by climate risk, refer to 'Risk Management - Climate and Environmental Risk'.

Year End VaR

The Group's VaR for Primary Risk Categories and Total Management VaR for the years ended 31 December 2022 and 31 December 2021 are shown in the below table. Refer to note 26 for further detail.

	95%/ one-day VaR 2022		95%/ one-day VaR 2021	
in $ millions	Period end	Average	Period end	Average
Primary Market Risk Categories	24	25	23	29
Credit Portfolio[1]	12	8	6	7
Less diversification benefit[2]	(6)	(7)	(6)	(6)
Total Management VaR	**30**	**26**	**23**	**30**

(1) The Credit Portfolio VaR is disclosed as a separate category from the Primary Risk Categories and includes loans that are carried at fair value and associated hedges as well as counterparty credit valuation adjustments and related hedges.

(2) Diversification benefit equals the difference between total trading VaR and the sum of the VaRs for the individual risk categories. This benefit arises because the simulated one-day losses for each of the primary market risk categories occur on different days; similar diversification benefits are also taken into account within each category.

The 2022 period-end Total Management VaR of $30 million was higher than the average of $26 million as the 1 year VaR time series includes larger market volatility caused by the UK mini budget.

The average Total Management VaR for 2022 was $26 million compared with $30 million for 2021. The decrease was primarily driven by decreased exposure to equity prices and the associated implied volatilities.

Credit Risk

Definition

Credit risk refers to the risk of loss arising when a borrower, counterparty or issuer does not meet its financial obligations to the Group. Credit risk includes country risk, which is further described below.

Governance

Credit risk exposure is managed on a global basis and in consideration of each significant legal entity within the Morgan Stanley Group. The credit risk management policies and procedures establish the framework for identifying, measuring, monitoring and controlling credit risk whilst ensuring transparency of material credit risks, compliance with established limits and escalating risk concentrations to appropriate senior management.

Additional information about the primary credit exposures, credit risk management and mitigation, exposure to credit risk, including the maximum exposure to credit risk by credit rating is presented in note 26. For information regarding the management of credit risk driven by climate-related credit risk, refer to 'Risk Management - Climate and Environmental Risk'.

Exposure to Credit Risk

Counterparty Risk Exposure

The table below shows the Group's maximum exposure to credit risk and credit exposure for certain financial assets which are exposed to credit risk and where the Group has entered into credit enhancements, including receiving cash and securities as collateral and master netting agreements. The net credit exposure represents the credit exposure remaining after the effect of the credit enhancements. Exposure to other Morgan Stanley Group undertakings is included in this table.

2022

in $ millions (audited)	Gross credit exposure(1)	Credit enhancements(2)	Net credit exposure
Trading financial assets:			
Derivatives	251,076	(240,879)	10,197
Secured financing	129,779	(128,908)	871
Trade and other receivables	1,298	(319)	979
Loan commitments	15	—	15
	382,168	**(370,106)**	**12,062**

2021

in $ millions (audited)	Gross credit exposure(1)	Credit enhancements(2)	Net credit exposure
Trading financial assets:			
Derivatives	242,432	(229,230)	13,202
Secured financing	125,895	(124,594)	1,301
Trade and other receivables	993	(777)	216
Loan commitments	121	(2)	119
	369,441	**(354,603)**	**14,838**

(1) Gross credit exposure is the carrying amount which best represents the Group's maximum exposure to credit risk, and for financial instruments - FVPL is reflected in the consolidated statement of financial position.
(2) Credit enhancements include collateral received and netting allowable under master netting agreements used to manage credit exposure.

Country and Sovereign Risk Exposure

Definition

Country risk is the risk that events in, or affecting, a foreign country might adversely affect the Group. "Foreign country" means any country other than the UK. Sovereign risk, by contrast, is the risk that a government will be unwilling or unable to meet its debt obligations or will renege on the debt that it guarantees. Sovereign risk is single-name risk for a sovereign government, its agencies and guaranteed entities.

Risk Management and Measurement

Country risk exposure is measured in accordance with the Group's internal risk management standards and includes obligations from sovereign governments, corporations, clearing houses and financial institutions. The Group actively manages country risk exposure through a comprehensive risk management framework that combines credit and market fundamentals and allows the Group to effectively identify, monitor and limit country risk.

The Group's obligor credit evaluation process may also identify indirect exposures, whereby an obligor has vulnerability or exposure to another country or jurisdiction. Examples of indirect exposures include mutual funds that invest in a single country, offshore companies whose assets reside in a different country to that of the offshore jurisdiction and finance company subsidiaries of corporations. Indirect exposures identified through the credit evaluation process may result in a reclassification of country risk.

The Group's sovereign exposures consist of financial instruments entered into with sovereign and local governments. Its non-sovereign exposures primarily consist of exposures to corporations and financial institutions. The following table shows the Group's five largest non-UK net country exposures as at 31 December 2022.

