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# Morgan Stanley & Co. International plc

## Report and financial statements

## 31 December 2021

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# STRATEGIC REPORT

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 2021.

## Group and Company overview

### *The Company, Governance and Stakeholders*

The Company operates within the financial services industry and, as such, is subject to extensive supervision and regulation. In certain circumstances, this supervision may be applied to Morgan Stanley International Limited ("MSI"), an intermediate parent undertaking and the ultimate United Kingdom ("UK") parent undertaking of the Company. The Company also shares elements of its Corporate Governance with MSI and the MSI Group (MSI together with all of its subsidiary undertakings). Throughout the Strategic Report the Directors may refer to policies, procedures and practices of MSI and the MSI Group that the Company and/or the Group may be covered by, or may share.

The ultimate parent undertaking and controlling entity is Morgan Stanley. 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, together with the Group and Morgan Stanley's other subsidiary undertakings, form the "Morgan Stanley Group".

The Company and the Group adopt policies and procedures consistent with the Morgan Stanley Group to the extent permissible by local law and regulation. More information on Morgan Stanley can be accessed on the website www.morganstanley.com.

The Group follows the core values of the Morgan Stanley Group. The core values are designed to guide decision making aligned with 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 outlined in the 'Corporate Governance' section.

**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; 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 and includes providing 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. The French branch was established by the Company in April 2021. Details of the Company's subsidiaries can be found in note 14 and in the Appendix to the Financial Statements.

### *Overview of 2021*

The Group's net revenues increased by 17% predominantly driven by higher equity product trading activity levels and higher capital markets activity volume. As a result the Group's profit after tax increased to $1,351 million, a 39% increase as compared to the prior year. See 'Overview of 2021 Financial Results' for further information.

In response to the continued prevalence of the coronavirus disease ("COVID-19") throughout 2021, health measures implemented by the Group and the Morgan Stanley Group continued, with the workforce successfully working remotely as needed.

The Group also continued to successfully implement its transition plan for Interbank Offered Rates ("IBOR") exposures. For further details on COVID-19 and IBOR transition, refer to 'Group and Company Overview - Business Environment'.

During the year, the Company complied with all its capital and liquidity requirements. See 'Liquidity and Capital Management and Regulation' for further detail.

Another key focus of the Group was the continued integration of climate risk, establishing a Climate Risk framework with a Board level portfolio stress limit. Refer to 'Risk Management - Climate Risk' for further information.

## *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"). The PRA is a subsidiary of the Bank of England ("BOE") and is responsible for prudential regulation of systemically important institutions. The FCA regulates conduct matters of all market participants, including the Company.

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") (as of November 2021) and is provisionally registered with the Commodity Futures Trading Commission ("CFTC") as a Swap Dealer. These swap dealer registrations provide a comprehensive regulatory framework applicable to the Company's US-related swap and security-based swap dealer activities.

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 European Union ("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 and as described in 'Liquidity and Capital Management and Regulation – Temporary Transitional Power', from 1 January 2021, EU law has largely continued to apply in the UK in the same way as prior to 31 December 2020. The discussion of the standards that apply Temporary Transitional Power ("TTP") and their management can be found in 'Liquidity and Capital Management and Regulation'. The TTP period expired on 31 March 2022. From 1 April 2022 the Company has been compliant with the UK onshored regulatory obligations.

**Recovery and Resolution:** The Company is subject to regulatory requirements on recovery and resolution planning set by the PRA and the 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 'Liquidity and Capital Management and Regulation – Recovery and Resolution Planning' for further information.

**Outlook:** The Company continues to monitor the changing political, tax and regulatory environment. It is likely that there will be further changes in the way financial institutions are regulated in the UK and other markets in which the Company operates, although it remains difficult to predict the exact impact these 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.

## *Risk Factors and Business Environment*

Exposure to risk factors and the current business environment in which it operates may impact the business results of the Group's operations.

### 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 in order to execute its business strategy.

# STRATEGIC REPORT

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, Liquidity & Funding and Operational risks. A description of the principal risks and how these risks are managed within the Group is outlined in detail within the relevant risk's section of 'Risk management'. Climate risk is largely managed through these principal risks.

**Business Environment**

During 2021, the Group has been impacted by factors in the global environment in which it operates, each of which introduces risks and uncertainties that may adversely affect the results of operations of the Group. The continued prevalence of COVID-19 throughout 2021 created ongoing challenges for businesses, however the global economy which had contracted in 2020 began to recover.

*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. In particular, the effects on the Group of the ongoing COVID-19 pandemic, the related global economic crisis and recent geopolitical tensions and armed conflicts continue to represent significant uncertainty factors.

*COVID-19*

Although the global economy has begun to recover from the COVID-19 pandemic, as many health and safety restrictions have been lifted and vaccine distribution continues to increase, certain adverse consequences of the pandemic continue to impact the global economy and may persist for some time. These include labour shortages and disruptions of global supply chains. The growth in economic activity and demand for goods and services, alongside labour shortages and supply chain complications, has also contributed to rising inflationary pressures. Should these ongoing effects of the pandemic continue for an extended period or worsen, the Group could experience reduced client activity and demand for products and services.

Morgan Stanley and the Group continue to be fully operational and, recognising that local conditions vary for offices around the world and that the trajectory of the virus continues to be uncertain, employees are able to work from home and in offices as deemed necessary. If significant portions of the workforce, including key personnel, are unable to work effectively because of illness, government actions, or other restrictions in connection with the pandemic, the impact of the pandemic on the Group's business could be exacerbated.

The extent to which the consequences of the COVID-19 pandemic affect the Group's business, results of operations and financial condition, as well as its regulatory capital and liquidity ratios and ability to take capital actions, will depend on future developments that remain uncertain. This includes the rate of distribution and administration of vaccines globally, the severity and duration of any resurgence of COVID-19 variants, future actions taken by governmental authorities, central banks and other third parties. Moreover, the effects of the COVID-19 pandemic may heighten many of the other risks described in the Strategic Report.

*UK withdrawal from the EU*

The transition period for the UK's withdrawal from the EU ended on 31 December 2020. The transfer of clients, exchanges and businesses was substantially completed in 2020, with some remaining clients transferred during 2021 to the Morgan Stanley Group's EU German Group. The transfer of clients in 2021 combined with the transfer of clients, exchanges and businesses in 2020 did not have a material impact on the Company's or the Group's financial position or on their 2021 financial results. The Morgan Stanley Group continues to provide cross-border banking and investment and other services in EU member states through its EU German Group.

*Escalation of War in Ukraine*

The Group has limited direct exposure to Russia and Ukraine. However, there may be negative effects to the global economy due to the current disruption to the financial markets, global trade payment systems and capital flows as well as from the impact of sanctions. The extent to which the impact to the global economy affects the Group will depend on future developments that are highly uncertain and cannot be predicted. The Group will continue to closely monitor events and their potential impact.

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

The Morgan Stanley Group continues to implement its firm-wide transition plan for LIBOR and other interest rate benchmarks (collectively, the "IBORs") exposures. The Group's primary IBOR exposures arise on its derivative contracts with clients and other external counterparties. As of 31 December 2021, a substantial majority of the Group's external derivatives contain fallback provisions, or otherwise have an expected path which will allow for the transition to an alternative reference rate upon the cessation of the applicable LIBOR rate. The Group's IBOR exposures on external non-derivative financial assets and financial liabilities are not considered to be significant following the successful transition for rates that were discontinued on 31 December 2021. See note 35 for further detail.

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# Financial Performance and Condition

### *Financial Performance Indicators*

In order to effectively implement 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** | **2021** | **2020** |
|---|---|---|
| Total shareholders' equity at beginning of the year | 21,021 | 20,561 |
| Profit after tax | 1,351 | 969 |
| Return on shareholders' equity | 6.4% | 4.7% |

*Leverage ratio (Company)*


| **in $ millions** | **2021** | **2020** |
|---|---|---|
| Leverage exposure | 496,231 | 474,169 |
| Tier 1 capital | 20,522 | 19,606 |
| Leverage ratio | 4.1% | 4.1% |

*Tier 1 capital ratio (Company)*


| **in $ millions** | **2021** | **2020** |
|---|---|---|
| Risk-weighted assets ("RWAs") | 136,746 | 155,535 |
| Tier 1 capital | 20,522 | 19,606 |
| Tier 1 capital ratio | 15.0% | 12.6% |

*Liquidity coverage ratio[1] (Company)*


| **in $ millions** | **2021** | **2020** |
|---|---|---|
| Liquidity buffer – High quality liquid assets ("HQLA") | 40,982 | 38,193 |
| Liquidity coverage ratio | 196% | 201% |

1. Calculated as the average of the preceding twelve months

**Other Performance Indicator**

*Return on assets (Group)*


| **in $ millions** | **2021** | **2020** |
|---|---|---|
| **Return on assets** | | |
| Total assets at beginning of the year | 597,789 | 502,508 |
| Profit after tax | 1,351 | 969 |
| Return on assets | 0.23% | 0.19% |

Movements in key performance and other performance indicators are primarily explained by movements in the financial statement components in the following 'Overview of 2021 financial results' section, as well as 'Liquidity and Capital Management and Regulation - Capital Resources' and 'Liquidity and Capital Management and Regulation - Liquidity Coverage Ratio'.

## STRATEGIC REPORT

### *Overview of 2021 Financial Results*

**Income Statement**

Set out below is an overview of the Group's financial results for the years ended 31 December 2021 and 31 December 2020.

| in $ millions | 2021 | 2020 | Increase/ (decrease) | Variance % |
|---|---|---|---|---|
| Investment banking | 1,801 | 1,312 | 489 | 37% |
| Sales and trading | 5,689 | 5,082 | 607 | 12% |
| Other | 75 | 54 | 21 | 39% |
| **Net revenue** | **7,565** | **6,448** | **1,117** | **17%** |
| Staff related expenses | 2,154 | 1,843 | 311 | 17% |
| Non-staff related expenses | 3,473 | 3,031 | 442 | 15% |
| **Operating expense** | **5,627** | **4,874** | **753** | **15%** |
| Net impairment reversal | 2 | 1 | 1 | 100% |
| **Profit before tax** | **1,940** | **1,575** | **365** | **23%** |
| Income tax expense | 589 | 606 | (17) | -3% |
| **Profit after tax** | **1,351** | **969** | **382** | **39%** |

The consolidated income statement for the year is set out on page 49 and the geographical split is in 'Segment reporting' note 25.

The Group reported a 39% increase in profit after tax for the year, driven by higher levels of equity product trading activity and higher capital markets activity partially offset by lower fixed income product revenues.

The increased activity levels referred to above occurred primarily in the Europe, Middle East, and Africa ("EMEA") and Asia geographic segments of the Group's business, resulting in increases in their absolute contributions to the Group's profit before tax.

The EMEA equity product revenues in 2020 were negatively impacted by lower corporate dividends received on sales and trading positions. In the current year corporate dividends partially recovered. This was partially offset by a reduction in fixed income product revenues as those markets normalised compared to the prior year.

| | Net revenues ($ millions / %) | | Profit before tax ($ millions / %) | |
|---|---|---|---|---|
| **2021** | | | | |
| EMEA | 5,174 | 68% | 1,138 | 59% |
| Asia | 2,014 | 27% | 701 | 36% |
| Americas | 377 | 5% | 101 | 5% |
| **Total** | **7,565** | | **1,940** | |
| **2020** | | | | |
| EMEA | 4,492 | 70% | 825 | 52% |
| Asia | 1,533 | 23% | 565 | 36% |
| Americas | 423 | 7% | 185 | 12% |
| **Total** | **6,448** | | **1,575** | |

The Group also benefitted from a lower effective tax rate in the current year, as compared to 2020, mainly driven by a reduction in tax reserves partly offset by an increase in foreign withholding taxes (see Note 8).

*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 activity revenue increased 37% reflecting higher equity and fixed income underwriting volumes and increased advisory revenues due to higher completed transactions.

Sales and Trading

Sales and trading income is included in commission income of $1,346 million (2020: $1,191 million) and net trading income of $4,343 million (2020: $3,891 million).

Sales and trading 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 commission income increased 13% primarily in equity products, particularly within the Asia segment from higher client activity.

Sales and trading net trading income is comprised of 'Net trading income', 'Net loss from other financial instruments held at fair value' and 'Net interest expense' as set out in the consolidated income statement on page 49. These revenues, can be affected by a variety of interrelated factors, including market volumes, bid-offer spreads and the impact of market conditions on inventory held to facilitate client activity, as well as the effect of hedging activity.

Sales and trading net trading income increased by 12%, reflecting an increase from equity products partially offset by a decrease from fixed income products.

The equity products revenues increased mainly in the EMEA and Asia segments, driven by higher client activity, client balances and the impact of market conditions on inventory held to facilitate client activity. EMEA equity products also benefitted from the partial recovery of corporate dividends which were significantly reduced in 2020.

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The decrease in fixed income product revenues was primarily driven by tighter bid-offer spreads and lower client activity across the main product types; Global macro products, Credit products and Commodities derivatives.

'Net interest expense' decreased by 2%, reflecting the decrease in average interest rates, most notably the British pound sterling and the US dollar, while Euro interest rates remained negative. This interest rate environment has resulted in negative interest on assets being recorded in the 'Interest income' line. Additionally, fees paid on securities borrowed transactions are also recorded in 'Interest income'. This has not had a significant impact on 'Net interest expense'. 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.

For the Group, staff-related expenses primarily reflect those of the 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 above. Refer to 'Related party Disclosures' note 34 for further details on Morgan Stanley's Global Transfer Pricing Policies.

Staff-related expenses for revenue-producing employees in the Institutional Securities business include base salary and benefits. It may also include incentive compensation that is determined following the assessment of the Morgan Stanley Group's, business unit's and individual's performance.

Staff-related expenses increased by 17%. This increase was driven by higher mark-to-market on deferred equity compensation, primarily due to the increase in the Morgan Stanley share price during the year, as well as higher headcount and strengthening of the British pound sterling against the US dollar.

Non-staff related Expenses

Non-staff related expenses increased by 15%, reflecting an increase in volume-related expenses, including brokerage and transaction taxes, from increased client activity.

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

*Income Tax Expense*

The Group's tax expense represents an effective tax rate ("ETR") of 30.4% (2020: 38.5%), which is greater than the average standard rate of UK corporation tax (inclusive of the UK Banking surcharge) of 27% (2020: 27%). The main reason for the higher effective tax rate is due to the effect of taxes in foreign jurisdictions, partially offset by the impact of the tax deductible Additional Tier 1 ("AT1") coupons.

**Balance sheet**

| in $ millions (audited) | 2021 | 2020 | Increase/ (decrease) | Variance % |
|---|---|---|---|---|
| Cash and short term deposits | 28,532 | 24,934 | 3,598 | 14% |
| Trading financial assets | 332,635 | 375,009 | (42,374) | -11% |
| Secured financing | 125,895 | 113,797 | 12,098 | 11% |
| Trade and other receivables | 79,334 | 83,143 | (3,809) | -5% |
| Other assets | 790 | 906 | (116) | -13% |
| **Total Assets** | **567,186** | **597,789** | **(30,603)** | **-5%** |
| Trading financial liabilities | 300,325 | 340,392 | (40,067) | -12% |
| Secured borrowing | 97,262 | 88,350 | 8,912 | 10% |
| Trade and other payables | 94,052 | 92,443 | 1,609 | 2% |
| Debt and other borrowings | 52,679 | 54,928 | (2,249) | -4% |
| Other liabilities | 693 | 655 | 38 | 6% |
| **Total Liabilities** | **545,011** | **576,768** | **(31,757)** | **-6%** |
| **Total Equity** | **22,175** | **21,021** | **1,154** | **5%** |

*Assets and Liabilities*

The decrease in 'Trading financial assets' and 'Trading financial liabilities' was primarily driven by derivative assets and liabilities, respectively, as a result of fair value movements caused by interest rates increasing in the year across most major markets, and by foreign exchange rates, as the US dollar strengthened against major currencies, including the Euro.

The increase in 'Secured financing' and 'Secured borrowing' is driven by higher client activity towards the end of the year.

*Equity*

Total Equity increased by $1,154 million, primarily as a result of profit after tax of $1,351 million, offset by dividends paid of $237 million.

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### *Key Accounting Policies and Judgements*

Throughout 2021, 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 the fair value of financial instruments. 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 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 materially reasonable.

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

**Uncertain Tax 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. The Group has reserves arising on a number of uncertain tax matters, for which management has made judgements and interpretations about the application of inherently complex tax laws when determining these provisions. Whilst a range of outcomes is foreseeable, management considers the amount reserved to be a reasonable estimate of expected future liabilities after consideration of all pertinent facts.

Refer to accounting policy note 3(o), as well as note 18 for more details on the Group's accounting policy and provisions.

# Liquidity and Capital Management and Regulation

The Company views capital and liquidity as an important source of financial strength and manages and monitors its capital and liquidity in line with established policies and procedures and in compliance with local regulatory requirements. In line with 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 disclosure 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 of 31 December 2021, the Company's TCR was $15.0Bn, equivalent to 11.0% of RWAs. In addition, the PRA sets a buffer if required, which is available to support the Company in a stressed market environment.

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

| **$ Billions** | **2021** | **2020** |
|---|---|---|
| Common Equity Tier 1 ("CET1") capital | 8.4 | 9.3 |
| Tier 1 capital | 11.3 | 12.4 |
| TCR | 15.0 | 16.5 |

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.

In order 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 2021 and 31 December 2020:

| **in $ millions** | **2021** | **2020** |
|---|---|---|
| Total Company equity | 22,330 | 21,152 |
| Regulatory adjustments | (1,808) | (1,546) |
| Tier 1 Capital | 20,522 | 19,606 |
| *Of which* | | |
| *CET1* | *17,022* | *16,106* |
| *Additional Tier 1* | *3,500* | *3,500* |
| Tier 2 Capital | 5,376 | 4,975 |
| **Total Capital Resources** | 25,898 | 24,581 |
| | | |
| CET1 capital ratio | 12.4% | 10.4% |
| Tier 1 capital ratio | 15.0% | 12.6% |
| Total capital ratio | 18.9% | 15.8% |

Refer to 'Overview of 2021 financial results' for further detail on the increase in total Company equity. Ratios increased as compared to prior year as CET1 and Tier 1 Capital increased, while Risk-Weighted Assets ("RWAs") decreased (see below for further information).

*RWAs*

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

| **in $ millions** | **2021** | **2020** |
|---|---|---|
| Credit RWAs | 77,267 | 91,090 |
| Market RWAs | 49,412 | 55,362 |
| Operational risk RWAs | 10,067 | 9,083 |
| **Total RWAs** | **136,746** | **155,535** |

RWAs decreased by $18,789 million over the year, primarily due to the reduction in Concentration Risk RWAs following the expansion of the PRA Internal Model Method permissions, reduced Credit Risk derivative exposures and reduction in market volatility on market risk measures.

**Leverage Ratio**

The BCBS framework defined a simple, transparent, non-risk based leverage ratio to act as a supplementary measure to the risk-based capital requirements.

The leverage ratio is equal to the ratio of Tier 1 capital to a total leverage exposure (certain assets plus certain off-balance sheet exposures adjusted for Tier 1 capital deductions). Although there is no current binding leverage requirement, the Group manages 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.

The Company's leverage ratio is detailed in the table below.

| in $ millions | 2021 | 2020 |
|---|---|---|
| Tier 1 Capital | 20,522 | 19,606 |
| Leverage Exposure | 496,231 | 474,169 |
| Leverage Ratio | 4.1% | 4.1% |

The Company will be subject to a binding leverage ratio of 3.25% from 1 January 2023 as part of the UK's implementation of the prudential standards included in the CRR II.

## *Funding and Liquidity Management*

**Funding and Balance Sheet Management**

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, deposits, commercial paper, letters of credit and lines of credit. 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 ongoing 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 factors and industry-wide factors.

At 31 December 2021 and 31 December 2020, the Company's senior unsecured ratings were as follows:

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

**Regulatory Liquidity and Funding Requirements**

The Company is subject to the liquidity regulations prescribed by the PRA which are based on the Liquidity Coverage Ratio ("LCR") of Pillar 1.

The Company is also subject to Pillar 2 requirements, assessed by the PRA, for risks not covered in the LCR (Pillar 1). These risks are identified by the Company and documented in the Internal Liquidity Adequacy Assessment Process ("ILAAP") that is then reviewed and assessed by the PRA as part of the Liquidity Supervisory Review Process ("L-SREP"). As a result, the Company is required to hold sufficient liquidity in the form of HQLA to meet both Pillar 1 and Pillar 2 requirements.

The Company has daily monitoring and reporting processes in place to ensure compliance with its regulatory requirements. The Company complied with all liquidity requirements during the year.

| $ millions | 2021 | 2020 |
|---|---|---|
| HQLA | 40,982 | 38,193 |
| Liquidity coverage ratio[1] | 196% | 201% |

1. Calculated as the monthly average value for the preceding twelve months

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The Company manages HQLA to exceed Pillar 1 and Pillar 2 requirements. HQLA increased during the year as the Pillar 1 requirement increased. As Pillar 2 is a fixed requirement, the minimum LCR % is variable.

The Company is subject to a binding Net Stable Funding Ratio of 100% from 1 January 2022 as set out in the Liquidity (CRR) Part of the PRA Rulebook.

### *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 significant 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 the form of a resolution pack and ad hoc regulatory submissions, as necessary under UK statutory and regulatory requirements. The Company also complies with PRA rules on operational continuity in resolution, contractual recognition of bail-in and financial contract stays, and the Minimum Requirement for capital resources 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 onshored 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 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.

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### *Regulatory Developments*

**Finalising Basel III Reforms**

BCBS sets the standard for international banking prudential regulation in a series of accords ("Basel Accords"). It is a forum for regular cooperation on the supervision of the banking system, and is made up of national banks and supervisory authorities from 28 countries. The Basel Accords are not directly applicable legislation, and they apply only to internationally active banks. The Basel Accords have been updated a number of times, most recently through a series of reforms known collectively as Basel III. The Basel Accords are implemented in the EU via the CRD and the CRR.

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: Fundamental Review of the Trading Book, Standardised Approach to Counterparty Credit Risk, Net Stable Funding Ratio, revised Leverage Ratio, revised Large Exposure Framework, and revised Pillar 3 disclosure requirements. These rules were effective 1 January 2022 and have now been fully implemented.

Following the impact of the COVID-19 pandemic and its impact on the global banking system, the BCBS has decided to defer the remaining standards of the Basel III reform package by one year to 1 January 2023. The key amendments provide updates to the standardised measures for calculating capital requirements and include an aggregate floor for RWA generated by the internal models, which will be set at 72.5% of total standardised RWA. This floor will be phased in over five years and the Group expects to remain fully compliant. Banks will also need to disclose their RWA based upon the standardised approaches.

The PRA has indicated they intend to implement these requirements in line with the proposed BCBS timetable. However, given no draft rules have yet been proposed, the final timing and impact remains uncertain.

**Environmental, Social and Governance ("ESG")**

On 21 April 2021, the European Commission adopted a proposal for a Corporate Sustainability Reporting Directive ("CSRD") which if finalised in its current form will amend the existing reporting requirements of the Non-financial Reporting Directive ("NFRD"). The CSRD proposal seeks to (i) extend the scope of the NFRD to include all large companies and all companies with securities listed on an EU regulated market; (ii) introduce more detailed reporting requirements, including a requirement to report according to mandatory EU sustainability reporting standards ("the Standards"); (iii) require audit assurance of the reported information; and (iv) introduce digital 'tagging' of the reporting information so it is machine readable and feeds into the European Single Access Point. If agreement is reached on the CSRD in the first half of 2022 and the Standards are adopted before the end of 2022, the requirements will apply to financial years commencing on or after 1 January 2023.