Exposures to other Morgan Stanley Group undertakings have been excluded from this table

Five Largest Non-UK Country Risk Total Net Exposures for the Group:

in $ millions **Country**	Net inventory[1]	Net counterparty exposure[2]	Funded lending	Exposure before hedges	Hedges[3]	Total net exposure 2022[4]	Total net exposure 2021
United States							
Sovereigns	16	93	—	109	(30)	79	(262)
Non-sovereigns	4,883	4,945	28	9,856	(13)	9,843	5,273
Total United States	**4,899**	**5,038**	**28**	**9,965**	**(43)**	**9,922**	**5,011**
Germany							
Sovereigns	1,151	—	—	1,151	(359)	792	(2,819)
Non-sovereigns	(379)	3,023	—	2,644	(16)	2,628	1,504
Total Germany	**772**	**3,023**	**—**	**3,795**	**(375)**	**3,420**	**(1,315)**
France							
Sovereigns	300	10	—	310	—	310	(1,069)
Non-sovereigns	(459)	2,700	—	2,241	(434)	1,807	1,556
Total France	**(159)**	**2,710**	**—**	**2,551**	**(434)**	**2,117**	**487**
Singapore							
Sovereigns	—	474	—	474	—	474	201
Non-sovereigns	38	429	—	467	(5)	462	302
Total Singapore	**38**	**903**	**—**	**941**	**(5)**	**936**	**503**
Korea							
Sovereigns	225	254	—	479	(25)	454	1,047
Non-sovereigns	69	396	—	465	—	465	622
Total Korea	**294**	**650**	**—**	**944**	**(25)**	**919**	**1,669**

(1) Net inventory represents exposure to both long and short single name and index positions (i.e. bonds and equities at fair value and CDS based on notional amount assuming zero recovery adjusted for any fair value receivable or payable). As a market maker, the Group transacts in these CDS positions to facilitate client trading.

(2) Current exposure of repurchase transactions, securities lending and derivatives taking into consideration legally enforceable master netting agreements and collateral as well as relevant valuation adjustments.

(3) Represents CDS hedges (purchased and sold) on net counterparty exposure and lending executed by trading desks responsible for hedging counterparty and lending credit risk exposures for the Group. Amounts are based on the CDS notional amount assuming zero recovery adjusted for any fair value receivable or payable.

(4) Total net exposure represents the sum of net inventory exposure, net counterparty exposure, funded lending and hedges.

(5) In addition, at 31 December 2022, the Group had exposure to these countries for overnight deposits with banks of approximately $1,040 million.

Liquidity Risk

Definition

Liquidity risk refers to the risk that the Group will be unable to finance its operations due to a loss of access to capital markets or difficulty in liquidating its assets. Liquidity risk encompasses the Group's ability (or perceived ability) to meet its financial obligations without experiencing significant business disruption or reputational damage that may threaten its viability as a going concern. Liquidity risk also encompasses the associated funding risks triggered by the market or idiosyncratic stress events that may cause unexpected changes in funding needs or an inability to raise new funding. Generally, the Group incurs liquidity risk as a result of its trading, investing and client facilitation activities.

Liquidity Risk Management

The primary goal of the Company's liquidity risk management framework is to ensure that the Company has access to sufficient liquidity assets across a wide range of market conditions and time horizons. The framework is designed to enable the Company to fulfil its financial obligations and to support the execution of its business strategies. The key components of the Company's liquidity risk management include its Required Liquidity Framework, Liquidity Stress Testing and Liquidity Reserve, which are further described in note 26.

Operational Risk

Definition

Operational risk refers to the risk of loss, or of damage to the Group's reputation, resulting from inadequate or failed processes or systems, from human factors or from external events (e.g. fraud, theft, legal and compliance risks, cyber-attacks or damage to physical assets). This includes legal risk and includes the risks arising from ESG Risks (e.g. Climate and Environmental Risks), but excludes strategic risk. Operational risk relates to the following risk event categories as defined by Basel Capital Standards: internal fraud; external fraud; employment practices and workplace safety; clients, products and business practices; business disruption and system failure; damage to physical assets; and execution, delivery and process management. The scope also includes oversight of technology risk, cybersecurity risk, information security risk, and third party risk management (supplier and affiliate risk).

Governance

The Group has established an operational risk framework to identify, measure, monitor and control risk across the Group. This framework is consistent with the framework established by the Morgan Stanley Group and includes escalation to the Group's Board and appropriate senior management personnel. The framework is continually evolving to reflect changes in the Group and to respond to the changing regulatory and business environment.

Additional information regarding operational risk management; measurement and risk mitigation; business continuity management and disaster recovery; third-party risk management; cyber and information risk management; and legal and regulatory and compliance risk is presented in note 26.

Cyber and Information Security Risk Management

The Group maintains a program that oversees its cyber and information security risks, leveraging the Morgan Stanley Group wide program. Cybersecurity and information security policies, procedures and technologies are designed to protect the Group's information assets against unauthorised disclosure, modification or misuse. These policies and procedures cover a broad range of areas, including: identification of internal and external threats, access control, data security, protective controls, detection of malicious or unauthorised activity, incident response and recovery planning.