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 from 1 January 2022. 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 (the "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 an 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, Her Majesty's Treasury decided to retain the regulators' TTP which was introduced through 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 onshored regulatory obligations.

# Risk management

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 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 other management level committees. The corporate governance structure between MSI and the Company is described in further detail within the 'Corporate Governance Framework' 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 type of risk that the Group is willing to accept in order 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 line 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 risk and reputational risk remain inherent in doing business and thus cannot be entirely eliminated.

The Group's 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 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

The 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 annually.

### Control Framework

The Group operates a control framework consistent with the "Three Lines of Defence" model. There is clear delineation of responsibilities between the Business Units and Support Functions (First Line), Independent Risk Management and Control Functions (Second Line) and 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 MSI 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 MSI Board on financial, operational, and compliance controls. The Internal Audit Department reports to the

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Audit Committee and is independent of the Business Units, Support Functions and Risk Management and Control Functions. Internal Audit provides independent assurance on 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 an 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. 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, as set forth in its Corporate Governance Policies. The Morgan Stanley Group's Culture, Values and Conduct Committee, along with the Compliance and Conduct Risk Committee, are the senior management committees that oversee the Morgan Stanley-wide culture, values and conduct program and report regularly to the Morgan Stanley Board. 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. Every new employee and every current employee, annually, is required to certify their understanding of and adherence to the Code of Conduct.

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 at Morgan Stanley.

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.

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.

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, performance management, in relation to any allegation of retaliation, other detrimental treatment by the Firm or violations of discrimination and harassment policies.

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

**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 and funding risk. Other risks that are monitored regularly include leverage risk, valuation risk, conduct risk, reputational risk, model risk, climate risk and earnings at risk.

The MSI Group maintains risk limits and tolerances at various levels of the governance structure to support linkages between the MSI Group's overall risk appetite and more granular risk-taking decisions and activities. Using a suite of tools, most notably limits, these risks are tracked, monitored and reported to the appropriate executive risk committees, MSI Risk Committee and the

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MSI Board. All risk limits are reviewed periodically as appropriate and at least annually. Figure 1 outlines the MSI Group's Risk Limit Framework for specific risk areas.

**Figure 1 MSI Group limit framework**

| | MARKET RISK | CREDIT RISK | OPERATIONAL RISK | LIQUIDITY AND FUNDING RISK |
|---|---|---|---|---|
| RISK METRICS AND LIMITS | • MSI Group-wide macroeconomic scenario loss limits<br>• Legal entity and Division Value at Risk ("VaR") and exposure limits<br>• Granular risk exposure limits are allocated by desk/products | • MSI Group-wide macroeconomic scenario loss limits<br>• MSI Group single name, country and industry credit limits<br>• Climate Risk Industry Limits | • Quantitative tolerances for each top operational risk and against an aggregate risk tolerance level | • MSI Board Liquidity Limits<br>• Portfolio level liquidity and funding mix limits<br>• 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 Group's principal risk management tools which are used to identify and assess the impact of scenarios on its portfolios. It informs a number of processes and associated decisions. It complements other Group risk metrics by providing a clear and flexible approach to assessing the 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.
- 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.

**Risk Reporting and Measurement**

The 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 tolerance statements. Reporting identifies matters for escalation and decision and highlights emerging risks. Material risk issues are investigated and escalated where appropriate, as per the specific escalation procedures set down by the 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 the 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 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, 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.

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Sound market risk management is an integral part of the Group's culture. The Group is responsible for ensuring that market risk exposures are well-managed and monitored. The Group also ensures transparency of material market risks, monitors compliance with established limits, and ensures that risk concentrations are escalated 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 VaR monitoring 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 management of market risk driven by climate risk, refer to 'Risk Management - Climate Risk'.

**Year end VaR**

The Group's VaR for Primary Risk Categories and Total Management VaR for the years ended 31 December 2021 and 31 December 2020 are shown in the below table. The detailed table can be found in note 26.

| | 95%/ one-day VaR 2021 | | 95%/ one-day VaR 2020 | |
|---|---|---|---|---|
| **in $ millions** | **Period end** | **Average** | **Period end** | **Average** |
| Primary Risk Categories | 23 | 29 | 39 | 27 |
| Credit Portfolio[(1)] | 6 | 7 | 12 | 9 |
| Less diversification benefit[(2)] | (6) | (6) | (9) | (9) |
| **Total Management VaR** | **23** | **30** | **42** | **27** |

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 2021 period-end Total Management VaR of $23 million was lower than the average of $30 million as the 1 year VaR time series by year end did not include the elevated market volatility caused by the COVID-19 pandemic, and a reduction of risk towards year end.

The average Total Management VaR for 2021 was $30 million compared with $27 million for 2020. The increase was primarily driven by an increased exposure in equities offset by decreased market volatility in the VaR time series.

### *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 on 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 management of credit risk driven by climate-related credit risk, refer to 'Risk Management - Climate 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 subject to credit risk and where the Group has entered into credit enhancements, including receiving cash and security 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.

| in $ millions (audited) | 2021 Gross credit exposure (1) | 2021 Credit enhancements | 2021 Net credit exposure | 2020 Gross credit exposure (1) | 2020 Credit enhancements | 2020 Net credit exposure |
|---|---|---|---|---|---|---|
| **Financial instruments – fair value through profit and loss ("FVPL")** | | | | | | |
| Trading financial assets: | | | | | | |
| Derivatives | 242,432 | (229,230) | 13,202 | 284,748 | (272,107) | 12,641 |
| Secured financing | 125,895 | (124,594) | 1,301 | 113,797 | (113,286) | 511 |
| Trade and other receivables | 993 | (777) | 216 | 1,654 | (1,386) | 268 |
| **Unrecognised financial instruments** | | | | | | |
| Loan commitments | 121 | (2) | 119 | 1,766 | (459) | 1,307 |
| | 369,441 | (354,603) | 14,838 | 401,965 | (387,238) | 14,727 |

(1) Gross credit exposure is the carrying amount which best represents the Group's maximum exposure to credit risk, and for recognised financial instruments – FVPL is reflected in the consolidated statement of financial position.

### 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 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 of risk.

The Group's sovereign exposures consist of financial instruments entered into with sovereign and local governments. Its non-sovereign exposures consist of exposures to primarily corporations and financial institutions. The table on the following page shows the Group's five largest non-UK country net exposures as at 31 December 2021. Exposure to other Morgan Stanley Group undertakings has been excluded from this table.

Each reference entity within an index is allocated to that reference entity's country of risk. Index exposures are allocated to the underlying reference entities in proportion to the notional weighting of each reference entity in the index, adjusted for any fair value receivable/payable for that reference entity. Where credit risk crosses multiple jurisdictions, for example, a credit default swap ("CDS") purchased from an issuer in a specific country that references bonds issued by an entity in a different country, the fair value of the CDS is reflected in the Net counterparty exposure column based on the country of the CDS issuer. Further, the notional amount of the CDS, adjusted for the fair value of the receivable/payable, is reflected in the Net inventory column, based on the country of the underlying reference entity.

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***Five largest non-UK country risk net exposures:***

| in $ millions<br>Country | Net inventory[(1)] | Net counterparty exposure[(2)] | Funded lending | Unfunded commitments | Exposure before hedges | Hedges[(3)] | Net exposure 2021[(4)] | Net exposure 2020 |
|---|---|---|---|---|---|---|---|---|
| United States | | | | | | | | |
| Sovereigns | (291) | 28 | - | - | (263) | 1 | (262) | |
| Non-sovereigns | 296 | 4,952 | 25 | - | 5,273 | - | 5,273 | |
| United States | 5 | 4,980 | 25 | - | 5,010 | 1 | 5,011 | 4,691 |
| Korea | | | | | | | | |
| Sovereigns | 967 | 106 | - | - | 1,073 | (26) | 1,047 | |
| Non-sovereigns | 54 | 568 | - | - | 622 | - | 622 | |
| Total Korea | 1,021 | 674 | - | - | 1,695 | (26) | 1,669 | 745 |
| Japan | | | | | | | | |
| Sovereigns | 246 | 20 | - | - | 266 | (53) | 213 | |
| Non-sovereigns | 237 | 813 | - | - | 1,050 | (73) | 977 | |
| Total Japan | 483 | 833 | - | - | 1,316 | (126) | 1,190 | 1,936 |
| Norway | | | | | | | | |
| Sovereigns | (5) | 705 | - | - | 700 | - | 700 | |
| Non-sovereigns | 3 | 61 | - | - | 64 | - | 64 | |
| Total Norway | (2) | 766 | - | - | 764 | - | 764 | 456 |
| Canada | | | | | | | | |
| Sovereigns | 52 | 23 | - | - | 75 | - | 75 | |
| Non-sovereigns | 136 | 383 | - | - | 519 | - | 519 | |
| Total Canada | 188 | 406 | - | - | 594 | - | 594 | 327 |

(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) Net counterparty exposure (i.e. repurchase transactions, securities lending and OTC derivatives) taking into consideration legally enforceable master netting agreements and collateral.

(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) In addition, as at 31 December 2021, the Group had exposure to these countries for overnight deposits with banks of approximately $3,231 million.

## *Liquidity and Funding Risk*

### Definition

Liquidity and funding risk refers to the risk that the Group will be unable to finance its operations due to a loss of access to the 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 and funding risk as a result of its trading, investing and client facilitation activities.

### Governance

The primary goal of the Company's liquidity risk management framework is to ensure that the Company has access to adequate funding across a wide range of market conditions and time horizons. The framework is designed to enable the Company to fulfil its financial obligations and 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.

Additional information on the required liquidity framework and liquidity and funding limits is presented in note 26.

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## *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). 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 on 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 are presented in note 26.

### Cyber and Information Security Risk Management

The Group maintains a program that oversees its cyber and information security risks. Cybersecurity and information security policies, procedures and technologies are designed to protect the Group's information assets against unauthorised disclosure, modification or misuse and are also designed to address regulatory requirements. 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, an information or security breach or a technology failure could adversely affect the Morgan Stanley Group's ability to conduct business, manage exposure to risk or 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.

## *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 loss to reputation the Group may suffer as a result of a 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.

Management makes judgements, estimates and assumptions regarding the outcome of uncertain tax matters. Where required and in accordance with relevant accounting standards, tax provisions are recognised in relation to such matters, for which management has made judgements and interpretations about the application of inherently complex tax laws when determining these provisions. Whilst a range of outcomes is foreseeable, management considers the amount reserved to be a reasonable estimate of expected future liabilities after consideration of all pertinent facts. Refer to 'Key accounting policies and judgements - Uncertain tax provisions' for further information.

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**Risk Mitigation**

In addition, 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.

### *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, or damage to a firm's reputation. 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 Department ("MRM") 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 and owners, 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 department, as the second line of defence and responsible for the oversight of model risk, 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. MRM 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 department also oversees the development of controls to support a complete and accurate Morgan Stanley-wide model inventory.

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

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

### *Climate Risk*

**Climate Risk Strategy**

Climate change and environmental degradation pose a significant risk to the global financial system and its ability to sustain a productive, growing economy. Climate change has the potential to impact many facets of the economy, including property, agriculture, infrastructure as well as local communities and individual health. These impacts pose a risk to the financial system, including disorderly price adjustments, disruption to market liquidity, as well as to financial institutions navigating rapidly changing consumer and business preferences, policies and technologies. Additionally, how these risks compound with one another is still uncertain, and market prices may not currently reflect the reality of climate risk.

Climate change drives a number of existing risks for the Morgan Stanley Group and the Group, including credit, operational, market, and liquidity/funding risk, and is managed within the Group's existing risk appetite. Overall, the Group's strategy for managing risks from climate change is closely aligned with Morgan Stanley Group strategy as articulated in Morgan Stanley's Taskforce on Climate-related Financial Disclosures ("TCFD") report (see 'Morgan Stanley Group sustainability disclosures').

## STRATEGIC REPORT

The management of climate risk leverages existing governance and risk management processes of the Group as described in more detail in the following sections. For further detail on how the Group addresses business disruption risk, refer to note 26.5.3 'Business continuity management and disaster recovery'. For detail of Morgan Stanley's approach to managing environmental and social reputational risk, refer to 'Sustainability - Environmental and social risk management'.

**Governance**

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. Responsibilities include chairing the MSI Group Climate Risk Steering Committee which has overseen Morgan Stanley's development of EMEA's climate risk management framework and response to EMEA climate-related regulatory guidance and requirements.

As of early 2022, the MSI Group Climate Risk Steering Committee has been merged with the wider EMEA Sustainability Steering Committee (see 'Sustainability') and formalised as a management-level Committee that reports into the executive-level EMEA Operating and Risk Committees.

**Financial Risk Management**

In line with TCFD recommendations and the PRA Supervisory Statement 3/19, the Morgan Stanley Group divides climate risk into two main categories: transition risks and physical risks.

- **Transition risks:** Transitioning to a low-carbon economy will entail extensive regulatory, policy, legal, technology and market initiatives as society adapts to climate change and mitigates its causes. 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. 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.

*Managing Climate Risk*

Climate risk is managed by integrating climate change considerations within the MSI Group Risk Framework, the requirements of which are incorporated in policies and procedures across credit, market, operational, and liquidity and funding risk. The Climate Risk Framework brings together how climate risk has been incorporated into the existing MSI Group Risk Framework (for more detail, refer to the following sections). The Climate Risk 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 introduced a granular risk identification and materiality assessment of climate risks in 2021. This includes:

- **Risk Inventory:** The risk inventory captures climate risks. As climate risks drive existing risks, climate risks are incorporated into the relevant risk taxonomies. Climate risk events considered include those related to transition risk, such as environmental policy (e.g. carbon pricing scenario) as well as a variety of physical risk events.
- **Materiality Assessment:** A quantitative assessment is performed across credit, market, operational, and liquidity and funding to determine the materiality of the impact of climate risk on these risk categories against existing Risk identification materiality thresholds.

In 2021 for the MSI Group, climate risk was assessed as material for credit, market, and operational risk. Liquidity and funding risk was assessed as non-material.

*Risk Appetite and Limit Framework*

Climate risk is incorporated in the MSI Group and Company's Risk Appetite as a driver of existing risks. An MSI Board-level Climate Stress Loss Limit is set across credit and market risk, which is reviewed on an annual basis. The impact of climate risk on operational risk is managed as part of MSI Group's existing operational risk framework.

In addition to the Climate Stress Loss Limit, climate risk is incorporated into the Credit Risk Management

## STRATEGIC REPORT

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 approved a portfolio risk appetite via a Climate Stress Loss Limit. To monitor potential credit and market risk losses against this limit, a short-term transition risk carbon pricing scenario is run monthly with quarterly reporting to the MSI Risk Committee.
- **Industry Sector Limit**: Credit risk limits were established for industries highly exposed to climate risk. This process included a portfolio segmentation of industries into groups with common climate risk profiles. The recently established segment limits enable MSI Group to monitor and manage credit risks from climate risks in MSI Group portfolios.
- **Country Ratings**: Climate 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.

*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, MSI Group assesses the financial impact of environmental policy (e.g. carbon pricing), the key transition risk, in a scenario that captures both counterparty defaults and market price movements. Physical risk vulnerabilities have also been assessed with loss estimated for the highest impact scenario. Limited corporate exposure and generally short-dated counterparty risk mitigate the direct impact of physical risk, which is expected to increase over time. 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:** Workshops are held to assess the impact of a number of physical risk scenarios on the MSI Group, across a varying degree of severities. Scenarios focus on business disruption due to climate change events (including extreme weather) and are selected based on a combination of probability and impact severity. Operational Risk Transition Risk scenarios related to litigation risk are planned for assessment in 2022.

**Long-term Strategy Scenarios:** In addition to the short-term scenarios described above, 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 and targets*

**Climate Stress Loss Limit:** The MSI Group remained within its portfolio Climate Stress Loss Limit throughout 2021.

**Credit Exposures:** The Company'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 transition or physical risk comprise 2% and 1% of the Company's aggregate credit and counterparty risk net current exposure, respectively[1].

[1] Climate risk concentration metrics are calculated based on deposits with central and agent banks, repurchase transactions, securities lending, OTC derivatives and corporate loan commitments after taking into consideration legally enforceable master netting agreements, collateral and credit risk mitigants. Trade and other receivables are excluded.

## Sustainability

The Morgan Stanley Group's sustainability strategy focuses on integrating sustainability into core businesses and support functions. Sustainability activity at Morgan Stanley is organised across three core areas of focus: Sustainable Solutions and Services, the Institute for Sustainable Investing, and Firmwide Sustainability. The Group's approach to sustainability is consistent with that of the Morgan Stanley Group. Further information on the Morgan Stanley Group's approach to integrating sustainability can also be found at www.morganstanley.com/about-us/sustainability-at-morgan-stanley

*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 services designed to help deliver both competitive financial returns and positive environmental and social outcomes. For more on this core focus area, refer to https://www.morganstanley.com/about-us/sustainable-solutions-services

*Institute for Sustainable Investing*

Housed within the Morgan Stanley Group's Global Sustainable Finance ("GSF") team, the Morgan Stanley Institute for Sustainable Investing (the "Institute") delivers actionable analysis to accelerate financial market adoption of climate-focused investing and finance. 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. 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 the following sections on 'Environmental Matters', 'Our People', 'Giving Back to the Community', 'Respect for Human Rights', 'Anti-corruption and Anti-bribery', 'Environmental and Social Risk Management', and https://www.morganstanley.com/about-us/corp-sustainability

### *Environmental Matters*

**Climate Change Strategy**

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

- Support the transition to a low-carbon economy by mobilising capital toward low-carbon solutions for clients and publishing industry-leading research and thought leadership for an investor audience
- Manage climate risk by integrating climate change considerations across all risk management processes and governance structures (see 'Climate Risk')
- Provide relevant, timely climate-related disclosures in Morgan Stanley's TCFD 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 the 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 three carbon-intensive sectors: Auto; Manufacturing; Energy and Power. These interim targets will help the Morgan Stanley Group align the FELI of its corporate loan portfolios with science-aligned sector pathways on its journey to reach net-zero financed emissions by 2050. The MSI Group will set a KPI that monitors its contribution to the Morgan Stanley Group's targets in these three sectors. This will be owned by the MSI Board with a sub-threshold serving as an escalation point for approval based on additional analysis of a client's climate targets and associated transition plans. 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

Critical to climate change strategy is the Morgan Stanley Group's commitment to developing tools and methodologies needed to measure and manage

## STRATEGIC REPORT

financed emissions. As part of that effort, Morgan Stanley is a founding member of the Net-Zero Banking Alliance ("NZBA") and joined the Partnership for Carbon Accounting Financials ("PCAF") and its Steering Committee in July 2020.

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 mobilise capital toward low-carbon solutions 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. For details, refer to: https://www.morganstanley.com/ideas/low-carbon-finance-1-trillion-dollar-pledge

To coordinate and support the EMEA region's efforts around Sustainability, an EMEA Sustainability Steering Committee was established in 2021. This Committee also oversees the implementation of sustainability-related regulatory measures applicable in the EU and UK to Morgan Stanley legal entities. As of early 2022, this Committee has been merged with the MSI Group Climate Risk Steering Committee and formalised as a management-level Committee that reports into the executive-level EMEA Operating and Risk Committees.

**Operational Sustainability**

Morgan Stanley is committed to achieving carbon neutrality by 2022. The goal covers Scope 1 and 2 emissions and Scope 3 business travel. For the UK office portfolio, Morgan Stanley has been procuring 100% renewable electricity across all sites since 2016. For more information on our 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 include:

- Continual assessment of plant and equipment run-times with operational needs;
- 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 and energy awareness training to vendors and staff.

The table on the following page 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 2021) 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 costs to the Group reflecting their usage. Emissions reported relate to the Group's usage of UK properties 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 excludes any emissions relating to employees working from home, as such emissions cannot be quantified reliably.

The table on the following page represents the Group's share of the UK's carbon emissions for the years ended 31 December 2021 and 31 December 2020:

| | 2021 | | 2020 | |
|---|---|---|---|---|
| *Energy consumption used to calculate emissions in kWh** | 57,802,992 | | 55,454,728 | |
| | **CO2e Tonnes**** | | **CO2e Tonnes**** | |
| | **Location based** | **Market based** | **Location based** | **Market based** |
| **Emission source** | | | | |
| Scope 1 – combustion of fuel and operation of facilities | 545 | 545 | 505 | 505 |
| Scope 2 – Electricity, heat, steam and cooling purchased for own use: | 11,694 | - | 12,316 | - |
| **Total scope 1 and scope 2** | 12,239 | 545 | 12,821 | 505 |
| Scope 3 – Commercial air and ground transportation | 709 | 709 | 1,790 | 1,790 |
| Scope 3 – Employee expensed car mileage | 8 | 8 | 18 | 18 |
| **Total emissions** | 12,956 | 1,262 | 14,629 | 2,313 |
| **Intensity ratio (tCO2e/SQM)***** | 0.1492 | 0.0066 | 0.1556 | 0.0061 |

* Energy consumption includes Scope 1, 2 and Scope 3 – Employee expensed car mileage only.
** Tonnes of carbon dioxide equivalent
*** Tonnes of CO2e per square meter 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. The Morgan Stanley Group UK service entities have entered into a contractual arrangement for renewable electricity, as such the Group can report a reduced emission figure based on the specific electricity purchased under the market-based method. The Morgan Stanley Group UK service entities purchase 100% renewable electricity backed by certificates.

Total energy consumption for 2021 increased by 4% from 2020, driven by increased data center electricity consumption as a result of supporting higher demand from business units. Scope 1 and 2 location-based emissions for 2021 decreased by 5% from 2020 as a result of the UK grid electricity conversion factors reducing due to lower UK coal generation, and higher renewable and nuclear generation. This more than offset the increase in electricity consumption. Scope 3 total emission decreased by 60% as a result of COVID-19 health restrictions reducing demand for business in 2021.

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 2020 last year and will do so for 2021 data as part of the Morgan Stanley's global greenhouse gas inventory management process later in the year. To Morgan Stanley's knowledge there are no material omissions or misstatements reported herein.

**Morgan Stanley Group Sustainability Disclosure**

Further information about the Morgan Stanley Group's efforts to support climate change mitigation is available in the TCFD report at www.morganstanley.com/assets/pdfs/Morgan_Stanley_TCFD_Report_2020.pdf

The Morgan Stanley Group's 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/sustainability/Morgan-Stanley_2020-Sustainability-Report_Final.pdf

The TCFD Report and Sustainability Report for 2021 will be published later in the year.

## STRATEGIC REPORT

The Morgan Stanley Group's most recent CDP Climate Change questionnaire is available at https://www.morganstanley.com/content/dam/msdotcom/en/assets/pdfs/Morgan_Stanley_2021_CDP_Response.pdf

### *Environmental and Social Risk Management ("ESRM")*

Morgan Stanley also takes a Morgan Stanley-wide approach 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

### *Respect for Human Rights*

The Morgan Stanley Group is committed to being a responsible citizen, respecting human rights and supporting the protection and advancement of human rights in its business and throughout its supply chain. With operations around the world, the Morgan Stanley Group strives to uphold global standards for responsible business, including equal opportunity, freedom to associate and bargain collectively, and the elimination of child and forced labour.

Each year, the Company publishes a statement in accordance with Section 54 of the UK Modern Slavery Act 2015 that outlines the steps taken to ensure that modern slavery is not taking place in its operations or, to the maximum extent possible, in any of its supply chains. For further detail, refer to Morgan Stanley's Human Rights Statement, and Modern Slavery and Human Trafficking Statement 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 Group's 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.

The Group maintains whistleblowing policies and procedures to ensure that individuals can confidentially report concerns when these arise. Management information regarding the anti-corruption program is reported to appropriate senior management personnel through Legal and Compliance Division governance frameworks.

### *Our People*

The Group's employees are its most important asset. To facilitate talent attraction and retention, the Morgan Stanley Group strives to create a diverse and inclusive workplace, with a strong culture and opportunities for employees to grow and develop in their careers and be supported by competitive compensation, benefits, and health and wellness programs.

## STRATEGIC REPORT

**Diversity & Inclusion**

Morgan Stanley's diversity and inclusion strategy is designed to drive meaningful and sustainable change, and to help achieve a truly diverse and inclusive workforce. It informs the way the Morgan Stanley Group engages with and supports its employees, as well as how it serves clients, investors, and the diverse communities in which Morgan Stanley operates. The strategy is built on five key pillars: accountability, representation, advancement, culture and outreach.

Morgan Stanley Group's commitment to Diversity and Inclusion, including its UK Gender Pay Gap Results and as signatory of the UK Governments' Women in Finance Charter, is outlined in the Diversity and Inclusion report. This report and further information can be found at https://www.morganstanley.com/about-us/diversity.

**Culture**

The Morgan Stanley Group's core values are designed to guide decision making aligned to the expectations of employees, clients, shareholders, regulators, directors and the communities in which Morgan Stanley operates. These guiding values are the heart of workplace culture and underpin Morgan Stanley's success. For further detail, refer to the 'Risk management framework – Culture, values and conduct of employees' section as well as the Morgan Stanley Group's Sustainability Report. This report and further information can be found at https://www.morganstanley.com/about-us/corp-sustainability.

### *Giving Back to the Community*

The Morgan Stanley Group is committed to giving back to the communities in which it operates through a range of philanthropic programs. The Morgan Stanley Foundation supports healthy starts and solid education for children in local communities, expanding the reach of those initiating globally through the Morgan Stanley International Foundation. The impact of these philanthropic initiatives includes:

**Volunteering**

In 2021, instead of the traditional Global Volunteer Month, over 15,000 Morgan Stanley employees in 530+ cities walked over 690 million steps during Move for Meals to raise awareness and funds for global hunger. Morgan Stanley donated the equivalent of 50 million meals to hunger relief organisations worldwide.

In EMEA, $1 million was donated to hunger relief charities in London, Glasgow, Budapest, Paris, Frankfurt, Madrid, Milan and Dublin.

Morgan Stanley again ran its annual Strategy Challenge pro-bono program where teams of employees make a meaningful impact on a charitable organisation's ability to deliver on its mission. Since 2009, employees have delivered 120,000 hours of pro-bono service to 156 charities, valued at $23.5 million.

In EMEA, London employees spent over 1,500 hours supporting four local charities to tackle an operational issue through the Skills Connectors program. In Glasgow, employees provided over 500 hours of pro-bono advice to six charities through their 'Make a Difference' program, and employees in Budapest spent over 580 hours supporting two charities through the 'Technology Change Makers' program.

**Giving**

In 2021, employees, the Morgan Stanley Group, the Morgan Stanley Foundation, and the Morgan Stanley International Foundation, collectively donated over $154 million. In EMEA, the Morgan Stanley International Foundation granted over $1.2 million to 16 charities focused on the fundamentals of children's health and education.

Employees in offices across EMEA nominate charity partners, raising funds over a two year period, supported by the Morgan Stanley International Foundation. In February 2019, London employees nominated Teenage Cancer Trust as their new charity partner and raised over $2 million by the end of 2021 to help build a new specialist Teenage Cancer Trust ward at University College London Hospital, due to open in 2022.

In April 2019, Glasgow employees nominated the Scottish Association for Mental Health as their new charity partner, setting out to raise over $200 thousand. At the end of the partnership in 2021, over $250 thousand had been raised, enabling the charity to deliver a new program – Glasgow Connect – that provides practical, emotional and psychological support to children, particularly for those struggling in their transition from primary school to secondary school.

In October 2021, employees in London and Glasgow nominated new two-year charity partners, listed below:

- London: The Felix Project – aim to raise over $1.3 million to enable the charity to collect surplus food

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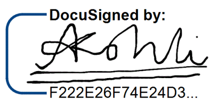
and distribute 75 million meals to hundreds of charities, schools and community groups in East London;
- Glasgow: CHAS – aim to raise over $240 thousand to fund a support service to ensure that bereaved brothers and sisters across Scotland are given the best chance in life.

Other employee-nominated charity partners across EMEA were: L'Envol in Paris, Fundacion Aladina in Milan, Association CAF Onlus in Madrid, Salva Vita in Budapest, Deutscher Kinderschutzbund in Frankfurt and Kinderspital Zurich. These charities all work to support a range of children's causes.

**Community Impact**

For 60 years, the Morgan Stanley Foundation has supported healthy starts and solid educations for the children in local communities, and for over 25 years, has expanded the reach of those initiatives across the EMEA region. This includes the establishment of the Morgan Stanley Alliance for Children's Mental Health, which funds critical research on children's mental health, drives thought leadership, and grows programs in schools, hospitals and physicians' offices, reaching over 11 million students, families and teachers globally since February 2020.

In EMEA, Morgan Stanley has partnered with Place2Be to enable the charity to scale up its program to train more teachers about children's mental health, supporting them to create 'mentally healthy' schools where children can build lifelong coping skills to thrive. Over the past academic year (September 2020 to June 2021), the Place2Be Mental Health Champions Foundation program has reached nearly 10,000 teachers in London, and over 2,000 teachers in Glasgow, which represents 12% and 39% of total teachers in those cities respectively.




Approved by the Board and signed on its behalf by
A Kohli

Director

26 April 2022

## Corporate Governance Framework

As a financial services firm, the Company applies regulatory requirements set out by the PRA and FCA when determining its corporate governance arrangements. The Company also seeks to align with best practice guidance on the corporate governance of financial institutions. It has therefore chosen not to formally adopt an additional corporate governance code. The corporate governance arrangements in place for the Company are described below and are materially in accordance with the framework set out in the Wates Corporate Governance Principles.

The Company's purpose is to deliver the strategy of the Morgan Stanley Group in the markets and communities in which it operates and to its global client base. The strategy and core values of the Morgan Stanley Group are:

### *Our Strategy*

*What we do* - advise, originate, trade, manage and distribute capital for governments, institutions and individuals, and always do so with a standard of excellence.

*How we do it* - Execute in a way that is consistent with our values and, whenever possible, deliver more than one part of the Morgan Stanley Group.

*With what result* - Deliver strong returns for our shareholders, build long-term value for our clients and offer highly attractive career opportunities for our employees.

### *Our Core Values*

Since its founding in 1935, the Morgan Stanley Group has consistently delivered first class business in a first-class way. The Group follows the core values of the Morgan Stanley Group, which are designed to guide decision making aligned to the expectation of our shareholders. The core values are:

*Put Clients First*

*Do the Right Thing*

*Lead with Exceptional ideas*

*Commit to Diversity and Inclusion*

*Give Back*

Morgan Stanley's Strategy and Core Values are communicated to employees, who are accountable for conducting themselves in accordance with the Core Values. For more information see the 'Sustainability - Our People' section of the Strategic Report.

### *Board Composition*

At 31 December 2021, the Board was comprised of 12 Directors (7 Executive Directors and 5 Non-Executive Directors). The diagram on the following page provides an overview of the Board. In line with corporate governance best practice, the roles of Chair and CEO are held by different people.

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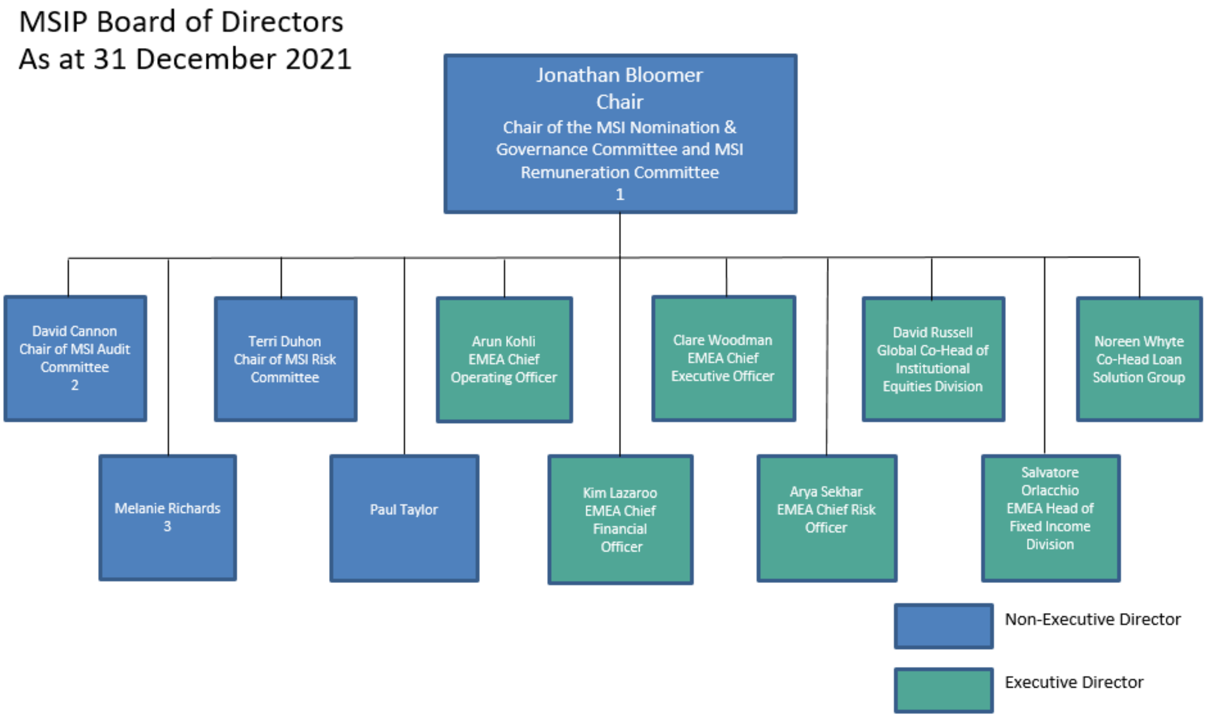
# MORGAN STANLEY & CO. INTERNATIONAL plc

## CORPORATE GOVERNANCE




1. Jonathan Bloomer was appointed as Chair of the Remuneration Committee on 8 February 2021.
2. David Cannon was appointed as Chair of the MSI Audit Committee on 21 April 2021.
3. Melanie Richards was appointed as a Non-Executive Director of the Company on 8 July 2021.
4. Mary Phibbs and Simon Ball resigned as Non-Executive Directors of the Company on 31 March and 30 April 2021 respectively.

The size, structure and composition of the Board is reviewed annually to ensure it remains appropriate and promotes effective decision making. The MSI Nomination and Governance Committee ("NomCo"), led by the Chair, considers the balance of skills and experience on the Board, with recommendations made to the Board as needed. Having a diverse range of approaches, backgrounds, skills, experience, opinions and views on the Board is important. To promote this the Board has a Board Diversity policy in place which is reviewed annually. The policy includes a target of at least 33% female representation on the Board. As at 31 December 2021, the representation of women on the Board was 42%. The policy also includes a target of a minimum of one Board director from an ethnic minority background, which the Board currently meets. The targets set out in the policy are in line with industry targets for diversity and inclusion.

New appointments to the Board are reviewed by the NomCo prior to recommendation to the Board for approval. The NomCo will consider a number of factors when deciding on a new appointment including, but not limited to, a candidate's: skills, experience, demographics, ethnicity, gender and geographical experience; honesty, integrity and independence of mind; time commitment; and collective fit with the Board and the Morgan Stanley Core Values.

When new Directors are appointed to the Board, they receive an induction programme designed to give them a broad understanding of the Company, its business and governance and risk management frameworks and an understanding of their regulatory and legal responsibilities. To keep their skills and knowledge up to date, the Board receives training sessions on key topics each year. Non-Executive Directors receive additional briefings from senior management and, in the ordinary course, attend site visits to ensure they continue to have the skills and knowledge needed to fulfil their role. Due to the continued prevalence of COVID-19, the Non-Executive Directors were unable to carry out site visits in 2021, however Directors continued a program of "open door sessions" throughout 2021. For more information see the 'Employees' section of the 'Section 172(1) statement'.

The Board reviews its effectiveness annually using either an internal or externally facilitated assessment. In

## CORPORATE GOVERNANCE

2021 an internal assessment was facilitated by Company Secretarial. Directors also receive individual annual performance assessments to assist with their personal development.

### *Director Responsibilities*

The Board and each Director have a clear understanding of their responsibilities. These are set out in the matters reserved to the Board and the terms of reference for each of the MSI Board Committees and the role profile provided to each director on appointment, and reviewed periodically.

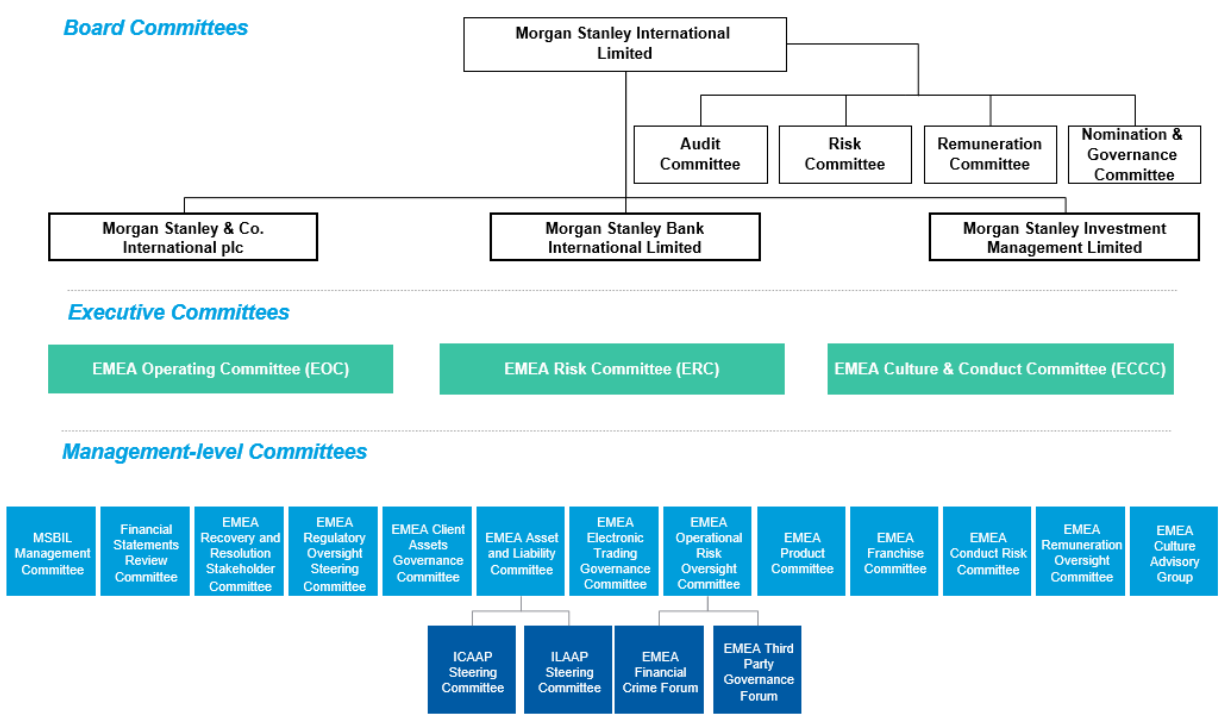
The Company is a wholly owned subsidiary of MSI. As at 31 December 2021, the Company and MSI had predominantly the same board composition, save that an additional Non-Executive Director and Executive Director were appointed to the MSI Board in 2021. The MSI Board has established Board Committees to assist it, and a number of its regulated subsidiaries, in performing their duties. The Board is assisted in discharging its responsibilities via the MSI Audit, Risk, Remuneration, and Nomination and Governance Committees which are described below in 'MSI Board Committee structure and EMEA executive management structure'.

The Board meets approximately 10 times a year and receives regular reporting on key aspects of the Company's business, including performance against KPIs, financial performance, risk management information and updates on market conditions and the regulatory environment. The MSI Risk Committee and MSI Audit Committee meet at least quarterly and the MSI Remuneration Committee and NomCo meet at least twice a year to receive reports on key matters within their remit.

### *EMEA Executive and Risk Focused Management Committees*

Day to day management of the Company's business is delegated to key EMEA Executive Committees, namely the EMEA Operating Committee, the EMEA Risk Committee, and the EMEA Culture and Conduct Committee. These Executive Committees are the most senior MSI Group executive management committees and have responsibility for overseeing business performance, operations and risks identified in relation to the MSI Group. The Executive Committees are supported in their oversight of specific areas of the MSI Group's activities by a number of management committees.

**MSI Board Committee structure and EMEA executive management structure**



## CORPORATE GOVERNANCE

### *Board Committees*

The MSI Risk Committee assists the Board on the management of financial and non-financial risks, including (i) risk strategy and appetite; (ii) risk identification and management; (iii) risk governance framework and policies; (iv) measurement of risk against tolerance and limits; (v) risk culture; (vi) financial resource management and capital; and (vii) recovery and resolution.

The MSI Audit Committee assists the Board in monitoring: (i) financial reporting; (ii) internal controls; (iii) legal and regulatory compliance; (iv) internal audit; and (v) external auditors.

The MSI Remuneration Committee assists the Board in (i) overseeing the implementation of remuneration policies and practices applicable to the Company (as a member of the MSI Group) and (ii) overseeing compliance by the Company with applicable EU and UK remuneration rules, statements and guidance.

The MSI NomCo assists the Board in (i) the recruitment of Board members; (ii) assessment of the performance of the Board and (iii) the MSI Group corporate governance framework (as it applies to the Company).

Each MSI Board Committee is comprised solely of independent Non-Executive Directors appointed to provide robust and effective challenge of the matters within its remit. Processes are in place to manage conflicts of interest, should they arise.

### *Executive Committees*

The EMEA Operating Committee is the principal forum for key decisions regarding matters affecting the operations and performance of the MSI Group in accordance with the strategy approved by the MSI Board. The Committee's responsibilities include matters relating to: (i) strategy; (ii) financial and business performance; (iii) risk and control; (iv) operational, legal and regulatory matters; and (v) human resources.

The EMEA Risk Committee ("ERC") assists in the oversight of the MSI Group's management of risk (including financial and non-financial risks) within the MSI Group. The Committee provides oversight of: (i) risk strategy and appetite; (ii) risk identification and measurement; (iii) risk framework and policies; (iv) risk culture; and (v) financial resource management and capital.

The EMEA Culture & Conduct Committee assists in the oversight of the culture and of conduct risk within the MSI Group. The Committee provides oversight of (i) material inherent or emerging conduct risks; (ii) material conduct incidents and issues; (iii) strategic employee matters or initiatives relevant to culture an conduct; and (iv) assists in the embedding of Morgan Stanley's core values and culture within the MSI Group.

### *Management-level Committees (associated with risk governance)*

The **EMEA Franchise Committee** assists in the oversight of potentially significant franchise risks in connection with relevant transactions, activities, or clients, including by reviewing activities, transactions, and clients that pose potentially significant franchise risks.

The **EMEA ALCO** assists the ERC to oversee the capital adequacy, funding, and liquidity risk management of the MSI Group.

The **EMEA Operational Risk Oversight Committee** assists and provides guidance to the ERC in relation to the oversight of the management of operational risk of the MSI Group.

The **EMEA Client Assets Governance Committee** provides support for MSI Group's compliance with CASS requirements, and acts as the principal body for providing governance of CASS related issues, and coordination of the approach to managing Client Money and Client Assets.

The **EMEA Conduct Risk Committee** assists the ERC in the oversight and management of conduct risk within the MSI Group.

The **EMEA Electronic Trading Governance Committee** is established by the ERC to review and challenge controls applicable to the electronic trading business undertaken by the MSI Group.

The **EMEA Product Committee** assists the ERC in discharging its responsibilities for the oversight of approvals of New Products, and the oversight of product governance.

### *Management-level Committee (associated with financial reporting)*

The **EMEA Financial Statement Review Committee** reviews and recommends or approves the publicly disclosed financial information and the related

## CORPORATE GOVERNANCE

representations and associated controls of MSI and its EMEA regulated subsidiaries and their branches.

### *Opportunity and Risk*

The Board sets the Company strategy, which implements the Global Morgan Stanley Strategy as it applies to the Company's business and is aligned to the Company's Risk Appetite Statement. The Board, with assistance from the MSI Risk Committee, reviews performance against the strategy and risk appetite (including compliance with the risk management framework, risk tolerances and risk limits) at its meetings throughout the year. The Board holds an annual strategy day to consider long term strategic opportunities and risks for the business. Significant changes in strategy or risk appetite, including material changes to the Company's business, require Board consideration and approval to ensure they are in the long-term interests of the Company and to consider the impact on key stakeholders. The Board is supported in its monitoring of financial and non-financial risk by the MSI Risk Committee. The ERC is responsible for the oversight of the ongoing management of the Company's financial and non-financial risks. Further information on the risk management framework applicable to the Company's business is provided in the 'Risk Management' section of the Strategic Report.

### *Remuneration*

The Company, as a wholly owned subsidiary of Morgan Stanley, is subject to Global Morgan Stanley Remuneration Policies and Procedures which determine the remuneration paid to Company employees. Morgan Stanley has a pay for performance philosophy and is committed to responsible compensation programs with the following key objectives, all of which support Morgan Stanley's culture and values and shareholders' interests: deliver pay for sustainable performance; align compensation with shareholders' interests; attract and retain top talent; and mitigate excessive risk-taking. The Board has delegated responsibility to the MSI Remuneration Committee to oversee the implementation of those policies and procedures to the Company's business and oversee compliance by the Company with applicable EU and UK remuneration rules, statements and guidance. Further information on the link between the culture, values and conduct of employees and their remuneration is provided in the 'Our People' section of the Strategic Report. Information about compliance with the Capital Requirements Directive ("CRD IV"), the FCA Remuneration Code for dual-regulated firms (SYSC 19D), the PRA Rulebook Remuneration part, and any guidelines or guidance related to these provisions is included in MSI's annual CRR 450 remuneration disclosure.

## Stakeholder Engagement and Section 172(1) Statement

Directors of the Company are required to act in a way that they consider, in good faith, to be most likely to promote the success of the Company for the benefit of its members as a whole, and in so doing have regard, among other matters to:

- the likely consequences of any decision in the long term;
- the interests of the Company's employees;
- the need to foster the Company's business relationships with suppliers, customers and others;
- the impact of the Company's operations on the community and the environment;
- the desirability of the Company maintaining a reputation for high standards of business conduct; and
- the need to act fairly as between members of the Company.

To assist them in discharging their duty under s172 Companies Act 2006, Directors undertake a number of stakeholder engagement activities to provide them with the information they need to understand the views and interests of stakeholders. This information helps Directors to have regard to stakeholder interests, and the likely long term consequences, including to the reputation of the Company, when making decisions and setting strategy. The Company's key stakeholders were considered in 2021, including the particular challenges faced by many key stakeholders due to the continued prevalence of COVID-19 pandemic, and are listed below with examples of the stakeholder engagement activities that took place in 2021.

**Employees**

During 2021, Directors continued a program of "open door" sessions at which employees were encouraged to ask questions about the Company's business, its strategy, performance, current initiatives and the role of the Board. Employees also attended NomCo meetings in 2021 to report on Diversity and Inclusion initiatives within the Morgan Stanley Group. The Board continued to focus on employee culture and conduct as part of its

## CORPORATE GOVERNANCE

review of the EMEA Culture and Conduct Plan which reflected feedback from the employee engagement survey and informed management actions for the year. The Financial Services Culture Board (formerly the Banking Standards Board) attended Board meetings to report directly to the Board on its assessment of the MSI Group and its culture. The Board continued to be focused on the impact of the prolonged period of remote working on employee health and wellbeing and also on the plans for the future of working practices post the pandemic. For more information on employees, diversity and inclusion, and culture, refer to 'Our People' within the Strategic Report.