A cyber-attack, information or security breach or a technology failure could adversely affect the Morgan Stanley Group's ability to conduct business, manage exposure to risk and may result in disclosure or misuse of confidential or proprietary information and otherwise adversely impact results of operations, liquidity and financial condition, as well as cause reputational harm.

Additional information on cyber risk management and risk mitigation is presented in note 26.

Legal, Regulatory and Compliance Risk

Definition

Legal, regulatory and compliance risk includes the risk of legal or regulatory sanctions, material financial loss; including fines, penalties, judgements, damages and/ or settlements or reputational damage which the Group may suffer as a result of failure to comply with laws, regulations, rules, related self-regulatory organisation standards and codes of conduct applicable to business activities. This risk also includes contractual and commercial risk, such as the risk that a counterparty's performance obligations will be unenforceable. It also includes compliance with Anti-Money Laundering and terrorist financing rules and regulations. The Group is generally subject to extensive regulation in the different jurisdictions in which it conducts its business.

Governance

The Group, principally through the Morgan Stanley Group's Legal and Compliance Division, has established procedures based on legal and regulatory requirements on a worldwide basis that are designed to facilitate compliance with applicable statutory and regulatory requirements and to require that the Group's policies relating to business conduct, ethics and practices are followed globally.

Risk Mitigation

The Group has established procedures to mitigate the risk that a counterparty's performance obligations will be unenforceable, including consideration of counterparty legal authority and capacity, adequacy of legal documentation, the permissibility of a transaction under applicable law and whether applicable bankruptcy or insolvency laws limit or alter contractual remedies. The heightened legal and regulatory focus on the financial services and banking industries globally presents a continuing business challenge for the Group.

Conduct Risk

Definition

Conduct risk is defined within the MSI Group as the risk arising from misconduct by individual employees or contingent workers (collectively, "Covered Persons") or groups of Covered Persons, or the risk arising from conduct by Morgan Stanley where the outcome has an adverse impact on clients, markets or the Morgan Stanley Group's reputation. Conduct includes both intentional and unintentional behaviours.

Governance

The MSI Group has an approved Global Conduct Risk Management Policy and an EMEA and MSI Group Conduct Risk Management Supplement. These documents cover the two main strands of Morgan Stanley's Conduct Risk management, as well as setting out roles and responsibilities in relation to Conduct Risk Management including key support and governance mechanisms:

i) Managing the risk associated with misconduct by Covered Persons relating to:
   - Business activities and obligations ("Business Conduct")
   - "HR or Personal Conduct", defined as:
     - misconduct relating to employee relations, such as misconduct relating to the work environment, working relationships, compensation, or performance management, or in relation to any allegation of retaliation, or other detrimental treatment by the Morgan Stanley Group or violations of discrimination and harassment policies
     - violations of law or other misconduct outside of the workplace that poses a potential franchise risk or could otherwise compromise Morgan Stanley's reputation

ii) Managing the risk arising from conduct by Morgan Stanley where the outcome is an adverse impact on clients or markets ("Firm Conduct Risk").

Model Risk

Definition

Model Risk is the potential for adverse consequences from decisions based on incorrect or misused model outputs. Model risk can lead to financial loss, poor business and strategic decision making, and reputational damage. Model risk increases with greater model complexity, higher uncertainty about inputs and assumptions, broader use, and larger potential impact (financial, regulatory and reputational).

Governance

Sound model risk management is an integral part of the Risk Management Framework. The Model Risk Management ("MRM") function is responsible for the oversight of model risk. MRM establishes a model risk tolerance in line with the risk appetite.

The MRM framework includes policy, procedures and controls, which set out standards as well as roles and responsibilities to manage the risk related to all models, including valuation, risk, capital and stress testing models.

Risk Mitigation

Model Risk is owned by the model developers, who are the first line in managing the risk. They are responsible for adherence to model development and implementation standards, which set out requirements related to model purpose, scope and use, model design and methodology, input and data, model testing, implementation, and documentation.

The MRM function, as the second line of defence, is responsible for the oversight of model risk and provides the effective challenge of models. The effective challenge is defined as critical analysis by objective, informed parties who can identify model limitations and assumptions and drive appropriate changes. The MRM function provides such challenge, independently validates and approves models for use, annually recertifies models, identifies and tracks remediation plans for model limitations and reports on model risk metrics. The function also oversees the development of controls to support a complete and accurate Morgan Stanley-wide model inventory.

In addition to the MRM function, Valuation Control ("VC"), within Finance, performs a suite of controls to ensure accurate valuation of the Group's inventory and its compliance with fair value accounting standards. VC is responsible for approving that the model valuation methodology is appropriate, model inputs and valuations are consistent with accounting standards and that a mark review can be performed.

Model risk monitoring, within the MRM framework, is in place in the form of ongoing performance monitoring by model developers, regular independent model reviews by MRM, and regular model risk reporting to senior management and the MSI Risk Committee.

Climate and Environmental Risks

Climate and environmental risk may include impacts to biodiversity, pollution of land, water or air, climate change, deforestation and forest degradation, and other significant negative impacts on the environment as a result of human activities. Within climate and environmental risk, the risks arising from climate change are a particular area of focus.