**Suppliers**

Reporting on the Morgan Stanley Modern Slavery Act Statement provided the Board with insights into how supplier relationships are managed and the vendor due diligence program to assess risks with third party suppliers.

**Clients**

Throughout the year, the Board received reports from the heads of each business unit on the competitive landscape for their business and the plans in place to respond to changing client demands. Particular focus areas of the Board Strategy day were technology innovation, the future role of digital assets and sustainability initiatives to support clients. Business unit heads also provided regular updates on performance and client focus areas which gave the Board insight into client issues and concerns.

**Community and Environment**

The Morgan Stanley Group is committed to giving back to the communities in which it operates. The Board receives updates on giving back and sustainability initiatives taking place in EMEA. For more details on Morgan Stanley's Giving Back to the Community initiatives see 'Sustainability - Giving Back to the Community' in the Strategic Report. See 'Clients' above for information on the Board's consideration of sustainable finance and providing sustainable solutions to clients. The Board continued to focus on the Climate Change financial risk framework and Non-Executive Directors received regular briefings on Sustainability opportunities and risks in EMEA. For more information on the Morgan Stanley Group's and the Group's approach to Climate Risk, refer to 'Risk Management - Climate Risk' in the Strategic Report. For more information on Morgan Stanley's sustainability initiatives, refer to 'Sustainability' within the Strategic Report.

**Regulators**

In 2021, the Board has continued its open and continuous dialogue with the Company's regulators. The Chair and CEO meet regularly with both the PRA and FCA. In addition, individual Directors engage regularly with both regulators through Continuous Assessment and Proactive Engagement meetings.

**Investors**

The Company is a wholly owned subsidiary of Morgan Stanley. A number of Executive Directors on the Board are members of the Morgan Stanley Group management committees and are able to provide the Board with insights on Morgan Stanley's views and priorities. Further insight into the views of Morgan Stanley and its shareholders are obtained through regular interactions between the Company's Chair and the Chairs of the MSI Board Committees and the Morgan Stanley Non-Executive Directors, including the Chairs of the Morgan Stanley Audit and Risk Committees.

**Making Decisions**

When making decisions, the Board considers the insights obtained through relevant stakeholder engagement activities as well as the need to maintain a reputation for high standards of business conduct and the long term consequences of its decisions. Principal decisions taken by the Board in 2021 included steps to finalise its European operations post the UK withdrawal from the European Union.

## DIRECTORS' REPORT

The Directors present their report and consolidated financial statements of the Group and Company, which comprise the consolidated income statement, consolidated statement of comprehensive income, consolidated statement of changes in equity, consolidated statement of financial position, consolidated statement of cash flows, together with the Company's statement of changes in equity, statement of financial position and the Group and Company related notes 1 to 35 and the appendix to the financial statements for the year ended 31 December 2021.

### *Results and Dividends*

The Group's profit for the year, after tax, was $1,351 million (2020: $969 million profit after tax).

The Company paid the following dividends during the year (see 'Dividends' note 22):

- On 30 November 2021, the Company made a coupon payment on the $1,300 million AT1 instrument of $72 million (2020: $177 million);
- On 30 November 2021, the Company made a coupon payment on the $2,200 million AT1 capital instrument of $165 million (2020: $165 million).

### *Regulation, Risk Management, Branches and Future Developments*

Information regarding regulation, risk management, branches and future developments has been included in the Strategic Report.

### *Energy and Carbon Reporting*

Information on the Company's UK energy and carbon reporting has been included in the Strategic Report within 'Sustainability - Environmental matters'.

### *Employees*

Both the Group and the Morgan Stanley Group place considerable value on the investment in their employees and have continued their practice of keeping employees informed on matters affecting them. Employees are encouraged to present their suggestions and views on the Morgan Stanley Group's performance to management and employees participate directly in the success of the business through the Morgan Stanley Group's various compensation incentive plans.

Every effort is also made to ensure that disabled applicants, or those existing employees who are disabled or may have become disabled, are treated as fairly as possible on terms comparable with those of other employees. Appropriate training is arranged for disabled persons, including retraining for alternative work for employees who become disabled, to promote their career development within the organisation.

### *Pillar 3 Disclosures and Country-by-Country Reporting*

The Company is included in the MSI Group Pillar 3 disclosures, which allow investors and other market participants to understand capital adequacy, particularly risk exposures and risk management processes of individual firms required by the EU implementation of Basel capital standards.

The Company is also included in the MSI consolidated disclosure to comply with the provisions of Statutory Instrument 2013 No. 3118 Capital Requirements (Country-by-Country Reporting) Regulations 2013, which implements in the UK, the requirements set out in Article 89 of the Capital Requirement Directive (Directive 2013/36/EU). The Pillar 3 disclosures and the Country-by-Country Reporting for the MSI Group for the year ended 31 December 2021 will be made available on the Morgan Stanley website at https://www.morganstanley.com/investorrelations.

### *Directors*

The following Directors held office throughout the year and to the date of approval of this report (except where otherwise shown):

| | |
|---|---|
| S Ball | (resigned 30 April 2021) |
| J Bloomer | (Chair) |
| D O Cannon | |
| T Duhon | |
| A Kohli | |
| K Lazaroo | |
| S Orlacchio | |
| M C Phibbs | (resigned 31 March 2021) |
| M Richards | (appointed 8 July 2021) |
| D A Russell | |
| A V Sekhar | |
| P D Taylor | |
| N P Whyte | |
| C Woodman | |

### *Directors' and Officers' Liability Insurance*

Directors' and Officers' Liability Insurance is taken out by Morgan Stanley, for the benefit of the Directors and Officers of the Group.

### *Directors' Indemnity*

Qualifying third party indemnity provisions (as defined in section 234 of the Companies Act 2006) were in force

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during the year and up to and including the date of the Directors' report for the benefit of the Directors of the Group.

## *Audit Committee*

MSI, the Company's ultimate UK parent undertaking, has an Audit Committee which assists the Boards of MSI, the Company, other MSI regulated subsidiary undertakings and certain other Morgan Stanley Group undertakings in meeting their responsibilities in ensuring an effective system of internal control and compliance, and in meeting their external financial reporting obligations. For details on the Risk governance framework, refer to 'Risk Management Framework' within the Strategic Report.

## *Employee Remuneration*

The Group employs staff directly, in addition to utilising staff employed by other Morgan Stanley Group undertakings. The Group's policies are comparable and consistent with those of the Morgan Stanley Group, which include the deferral of significant portions of certain key employees' discretionary compensation. Notes 7 and 32 to the consolidated financial statements provides additional information and disclosure regarding the Group's compensation policies.

## *Charitable Contributions*

During the year, the Group made donations to various charities totaling $4.9 million (2020: $2.7 million), of which $1.5 million was donated to the Morgan Stanley International Foundation (2020: $1.5 million).

## *Events after the Reporting Date*

Following Russia's invasion of Ukraine on 24 February 2022, the European and global financial markets have been and are expected to continue to be significantly impacted in 2022. However, the Group has limited direct exposure to Russia and Ukraine. The Group will continue to closely monitor events and their potential impact.

## *Going Concern*

Business risks associated with the uncertain market and economic conditions are being actively monitored and managed by the Group. Retaining sufficient capital and liquidity to withstand these market pressures remains central to the Group's strategy. In particular, the Group's capital and liquidity is deemed sufficient to exceed regulatory minimums under both a normal and in a stressed market environment, including the current and potential stresses of the war in Ukraine and the COVID-19 pandemic for the foreseeable future. The existing and potential effects of the war in Ukraine and of COVID-19 on the business of the Group have been considered as part of the going concern analysis, including impact on operational capacity, access to liquidity and capital, contractual obligations, asset valuations and other critical accounting judgements and key sources of estimation uncertainty. The Group has access to further Morgan Stanley Group capital and liquidity as required.

Taking all of these factors into consideration, the Directors believe it is reasonable to assume that the Group will have access to adequate resources to continue in operational existence for the foreseeable future. Accordingly, they continue to adopt the going concern basis in preparing the annual reports and financial statements.

## *Auditor*

Deloitte LLP have expressed their willingness to continue in office as auditor of the Group and their re-appointment was approved by the MSI Board on 28 March 2022.

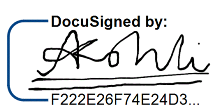
**Statement as to Disclosure of Information to the Auditor**

Each of the persons who are Directors of the Company at the date when this report is approved confirms that:

- so far as each of the Directors is aware, there is no relevant audit information (being information needed by the Group's auditor in connection with preparing their report) of which the Group's auditor is unaware; and
- each of the Directors has taken all the steps that they ought to have taken as a Director to make themselves aware of any relevant audit information and to establish that the Group's auditor is aware of that information.

This confirmation is given and should be interpreted in accordance with the provisions of section 418 of the Companies Act 2006.

Approved by the Board and signed on its behalf by




A Kohli
Director
26 April 2022

## DIRECTORS' REPORT

### *Directors' Responsibilities Statement*

The Directors are responsible for preparing the annual report and the financial statements in accordance with applicable law and regulations.

Company law requires the Directors to prepare financial statements for each financial year. Under that law, the Directors have prepared the Group financial statements in accordance with International Financial Reporting Standards ("IFRS") as adopted by the EU and Article 4 of the International Accounting Standards ("IAS") Regulation and in accordance with UK-adopted international accounting standards and the Companies Act 2006. The Directors have elected to prepare the parent company financial statements in accordance with United Kingdom Generally Accepted Accounting Practice (United Kingdom Accounting Standards and applicable law), including FRS 101 "Reduced Disclosure Framework" ("FRS 101"). Under company law, the Directors must not approve the accounts unless they are satisfied that they give a true and fair view of the state of affairs of the Group and of the profit or loss of the Group for that period.

In preparing the Group financial statements, the Directors are required by IAS 1 '*Presentation of financial statements*' to:

- properly select and apply accounting policies;
- present information, including accounting policies, in a manner that provides relevant, reliable, comparable and understandable information;
- provide additional disclosures when compliance with the specific requirements in IFRSs is insufficient to enable users to understand the impact of particular transactions, other events and conditions on the entity's financial position and financial performance; and
- make an assessment of the Group's ability to continue as a going concern.

In preparing the Company financial statements under UK GAAP, the Directors are required to:

- select suitable accounting policies and then apply them consistently;
- make judgements and accounting estimates that are reasonable and prudent;
- state whether applicable UK accounting standards, including FRS 101, have been followed; and
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the Company will continue in business.

The Directors are responsible for keeping adequate accounting records that are sufficient to show and explain the Group's transactions and disclose with reasonable accuracy at any time the financial position of the Group and enable them to ensure that the financial statements comply with the Companies Act 2006. They are also responsible for safeguarding the assets of the Group and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

The Directors are responsible for the maintenance and integrity of the corporate and financial information included on the company's website. Legislation in the United Kingdom governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

The Directors are responsible for preparing and filing the consolidated financial statements of the Group in compliance with the European Single Electronic Format Regulatory Technical Standard ("ESEF RTS") with the relevant member state regulator's storage mechanisms. In preparing the Group financial statements in compliance with ESEF RTS, the Directors are required to:

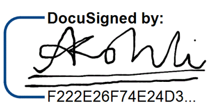
- Prepare the Group financial statements in a valid xHTML format; and
- Apply iXBRL markup of the Group financial statements using the core taxonomy and the common rules on markups specified in the ESEF RTS.

## DIRECTORS' REPORT

The Directors, the names of whom are set out on page 37, confirm to the best of their knowledge:

- in accordance with rule 4.1.12(3)(a) of the FCA's Disclosure and Transparency Rules ("DTR") and with Article 3.2(c) of the Luxembourg Law on Transparency Requirements for Issuers of 11 January 2008, as amended ("Luxembourg Transparency Law")[1], the consolidated financial statements, which have been prepared in accordance with IFRSs as issued by the International Accounting Standards Board ("IASB") and as endorsed by the EU, have been prepared in accordance with the applicable set of accounting standards and give a true and fair view of the assets, liabilities, financial position and profit or loss of the Group and the undertakings included in the consolidation taken as a whole; and
- the management report represented by the Strategic Report has been prepared in accordance with rule 4.1.12(3)(b) of the FCA's DTR and with Article 3.2(c) of Luxembourg Transparency Law, and includes a fair review of the development and performance of the business and the position of the Group and the undertakings included in the consolidation taken as a whole, together with a description of the principal risks and uncertainties that the Group faces.

Approved by the Board and signed on its behalf by




A Kohli
Director
26 April 2022

[1] In relation to Luxembourg Transparency Law, this includes compliance with European Single Electronic Filing ("ESEF") Regulation 2019/815.

# INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF MORGAN STANLEY & CO. INTERNATIONAL plc

## Report on the audit of the financial statements

### Opinion

In our opinion:

- the financial statements of Morgan Stanley & Co. International plc (the "parent company") and its subsidiaries (the "Group") give a true and fair view of the state of the Group's and the parent company's affairs as at 31 December 2021 and of the Group's profit for the year then ended;
- the Group financial statements have been properly prepared in accordance with United Kingdom adopted international accounting standards, International Financial Reporting Standards (IFRSs) as adopted by the European Union (EU) and IFRSs as issued by the International Accounting Standards Board (IASB).
- the parent company financial statements have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice, including Financial Reporting Standard ("FRS") 101 "Reduced Disclosure Framework"; and
- the financial statements have been prepared in accordance with the requirements of the Companies Act 2006.

We have audited the financial statements which comprise:

| Group | Parent company |
|---|---|
| • Consolidated income statement;<br>• Consolidated statement of comprehensive income;<br>• Consolidated statement of changes in equity;<br>• Consolidated statement of financial position; and<br>• Consolidated statement of cash flows. | • Statement of changes in equity; and<br>• Statement of financial position. |
| **Group and Parent Company** | |
| • Relevant notes 1 – 35 to the financial statements. | |

The financial reporting framework that has been applied in the preparation of the group financial statements is applicable law, United Kingdom adopted international accounting standards, IFRSs as adopted by the EU and IFRSs as issued by the IASB.

The financial reporting framework that has been applied in the preparation of the parent company financial statements is applicable law and United Kingdom Accounting Standards, including FRS 101 "Reduced Disclosure Framework" (United Kingdom Generally Accepted Accounting Practice).

### Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) ("ISAs (UK)") and applicable law. Our responsibilities under those standards are further described in the auditor's responsibilities for the audit of the financial statements section of our report.

We are independent of the Group and the parent company in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, including the Financial Reporting Council's (the "FRC's") Ethical Standard as applied to listed public interest entities, and we have fulfilled our other ethical responsibilities in accordance with these requirements. The non-audit services provided to the Group and parent company for the year are disclosed in note 7 to the financial statements. We confirm that we have not provided any non-audit services prohibited by the FRC's Ethical Standard to the Group or the parent company.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

## Summary of our audit approach

### Key audit matter

The key audit matter that we identified in the current year was:

- Valuation of Level 3 financial instruments;

### Materiality

The materiality that we used for the Group financial statements in the current year was $110 million, which was determined on the basis of 0.5% of Total Equity.

# INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF MORGAN STANLEY & CO. INTERNATIONAL plc

## Scoping

The planning and scoping of our audit considers the Group's business, organisational structure and global operating model. This model comprises a common control structure for key business processes and internal controls over financial reporting.

Based on this global operating model, our audit scope is globally integrated with specified audit testing procedures performed by our component auditor, Deloitte & Touche LLP, US, the lead auditor of the ultimate parent company, Morgan Stanley.

## Significant changes in our approach

There are no significant changes in our approach as compared to prior year.

## Conclusions relating to going concern

In auditing the financial statements, we have concluded that the Directors' use of the going concern basis of accounting in the preparation of the financial statements is appropriate.

Our evaluation of the Directors' assessment of the Group's and parent company's ability to continue to adopt the going concern basis of accounting included understanding the capital and liquidity position relative to minimum regulatory requirements under base and stress forecasts.

Based on the work we have performed, we have not identified any material uncertainties relating to events or conditions that, individually or collectively, may cast significant doubt on the Group's and parent company's ability to continue as a going concern for a period of at least twelve months from when the financial statements are authorised for issue.

Our responsibilities and the responsibilities of the Directors with respect to going concern are described in the relevant sections of this report.

## Key audit matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial statements of the current period and include the most significant assessed risks of material misstatement (whether or not due to fraud) that we identified. These matters included those which had the greatest effect on the overall audit strategy, the allocation of resources in the audit; and directing the efforts of the engagement team.

These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

## Valuation of Level 3 financial instruments

### Relevant references in the financial statements

- Note 2 – Basis of Preparation – Critical accounting judgements and key sources of estimation uncertainty
- Note 3 – Summary of significant accounting policies
  - (d) Fair value
- Note 30 – Financial instruments measured at fair value – (a) (c) (d) (e)

### Key audit matter description

The Group's trading and financing activities will at times result in the Group carrying material financial asset and liability positions having limited price transparency. Under IFRS 13 *Fair Value Measurement*, financial instruments are generally classified as Level 3 financial assets or liabilities.

Unlike other financial instruments whose values or inputs are readily observable and therefore more easily independently corroborated, the valuation of financial instruments classified as Level 3 are inherently subjective, and often involve the use of proprietary valuation models whose underlying algorithms and valuation methodologies are complex. This degree of subjectivity may also give rise to potential fraud through management intentionally manipulating fair vales or incorporating management bias in determining fair values. Auditing the Group's valuation of Level 3 financial instruments is therefore subjective and presents certain challenges in evaluating the appropriateness of the Group's valuation judgements and estimates.

Significant judgements made by the Group include the derivation of key model inputs which are not observable in the marketplace and the underlying valuation methodologies used by the pricing model to determine an appropriate fair value. Performing our audit procedures to evaluate the appropriateness of these models and inputs involved a high degree of auditor's judgement, professionals with specialised skills and knowledge, and an increased extent of testing.

As at 31 December 2021, the Group's total financial assets and liabilities measured at fair value were $460 billion (2020: $491 billion) and $375 billion (2020: $394 billion), respectively, of which Level 3 financial assets and liabilities were $4.7 billion (2020: $6.8 billion) and $2.4 billion (2020: 3.8 billion), respectively.

## How the scope of our audit responded to the key audit matter

To address the complexities associated with auditing the value of Level 3 financial instruments, our team included valuation specialists having significant quantitative and modelling expertise. Our valuation audit procedures included the following procedures:

- We obtained an understanding and tested Morgan Stanley's internal controls that address fair value estimates including the:
  - Model Risk Management control, which is maintained by Morgan Stanley to assess a model's theoretical soundness and the appropriateness of its valuation methodology and calibration techniques developed by the business units.
  - Price Verification control, which is maintained by Morgan Stanley to review the appropriateness of valuation methodologies to derive model inputs which are not observable and determine whether such methodologies are consistent with how a market participant would arrive at the unobservable input.
- We also performed the following procedures on a sample basis in line with our audit methodology:
  - Evaluated management's significant valuation methodologies, including the input assumptions, considering the expected assumptions of other market participants, and external data, when available.
  - Performed a retrospective assessment of management's fair value estimates for certain Level 3 financial instruments, for which there were events or transactions occurring after the valuation date. We did so by comparing management's estimates to the relevant evidence provided by such events or transactions, as applicable.
  - Developed independent fair value estimates for selected Level 3 financial instruments, using externally sourced inputs and independent valuation models, and used such estimates to further evaluate management's fair value estimates. For certain of our selected Level 3 financial instruments, this included a comparison to management's fair value estimates for similar transactions; and, an evaluation of management's assumptions inclusive of the inputs, as applicable.
  - Tested the revenues arising from the trade date fair value estimates for selected structured transactions classified as Level 3 financial instruments. For certain of our selected transactions, we developed independent fair value estimates to test the valuation inputs and assumptions used by management and evaluated whether these methods were consistent with the relevant Morgan Stanley's valuation policies.
  - Assessed the consistency by which management has applied significant and unobservable valuation assumptions used in developing fair value estimates.
- Assessment of financial statement disclosures related to financial instruments carried at fair value, to include the aspects of this which provide information on the sensitivity of fair value measurements to key inputs and assumptions.

## Key observations

Based on our audit procedures performed, we concluded that the valuation of Level 3 financial instruments was appropriate.

# INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF MORGAN STANLEY & CO. INTERNATIONAL plc

## Our application of Materiality

We define materiality as the magnitude of misstatement in the financial statements that makes it probable that the economic decisions of a reasonably knowledgeable person would be changed or influenced.

We use materiality both in planning the scope of our audit work and in evaluating the results of our work.

Based on our professional judgement, we determined materiality for the financial statements as a whole as follows:

| | Group financial statements | Parent company financial statements |
|---|---|---|
| **Materiality** | $110 million (2020: $105 million) | $109 million (2020: $104 million) |
| **Basis for determining materiality** | The Group materiality of $110 million represents 0.5% (2020: 0.5%) of Total Equity | The parent company materiality of $109 million represents 0.5% (2020: 0.5%) of Total Equity |
| **Rationale for the benchmark applied** | We have considered Total Equity to be the most appropriate benchmark as the Group is wholly owned by the ultimate parent entity Morgan Stanley and is a regulated entity where its capital position is of importance to the key users of the financial statements. These key users include regulators, external rating agencies and the ultimate parent entity. | We considered it appropriate to maintain the same benchmark as that for the Group as the parent company is the most significant member of the Group and its solo capital position is of importance to the key users of the financial statements who are common with those for the Group. |
| **Performance materiality** | Group performance materiality and parent company performance materiality was set at 65% of Group materiality for the 2021 audit (2020: 65%). | |
| **Basis and rationale for determining performance materiality** | We set performance materiality at a level lower than materiality to reduce the probability that, in aggregate, uncorrected and undetected misstatements exceed the materiality for the financial statements as a whole.<br>In determining performance materiality, we considered the following factors:<br>− our risk assessment, including our assessment of the Group's overall control environment and that we consider it appropriate to rely on controls over a number of business processes; and<br>− our past experience of the audit, which has indicated a low number of corrected and uncorrected misstatements identified in prior periods. | |

# INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF MORGAN STANLEY & CO. INTERNATIONAL plc

## Error reporting threshold

We agreed with the MSI Audit Committee that we would report to the Committee all audit differences in excess of $5 million (2020: $5 million), as well as differences below that threshold that, in our view, warranted reporting on qualitative grounds. We also report to the MSI Audit Committee on disclosure matters that we identified when assessing the overall presentation of the financial statements.

## An overview of the scope of our audit

**Identification and scoping of components**

Morgan Stanley is a globally managed business with a global operating model in which major classes of transactions are subject to a common control processing environment irrespective of product, region or legal entity. Given this global operating model for the Group, we audit certain controls, financial reporting processes and balances utilising component auditors in New York.

We instructed our component auditor, Deloitte & Touche LLP, US to perform their audit procedures at a materiality level of $104 million (2020: $85 million).

**Involvement with component auditor**

We exercised oversight over the work of our component auditor by remaining in active dialogue at regular intervals throughout the duration of the audit. We remotely attended the audit planning meetings in New York, involved our component auditor in our team briefing and issued a set of instructions setting out the audit work and the specified audit procedures we requested them to undertake. We had regular remote meetings and review sessions with the component auditor throughout the year to oversee and review the work performed in support of our audit as restrictions were placed on our ability to travel internationally due to COVID-19. We formally received audit clearance documentation confirming that they had performed the audit and the specified audit procedures in accordance with our instructions.

**Audit procedures undertaken at the Group level**

We designed our audit approach for the Group based on our understanding of the business undertaken by the Group and our independent assessment of the risks of material misstatement arising in the financial statements. These procedures included, amongst others, auditing the consolidation of the Group's results and the preparation of the financial statements as well as obtaining an understanding and testing of relevant controls over the financial reporting process.

**Our consideration of the control environment**

We tested internal controls over financial reporting where our scoping and risk assessment determined those controls to be relevant to the audit. This included testing of general IT controls, process level controls and entity level controls at the Group level.

**Our consideration of climate-related risks**

In planning our audit, we have considered the impact of climate change on the Group's operations and subsequent impact on its financial statements. The Group sets out its assessment of the potential impact on pages 22 to 24 of the Strategic Report of the Annual Report.

We have held discussions with the Group to understand their:

- process for identifying affected operations, including the governance and controls over this process, and the subsequent effect on the financial reporting for the Group; and
- long-term strategy to respond to climate change risks as they evolve including the effect on the Group's forecasts.

Our audit work has involved:

- obtaining an understanding of management's analysis and data considered in the Group's climate risk assessment;
- assessing disclosures in the annual report and the consistency between the financial statements and the remainder of the annual report.

As part of our audit procedures, we are required to read and consider these disclosures to consider whether they are materially inconsistent with the financial statements or knowledge obtained in the audit and we did not identify any material inconsistencies as a result of these procedures.

## Other information

The other information comprises the information included in the annual report, other than the financial statements and our auditor's report thereon. The Directors are responsible for the other information contained within the annual report.

Our opinion on the financial statements does not cover the other information and, except to the extent otherwise explicitly stated in our report, we do not express any form of assurance conclusion thereon.

Our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the course of the audit or otherwise appears to be materially misstated.

If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether this gives rise to a material misstatement in the financial statements themselves. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact.

***We have nothing to report in this regard***

## Responsibilities of Directors

As explained more fully in the Directors' responsibilities statement, the Directors are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the Directors determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Directors are responsible for assessing the Group's and the parent company's ability to continue as a going concern, disclosing as applicable, matters related to going concern and using the going concern basis of accounting unless the Directors either intend to liquidate the Group or the parent company or to cease operations, or have no realistic alternative but to do so.

The Directors are responsible for preparing the Group financial statements in compliance with the requirements set out in the European Single Electronic Format Regulatory Technical Standard ("ESEF RTS").

## Auditor's responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

A further description of our responsibilities for the audit of the financial statements is located on the FRC's website at: www.frc.org.uk/auditorsresponsibilities. This description forms part of our auditor's report.

Our responsibility is to assess whether the Group financial statements have been prepared, in all material respects, with the requirements laid down in the ESEF RTS.

## Extent to which the audit was considered capable of detecting irregularities, including fraud

Irregularities, including fraud, are instances of non-compliance with laws and regulations. We design procedures in line with our responsibilities, outlined above, to detect material misstatements in respect of irregularities, including fraud. The extent to which our procedures are capable of detecting irregularities, including fraud is detailed below.

**Identifying and assessing potential risks related to irregularities**

In identifying and assessing risks of material misstatement in respect of irregularities, including fraud and non-compliance with laws and regulations, we considered the following:

- the nature of the industry and sector, control environment and business performance including the design of the Group's remuneration policies, key drivers for Directors' remuneration, bonus levels and performance targets;
- results of our enquiries of management, internal audit and the audit committee about their own identification and assessment of the risks of irregularities;
- any matters we identified having obtained and reviewed the Group's documentation of their policies and procedures relating to:
  - identifying, evaluating and complying with laws and regulations and whether they were aware of any instances of non-compliance;
  - detecting and responding to the risks of fraud and whether they have knowledge of any actual, suspected or alleged fraud;
  - the internal controls established to mitigate risks of fraud or non-compliance with laws and regulations.

- the matters discussed among the audit engagement team including significant component audit teams and relevant internal specialists, including tax, valuations, IT and industry specialists regarding how and where fraud might occur in the financial statements and any potential indicators of fraud.

As a result of these procedures, we considered the opportunities and incentives that may exist within the organisation for fraud and identified the greatest potential for fraud in the following area: valuation of Level 3 financial instruments. In common with all audits under ISAs (UK), we are also required to perform specific procedures to respond to the risk of management override.

We also obtained an understanding of the legal and regulatory frameworks that the Group operates in, focusing on the relevant provisions of those laws and regulations that had a direct effect on the determination of material amounts and disclosures in the financial statements. The key laws and regulations we considered in this context included the UK Companies Act, Luxembourg Transparency Law, UK Listing Rules, pensions legislation and tax legislation. In addition, we considered the relevant provisions of other laws and regulations that do not have a direct effect on the financial statements but compliance with which may be fundamental to the company's ability to operate or to avoid a material penalty. These included the regulation and supervisory requirements of the PRA and the FCA.

**Audit response to risks identified**

As a result of performing the above, we identified the valuation of Level 3 financial instruments is a key audit matter related to the potential risk of fraud. The key audit matters section of our report explains the matter in more detail and also describes the specific procedures we performed in response to that key audit matter.

In addition to the above, our procedures to respond to risks identified included the following:

- reviewing the financial statement disclosures and testing to supporting documentation to assess compliance with provisions of relevant laws and regulations described as having a direct effect on the financial statements;
- enquiring of management, the audit committee and in-house and external legal counsel concerning actual and potential litigation and claims;
- performing analytical procedures to identify any unusual or unexpected relationships that may indicate risks of material misstatement due to fraud;
- reading minutes of meetings of those charged with governance, reviewing internal audit reports and reviewing correspondence with HMRC and other regulatory authorities including the PRA and the FCA; and
- in addressing the risk of fraud through management override of controls, testing the appropriateness of journal entries and other adjustments; assessing whether the judgements made in making accounting estimates are indicative of a potential bias; and evaluating the business rationale of any significant transactions that are unusual or outside the normal course of business.

We also communicated relevant identified laws and regulations and potential fraud risks to all engagement team members including internal specialists and significant component audit team, and remained alert to any indications of fraud or non-compliance with laws and regulations throughout the audit.

## REPORT ON OTHER LEGAL AND REGULATORY REQUIREMENTS

### Opinions on other matters prescribed by the Companies Act 2006

In our opinion, based on the work undertaken in the course of the audit:

- the information given in the Strategic Report and the Directors' Report for the financial year for which the financial statements are prepared is consistent with the financial statements; and
- the Strategic Report and the Directors' Report have been prepared in accordance with applicable legal requirements.

In the light of the knowledge and understanding of the Group and the parent company and their environment obtained in the course of the audit, we have not identified any material misstatements in the Strategic Report or the Directors' Report.

### Opinions on other matters prescribed by the European Single Electronic Format Regulatory Technical Standard

We have checked the compliance with the Group financial statements as at 31 December 2021 with the relevant statutory requirements as set out in the ESEF RTS that are applicable to the Group financial statements.

# INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF MORGAN STANLEY & CO. INTERNATIONAL plc

For the Group it related to:

- Group financial statements prepared in a valid xHTML format; and
- the XBRL markup of the Group financial statements using the core taxonomy and the common rules on markups specified in the ESEF RTS.

In our opinion, the Group financial statements of Morgan Stanley & Co. International plc as at 31 December 2021, identified as "4PQUHN3JPFGFNF3BB653-2021-12-31-en", have been prepared, in all material respects, in compliance with the requirements laid down in the ESEF RTS.

## Matters on which we are required to report by exception

**Adequacy of explanations received and accounting records**

Under the Companies Act 2006 we are required to report to you if, in our opinion:

- we have not received all the information and explanations we require for our audit; or
- adequate accounting records have not been kept by the parent company, or returns adequate for our audit have not been received from branches not visited by us; or
- the parent company financial statements are not in agreement with the accounting records and returns.

***We have nothing to report in respect of these matters.***

**Directors' remuneration**

Under the Companies Act 2006 we are also required to report if in our opinion certain disclosures of Directors' remuneration have not been made.

***We have nothing to report in respect of this matter.***

## Other matters which we are required to address

**Auditor tenure**

Following the recommendation of the MSI Audit Committee of the Group, we were appointed by the Board of Directors on 17 November 1997 to audit the financial statements for the year ended 31 December 1997 and subsequent financial periods. The period of total uninterrupted engagement including previous renewals and reappointments of the firm is 25 years, covering the years ended 30 November 1997 to 31 December 2021.

**Consistency of the audit report with the additional report to the MSI Audit Committee**

Our audit opinion is consistent with the additional report to the MSI Audit Committee we are required to provide in accordance with ISAs (UK).

## Use of our report

This report is made solely to the Company's members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006. Our audit work has been undertaken so that we might state to the Company's members those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Company and the Company's members as a body, for our audit work, for this report, or for the opinions we have formed.

DocuSigned by:
Fiona Walker
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Fiona Walker, FCA (Senior Statutory Auditor)
For and on behalf of Deloitte LLP
Statutory Auditor
London, United Kingdom
26 April 2022

# MORGAN STANLEY & CO. INTERNATIONAL plc

## CONSOLIDATED INCOME STATEMENT
## Year ended 31 December 2021

| in $ millions | Note | 2021 | 2020 |
|---|---|---|---|
| Net trading income | | 4,996 | 4,544 |
| Net loss from other financial instruments held at fair value | 4 | (149) | (108) |
| Fee and commission income | 5 | 3,223 | 2,557 |
| Other revenue | | 27 | - |
| Interest income | 6 | (398) | 223 |
| Interest expense | 6 | (134) | (768) |
| Net interest expense (including the impact of negative interest rates) | | (532) | (545) |
| **Net revenue** | | 7,565 | 6,448 |
| **Non-interest expenses:** | | | |
| Operating expense | 7 | (5,627) | (4,874) |
| Net impairment reversal on financial instruments | | 2 | 1 |
| **PROFIT BEFORE TAX** | | 1,940 | 1,575 |
| Income tax expense | 8 | (589) | (606) |
| **PROFIT FOR THE YEAR** | | 1,351 | 969 |

All operations were continuing in the current and prior year.

The notes on pages 56 to 150 form an integral part of the consolidated financial statements.

As permitted by section 408 of the Companies Act 2006, the Company has elected not to present its own income statement for the period. The Company reported a profit after tax of $1,381 million for the year ended 31 December 2021 (31 December 2020: $1,046 million).

# CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME
## Year ended 31 December 2021

| in $ millions | Note | 2021 | 2020 |
|---|---|---|---|
| **PROFIT FOR THE YEAR** | | 1,351 | 969 |
| **OTHER COMPREHENSIVE INCOME, NET OF TAX** | | | |
| **Items that will not be reclassified subsequently to profit or loss:** | | | |
| Remeasurement of net defined benefit liability | 8 | (2) | (2) |
| Changes in fair value attributable to own credit risk on financial liabilities designated at fair value | 8, 9 | 73 | (199) |
| **Items that may be reclassified subsequently to profit or loss:** | | | |
| Currency translation reserve: | | | |
| Foreign currency translation differences arising on foreign operations | 8 | (33) | 36 |
| **OTHER COMPREHENSIVE INCOME, NET OF TAX** | | 38 | (165) |
| **TOTAL COMPREHENSIVE INCOME FOR THE YEAR** | | 1,389 | 804 |
| Attributable to: | | | |
| Owners of the parent | | 1,389 | 801 |
| Non-controlling interest | | - | 3 |
| **TOTAL COMPREHENSIVE INCOME FOR THE YEAR** | | 1,389 | 804 |

The notes on pages 56 to 150 form an integral part of the consolidated financial statements.

# CONSOLIDATED STATEMENT OF CHANGES IN EQUITY
## Year ended 31 December 2021

| in $ millions | 2021 | 2020 |
|---|---|---|
| **Share capital and Other equity instruments – at 1 January and 31 December** | **15,965** | **15,965** |
| **Share premium account – at 1 January and 31 December** | **513** | **513** |
| **Currency translation reserve – at 1 January** | **140** | **107** |
| Foreign currency translation differences arising during the year | (33) | 33 |
| **Currency translation reserve – at 31 December** | **107** | **140** |
| **Capital contribution reserve – at 1 January and 31 December** | **3** | **3** |
| **Capital redemption reserve – at 1 January and 31 December** | **1,400** | **1,400** |
| **Debt valuation reserve – at 1 January** | **(339)** | **(141)** |
| Changes in fair value attributable to own credit risk on financial liabilities designated at fair value | 73 | (199) |
| Realised debt valuation losses | 7 | 1 |
| **Debt valuation reserve – at 31 December** | **(259)** | **(339)** |
| **Retained earnings and Pension reserve – at 1 January** | **3,339** | **2,714** |
| Profit for the year | 1,351 | 969 |
| Remeasurement of net defined benefit liability | (2) | (2) |
| Realised debt valuation losses | (7) | (1) |
| Dividends | (237) | (342) |
| Transfer of business to Morgan Stanley S.V., S.A.U. | - | 1 |
| Share based payments | 2 | - |
| **Retained earnings and Pension reserve – at 31 December** | **4,446** | **3,339** |
| **Equity attributable to the owners of the parent - at 31 December** | **22,175** | **21,021** |
| **Non-controlling interest – at 1 January** | **-** | **56** |
| Foreign currency translation differences arising during the year | - | 3 |
| Acquisition of minority interest | - | (59) |
| **Non-controlling interest – at 31 December** | **-** | **-** |
| **Total equity at 31 December** | **22,175** | **21,021** |

The notes on pages 56 to 150 form an integral part of the consolidated financial statements.

# COMPANY STATEMENT OF CHANGES IN EQUITY
## Year ended 31 December 2021

| in $ millions | 2021 | 2020 |
|---|---|---|
| **Share capital and Other equity instruments – at 1 January and 31 December** | **15,965** | **15,965** |
| **Share premium account – at 1 January and 31 December** | **513** | **513** |
| **Currency translation reserve – at 1 January** | **(23)** | **(48)** |
| Foreign currency translation differences arising during the year | (39) | 25 |
| **Currency translation reserve – at 31 December** | **(62)** | **(23)** |
| **Capital contribution reserve – at 1 January and 31 December** | **3** | **3** |
| **Capital redemption reserve – at 1 January and 31 December** | **1,400** | **1,400** |
| **Debt valuation reserve – at 1 January** | **(339)** | **(141)** |
| Changes in fair value attributable to own credit risk on financial liabilities designated at fair value | 73 | (199) |
| Realised debt valuation losses | 7 | 1 |
| **Debt valuation reserve – at 31 December** | **(259)** | **(339)** |
| **Retained earnings and Pension reserve – at 1 January** | **3,633** | **2,931** |
| Profit for the year | 1,381 | 1,046 |
| Remeasurement of net defined benefit liability | (2) | (2) |
| Realised debt valuation losses | (7) | (1) |
| Dividends | (237) | (342) |
| Transfer of business to Morgan Stanley S.V., S.A.U. | - | 1 |
| Share based payments | 2 | - |
| **Retained earnings and Pension reserve – at 31 December** | **4,770** | **3,633** |
| **Total equity at 31 December** | **22,330** | **21,152** |

The notes on pages 56 to 150 form an integral part of the financial statements.

# CONSOLIDATED STATEMENT OF FINANCIAL POSITION
## Year ended 31 December 2021

**in $ millions**

| | Note | 2021 | 2020 |
|---|---|---|---|
| **ASSETS** | | | |
| Cash and short term deposits | 23 | 28,532 | 24,934 |
| Trading financial assets (of which $41,685 million (2020: $37,401 million) were pledged to various parties) | 10 | 332,635 | 375,009 |
| Secured financing | 9 | 125,895 | 113,797 |
| Loans and advances | 12 | 67 | 116 |
| Investment securities | | 165 | 151 |
| Trade and other receivables | 13 | 79,334 | 83,143 |
| Current tax assets | | 272 | 404 |
| Deferred tax assets | 19 | 213 | 171 |
| Property, plant and equipment | | 33 | 26 |
| Other assets | | 40 | 38 |
| **TOTAL ASSETS** | | 567,186 | 597,789 |
| | | | |
| **LIABILITIES** | | | |
| Bank loans and overdrafts | 23 | 48 | 1 |
| Trading financial liabilities | 10 | 300,325 | 340,392 |
| Secured borrowing | 9 | 97,262 | 88,350 |
| Trade and other payables | 16 | 94,052 | 92,443 |
| Debt and other borrowings | 17 | 52,679 | 54,928 |
| Provisions | 18 | 43 | 10 |
| Current tax liabilities | | 124 | 145 |
| Accruals and deferred income | | 469 | 492 |
| Post-employment benefit obligations | 33 | 9 | 7 |
| **TOTAL LIABILITIES** | | 545,011 | 576,768 |
| | | | |
| **EQUITY** | | | |
| Share capital | 21 | 12,465 | 12,465 |
| Other equity instruments | 21 | 3,500 | 3,500 |
| Share premium account | 21 | 513 | 513 |
| Currency translation reserve | 21 | 107 | 140 |
| Capital contribution reserve | | 3 | 3 |
| Capital redemption reserve | | 1,400 | 1,400 |
| Pension reserve | | (4) | (2) |
| Debt valuation reserve | | (259) | (339) |
| Retained earnings | | 4,450 | 3,341 |
| **TOTAL EQUITY** | | 22,175 | 21,021 |
| **TOTAL LIABILITIES AND EQUITY** | | 567,186 | 597,789 |

These consolidated financial statements were approved by the Board and authorised for issue on 25 April 2022.

Signed on behalf of the Board

DocuSigned by:

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A Kohli

Director

The notes on pages 56 to 150 form an integral part of the consolidated financial statements.

# MORGAN STANLEY & CO. INTERNATIONAL plc

## COMPANY STATEMENT OF FINANCIAL POSITION
## Year ended 31 December 2021

**in $ millions**

| | Note | 2021 | 2020 |
|---|---|---|---|
| **ASSETS** | | | |
| Cash and short term deposits | 23 | 28,218 | 24,629 |
| Trading financial assets (of which $41,685 million (2020: $37,401 million) were pledged to various parties) | 10 | 332,449 | 375,009 |
| Secured financing | 9 | 125,695 | 113,797 |
| Loans and advances | 12 | 26 | 32 |
| Investment securities | | 165 | 151 |
| Trade and other receivables | 13 | 79,407 | 83,236 |
| Current tax assets | | 305 | 377 |
| Deferred tax assets | 19 | 212 | 170 |
| Investment in subsidiaries | 14 | 130 | 105 |
| Property, plant and equipment | | 11 | 14 |
| Other assets | | 40 | 38 |
| **TOTAL ASSETS** | | 566,658 | 597,558 |
| | | | |
| **LIABILITIES** | | | |
| Bank loans and overdrafts | 23 | 48 | 1 |
| Trading financial liabilities | 10 | 300,325 | 340,392 |
| Secured borrowing | 9 | 96,854 | 88,350 |
| Trade and other payables | 16 | 94,063 | 92,420 |
| Debt and other borrowings | 17 | 52,463 | 54,681 |
| Provisions | 18 | 43 | 10 |
| Current tax liabilities | | 64 | 60 |
| Accruals and deferred income | | 462 | 488 |
| Post-employment benefit obligations | 33 | 6 | 4 |
| **TOTAL LIABILITIES** | | 544,328 | 576,406 |
| | | | |
| **EQUITY** | | | |
| Share capital | 21 | 12,465 | 12,465 |
| Other equity instruments | 21 | 3,500 | 3,500 |
| Share premium account | 21 | 513 | 513 |
| Currency translation reserve | 21 | (62) | (23) |
| Capital contribution reserve | | 3 | 3 |
| Capital redemption reserve | | 1,400 | 1,400 |
| Pension reserve | | (4) | (2) |
| Debt valuation reserve | | (259) | (339) |
| Retained earnings | | 4,774 | 3,635 |
| **TOTAL EQUITY** | | 22,330 | 21,152 |
| **TOTAL LIABILITIES AND EQUITY** | | 566,658 | 597,558 |

These financial statements were approved by the Board and authorised for issue on 25 April 2022.

Signed on behalf of the Board

DocuSigned by:

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A Kohli
Director

The notes on pages 56 to 150 form an integral part of the financial statements.

# CONSOLIDATED STATEMENT OF CASH FLOWS
## Year ended 31 December 2021

| in $ millions | Note | 2021 | 2020 |
|---|---|---|---|
| **NET CASH FLOWS GENERATED BY /(USED IN) OPERATING ACTIVITIES** | 23b | 3,846 | (4,537) |
| **INVESTING ACTIVITIES** | | | |
| Purchase of property, plant and equipment | | (13) | (15) |
| Changes in ownership interest in subsidiaries | 14 | - | (59) |
| **NET CASH FLOWS USED IN INVESTING ACTIVITIES** | | (13) | (74) |
| **FINANCING ACTIVITIES** | | | |
| Dividends paid | 22 | (237) | (342) |
| Issue of Additional Tier 1 capital | | - | 1,300 |
| Repayment of Additional Tier 1 capital | | - | (1,300) |
| Issue of subordinated loan liabilities | 17 | 1,400 | - |
| Repayment of senior subordinated loan liabilities | 17 | (400) | - |
| Interest on subordinated loan liabilities | | (110) | (148) |
| Interest on senior subordinated loan liabilities | | (98) | (128) |
| **NET CASH FLOWS GENERATED BY / (USED IN) FINANCING ACTIVITIES** | | 555 | (618) |
| **NET INCREASE/(DECREASE) IN CASH AND CASH EQUIVALENTS** | | 4,388 | (5,229) |
| Currency translation differences on foreign currency cash balances | | (837) | 1,368 |
| **CASH AND CASH EQUIVALENTS AT THE BEGINNING OF THE YEAR** | 23a | 24,933 | 28,794 |
| **CASH AND CASH EQUIVALENTS AT THE END OF THE YEAR** | 23a | 28,484 | 24,933 |

The notes on pages 56 to 150 form an integral part of the consolidated financial statements.

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
# Year ended 31 December 2021

## 1. CORPORATE INFORMATION

The Company is incorporated and domiciled in England and Wales, at the following address: 25 Cabot Square, Canary Wharf, London, E14 4QA.

The Group's immediate parent undertaking is Morgan Stanley Investments (UK) ("MSIUK") which is registered in England and Wales. Copies of its financial statements can be obtained from the Registrar of Companies for England and Wales, Companies House, Crown Way, Cardiff CF14 3UZ.

The Group's ultimate parent undertaking and controlling entity is Morgan Stanley which, together with the Group and Morgan Stanley's other subsidiary undertakings, form the Morgan Stanley Group. Morgan Stanley is incorporated in the State of Delaware, the United States of America. Copies of its financial statements can be obtained from www.morganstanley.com/investorrelations.

## 2. BASIS OF PREPARATION

### a. Statement of compliance

These financial statements incorporate the financial statements of the Group and the Company.

The Group has prepared its annual consolidated financial statements in accordance with IFRSs issued by the IASB as adopted by the EU and the UK, Interpretations issued by the IFRS Interpretations Committee ("IFRIC") and the Companies Act 2006. The Group has prepared its annual consolidated financial statements in compliance with the European Single Electronic Format Regulatory Technical Standard ("ESEF RTS"), including the preparation in a valid xHTML format and the application of iXBRL markup using the core taxonomy and the common rules on markups specified in the ESEF RTS.

The Company financial statements have been prepared in accordance with United Kingdom Generally Accepted Accounting Practice (United Kingdom Accounting Standards and applicable law), including FRS 101, with a departure from the requirement of Schedule 1 paragraph 40 to The Large and Medium-sized Companies and Groups (Accounts and Reports) Regulations 2008 ("the Regulations") as described in note 3(c) below for the overriding purpose of giving a true and fair view.

The Company meets the definition of a qualifying entity and is a Financial Institution as defined in FRS 100 *Application of Financial Reporting Requirements*. The Company has taken advantage of the disclosure exemptions available under FRS 101 in relation to share-based payments, fair value measurements (as applicable to assets and liabilities other than financial instruments), revenue recognition, presentation of comparative information in respect of certain assets and shares outstanding, presentation of a cash flow statement, accounting standards not yet adopted, related party transactions and leases.