The Morgan Stanley Group divides climate and environmental risks into two main categories: transition risk and physical risks.

- *Transition Risks:* Transitioning to a low-carbon and more environmentally sustainable economy will entail extensive regulatory, policy, legal, technology and market initiatives as society adapts to climate change, mitigates its causes and promotes a more sustainable environment. Depending on the nature, speed and focus of these changes, transition risks may pose varying types and levels of financial and reputational risk to businesses and other organisations.

- *Physical Risks:* These risks include both acute physical events such as flooding, and chronic physical risks related to longer-term shifts in climate patterns such as more frequent and prolonged drought and progressive shifts like biodiversity loss, land use change, habitat destruction and resource scarcity. Financial implications for organisations can range from direct damage to assets to indirect impacts from supply chain disruption, driven by factors such as changes in water availability, food security and agricultural productivity. Extreme temperature changes may affect an organisation's physical locations, operations, supply chain, transport needs and employee safety.

In addition, the Group may be exposed to litigation risk or reputational risk losses arising from reliance on statements or representations in relation to ESG matters which are later discovered to be incorrect or misleading.

Managing Climate and Environmental Risks

Climate and environmental risk is managed by integrating climate change and other environmental considerations into the MSI Group Risk Framework as drivers of credit, market, operational, and liquidity risks. Climate and environmental risks are also integrated into policies and procedures. The Framework continues to be developed to meet the requirements set out in new and evolving regulations.

Risk Identification and Materiality Assessment

As part of its established Risk Identification and Materiality Assessment process, the MSI Group has a granular risk assessment of climate and environmental risks. This includes:

- *Risk Inventory:* The risk inventory captures climate and environmental risks as drivers of existing risks. Risk events considered include those related to transition risk, such as environmental policy (e.g. carbon pricing scenario) as well as to physical risks.

- *Materiality Assessment:* A quantitative assessment is performed across risk types to determine the materiality of the impact of climate and environmental risks. A risk is considered material if the estimated stress loss or outflow is above the existing risk identification materiality threshold. In 2022 based on the evolving understanding of climate and environmental risks, the materiality assessment was further expanded to assess collateral risk, a broader range of physical and environmental risks for credit as well as litigation and reputational risk for operational risk. The transition risk carbon repricing scenario was assessed and quantified for strategic risk. A risk is considered material if the estimated stress loss is above the existing risk identification materiality thresholds.

In 2022, for the MSI Group, climate transition risk driven by carbon repricing or an accelerated green energy technology transition as well as climate physical risk were assessed as material for credit risk exposures. Climate transition risk and physical risk were assessed as material because the stress loss of the respective scenarios is above the risk identification materiality thresholds for credit risk. Climate transition and physical risks were assessed as nonmaterial for MSI Group collateral positions. Operational risk (business disruption, litigation risk and reputational risk) and strategic risk were assessed as non-material for climate and environmental risks given estimated losses fall below respective materiality thresholds. As the assessment is performed quarterly, the materiality assessment may change in the future.

Risk Appetite and Limit Framework

Climate transition risk is incorporated into the MSI Group Risk Appetite and Limits Framework. An MSI Board-level Climate Stress Loss Limit is set across credit and market risk, and is reviewed on an annual basis.

In addition to the Climate Stress Loss Limit, climate risk is incorporated into the Credit Risk Management Framework through industry sector limits as well as country and borrower ratings. Limits and ratings are monitored as per standards in credit risk management policies and procedures.

- *Climate Stress Loss Limit:* The MSI Group Board manages portfolio risk appetite via a Climate Stress Loss Limit. To monitor potential credit and market risk losses against this limit, the MSI Group runs a short-term transition risk carbon pricing scenario assuming a sudden and sustained carbon repricing in line with global efforts to meet the Paris Agreement. This scenario is run monthly and the results are reported quarterly to the MSI Risk Committee.
- *Industry Sector Limit:* Credit risk limits are established for industries highly exposed to climate risk. This process includes a portfolio segmentation of industries into groups with common climate risk profiles. These limits enable the MSI Group to monitor and manage credit risk from climate risk in the MSI Group portfolio.
- *Country Ratings:* ESG risk is being incorporated into the internal sovereign credit rating assessment. The sovereign rating is an important input in determining country limits, therefore climate risk and ESG considerations will influence risk appetite at the country level.
- *Borrower Ratings:* Climate risk is being incorporated into the rating assessment for corporates. The corporate rating is an important input in determining single name limits, therefore climate risk will influence risk appetite at the single name level.

Scenario Analysis and Stress Testing

Scenario Analysis is central to the MSI Group's Climate Risk Management Framework.

Short-term Credit and Market Risk Scenario Analysis: Informed by carbon emissions data from external providers, the MSI Group assesses the financial impact of climate policy (carbon repricing) in a scenario that captures both counterparties' probability of default and market price movements. An additional credit risk scenario that considers an accelerated transition to green energy technology is assessed for the counterparties in the Energy sector and updated on a quarterly basis. Physical risk is assessed in stress scenarios to calculate the losses from acute physical events. As transition risk poses a greater risk of losses to the MSI Group than physical risk, a Climate Stress Loss Limit was established for a transition risk scenario.

Operational Risk Scenario Analysis: A number of physical risk scenarios on the MSI Group are assessed focusing on business disruption due to climate change events (including extreme weather). Physical risk scenarios are selected based on a combination of probability and severity.

Litigation and Reputational Risk Scenarios: Litigation risk arising from Product Design is assessed, including inadequate due diligence and disclosure. Reputational risk losses are assessed for the scenario that is expected to result in the greatest harm to clients.

Strategic risk: The transition risk carbon repricing scenario was assessed for Strategic Risk. The scenario considers an impact on the Group's revenues driven by the counterparties that default in the stress scenario. As of 2022, carbon repricing is assessed as non-material.

Reverse Stress Testing: The MSI Group has developed a reverse stress test focused on physical risk of sea level rise. This is one of the scenarios considered in the ICAAP process.

Long-term Strategy Scenarios: The MSI Group has conducted an exploratory long-term scenario analysis, running two 30-year quantitative scenarios modelling late action (transition risk) and no additional action (physical risk) to inform MSI Group strategy.

Metrics

Climate Stress Loss Limit: The MSI Group remained within its portfolio Climate Stress Loss Limit throughout 2022.

Credit Exposures: The Group's exposure to industries identified as having high climate transition or physical risk is a small percentage of overall credit exposures. Exposures to these industries with high climate transitional or physical risk comprise 4% and 1% of the Group's aggregate credit and counterparty risk net current exposure, respectively. Among industries identified as having high climate transition risk, the energy sector is the only sector with credit exposure above 1% of the Group's aggregate credit exposure. Credit exposures to climate risk in the table below are current exposures after taking into consideration legally enforceable master netting agreements, collateral and credit risk mitigants and includes deposits, repurchase transactions, securities lending, derivatives and corporate loan commitments. Trade and other receivables are excluded.

Exposures to High Risk Industries

	2022	
	Exposure in $ millions	% of Exposure
Transition Risk	1,689	4 %
Physical Risk[1]	478	1 %
Total Net Exposure (excluding trade and other receivables)	43,412	
	2021	
	Exposure in $ millions	% of Exposure
Transition Risk	1,068	2 %
Physical Risk[1]	595	1 %
Total Net Exposure (excluding trade and other receivables)	48,723	

(1) The industries identified as having high climate physical risk were updated in 2022. The 2021 figures included in this table were re-stated accordingly.

The table includes the credit exposure to industry sectors highly vulnerable to climate transition and climate physical risks. The vulnerability of obligors is assessed based on a segmentation approach which differentiates between low, medium. high and very high (high and very high presented in the table). The segments are sub-industries with consistent climate risk profile. The assessment considers expert credit assessment, greenhouse gas emission data and external physical risk scores.

Sustainability

Sustainability Strategy and Disclosures

The Group's approach to sustainability is consistent with that of the Morgan Stanley Group. The Morgan Stanley Group's sustainability strategy seeks to integrate sustainability into core businesses and support functions through extensive partnership between teams across Morgan Stanley. Further information on the Morgan Stanley Group's approach to sustainability can be found at www.morganstanley.com/about-us/sustainability-at-morgan-stanley.

Sustainability activity at Morgan Stanley is organised across three core areas of focus:

Sustainable Solutions and Services

As part of its focus on Sustainable Solutions and Services, the Morgan Stanley Group is responding to client demand with financial solutions and advisory services designed to help deliver both competitive financial returns and positive environmental and social outcomes. For more on this core focus area, refer to the 'Accelerating the adoption of sustainable investing' section and https://www.morganstanley.com/about-us/sustainable-solutions-services.

Institute for Sustainable Investing

Housed within the Morgan Stanley Group's Global Sustainability Office ("GSO") team, the Morgan Stanley Institute for Sustainable Investing (the "Institute") works to accelerate the adoption of sustainable investing and finance by fostering innovation, empowering investors through actionable analysis and developing the next generation of leaders in the field. The Institute supports two capacity building efforts that help emerging talent contribute their ideas to sustainable solutions: the Sustainable Investing Challenge and the Sustainable Investing Fellowship. The Institute also runs the Sustainable Solutions Collaborative that channels $250,000 awards to innovators engaged in breakthrough sustainable solutions that range from commercial to non-profit. For more on this core focus area, refer to: https://www.morganstanley.com/what-we-do/institute-for-sustainable-investing.

Firmwide Sustainability

The Morgan Stanley Group's commitment to sustainable business, climate action and inclusive growth extends to integrating ESG considerations across business practices, operations and culture. Priorities include building a diverse and inclusive workforce, improving business resilience and maintaining strong governance practices and prudent risk management. For more on the Firmwide Sustainability focus area, refer to https://www.morganstanley.com/about-us/corp-sustainability

Morgan Stanley Group Sustainability Disclosure

The Morgan Stanley Group is committed to transparent disclosure of information. The full list of available disclosures is in the Morgan Stanley Group's Sustainability Report. The Sustainability Report focuses on investor-relevant ESG topics and goals in line with the Sustainability Accounting Standards Board ("SASB") standards for Investment Banking, Asset Management and Commercial Banking guide. This is available at https://www.morganstanley.com/content/dam/msdotcom/en/assets/pdfs/Morgan_Stanley_2021_Sustainability_Report.pdf

The Sustainability Report for 2022 will be published later in the year.