Where relevant, equivalent disclosures have been provided in the Group accounts in which the Company is consolidated.

### b. New standards and interpretations adopted during the year

The following standards, amendments to standards and interpretations relevant to the Group and Company's operations were adopted during the year. These did not have a material impact on the Group or Company's financial statements.

Amendments to IFRS 9 '*Financial Instruments*', IFRS 7 *'Financial Instruments: Disclosures'*, and IFRS 16 *'Leases'* were issued by the IASB in August 2020. The amendments outline the accounting and disclosure requirements for the financial instruments which are transitioned to alternative benchmark rates. The amendments are applicable retrospectively and are effective from and have been applied for annual periods beginning on or after 1 January 2021. The amendments were endorsed by the EU and the UK in January 2021.

There were no other standards, amendments to standards or interpretations relevant to the Group and Company's operations which were adopted during the year.

### c. New standards and interpretations not yet adopted

At the date of authorisation of these consolidated financial statements, the following amendments to standards relevant to the Group's operations were issued by the IASB but not mandatory for accounting periods beginning 1 January 2021. The Group does not expect that the adoption of the following amendments to standards will have a material impact on the Group's or Company's financial statements.

Amendments to IAS 37 *'Provisions, Contingent Liabilities and Contingent Assets'*: Onerous Contracts – Cost of Fulfilling a Contract were issued by the IASB in May 2020, for modified retrospective application in accounting periods beginning on or after 1 January 2022. Early application is permitted. The amendments were endorsed by the EU in July 2021.

As part of the 2018-2020 Annual Improvements Cycle published in May 2020, the IASB made an amendment to IFRS 9 *'Financial Instruments'*, relating to the treatment of fees in the assessment of whether financial liabilities are modified or exchanged, where such transactions occur on or after 1 January 2022. Early application is permitted. The amendments were endorsed by the EU in July 2021.

Amendments to IAS 8 *'Accounting Policies, Changes in Accounting Estimates and Errors':* Definition of Accounting Estimates were issued by the IASB in February 2021, for prospective application in accounting periods beginning on or after 1 January 2023. Early application is permitted. The amendments were endorsed by the EU in March 2022.

Amendments to IAS 1 *'Presentation of Financial Statements':* Disclosure of Accounting Policies were issued by the IASB in February 2021, for prospective application in accounting periods beginning on or after 1 January 2023. Early application is permitted. The amendments were endorsed by the EU in March 2022.

Amendments to IAS 12 *'Income Taxes'*: Deferred Tax related to Assets and Liabilities arising from a Single Transaction were issued by the IASB in May 2021, for retrospective application in accounting periods beginning on or after 1 January 2023. Early application is permitted.

**d. Basis of measurement**

The financial statements of the Company and the consolidated financial statements of the Group are prepared under the historical cost basis, except for certain financial instruments that have been measured at fair value as explained in the accounting policies below.

**e. Critical accounting judgements and sources of estimation uncertainty**

In preparing the financial statements and consolidated financial statements, the Company and Group make judgements and estimates that affect the application of accounting policies and reported amounts.

Critical accounting judgements are key decisions made by management in the application of the Group and Company's accounting policies, other than those involving estimations, which have the most significant effects on the amounts recognised in the financial statements.

Key sources of estimation uncertainty represent assumptions and estimations made by management that have a significant risk of resulting in a material adjustment to the carrying amount of assets and liabilities within the next financial year.

The Group and Company's critical sources of estimation uncertainty are as follows:

- *Valuation of Level 3 financial instruments:* Valuation techniques used to measure the fair value of instruments categorised in Level 3 of the fair value hierarchy are dependent on unobservable parameters, and as such require the application of judgement, involving estimations and assumptions. The fair value for these financial instruments has been determined using parameters appropriate for the valuation methodology based on prevailing market evidence. It is recognised that the unobservable parameters could have a range of reasonable possible alternate values. See accounting policy note 3(d) and note 30(d)(ii) 'Sensitivity of fair values to changing significant assumptions to reasonable possible alternatives'.
- *Measurement of litigation and taxation provisions:* Estimates are used in the calculation of provisions, which are calculated based on the net present value of expected future cash flows, although the Group recognises that it is inherently difficult to estimate the amount of the future losses in certain instances. See accounting policy note 3(o) and note 18.

No critical accounting judgements have been made in the process of applying the Group and Company's accounting policies that have had a significant effect on the amounts recognised in the financial statements.

The Group and Company evaluates the critical accounting judgements and accounting estimates on an ongoing basis and believe that these are reasonable.

**f. Basis of consolidation**

The consolidated financial statements of the Group comprise the financial statements of the Company and its subsidiaries as at 31 December 2021. Subsidiaries are all entities over which the Group has control. The Group controls an entity when the Group is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. The financial statements for the subsidiaries are prepared for the same reporting year as the Group, using consistent accounting policies. The financial statements subsidiaries are translated into US dollars as described in note 3(b). Subsidiaries are consolidated from the date that the Group gains control until the date that control ceases.

In certain cases, the Group may exercise control over another entity on behalf of investors or other parties. In such cases it is necessary, as part of the assessment of whether it should consolidate the entity, for the Group to determine whether it exercises such control primarily as an agent for the other investors or whether it does so primarily as principal on its own behalf. In making such a determination, the management will consider all relevant factors, including in particular:

- the scope of the Group's decision-making authority over the investee;
- the rights, including removal rights, held by other parties;
- the remuneration to which the Group is entitled; and
- the significance of the Group's exposure to variability of returns from its interests in the entity.

Intra-group balances, transactions, income and expenses and profits and losses resulting from intra-group transactions are eliminated in preparing the consolidated financial statements.

Non-controlling interests represent the portion of profit or loss and total equity not owned, directly or indirectly, by the Group and are presented separately in the consolidated income statement, consolidated statement of comprehensive income and within equity in the consolidated statement of financial position, separately from parent shareholders' equity. The amount of non-controlling interest is measured as the non-controlling interest's proportionate share of the identifiable net assets.

Details of the Group's interests in other entities are given in note 14 to these financial statements.

**g. The going concern assumption**

The Group's and Company's business activities, together with the factors likely to affect its future development, performance and position, and the Group's and Company's objectives, policies and processes for managing its capital; its financial risk management objectives; and its exposures to credit risk and liquidity risk, are reflected in the Strategic Report, and as set out in the Strategic Report and Director's Report, retaining sufficient liquidity and capital to withstand market pressures remains central to the Morgan Stanley Group's, the Group's and the Company's strategy.

Taking the above factors into consideration, the Directors believe the Group and Company will have access to adequate resources to continue in operational existence for the foreseeable future. Accordingly, they continue to adopt the going concern basis in preparing the annual report and financial statements.

## 3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

### a. Functional currency

Items included in the consolidated financial statements are measured and presented in US dollars, the currency of the primary economic environment in which the Group operates.

All currency amounts in the consolidated financial statements, Strategic Report and Directors' Report are rounded to the nearest million US dollars (unless otherwise stated).

### b. Foreign currencies

All monetary assets and liabilities denominated in currencies other than US dollars are translated into US dollars at the rates ruling at the reporting date. Transactions and non-monetary assets and liabilities denominated in currencies other than US dollars are recorded at the rates prevailing at the dates of the transactions. Assets and liabilities of foreign operations are translated into US dollars using the closing rate method. Translation differences arising from the net investment(s) in the foreign operations are taken to the 'Currency translation reserve'.

The amount of change in the fair value of financial liabilities designated at FVPL that is attributable to changes in the credit risk of these liabilities (Debt Valuation Adjustment ("DVA")) includes foreign exchange differences thereon. All other translation differences are taken through the consolidated income statement. Exchange differences recognised in the consolidated income statement are presented in 'Other revenue' or 'Operating expense', except where noted in 3(c) below.

On disposal of a foreign operation, the related cumulative gain or loss in the 'Currency translation reserve' attributable to the owners of the parent is reclassified to the consolidated income statement and recorded within 'Net loss on investments in subsidiaries, associates and joint ventures'.

### c. Financial instruments

### i) Financial instruments mandatorily at fair value through profit and loss

**Trading financial instruments**

Trading financial instruments include government debt securities, corporate and other debt, traded loans, and corporate equities where the Group acquires the financial asset or financial liability for the purpose of selling or repurchasing in the near term or is part of a portfolio for which there is evidence of short term profit taking, and all derivative contracts.

Purchases and sales of non-derivative financial instruments classified as trading are initially recognised on settlement date at fair value, including regular way securities transactions. For purchases of non-derivative financial instruments classified as trading, from the date that the terms are agreed (trade date) until the settlement date, the Group and Company recognises any unrealised fair value in the statement of financial position as 'Trading financial assets' with corresponding profit or loss recognised within the consolidated income statement in 'Net trading income'. For sales of non-derivative financial instruments, unrealised fair value changes are no longer recognised in the consolidated income statement from trade date. Upon settlement date the resulting financial instrument is recognised or de-recognised from the consolidated statement of financial position.

Derivatives, are initially recorded on trade date at fair value (see note 3(d) below). All subsequent changes in fair value are reflected in the consolidated income statement in 'Net trading income'.

All changes in fair value, foreign exchange differences, interest and dividends are reflected in the consolidated income statement in 'Net trading income'. When interest is included as a component of an instrument's fair value, interest is also reflected in the income statement in 'Net trading income', otherwise, it is included within 'Interest income' or 'Interest expense'.

Transaction costs are incremental costs that are directly attributable to the acquisition, issue or disposal of a financial instrument. For all trading financial instruments, transaction costs are excluded from the initial fair value measurement of the financial instrument. These costs are recognised in the consolidated income statement in 'Operating expense'.

**Non-trading financial assets at fair value through profit or loss**

Non-trading financial assets at FVPL include secured financing transactions such as cash collateral on securities borrowed and securities purchased under agreements to resell, prepaid OTC contracts and financial assets arising upon consolidation of certain special purpose entities, and certain investment securities (unlisted equities).

Non-trading financial assets at FVPL are principally financial assets where the Group makes decisions based upon the assets' fair values. These assets are generally recognised on settlement date at fair value (see note 3(d) below), since they are neither regular way nor are they derivatives. From the date the terms are agreed (trade date), until the financial asset is funded (settlement date), the Group and Company recognises any unrealised fair value changes in the financial asset as non-trading financial assets at FVPL. On settlement date, the fair value of consideration given is recognised as a non-trading financial asset at FVPL.

All subsequent changes in fair value, foreign exchange differences and unrealised interest are reflected in the consolidated income statement in 'Net income from other financial instruments held at fair value'. Realised interest is included within 'Interest income' or 'Interest expense'. All subsequent changes in fair value and foreign exchange differences are reflected in the consolidated income statement in 'Net income from other financial instruments held at fair value'. When interest in included as a component of an instrument's fair value, interest is also reflected in the consolidated income statement in 'Net income from other financial instruments held at fair value', otherwise it is included within 'Interest income' or 'Interest expense'.

Transaction costs are excluded from the initial fair value measurement of the financial assets and are recognised in the consolidated income statement in 'Operating expense'.

**ii) Financial instruments designated at fair value through profit or loss**

Financial instruments designated at FVPL include corporate loans, unfunded loan commitments, prepaid OTC contracts, cash collateral on securities loaned and securities sold under agreements to repurchase, issued structured notes and other financial assets and liabilities.

The Group and Company have designated certain financial instruments at FVPL when the designation at fair value eliminates or significantly reduces an accounting mismatch which would otherwise arise. The Group has also designated certain financial liabilities at FVPL where:

- the financial liability forms part of a group of financial assets or financial liabilities, or both, which are managed, evaluated and reported internally on a fair value basis; or
- the financial liability contains an embedded derivative that significantly modifies the cash flows that would otherwise be required under the contract.

From the date the transaction in a financial instrument designated at FVPL is entered into (trade date) until settlement date, the Group recognises any unrealised fair value changes in the contract as financial instruments designated at FVPL in the statement of financial position. On settlement date, the fair value of consideration given or received is recognised as a financial instrument designated at FVPL (see note 3(d) below).

All subsequent changes in fair value, foreign exchange differences, and dividends are reflected in the consolidated income statement in 'Net income from other financial instruments held at fair value', other than DVA on financial liabilities designated at FVPL which is recognised in the 'Debt valuation reserve' where those changes do not create or enlarge an accounting mismatch. When interest is included as a component of an instrument's fair value, interest is also reflected in the consolidated income statement in 'Net income from other financial instruments held at fair value', otherwise it is included within 'Interest income' or 'Interest expense'. DVA presented within other comprehensive income is not subject to reclassification to the consolidated income statement, but is transferred to 'Retained earnings' when realised.

For the Company, the presentation of 'Debt valuation reserve' within other comprehensive income represents a departure from Schedule 1 paragraph 40 to the Regulations, which requires that changes in the value of financial instruments be included in the profit and loss account. The Directors consider that this departure is necessary in order that the accounts give a true and fair view of the results of the Company. All other subsequent changes in fair value, foreign exchange differences not relating to changes in the credit risk of those liabilities, interest and dividends are reflected in the income statement.

Transaction costs are excluded from the initial fair value measurement of the financial instrument. These costs are recognised as incurred in the consolidated income statement in 'Operating expense'.

See note 9 for an analysis of financial assets and financial liabilities designated at FVPL.

**iii) Investments in subsidiaries**

Subsidiaries are entities over which the Company has control. The Company controls an entity when it is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity.

Investments in subsidiaries are stated at cost, less provision for any impairment (see note 3(c)(iv) below). Dividends, impairment losses and reversals of impairment losses are recognised in profit or loss. Dividends from investments which would be classified as financial liabilities by the investee are classified as interest and recognised in total profit or loss.

**iv) Impairment of subsidiaries**

Impairment losses on investments in subsidiaries are measured as the difference between cost and the current estimated recoverable amount. When the recoverable amount is less than cost, an impairment is recognised within profit or loss and is reflected against the carrying amount of the impaired asset on the statement of financial position. Investments in subsidiaries which have suffered an impairment are reviewed for possible reversal of the impairment.

**v) Financial assets and financial liabilities at amortised cost**

Financial assets at amortised cost include cash and short-term deposits, certain trade and other receivables and certain loans and advances.

Financial assets are recognised at amortised cost when the Group and Company's business model objective is to collect the contractual cash flows of the assets and where these cash flows are Solely Payments of Principal and Interest ("SPPI") on the principal amount outstanding until maturity. Such assets are recognised when the Group and Company becomes a party to the contractual provisions of the instrument. The instruments are initially measured at fair value (see note 3(d) below) and subsequently measured at amortised cost less expected credit loss ("ECL") allowance. Interest is recognised in the consolidated income statement in 'Interest income', using the effective interest rate ("EIR") method as described below. Transaction costs that are directly attributable to the acquisition of the financial asset are added to the fair value on initial recognition. ECL, and reversals thereof, are recognised in the consolidated income statement in 'Net impairment loss on financial instruments'.

Financial liabilities classified at amortised cost include bank loans and overdrafts, certain secured borrowings, certain trade and other payables, and certain debt and other borrowings.

Financial liabilities are classified as being subsequently measured at amortised cost, except where they are held for trading or are designated as measured at FVPL. They are recognised when the Group becomes a party to the contractual provisions of the instrument and are initially measured at fair value (see note 3(d) below) and subsequently measured at amortised cost. Interest is recognised in the consolidated income statement in 'Interest expense' using the EIR method as described below. Transaction costs that are directly attributable to the issue of a financial liability are deducted from the fair value on initial recognition.

The EIR method is a method of calculating the amortised cost of a financial instrument (or a group of financial instruments) and of allocating the interest income or interest expense over the expected life of the financial instrument. The EIR is the rate that exactly discounts the estimated future cash payments and receipts through the expected life of the financial instrument (or, where appropriate a shorter period) to the carrying amount of the financial instrument. The EIR is established on initial recognition of the financial instrument. The calculation of the EIR includes all fees and commissions paid or received, transaction costs, and discounts or premiums that are an integral part of the EIR.

**vi) Secured financing and secured borrowings**

In the course of financing its business and part of its trading activities, the Group and Company enter into arrangements which involve the sale of securities with agreements to repurchase, the purchase of securities with resale agreements, the lending of securities with collateral received and the borrowing of securities with collateral given.

Securities received by the Group and Company under resale arrangements and securities borrowing arrangements are generally not recognised on the statement of financial position, and securities pledged or sold by the Group under sale and repurchase agreements and securities lending arrangements are generally not derecognised from the consolidated statement of financial position.

Securities pledged or sold by the Group and Company under sale and repurchase agreements and securities lending arrangements are generally not derecognised from the statement of financial position. Where cash collateralised, the resulting cash collateral balances repayable and accrued interest are designated at FVPL where the financial liability forms part of a group of financial assets or financial liabilities or both, which is managed, evaluated and reported internally of a fair value basis; or at amortised cost if not so designated.

**d. Fair value**

*Fair value measurement*

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability (i.e. the “exit price”) in an orderly transaction between market participants at the measurement date.

Fair value is a market-based measure considered from the perspective of a market participant rather than an entity-specific measure. Therefore, even when market assumptions are not readily available, assumptions are set to reflect those that the Group and Company believes market participants would use in pricing the asset or liability at the measurement date.

Where the Group and Company manages a group of financial assets and financial liabilities on the basis of its net exposure to either market risks or credit risk, the Group and Company measures the fair value of that group of financial instruments consistently with how market participants would price the net risk exposure at the measurement date.

In determining fair value, the Group and Company use various valuation approaches and establish a hierarchy for inputs used in measuring fair value that require the most observable inputs be used when available. Observable inputs are inputs that market participants would use in pricing the asset or liability that were developed based on market data obtained from sources independent of the Group and Company. Unobservable inputs are inputs that reflect assumptions the Group and Company believe other market participants would use in pricing the asset or liability, that are developed based on the best information available in the circumstances.

The fair value hierarchy is broken down into three levels based on the observability of inputs as follows, with Level 1 being the highest and Level 3 being the lowest level:

- Level 1 - Quoted prices (unadjusted) in an active market for identical assets or liabilities

  Valuations based on quoted prices in active markets that the Morgan Stanley Group has the ability to access for identical assets or liabilities. Valuation adjustments, block discounts and discounts for equity specific restrictions that would not transfer to market participants are not applied to Level 1 instruments. Since valuations are based on quoted prices that are readily and regularly available in an active market, valuation of these products does not entail a significant degree of judgement.

- Level 2 - Valuation techniques using observable inputs

Valuations based on one or more quoted prices in markets that are not active or for which all significant inputs are observable, either directly or indirectly.

- Level 3 - Valuation techniques with significant unobservable inputs

  Valuations based on inputs that are unobservable and significant to the overall fair value measurement.

The availability of observable inputs can vary from product to product and is affected by a wide variety of factors, including, for example, the type of product, whether the product is new and not yet established in the marketplace, the liquidity of markets and other characteristics particular to the product. 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. Accordingly, the degree of judgement exercised by the Group and Company in determining fair value is greatest for instruments categorised in Level 3 of the fair value hierarchy.

The Group and Company considers prices and inputs that are current as of the measurement date, including during periods of market dislocation. In periods of market dislocation, the observability of prices and inputs may be reduced for many instruments. This condition could cause an instrument to be reclassified to a lower Level of the fair value hierarchy.

In certain cases, the inputs used to measure fair value may fall into different levels of the fair value hierarchy. In such cases, the total fair value amount is disclosed in the level appropriate for the lowest level input that is significant to the total fair value of the asset or liability.

The Group incorporates Funding Valuation Adjustment (“FVA”) into the fair value measurements of OTC uncollateralised or partially collateralised derivatives and in collateralised derivatives where the terms of the agreement do not permit the re-use of the collateral received. In general, the FVA reflects a market funding risk premium inherent in the noted derivative instruments. The methodology for measuring FVA leverages the Group and Company’s existing credit-related valuation adjustment calculation methodologies, which apply to both assets and liabilities.

For assets and liabilities that are transferred between levels in the fair value hierarchy during the period, fair values are ascribed as if the assets or liabilities had been transferred as of the beginning of the period.

*Valuation techniques*

Many cash instruments and OTC derivative contracts have bid and ask prices that can be observed in the marketplace. Bid prices reflect the highest price that a party is willing to pay for an asset. Ask prices represent the lowest price that a party is willing to accept for an asset. The Group and Company carry positions at the point within the bid-ask range that meets its best estimate of fair value. For offsetting positions in the same financial instrument, the same price within the bid-ask spread is used to measure both the long and short positions.

Fair value for many cash instruments and OTC derivative contracts is derived using pricing models. Pricing models take into account the contract terms, as well as multiple inputs including, where applicable, commodity prices, equity prices, interest rate yield curves, credit curves, correlation, creditworthiness of the counterparty, creditworthiness of the Group and Company, option volatility and currency rates.

Where appropriate, valuation adjustments are made to account for various factors such as liquidity risk (bid-ask adjustments), credit quality, model uncertainty and concentration risk in order to arrive at fair value.

Adjustments for liquidity risk adjust model-derived mid-market levels of Level 2 and Level 3 financial instruments for the bid-mid or mid-ask spread required to properly reflect the exit price of a risk position. Bid-mid and mid-ask spreads are marked to levels observed in trade activity, broker quotes or other external third-party data. Where these spreads are unobservable for the particular position in question, spreads are derived from observable levels of similar positions.

The Group and Company apply credit-related valuation adjustments (“CVA”) to their Borrowings (primarily structured notes) which are designated at FVPL and to OTC derivatives. The Group and Company consider the impact of changes in own credit spreads based upon observations of the secondary bond market spreads when measuring the fair value for borrowings. For OTC derivatives, the impact of changes in both the Group's and the counterparty's credit rating is considered when measuring fair value. In determining the expected exposure, the Group and Company simulate the distribution of the future exposure to a counterparty, then apply market-based default probabilities to the future exposure, leveraging external third-party CDS spread data. Where CDS spread data are unavailable for a specific counterparty, bond market spreads, CDS spread data based on the counterparty's credit rating or CDS spread data that reference a comparable counterparty may be utilised. The Group also considers collateral held and legally enforceable master netting agreements that mitigate its exposure to each counterparty.

Adjustments for model uncertainty are taken for positions whose underlying models are reliant on significant inputs that are neither directly nor indirectly observable, hence requiring reliance on established theoretical concepts in their derivation. These adjustments are derived by making assessments of the possible degree of variability using statistical approaches and market-based information where possible.

The Group and Company may apply a concentration adjustment to certain of their OTC derivatives portfolios to reflect the additional cost of closing out a particularly large risk exposure. Where possible, these adjustments are based on observable market information but in many instances significant judgement is required to estimate the costs of closing out concentrated risk exposures due to the lack of liquidity in the marketplace.

*Valuation process*

VC within Finance is responsible for the Group and Company's fair value valuation policies, processes and procedures. VC is independent of the business units and reports to the Chief Financial Officer of the Morgan Stanley Group ("CFO"), who has final authority over the valuation of the Group's financial instruments. VC implements valuation control processes designed to validate the fair value of the Group's financial instruments measured at fair value including those derived from pricing models.

*Model Review:* VC, in conjunction with the MRM, which reports to the CRO, independently reviews valuation models' theoretical soundness, the appropriateness of the valuation methodology and calibration techniques developed by the business units using observable inputs. Where inputs are not observable, VC reviews the appropriateness of the proposed valuation methodology to determine that it is consistent with how a market participant would arrive at the unobservable input. The valuation methodologies utilised in the absence of observable inputs may include extrapolation techniques and the use of comparable observable inputs. As part of the review, VC develops a methodology to independently verify the fair value generated by the business unit's valuation models. The Group and Company generally subject valuations and models to a review process initially and on a periodic basis thereafter.