Sustainability Governance

Information on the Corporate Governance arrangements in place for the Company are described in the 'Corporate Governance Framework' section in the Strategic Report.

Details of engagement activities undertaken by the Board in 2022 with employees, suppliers, clients and other stakeholders and how they inform decision making are also provided in the Strategic Report within the 'Stakeholder Engagement and Section 172(1) Statement'.

Morgan Stanley Group takes an integrated approach to ESG management, with oversight from leadership and input from across the core business and support functions. To coordinate and support the EMEA region's efforts around sustainability, a management level EMEA ESG Oversight Committee has been established to support the MSI Group and EMEA business in the continued development of an ESG strategy and risk management framework. The EMEA ESG Oversight Committee oversees the embedding of ESG risks into the risk and control framework and the tracking, analysis and implementation of key regional regulatory requirements. In addition to its existing reporting to the Board, from 2023, the EMEA ESG Oversight Committee will report as required to a newly established Morgan Stanley-wide ESG Committee.

At a Company level, the Board has appointed the EMEA Chief Risk Officer ("CRO") as the Senior Manager responsible for managing the financial risks from climate change. The EMEA CRO Co-Chairs the EMEA ESG Oversight Committee and is a member of the Board.

During 2022, the MSI Board and the Board had oversight of various climate related matters on a regular basis. In particular the MSI Board and the Board approved the Business Plan, which included the commitment to sustainability and delivering ESG related regulatory requirements. Also, the MSI Board and the Board reviewed and approved updates to their respective Risk Appetite Statements to include climate change as a driver of existing risks. Furthermore, the MSI Board approved the KPI for lending exposure retained on MSI Group to align to Morgan Stanley's Net Zero commitment and targets.

As part of the quarterly review of risks, the MSI Risk Committee reviews the utilisation of the Climate Stress Loss Limit and the credit risk limits that are established for industries highly exposed to climate risk. Please refer to the 'Climate and Environmental Risks, Risk Appetite and Limit Framework' section for additional details.

Environmental Matters

Climate Change

The Morgan Stanley Group and the Group's climate strategy is built on four pillars:

- Support the transition to a low-carbon economy by mobilising capital toward low carbon solutions and publishing industry-leading research and thought leadership for an investor audience;
- Manage climate change risk by integrating climate change considerations into risk management processes and governance structures (see 'Climate and Environmental Risk');
- Provide relevant, transparent and useful climate-related disclosures in Morgan Stanley's Climate Report and other publications (see 'Morgan Stanley Group Sustainability Disclosure');
- Enhance the climate resilience of operations by minimising footprint and enhancing operational resiliency (see 'Operational Sustainability').

Central to Morgan Stanley Group's climate strategy is the commitment, announced in September 2020, to reach net-zero financed emissions by 2050.

To demonstrate progress toward net-zero emissions by 2050, the Morgan Stanley Group set interim 2030 financed emissions lending intensity ("FELI") targets in November 2021 for the three most emissions-intensive sectors: Auto Manufacturing, Energy, and Power. The MSI Group has established a KPI that monitors its contribution to the Morgan Stanley Group's targets in these three sectors. For details on the Morgan Stanley Group's targets and methodology, including its Measure-Manage-Report framework launched in 2021, refer to: https://www.morganstanley.com/about-us/sustainability-at-morgan-stanley/net-zero-financed-emissions

The Morgan Stanley Group is also involved in industry-led initiatives that inform how financial institutions set net-zero targets, and measure and disclose financed emissions, including the Net-Zero Banking Alliance ("NZBA") and the Partnership for Carbon Accounting Financials ("PCAF"). While these industry initiatives inform Morgan Stanley's work, the Morgan Stanley Group makes independent decisions that considers the interests of the Morgan Stanley Group, clients, and shareholders.

Further information about the Morgan Stanley Group's efforts to support climate change mitigation is available in the Climate Report, which is guided by the recommendations of the Task Force on Climate-related Financial Disclosures ("TCFD"). This is available at:

https://www.morganstanley.com/content/dam/msdotcom/en/assets/pdfs/Morgan_Stanley_2021_Climate_Report.pdf.

The Climate Report for 2022 will be published later in the year.

Accelerating the Adoption of Sustainable Investing and Finance

The Morgan Stanley Group continues to partner with clients and stakeholders to mobilise capital at scale for the low-carbon transition and in 2021, increased its commitment to $750 billion by 2030. This goal is part of a larger commitment to mobilise $1 trillion in capital toward broader sustainability solutions in support of the UN Sustainable Development Goals. Together, these goals drive the Morgan Stanley Group's efforts to develop innovative, market-leading climate finance and investment solutions that meet growing client demand. By incorporating climate considerations into business activities, the Morgan Stanley Group aims to manage business for the long term while providing value for clients and shareholders. For details, refer to: https://www.morganstanley.com/ideas/low-carbon-finance-1-trillion-dollar-pledge.