*Independent Price Verification:* The business units are responsible for determining the fair value of financial instruments using approved valuation models and valuation methodologies. Generally, on a monthly basis, VC independently validates the fair values of financial instruments determined using valuation models by determining the appropriateness of the inputs used by the business units and by testing compliance with the documented valuation methodologies approved in the model review process described above.

The results of this independent price verification and any adjustments made by VC to the fair value generated by the business units are presented to management of the MSI Group's business segments (i.e. Institutional Securities and Investment Management), the CFO and the CRO on a regular basis.

VC uses recently executed transactions, other observable market data such as exchange data, broker/ dealer quotes, third-party pricing vendors and aggregation services for validating the fair values of financial instruments generated using valuation models. VC assesses the external sources and their valuation methodologies to determine if the external providers meet the minimum standards expected of a third-party pricing source.

Pricing data provided by approved external sources are evaluated using a number of approaches; for example, by corroborating the external sources' prices to executed trades, by analysing the methodology and assumptions used by the external source to generate a price and/ or by evaluating how active the third-party pricing source (or originating sources used by the third-party pricing source) is in the market. Based on this analysis, VC generates a ranking of the observable market data designed to ensure that the highest-ranked market data source is used to validate the business unit's fair value of financial instruments.

VC reviews the models and valuation methodology used to price new material Level 2 and Level 3 transactions and both Finance and MRM must approve the fair value of the trade that is initially recognised.

*Level 3 Transactions:* VC reviews the business unit's valuation techniques to assess whether these are consistent with market participant assumptions.

*Gains and losses on inception*

In the normal course of business, the fair value of a financial instrument on initial recognition is the transaction price (i.e. the fair value of the consideration given or received). In certain circumstances, however, the fair value will be based on other observable current market transactions in the same instrument, without modification or repackaging, or on a valuation technique whose variables include only data from observable markets. When such evidence exists, the Group and Company recognises a gain or loss on inception of the transaction.

When the use of unobservable market data has a significant impact on determining fair value at the inception of the transaction, the entire initial gain or loss indicated by the valuation technique as at the transaction date is not recognised immediately in the consolidated income statement, but is deferred and recognised over the life of the instrument or is recognised instead when the market data becomes observable or on maturity or disposal of the instrument.

For further information, see note 30(e).

*Assets and liabilities measured at fair value on a non-recurring basis*

Certain of the Group and Company's assets and liabilities may be measured at fair value on a non-recurring basis. The Group and Company incur losses or gains for any adjustments of these assets or liabilities to fair value.

For assets and liabilities measured at fair value on a non-recurring basis, fair value is determined by using various valuation approaches. The same hierarchy for inputs as described above, which requires that the observable inputs be used when available, is used in measuring fair value for these items.

**e. Modification and derecognition of financial assets and liabilities**

The Group and Company derecognise a financial asset when the contractual rights to the cash flows from the asset expire, or when it transfers the financial asset and substantially all the risk and rewards of ownership of the asset.

If the asset has been transferred, and the Group or Company neither transfers nor retains substantially all of the risks and rewards of the asset, then the Group and Company determine whether it has retained control of the asset.

If the Group or Company has retained control of the asset, it continues to recognise the financial asset to the extent of its continuing involvement in the financial asset. If the Group or Company has not retained control of the asset, it derecognises the asset and separately recognises any rights or obligation created or retained in the transfer.

The renegotiation or modification of the contractual cash flows of a financial instrument can lead to derecognition where the modification is "substantial", determined by qualitative assessment of whether the revised contractual terms of a financial instrument, such as a loan, are significantly different from those of the original financial instrument. In the event that the qualitative assessment is unclear, a quantitative 10% cash flow test is performed.

Where modifications do not result in derecognition of the financial instrument, the gross carrying amount of the financial instrument is recalculated and a modification gain/(loss) is recognised in the income statement.

Upon derecognition of a financial asset, the difference between the previous carrying amount and the sum of any consideration received, together with the transfer of any cumulative gain/ loss previously recognised in equity, are recognised in the consolidated income statement within 'Net gains/ (losses) on derecognition of financial assets measured at amortised cost and FVOCI'.

The Group derecognises financial liabilities when the Group's obligations are discharged or cancelled or when they expire.

**f. Impairment of financial instruments**

The Group recognises ECL for the following financial instruments that are not measured at FVPL:

- financial assets measured at amortised cost;
- loan commitments, except those that can be net settled in cash or with another financial instrument; and
- financial guarantees.

*Measurement of ECL*

For financial assets, ECLs are the present value of cash shortfalls (i.e. the difference between contractual and expected cash flows) over the expected life of the financial instrument, discounted at the asset's EIR.

Where a financial asset is credit-impaired at the reporting date, the ECL is measured as the difference between the asset's gross carrying amount and the present value of future cash flows, discounted at the original EIR.

For in-scope loan commitments, ECLs are the present value of the cash shortfalls (i.e. the difference between contractual and expected cash flows), assuming that the loan is drawn down.

For a financial guarantee contract, ECLs are the present value of the cash shortfalls based on the expected payments to reimburse the holder for a credit loss that it may incur when a debtor fails to make payment when due.

The Group and Company apply a three stage approach to measuring ECLs based on the change in credit risk since initial recognition:

- Stage 1: if the credit risk of the financial instrument at the reporting date has not increased significantly since initial recognition, then the loss allowance is calculated as the lifetime cash shortfalls that will result if a default occurs in the next 12 months, weighted by the probability of that default occurring.
- Stage 2: if there has been a significant increase in credit risk ("SICR") since initial recognition, the loss allowance is calculated as the ECL over the remaining life of the financial instrument. If it is subsequently determined that there has no longer been a SICR since initial recognition, then the loss allowance reverts to reflecting 12 month expected losses.
- Stage 3: if there has been a SICR since initial recognition and the financial instrument is deemed credit-impaired (see below for definition of credit-impaired), the loss allowance is calculated as the ECL over the remaining life of the financial instrument. If it is subsequently determined that there has no longer been a SICR since initial recognition, then the loss allowance reverts to reflecting 12 month expected losses.

Notwithstanding the above, for trade receivables a lifetime ECL is always calculated, without considering whether a SICR has occurred.

*Assessment of SICR*

When assessing SICR, the Group considers both quantitative and qualitative information and analysis based on the Group and Company's historical experience and expert credit risk assessment, including forward-looking information.

The probability of default ("PD") is derived from internal credit rating grades (based on available information about the borrower) and multiple forward-looking macroeconomic scenarios which are probability weighted. Credit risk is considered to have increased significantly if the PD has significantly increased at the reporting date relative to the PD of the facility at the date of initial recognition. The assessment of whether a change in PD is "significant" is based both on a consideration of the relative change in PD and on qualitative indicators of the credit risk of the facility, which indicate whether a loan is performing or in difficulty. In addition, as a backstop, the Group considers that SICR has occurred in all cases when an asset is more than 30 days past due. The Group and Company do not use the 'low' credit risk practical expedient, so monitor all financial instruments subject to impairment for SICR, with the exception of trade receivables, as noted.

In general, ECLs are measured so that they reflect:

- A probability-weighted range of possible outcomes;
- The time value of money; and
- Relevant information relating to past, current and future economic conditions.

*Calculation of ECL*

ECL is calculated using three main components:

- PD: for accounting purposes, the 12 month and lifetime PD represent the expected point-in-time probability of a default over the next 12 months and over the remaining lifetime of the financial instrument respectively, based on conditions existing at the balance sheet date and future economic conditions.
- Loss given default ("LGD"): the LGD represents expected loss conditional on default, taking into account the mitigating effect of collateral, including the expected value of the collateral when realised and the time value of money.
- Exposure at default ("EAD"): this represents the expected EAD, taking into account the expected repayment of principal and interest from the balance sheet date to the date of default event together with any expected drawdowns of the facility over that period.

These parameters are generally derived from internally developed statistical models, incorporating historical, current and forward-looking macro-economic data and country risk expert judgement. The macro-economic scenarios are reviewed quarterly.

The 12 month ECL is equal to the sum over the next 12 months of quarterly PD multiplied by LGD and EAD, with such expected losses being discounted at the effective interest rate. Lifetime ECL is calculated using the discounted present value of total quarterly PDs multiplied by LGD and EAD, over the full remaining life of the facility.

When measuring ECLs, the Group and Company consider multiple scenarios, except where practical expedients are used to determine ECL. Practical expedients are used where they are consistent with the principles described above.

ECL on certain trade receivables are calculated using a 'matrix' approach which reflects the previous history of credit losses on these financial assets, applying different provision levels based on the age of the receivable. Alternatively where there is a history of no credit losses, and where this is expected to persist into the future for structural or other reasons, such as collateral or other credit enhancement, it may be determined that the ECL for a financial instrument is *de minimis* (highly immaterial) and it may not be necessary to recognise the ECL.

The Group and Company measure ECL on an individual asset basis and has no purchased or originated credit-impaired financial assets.

*Presentation of ECL*

ECL is recognised in the consolidated income statement within 'Net impairment reversal/(loss) on financial instruments'. ECL on financial assets measured at amortised cost, lease receivables and contract assets are presented as an ECL allowance. The allowance reduces the net carrying amount on the face of the statement of financial position. ECLs on loan commitments and financial guarantee contracts are presented as a provision in the consolidated statement of financial position, i.e. as a liability.

*Credit-impaired financial instruments*

In assessing the impairment of financial instruments under the ECL model, the Group and Company define credit-impaired financial instruments in accordance with Credit Risk Management Department's policies and procedures. A financial instrument is credit-impaired when, based on current information and events, it is probable that the Group or Company will be unable to collect all scheduled payments of principal or interest when due according to the contractual terms of the agreement.

*Definition of Default*

In assessing the impairment of financial instruments under the ECL model, the Group and Company defines default in accordance with the Credit Risk Management Department's policies and procedures. This considers whether the borrower is unlikely to pay its credit obligations to the Group or Company in full and takes into account qualitative indicators, such as breaches of covenants. The definition of default also includes a presumption that a financial asset which is more than 90 days past due has defaulted.

*Write-offs*

Loans and debt securities are written off (either partially or in full) when they are deemed uncollectible which generally occurs when all commercially-reasonable means of recovering the loan balance have been exhausted. Such determination is based on an indication that the borrower can no longer pay the obligation, or that the proceeds from collateral will not be sufficient to pay the loan. Partial write-offs are made when a portion of the loan is uncollectable. Financial assets that are written off could still be subject to enforcement activities for recoveries of amounts due. If the amount to be written off is greater than the accumulated loss allowance, the difference is reflected directly in the consolidated income statement within 'Net impairment reversal/(loss) on financial instruments' and is not recognised in the loss allowance account. Any subsequent recoveries are credited to 'Net impairment reversal/(loss) on financial instruments' within the consolidated income statement.

**g. Revenue recognition**

Revenues are recognised when the promised goods or services are delivered to the Group's customers, in an amount that is based on the consideration the Group expects to receive in exchange for those goods or services when such amounts are not probable of significant reversal.

*Investment banking*

Revenue from investment banking activities consists of revenues earned from underwriting primarily equity and fixed income securities and advisory fees for mergers, acquisitions, restructuring and advisory assignments.

Underwriting revenues are generally recognised on trade date, if there is no uncertainty or contingency related to the amount to be paid. Underwriting costs are deferred and recognised when the related underwriting revenues are recorded.

Advisory fees are recognised over time based on estimated progress of work as advice is provided to the client and is not probable of a significant reversal. Advisory expenses are recognised as incurred, including when reimbursed.

*Fee and commission income*

Fee and commission income results from transaction-based arrangements in which the client is charged a fee for the execution of transactions. Such revenues primarily arise from transactions in equity securities; services related to sales and trading activities; futures, insurance products and options. Fee and commission income is recognised on trade date when the performance obligation is satisfied.

Fee and commission income in the consolidated income statement includes investment management fees, sales commissions, placement fees, advisory fees and syndication fees.

**h. Fees and commission expense**

Fees and commission expense in the consolidated income statement include transaction and service fees. Amounts are recognised as the related services are received.

**i. Property, plant and equipment**

Property, plant and equipment are stated at cost net of depreciation and any provision for impairment in value (see note 3(k) below), which are included within 'Operating expense' in the consolidated income statement.

For premises held under leases (see note 3(n)), a reinstatement provision is recognised for the estimated cost to reinstate the premises at the end of the lease period. When the reinstatement provision is established and included within 'Provisions' in the statement of financial position, an equivalent asset is recognised and included in the cost of leasehold improvements at the initial present value of the reinstatement obligations. The discount effect included in the reinstatement provision is reversed over time using a constant effective yield method and included within 'Interest expense' in the consolidated income statement. The reinstatement asset is depreciated over the useful economic life of the relevant leasehold improvement asset and the depreciation charge is included within 'Operating expense' in the consolidated income statement.

Depreciation is provided on property, plant and equipment at rates calculated to write off the cost of the assets on a straight line basis over their expected useful lives as follows on the next page:

| | |
|---|---|
| Leasehold improvements, including reinstatement assets | - shorter of remaining lease term and 25 years |
| Fixtures, fittings and equipment | - 1 to 8 years |

**j. Disposal of subsidiaries**

When subsidiaries are sold or the Company ceases to control an entity, the difference between the proceeds (plus the fair value of any investment retained), and the total assets less total liabilities disposed of, cumulative translation differences and unamortised goodwill, is recognised in the consolidated income statement within 'Net loss on investments in subsidiaries, associates and joint ventures'. Where the disposal or loss of control over an entity includes a foreign operation, all foreign exchange differences accumulated in the 'Currency translation reserve' attributable to the equity holders of the Company are reclassified to the consolidated income statement within 'Net loss on investments in subsidiaries, associates and joint ventures'.

**k. Impairment of non-financial assets**

Non-financial assets that are subject to depreciation or amortisation are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognised for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs to sell and its value in use. For the purposes of assessing impairment, assets are grouped at the lowest levels for which there are separately identifiable cash flows (CGU). Such impairment losses are recognised in the consolidated income statement within 'Operating expense' and are recognised against the carrying amount of the impaired asset on the consolidated statement of financial position. Non-financial assets, other than goodwill, that have suffered an impairment are reviewed for possible reversal of the impairment at the end of each reporting period.

**l. Cash and cash equivalents**

For the purposes of the consolidated statement of cash flows, cash and cash equivalents comprise cash and demand deposits with banks, net of outstanding bank overdrafts, along with highly liquid investments, with original maturities of three months or less, that are readily convertible to known amounts of cash and subject to insignificant risk of change in value. This may include segregated client money, held in accordance with the FCA's Client Money Rules or is not available for use by the Group.

**m. Income tax**

The tax expense represents the sum of the tax currently payable and deferred tax.

The tax currently payable is calculated based on taxable profit for the year. Taxable profit may differ from profit/(loss) before taxation as reported in the consolidated income statement because it excludes items of income or expense that are taxable or deductible in other years and items that are never taxable or deductible. Taxable profit is also adjusted if it is considered that it is not probable that a taxation authority will accept an uncertain tax treatment. The Group and Company's liability for current tax is calculated using tax rates that have been enacted or substantively enacted by the reporting date. Current tax is charged or credited in the consolidated income statement, except when it relates to items charged or credited directly to other comprehensive income or equity, in which case the current tax is also recorded within other comprehensive income or equity respectively.

Deferred tax is the tax expected to be payable or recoverable on differences between the carrying amounts of assets and liabilities in the financial statements and the corresponding tax bases used in the computation of taxable profit, and is accounted for using the balance sheet liability method. Deferred tax liabilities are generally recognised for all taxable temporary differences and deferred tax assets are recognised to the extent that it is probably that taxable profits will be available against which deductible temporary differences can be utilised.

Deferred tax liabilities are recognised for taxable temporary differences arising on investments in subsidiaries and associates, except where the Group and Company is able to control the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future.

The carrying amount of deferred tax assets is reviewed at each reporting date and limited to the extent that it is probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered.

Deferred tax is calculated at the tax rates that are expected to apply in the period when the liability is settled or the asset is realised. Deferred tax is charged or credited in the consolidated income statement, except when it relates to items charged or credited directly to other comprehensive income or equity, in which case the deferred tax is reflected within other comprehensive income or equity, respectively.

Current tax assets are offset against current tax liabilities when there is a legally enforceable right to set off current tax assets against current tax liabilities and the Group or Company intends to settle its current tax assets and current tax liabilities on a net basis or to realise the asset and settle the liability simultaneously. Deferred tax assets and liabilities are offset when there is a legally enforceable right to set off current tax assets against current tax liabilities and when they relate to income taxes levied by the same taxation authority and the Group intends to settle its current tax assets and current tax liabilities on a net basis.

The income tax effect of distributions are recognised in profit or loss, other comprehensive income or equity dependant on where those past transactions that generated the distributable profits were recognised. The income tax effect of coupons of AT1 instruments accounted for as distributions must be recognised in profit or loss.

**n. Leases**

For leases whose original lease term exceeds one year, right-of-use ("ROU") assets and lease liabilities are initially recognised based on the present value of the future minimum lease payments over the lease term. The discount rate used in determining the present value is the Group and Company's borrowing rate. The ROU asset also includes any prepaid lease payments and initial direct costs incurred and is reduced to reflect lease incentives received. The lease liabilities are subsequently accounted for at amortised cost, using the effective interest rate method.

The liability is remeasured when there is a change in future lease payments arising from a change in an index or rate or from a market rent review. Additionally, the lease liability is remeasured if the Company changes its assessment of whether it will exercise an extension or termination option or undertakes certain modifications of the lease. The ROU asset is depreciated on a straight line basis from the lease commencement date to the earlier of the end of its useful life or the end of the lease term. Depreciation of ROU assets is presented within 'Operating expense'. In addition, the ROU asset is tested for impairment losses where there is an impairment event.

The Group and Company evaluates contracts greater than one year to determine whether they contain lease components at inception. Where contracts contain both lease and non-lease components, they are accounted for as a single lease.

The Group and Company presents ROU assets within the 'Property, plant and equipment' line and lease liabilities within the 'Trade and other payables' line of the statement of financial position.

**o. Provisions and commitments**

Provisions are recognised when the Group or Company has an identified present obligation as a result of a past event, when it is probable that an outflow of resources embodying economic benefits will be required to settle that obligation and when a reliable estimate can be made of the amount of the obligation.

The amount recognised as a provision is the best estimate of the consideration required to settle the present obligation at the year-end date, taking into account the risks and uncertainties surrounding the obligation. A provision is measured using the cash flows estimated to settle the present obligation, with its carrying amount reflecting the present value of those cash flows, where the effect of discounting is material.

The expected credit loss allowance on loan commitments and financial guarantees is presented in the statement of financial position within 'Provisions'.

A commitment is any legal obligation to potentially make or receive cash payments or transfer cash.

**p. Offsetting of financial assets and financial liabilities**

Where there is currently legally enforceable right to set off the recognised amounts and an intention to either settle on a net basis or to realise the asset and the liability simultaneously, financial assets and financial liabilities are offset and the net amount is presented on the consolidated statement of financial position. In the absence of such conditions, financial assets and financial liabilities are presented on a gross basis.

**q. Employee compensation plans**

**i) Equity-settled share-based compensation plans**

Morgan Stanley issues awards in the form of restricted stock units ("RSUs") to employees of the Morgan Stanley Group for services rendered to the Group and Company. Awards are equity-settled and the cost of the equity-based transactions with employees is measured based on the fair value of the equity instruments at grant date. The fair value of RSUs is based on the market price of Morgan Stanley common stock, measured as the volume-weighted average price on the grant date ("VWAP"). The fair value of RSUs not entitled to dividends until conversion is measured at VWAP reduced by the present value of dividends expected to be paid on the underlying shares prior to the scheduled conversion date.

Awards generally contain clawback and cancellation provisions. Certain awards provide Morgan Stanley the discretion to clawback or cancel all or a portion of the award under specified circumstances. Compensation expense for these awards is adjusted for changes in the fair value of the Morgan Stanley's common stock until conversion.

The Group and Company recognise compensation costs over the relevant vesting period for each separately vesting portion of the award. An estimation of awards that will be forfeited prior to vesting due to the failure to satisfy service conditions is considered in calculating the total compensation cost to be amortised over the relevant vesting period.

Under Morgan Stanley Group chargeback arrangements, the Group and Company pay Morgan Stanley for the procurement of shares. The Group and Company pay Morgan Stanley the grant date fair value and any subsequent movement in fair value up to the time of conversion of the award and delivery of shares to the employees.

Share based compensation expense is recorded in 'Direct staff costs' within 'Operating expense' in the consolidated income statement.

**ii) Deferred cash-based compensation plans**

Morgan Stanley may award deferred cash-based compensation on behalf of the Group and Company for the benefit of employees, providing a return to the participating employees based upon the performance of various referenced investments. Compensation expense for deferred cash-based compensation awards is calculated based on the notional value of the award granted, adjusted for changes in the fair value of the referenced investments that employees select.

The Group and Company recognise compensation cost over the relevant vesting period for each separately vesting portion of the award. Forfeitures due to failure to satisfy service conditions are accounted for as they occur.

Deferred cash-based compensation expense is recorded in 'Direct staff costs' within 'Operating expense' in the consolidated income statement. The liability for the awards is measured at fair value and is included within 'Accruals and deferred income' in the statement of financial position.

The Group and Company enter into a variety of derivative contracts with other Morgan Stanley Group undertakings to economically hedge the exposure created by these deferred compensation plans. The derivatives are recognised at fair value within 'Trading financial instruments' in the statement of financial position and the related gains and losses are recorded within 'Net trading income' in the consolidated income statement.

Although changes in compensation expense resulting from changes in the fair value of the referenced investments will generally be offset by changes in the fair value of derivative transactions entered into by the Group and Company, there is typically a timing difference between the immediate recognition of gains and losses on the derivatives and the deferred recognition of the related compensation expense over the vesting period.

**r. Post-employment benefits**

The Group and Company operates defined contribution and defined benefit post-employment plans.

Contributions due in relation to the Group's and Company's defined contribution post-employment plan are recognised in 'Direct staff costs' within 'Operating expense' in the consolidated income statement when payable.

For the Group's and Company's defined benefit post-employment plans, the plan obligations are measured on an actuarial basis in accordance with the advice of an independent qualified actuary using the projected unit credit method and discounted at a rate that reflects the estimated settlement of the post-employment benefit obligations. Plan assets are measured at their fair value at the reporting date. For each defined benefit plan, a surplus or deficit of plan assets over liabilities is recognised in the statement of financial position as an asset or a liability respectively. If the fair value of the plan assets is higher than the present value of the defined benefit obligation, the measurement of the resulting defined benefit asset is limited to the present value of economic benefits available in the form of refunds from the plan or reductions in future contributions to the plan.

The current service costs and any past service costs together with the net interest on the net defined benefit obligation/asset are charged to 'Direct staff costs' within 'Operating expense' in the consolidated income statement. Remeasurements that arise in calculating the Group's and Company's obligation in respect of a plan are recognised in other comprehensive income, in the period in which they occur.

The Group and Company participate in a defined benefit plan operated by another Morgan Stanley affiliate. The Group and Company recognise recharges for the net defined benefit cost of the plan as a whole under inter-affiliate contractual agreements.

Details of the plans are given in note 33 to these consolidated financial statements.

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
# Year ended 31 December 2021

## 4. NET INCOME FROM OTHER FINANCIAL INSTRUMENTS HELD AT FAIR VALUE

| in $ millions | 2021 | 2020 |
|---|---|---|
| **Net gains/(losses) on:** | | |
| Non-trading financial assets at FVPL | | |
| Secured financing | (28) | 17 |
| Loans and advances- corporate loans | (5) | (31) |
| Investment securities | 30 | 6 |
| Trade and other receivables - prepaid OTC contracts | (508) | (502) |
| **Total non-trading financial assets at FVPL** | **(511)** | **(510)** |
| Financial liabilities designated at FVPL | | |
| Secured borrowing | 156 | 8 |
| Trade and other payables - prepaid OTC contracts | (66) | 443 |
| Debt and other borrowings - issued structured notes | 272 | (49) |
| **Total financial liabilities designated at FVPL** | **362** | **402** |
| **Total losses on financial instruments at FV** | **(149)** | **(108)** |

Non-trading financial assets at FVPL and financial instruments designated at FVPL are frequently economically hedged with trading financial instruments. Accordingly, gains or losses that are reported in net income from other financial instruments held at fair value can be partially offset by gains or losses reported in net trading income.