Operational Sustainability

Morgan Stanley believes that its commitment to sustainability must include steps to address its own operations. Global Corporate Services operates Morgan Stanley's real estate in accordance with its Environmental and Social Policy Statement, which was established by the GSO and Environmental Social Risk Management ("ESRM") Group. For more detail refer to the 'Sustainable Operations' section of the Environmental and Social Policy Statement available at:

https://www.morganstanley.com/content/dam/msdotcom/en/about-us-governance/pdf/Environmental_and_Social_Policy_Statement.pdf .

Morgan Stanley committed to achieving carbon neutrality by 2022, covering Scope 1 and 2 emissions and Scope 3 business travel emissions. Progress towards this goal will be reported in the Morgan Stanley Group's Sustainability report that will be published in 2023.

For more on the approach to operational sustainability, refer to:

https://www.morganstanley.com/about-us/sustainability-at-work.

Greenhouse Gas Emissions, Energy Consumption and Energy Efficiency

Morgan Stanley sets global operational targets that are focussed on climate, resource management and supply chain. As part of Morgan Stanley's commitment to a 25% reduction in energy consumption, Morgan Stanley has implemented a number of initiatives in the UK which are relevant to the Company including:

- Continual assessment of plant and equipment run-times with operational requirements;
- Replacement of lighting and control systems with energy efficient alternatives (LED);
- Upgrade of air conditioning and ventilation control systems with energy efficient alternatives;
- Ongoing provision of energy and environmental awareness training to vendors and staff.

The following table sets out the Group's carbon emissions of the energy sources from its UK locations as required under the Companies Act 2006. Emissions have been calculated in line with the Greenhouse Gas Protocol Corporate Accounting and Reporting Standard (revised edition) using emission factors from the Department of Business, Energy & Industrial Strategy (Greenhouse gas reporting: conversion factors for 2022), the Department for Environment, Food & Rural Affairs (Table 13 – Indirect Emissions from the supply chain, March 2014) and the US EPA Center for Climate Leadership (Emission Factor Hub, April 2021).

In line with the Morgan Stanley Group's organisational structure, properties are primarily leased by service entity subsidiaries of the Morgan Stanley Group. The service entities recharge property and travel costs to the Group reflecting their usage. Total scope 1 and scope 2 emissions reported relate to the Group's usage of UK properties only. Scope 3 emissions relate to the Group's share of UK employee business travel only. This disclosure is a subset of the emissions reported in the financial statements of Morgan Stanley's UK service entities - Morgan Stanley UK Limited ("MSUKL") and Morgan Stanley UK Group Limited, both of which are subsidiaries of the MSI Group. Emissions reported exclude any emissions relating to employees working from home, as such emissions cannot be quantified reliably.

The table below represents the Group's share of the UK's carbon emissions for the years ended 31 December 2022 and 31 December 2021:

	2022		2021	
*Energy consumption used to calculate emissions in kWh**	53,999,651		57,802,992	
	CO2e Tonnes**		CO2e Tonnes**	
	Location based	Market based	Location based	Market based
Emission source				
Scope 1 – combustion of fuel and operation of facilities	394	394	545	545
Scope 2 – Electricity, heat, steam and cooling purchased for own use***	10,048	1,534	11,694	1,339
Total scope 1 and scope 2	**10,442**	**1,928**	**12,239**	**1,884**
Scope 3 – Commercial air and ground transportation	3,682	3,682	709	709
Scope 3 – Employee expensed car mileage	19	19	8	8
Total emissions	**14,143**	**5,629**	**12,956**	**2,601**
Intensity ratio (tCO2e/SQM)****	0.1327	0.0245	0.1492	0.0230

* Energy consumption includes Scope 1,2 and Scope 3 - Employee expensed car mileage only

** Tonnes of carbon dioxide equivalent

*** The prior year scope 2 market-based emissions have been revised to be based on residual emissions where the Morgan Stanley Group's UK service entities occupy space in multi-tenanted buildings (see below)

**** Tonnes of CO2e per square metre of UK real estate (Scope 1 and 2 emissions only)

The Group has chosen to report both location-based and market-based emissions for scope 2. The location-based emissions reflect the average emissions of the grid where the energy consumption occurs and is calculated using the government-published UK electricity grid average factors. Where energy can be directly procured from energy suppliers, the Morgan Stanley Group UK service entities have entered into contractual arrangements to purchase 100% renewable electricity, backed by renewable energy guarantee of origin certificates, as such, the Group can report a reduced emission figure based on the specific electricity purchased under the market-based method. In locations where the Morgan Stanley Group's UK service entities occupy space within multi-tenanted buildings, for which renewable energy and associated renewable energy attributes are procured and reported by others, market-based emissions have been calculated using the residual emissions factors.

Total energy consumption for 2022 decreased by 7% from 2021, driven by lower leasehold premises gas and electricity consumption. Scope 1 and 2 location-based emissions for 2022 decreased by 15% from 2021 due to lower consumption and as a result of UK grid electricity conversion factors reducing due to lower UK coal generation, and higher renewable and nuclear generation. Scope 3 location-based emissions increased by 416% due to higher demand for business travel following the end of COVID-19 health restrictions in 2022.

The intensity ratio is calculated using square metre ("SQM") of UK real estate. This is considered most appropriate as the service entity subsidiaries of the Morgan Stanley Group recharge property costs to the Group using SQM reflecting their usage. In addition, the Morgan Stanley Group manages its carbon emissions using this metric.

An independent third party provided limited assurance of the reported energy and emissions data for 2021 and will do so for 2022 data as part of the Morgan Stanley's global greenhouse gas inventory management process later in 2023. To Morgan Stanley's knowledge there are no material omissions or misstatements reported herein.

Environmental and Social Risk Management

A Morgan Stanley-wide approach is taken to the management of environmental and social risks that could impact its reputation. Morgan Stanley's ESRM Group provides internal subject matter expertise on environmental and social risk, conducts diligence on relevant transactions, and monitors emerging environmental and social issues.

Due diligence and risk management processes are designed to identify, assess and address potentially significant environmental and social issues that may impact Morgan Stanley, clients and other stakeholders. As outlined in Morgan Stanley's Environmental and Social Policy Statement, Morgan Stanley has tailored approaches to certain sectors and activities, including carbon-intensive sectors. Transactions that meet designated environmental and social risk criteria may require approval by the Global Franchise Committee, or Regional Franchise

Committees such as the EMEA Franchise Committee, as well as senior management. This Policy Statement is reviewed annually and updated to reflect strategy and key developments. For further detail, refer to Morgan Stanley's Environmental and Social Policy Statement which can be found at http://www.morganstanley.com/about-us-governance.

Human Rights in the Supply Chain

The Morgan Stanley Group is committed to being a responsible corporate citizen and fulfilling the important role business can play in protecting and advancing global standards for human rights including equal opportunity, the freedom to associate and bargain collectively, and the elimination of modern slavery, human trafficking and harmful or exploitative forms of child labour.

Human rights considerations are incorporated into our transaction due diligence process, our engagement with companies, our supplier expectations, and our own operations.

Morgan Stanley is committed to complying with the laws and regulations of the countries in which it operates while simultaneously conducting business and encouraging the promotion of human rights through its policies, standards, and practices. Its approach is guided by leading frameworks, including the Universal Declaration of Human Rights, adopted by the United Nations ("U.N.") General Assembly and the U.N. Guiding Principles on Business and Human Rights.

Morgan Stanley's Supplier Code of Conduct outlines expectations with regard to human rights, employment and non-discrimination practices, health and safety, diversity and inclusion, and data protection. As outlined in the Supplier Code of Conduct, suppliers must conduct their operations in a socially responsible, non-discriminatory manner, and in full compliance with applicable laws including, but not limited to, those associated with personal information, equal opportunity, child labour, forced or compulsory labour, working hours and compensation, freedom of association, collective bargaining and a harassment-free work environment.

Each year, Morgan Stanley publishes its Modern Slavery and Human Trafficking Statement in accordance with Section 54 of the UK Modern Slavery Act 2015 that outlines the steps taken by Morgan Stanley during the preceding financial year to address the risk of modern slavery in its own operations and supply chain, as well as future plans in that regard.

Both the Supplier Code of Conduct and the Modern Slavery Statement are part of the contractual supplier agreements. If Morgan Stanley finds information through its negative media searches that a supplier is violating them, they would be considered to be in breach of contract, and subject to termination of the supplier agreement. For assessments completed in 2022, the Group has not found and is not aware of any suppliers engaging in Modern Slavery and Human Trafficking.

For further detail, refer to Morgan Stanley's Human Rights Statement, Modern Slavery and Human Trafficking Statement, Environmental and Social Policy Statement, and Supplier Code of Conduct, which can be found at http://www.morganstanley.com/about-us-governance.

Anti-Corruption and Bribery

The Group, principally through Morgan Stanley Group's Legal and Compliance Division, has established and implemented policies, procedures, and internal controls reasonably designed to comply with applicable anti-corruption laws and regulations in the jurisdictions in which it operates.

The Morgan Stanley Group's Global Anti-Corruption Policy, which is updated annually and approved by the Audit Committee, addresses corruption risks and prohibits offering, promising, giving or authorising others to give anything of value, either directly or indirectly, to any party, to improperly obtain or retain business or gain an improper business advantage. It also prohibits receiving, or agreeing to receive, anything of value that results or may result in the improper performance of employees' duties at Morgan Stanley. These values are embedded within the Morgan Stanley Group's Code of Conduct, to which employees must attest their understanding of, and adherence to, on an annual basis. For details, refer to:

https://www.morganstanley.com/about-us-governance/code-of-conduct

An annual risk assessment is performed to consider key areas of potential corruption risk to the Morgan Stanley Group.

Anti-corruption training is provided to all staff globally on an annual basis and targeted training is additionally conducted as necessary.