## 5. FEE AND COMMISSION INCOME

| in $ millions | 2021 | 2020 |
|---|---|---|
| Investment banking[(1)] | 1,801 | 1,312 |
| Commission income | 890 | 826 |
| Trust and other fiduciary activities | 200 | 158 |
| Other fee and commission income | 332 | 261 |
| Total fee and commission income | 3,223 | 2,557 |
| *Of which, revenue from contracts with customers* | *3,010* | *2,608* |

(1) Includes advisory and underwriting revenues

Total fee and commission income is stated after the transfer of revenues totalling $213 million (2020: $(51) million) from other Morgan Stanley Group undertakings. These transfers do not relate to revenue from contracts with customers.

## 6. INTEREST INCOME AND INTEREST EXPENSE

The table below presents interest income and expense by accounting classification. Interest income and expense is calculated using the effective interest rate method for financial assets and financial liabilities measured at amortised cost.

| in $ millions | 2021 | 2020 |
|---|---|---|
| Financial assets not measured at FVPL | 24 | 281 |
| Trading financial assets | 199 | 215 |
| Non-trading financial assets at FVPL | (621) | (273) |
| Financial assets measured at FVPL | (422) | (58) |
| **Total (negative) interest income** | **(398)** | **223** |
| *Of which, negative interest income* | *(983)* | *(627)* |
| Financial liabilities measured at amortised cost | 172 | 790 |
| Financial liabilities designated at FVPL | (38) | (22) |
| **Total interest expense** | **134** | **768** |
| *Of which, negative interest expense* | *(880)* | *(617)* |

'Interest income' represents total interest generated from financial assets whilst 'Interest expense' represents total interest arising on financial liabilities, with the exception that when interest is included as a component of the financial instrument's fair value, interest is reflected in 'Net trading income'.

The recognition of negative interest income and positive interest expense may result from transactions in certain currencies which may at times have negative interest rates. A current example is the Euro. In addition, 'Interest income' includes fees paid on securities borrowed transaction. 'Interest expense' includes fees received on securities loaned and fees from prime brokerage customers for stock loan transactions incurred to cover customers' short positions.

## 7. OPERATING EXPENSE

| in $ millions | 2021 | 2020 |
|---|---|---|
| Direct staff costs | 1,530 | 1,272 |
| Management charges from other Morgan Stanley Group undertakings relating to staff costs | 624 | 571 |
| **Staff-related expenses** | 2,154 | 1,843 |
| Management charges from other Morgan Stanley Group undertakings relating to other services | 1,191 | 1,055 |
| Brokerage fees | 765 | 646 |
| Administration and corporate services | 88 | 81 |
| Professional services | 188 | 125 |
| UK Bank Levy | 74 | 61 |
| Other taxes | 850 | 731 |
| Commission and other similar arrangements | 205 | 238 |
| Auditor's remuneration: | | |
| Fees payable to the Company's auditor and its associates for the audit of the Company's annual financial statements | 3 | 3 |
| Fees payable to the Company's auditor and its associates for other services to the Group [(1)] | 1 | 1 |
| Other | 108 | 90 |
| **Non-staff related expenses** | 3,473 | 3,031 |
| **Total operating expense** | 5,627 | 4,874 |

(1) Fees payable to the Company's auditor for other services in 2021 comprise $110,000 for the audit of the Company's subsidiaries (2020: $135,000) and $953,000 for other assurance services (2020: $1,058,000).

The Group employs staff directly and also uses the services of staff who are employed by other Morgan Stanley Group undertakings.

Further information regarding employee compensation plans is provided in note 32.

Staff-related expenses increased by 17% driven by higher mark-to-market on deferred equity compensation, primarily due to the increase in the Morgan Stanley share price during the year, as well as higher headcount and the strengthening of the British pound against the US dollar.

Non-staff related expenses increased by 15% was primarily driven by higher volume-related expenses including brokerage fees and transaction taxes, from increased client activity.

The UK Bank Levy (the "Levy") is an annual charge on a bank's balance sheet. It is applied to chargeable liabilities and equity of the Group and other Morgan Stanley UK tax-resident entities and their overseas subsidiaries. The Levy is non-deductible for UK corporation tax purposes and has impacted the effective tax rate for the year (see note 8 for further details).

The average number of direct employees of the Group is analysed below:

| | Number 2021 | 2020 |
|---|---|---|
| Institutional Securities and Investment Management | 2,079 | 2,009 |
| Support services | 82 | 81 |
| | 2,161 | 2,090 |

The cost of the direct employees of the Group, including the Directors, is analysed below:

| in $ millions | 2021 | 2020 |
|---|---|---|
| Wages and salaries | 1,314 | 1,099 |
| Social security costs | 186 | 144 |
| Pension costs | 30 | 29 |
| | 1,530 | 1,272 |

The Group incurs management charges in respect of Directors' qualifying services provided by employees of other Morgan Stanley Group undertakings, included within 'Management charges from other Morgan Stanley Group undertakings relating to staff costs'.

The amount of remuneration received by Directors in respect of their qualifying services to the Group is disclosed in note 34.

## 8. INCOME TAX

A reconciliation of the Group's income tax expense for the year ended 31 December 2021 and 31 December 2020 is below:

| in $ millions | 2021 | 2020 |
|---|---|---|
| **Current tax** | | |
| UK corporation tax charge | | |
| - current year | 455 | 388 |
| - prior year | (25) | (39) |
| Double taxation relief | | |
| - current year | (117) | (58) |
| - prior year | - | 1 |
| Overseas tax | | |
| - current year | 163 | 124 |
| - prior year | 161 | 211 |
| | 637 | 627 |
| **Deferred tax (benefit)/ expense** | | |
| Current year | (45) | (36) |
| Prior year | 11 | 16 |
| Effect of changes in tax rates | (14) | (1) |
| | (48) | (21) |
| **Income tax expense** | 589 | 606 |

### Reconciliation of effective tax rate

The Group's effective tax rate is sensitive to the geographic mix of profits and tax rates in non UK jurisdictions (including the net effect of foreign withholding taxes suffered by the Group), the additional 8% UK banking surcharge, as well as the non-deductibility of certain expenses for tax purposes.

The UK statutory rate, excluding the banking surcharge, is 19% for the period (2020: 19%). Finance Act 2021 raised the UK main rate of corporation tax from 19% to 25% with effect from 1 April 2023. While this change does not affect the current tax charge for the year, it will affect future years.

Finance (No. 2) Act 2015 introduced an 8% corporation tax surcharge on the profits of banking companies with effect from 1 January 2016, which impacts the current tax charge in the current period. Finance Act 2022 reduced the corporation tax surcharge rate from 8% to 3% with effect from 1 April 2023 and increased the surcharge allowance to £100 million. While this change does not affect the current tax charge for the year, it will affect future years.

The current year income tax expense is higher (2020: higher) than that resulting from applying the standard rate of corporation tax for banking companies in the UK for the year. The main differences are:

| in $ millions | 2021 | 2020 |
|---|---|---|
| Profit before income tax | 1,940 | 1,575 |
| Income tax expense using the average standard rate of corporation tax for banking companies in the UK of 27.00% (2020: 27.00%) | 524 | 425 |
| Impact on tax of: | | |
| Tax-deductible coupons on Additional Tier 1 capital instruments | (64) | (92) |
| Non-deductible UK Bank Levy | 20 | 17 |
| Other expenses: | | |
| Other permanent differences | 14 | 29 |
| Prior year movement in tax reserve | 1 | 213 |
| Current year movement in tax reserve | 1 | 30 |
| Group relief received for no cash consideration | - | (1) |
| Effect of tax rates in foreign jurisdictions | (10) | (18) |
| Net effect of foreign withholding taxes | 174 | 37 |
| Over provided in prior years | (13) | (24) |
| Tax exempt income | (44) | (10) |
| Impact of change in deferred tax rate | (14) | - |
| **Total income tax expense in the consolidated income statement** | 589 | 606 |

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
## Year ended 31 December 2021

In 2021, the net effect of foreign withholding taxes includes a $159 million expense which is included within the overseas tax – prior year line above, and $15 million within overseas tax – current year.

The Group has a policy of surrendering tax-deductible losses ('group relief') for no cash consideration to other members of the Morgan Stanley UK tax group, which consists of entities within the Group and the wider Morgan Stanley Group. Within the Group, a number of subsidiary companies generated tax-deductible losses that were surrendered both inside and outside the Group in the current and prior years.

In addition to the amount charged to the consolidated income statement, the aggregate amount of current and deferred tax relating to each component of other comprehensive income was as follows:

| | 2021 | | | 2020 | | |
|---|---|---|---|---|---|---|
| **in $ millions** | **Before tax** | **Tax charge(1)** | **Net of tax** | **Before tax** | **Tax benefit** | **Net of tax** |
| **Pension reserve:** | | | | | | |
| Remeasurement of net defined benefit liability | (2) | - | (2) | (2) | - | (2) |
| **Foreign currency translation reserve:** | | | | | | |
| Foreign currency translation differences on foreign operations | (33) | - | (33) | 36 | - | 36 |
| **Debt valuation reserve:** | | | | | | |
| Changes in fair value attributable to own credit risk on financial liabilities designated at fair value | 77 | (4) | 73 | (276) | 77 | (199) |
| Other comprehensive income | 42 | (4) | 38 | (242) | 77 | (165) |

(1) The tax charge includes a $14 million credit in relation to the impact of change in deferred tax rate.

## 9. FINANCIAL ASSETS AND FINANCIAL LIABILITIES BY MEASUREMENT CATEGORY

The following table analyses financial assets and financial liabilities presented in the Group's consolidated statement of financial position and the Company's statement of financial position by the IFRS 9 measurement classifications as at 31 December 2021 and 31 December 2020.

| | Group | | | | Company | | | |
|---|---|---|---|---|---|---|---|---|
| **2021 in $ millions** | **FVPL** | **FVPL designated** | **Amortised cost** | **Total** | **FVPL** | **FVPL designated** | **Amortised cost** | **Total** |
| Cash and short term deposits | - | - | 28,532 | **28,532** | - | - | 28,218 | **28,218** |
| Trading financial assets | 332,635 | - | - | **332,635** | 332,449 | - | - | **332,449** |
| Secured financing: | | | | | | | | |
| Cash collateral on securities borrowed | 19,360 | - | - | **19,360** | 19,360 | - | - | **19,360** |
| Securities purchased under agreements to resell | 90,296 | - | - | **90,296** | 90,096 | - | - | **90,096** |
| Other secured financing | 16,239 | - | - | **16,239** | 16,239 | - | - | **16,239** |
| Loans and advances | - | - | 67 | **67** | - | - | 26 | **26** |
| Investment securities | 165 | - | - | **165** | 165 | - | - | **165** |
| Trade and other receivables | 993 | - | 78,069 | **79,062** | 993 | - | 78,144 | **79,137** |
| **Total financial assets** | 459,688 | - | 106,668 | **566,356** | 459,302 | - | 106,388 | **565,690** |
| Bank loans and overdrafts | - | - | 48 | **48** | - | - | 48 | **48** |
| Trading financial liabilities | 300,325 | - | - | **300,325** | 300,325 | - | - | **300,325** |
| Secured borrowings: | | | | | | | | |
| Cash collateral on securities loaned | - | 25,141 | 4,362 | **29,503** | - | 25,141 | 4,362 | **29,503** |
| Securities sold under agreements to repurchase | - | 19,609 | 24,939 | **44,548** | - | 19,609 | 24,939 | **44,548** |
| Other financial liabilities | - | 20,053 | 3,158 | **23,211** | - | 20,053 | 2,750 | **22,803** |
| Trade and other payables | - | 748 | 92,569 | **93,317** | - | 748 | 92,582 | **93,330** |
| Debt and other borrowings | - | 9,602 | 43,077 | **52,679** | - | 9,602 | 42,861 | **52,463** |
| **Total financial liabilities** | 300,325 | 75,153 | 168,153 | **543,631** | 300,325 | 75,153 | 167,542 | **543,020** |

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
## Year ended 31 December 2021

| 2020<br>in $ millions | Group | | | | Company | | | |
|---|---|---|---|---|---|---|---|---|
| | FVPL | FVPL designated | Amortised cost | Total | FVPL | FVPL designated | Amortised cost | Total |
| Cash and short term deposits | - | - | 24,934 | **24,934** | - | - | 24,629 | **24,629** |
| Trading financial assets | 375,009 | - | - | **375,009** | 375,009 | - | - | **375,009** |
| Secured financing: | | | | | | | | |
| Cash collateral on securities borrowed | 30,178 | - | - | **30,178** | 30,178 | - | - | **30,178** |
| Securities purchased under agreements to resell | 70,647 | - | - | **70,647** | 70,647 | - | - | **70,647** |
| Other secured financing | 12,972 | - | - | **12,972** | 12,972 | - | - | **12,972** |
| Loans and advances | 17 | - | 99 | **116** | 17 | - | 15 | **32** |
| Investment securities | 151 | - | - | **151** | 151 | - | - | **151** |
| Trade and other receivables | 1,654 | - | 81,079 | **82,733** | 1,654 | - | 81,173 | **82,827** |
| **Total financial assets** | 490,628 | - | 106,112 | **596,740** | 490,628 | - | 105,817 | **596,445** |
| Bank loans and overdrafts | - | - | 1 | **1** | - | - | 1 | **1** |
| Trading financial liabilities | 340,392 | - | - | **340,392** | 340,392 | - | - | **340,392** |
| Secured borrowings: | | | | | | | | |
| Cash collateral on securities loaned | - | 1 | 22,001 | **22,002** | - | 1 | 22,001 | **22,002** |
| Securities sold under agreements to repurchase | - | 17,842 | 20,742 | **38,584** | - | 17,842 | 20,742 | **38,584** |
| Other financial liabilities | - | 25,761 | 2,003 | **27,764** | - | 25,761 | 2,003 | **27,764** |
| Trade and other payables | - | 762 | 90,919 | **91,681** | - | 762 | 90,898 | **91,660** |
| Debt and other borrowings | - | 9,469 | 45,459 | **54,928** | - | 9,469 | 45,212 | **54,681** |
| **Total financial liabilities** | 340,392 | 53,835 | 181,125 | **575,352** | 340,392 | 53,835 | 180,857 | **575,084** |

**Financial liabilities designated at FVPL**

A further breakdown of financial liabilities designated at FVPL is provided within the table on the next page. The financial liabilities shown in the tables on the following page which are designated at FVPL consist primarily of the following financial liabilities:

*Cash collateral on securities loaned and securities sold under agreements to repurchase:* These balances are classified as 'Designated at FVPL' where the financial liability forms part of a group of financial assets or financial liabilities or both, which are managed, evaluated and reported internally on a fair value basis; otherwise, they are classified as 'Financial liabilities at amortised cost'.

*Other financial liabilities:* Liabilities arising as a result of continuing recognition of certain financial assets and the simultaneous recognition of an associated financial liability.

*Prepaid OTC contracts:* The risk on these financial instruments, is primarily hedged using trading financial instruments including equity securities and interest rate swaps. Prepaid contract liabilities are designated at FVPL as they form part of a group of financial assets and liabilities which are managed, evaluated and reported internally on a fair value basis.

*Unfunded loan commitments:* These unfunded loan commitments relate to loans which are non-trading liabilities at FVPL once funded. They are designated at FVPL as they are part of a group of financial assets and liabilities which are managed and evaluated on a fair value basis.

*Issued structured notes:* These relate to financial liabilities which arise from selling structured products, generally in the form of notes or certificates. The structured notes are designated at FVPL as the risks to which the Group is a contractual party are risk-managed on a fair value basis as part of the Group's trading portfolio and the risk is reported to key management personnel on this basis. Refer to note 17 for more information.

The following table presents financial liabilities designated at FVPL. As at 31 December 2021 and 31 December 2020 there were no differences between Company and Group.

| in $ millions | 2021 | 2020 |
|---|---|---|
| **Liabilities:** | | |
| Secured borrowing | | |
| Cash collateral on securities loaned | 25,141 | 1 |
| Securities sold under agreements to repurchase | 19,609 | 17,842 |
| Other financial liabilities | 20,053 | 25,761 |
| Trade and other payables | | |
| Prepaid OTC contracts | 748 | 759 |
| Unfunded loan commitments(1) | - | 3 |
| Debt and other borrowings | | |
| Issued structured notes | 9,602 | 9,469 |
| | 75,153 | 53,835 |

(1) Related to loans which are on balance sheet as non-trading at FVPL

The cumulative change in fair value recognised through other comprehensive income attributable to own credit risk for financial liabilities designated at FVPL as at 31 December 2021 is a loss of $389 million (2020: loss of $466 million). During the year, a loss of $7 million (2020: loss of $1 million) was realised as a result of the derecognition of such financial liabilities and was transferred from the 'Debt valuation reserve' to 'Retained earnings'.

The Group determines the amount of change in fair value attributable to change in counterparty credit risk or own credit risk, as relating to financial liabilities designated at FVPL, by first determining the fair value including the impact of counterparty credit or own credit risk, and then deducting those changes in fair value representing managed market risk. In determining fair value, the Group considers the impact of change in own credit spreads based upon observations of the secondary bond market spreads when measuring the fair value for issued structured notes. The Group considers that this approach most faithfully represents the amount of change in fair value due to both counterparty credit risk and the Group's own credit risk.

The carrying amount of financial liabilities designated at FVPL for which the effect of changes in those liabilities' credit risk is presented within other comprehensive income was $114 million lower than the contractual amount due at maturity (2020: $42 million lower).

## 10. TRADING FINANCIAL ASSETS AND LIABILITIES

| Group | 2021 | | 2020 | |
|---|---|---|---|---|
| **in $ millions** | **Assets** | **Liabilities** | **Assets** | **Liabilities** |
| Government debt securities | 14,097 | 20,475 | 16,727 | 24,586 |
| Corporate and other debt | 10,807 | 3,724 | 11,169 | 4,039 |
| Corporate equities | 65,299 | 28,608 | 62,365 | 23,459 |
| Derivatives (see note 11) | 242,432 | 247,518 | 284,748 | 288,308 |
| | 332,635 | 300,325 | 375,009 | 340,392 |

| Company | 2021 | | 2020 | |
|---|---|---|---|---|
| **in $ millions** | **Assets** | **Liabilities** | **Assets** | **Liabilities** |
| Government debt securities | 14,097 | 20,475 | 16,727 | 24,586 |
| Corporate and other debt | 10,608 | 3,724 | 11,169 | 4,039 |
| Corporate equities | 65,299 | 28,608 | 62,365 | 23,459 |
| Derivatives (see note 11) | 242,445 | 247,518 | 284,748 | 288,308 |
| | 332,449 | 300,325 | 375,009 | 340,392 |

## 11. DERIVATIVES

**GROUP**

| | 2021 | | | | 2020 | | | |
|---|---|---|---|---|---|---|---|---|
| in $ millions | Bilateral OTC | Cleared OTC | Listed derivative contracts | Total | Bilateral OTC | Cleared OTC | Listed derivative contracts | Total |
| **Derivative assets:** | | | | | | | | |
| Interest rate contracts | 56,787 | 3,731 | 10 | 60,528 | 94,374 | 5,945 | 4 | 100,323 |
| Credit contracts | 9,745 | 405 | - | 10,150 | 7,256 | 258 | - | 7,514 |
| Foreign exchange and gold contracts | 84,810 | 1,224 | - | 86,034 | 103,982 | 1,641 | - | 105,623 |
| Equity contracts | 61,052 | - | 9,853 | 70,905 | 54,971 | - | 9,714 | 64,685 |
| Commodity contracts | 13,983 | - | 832 | 14,815 | 6,323 | - | 280 | 6,603 |
| | 226,377 | 5,360 | 10,695 | 242,432 | 266,906 | 7,844 | 9,998 | 284,748 |
| **Derivative liabilities:** | | | | | | | | |
| Interest rate contracts | 58,118 | 2,619 | 13 | 60,750 | 91,074 | 4,398 | 3 | 95,475 |
| Credit contracts | 8,935 | 392 | - | 9,327 | 6,908 | 400 | - | 7,308 |
| Foreign exchange and gold contracts | 84,080 | 1,244 | 5 | 85,329 | 102,387 | 1,599 | 10 | 103,996 |
| Equity contracts | 68,914 | - | 8,411 | 77,325 | 65,543 | - | 9,440 | 74,983 |
| Commodity contracts | 14,243 | - | 544 | 14,787 | 6,355 | - | 191 | 6,546 |
| | 234,290 | 4,255 | 8,973 | 247,518 | 272,267 | 6,397 | 9,644 | 288,308 |

**COMPANY**

| | 2021 | | | | 2020 | | | |
|---|---|---|---|---|---|---|---|---|
| in $ millions | Bilateral OTC | Cleared OTC | Listed derivative contracts | Total | Bilateral OTC | Cleared OTC | Listed derivative contracts | Total |
| **Derivative assets:** | | | | | | | | |
| Interest rate contracts | 56,787 | 3,731 | 10 | 60,528 | 94,374 | 5,945 | 4 | 100,323 |
| Credit contracts | 9,745 | 405 | - | 10,150 | 7,256 | 258 | - | 7,514 |
| Foreign exchange and gold contracts | 84,823 | 1,224 | - | 86,047 | 103,982 | 1,641 | - | 105,623 |
| Equity contracts | 61,052 | - | 9,853 | 70,905 | 54,971 | - | 9,714 | 64,685 |
| Commodity contracts | 13,983 | - | 832 | 14,815 | 6,323 | - | 280 | 6,603 |
| | 226,390 | 5,360 | 10,695 | 242,445 | 266,906 | 7,844 | 9,998 | 284,748 |
| **Derivative liabilities:** | | | | | | | | |
| Interest rate contracts | 58,118 | 2,619 | 13 | 60,750 | 91,074 | 4,398 | 3 | 95,475 |
| Credit contracts | 8,935 | 392 | - | 9,327 | 6,908 | 400 | - | 7,308 |
| Foreign exchange and gold contracts | 84,080 | 1,244 | 5 | 85,329 | 102,387 | 1,599 | 10 | 103,996 |
| Equity contracts | 68,914 | - | 8,411 | 77,325 | 65,543 | - | 9,440 | 74,983 |
| Commodity contracts | 14,243 | - | 544 | 14,787 | 6,355 | - | 191 | 6,546 |
| | 234,290 | 4,255 | 8,973 | 247,518 | 272,267 | 6,397 | 9,644 | 288,308 |

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## 12. LOANS AND ADVANCES

| in $ millions | Group 2021 | Group 2020 | Company 2021 | Company 2020 |
|---|---|---|---|---|
| **Loans and advances at amortised cost:** | | | | |
| Amounts due from Morgan Stanley Group undertakings | 67 | 93 | 26 | 9 |
| Other | - | 7 | - | 7 |
| Less: ECL | - | (1) | - | (1) |
| | 67 | 99 | 26 | 15 |
| Loans and advances at FVPL | - | 17 | - | 17 |
| | 67 | 116 | 26 | 32 |

## 13. TRADE AND OTHER RECEIVABLES

| in $ millions | Group 2021 | Group 2020 | Company 2021 | Company 2020 |
|---|---|---|---|---|
| **Trade and other receivables (amortised cost)** | | | | |
| Trade receivables | | | | |
| Contracts with customers | 262 | 146 | 262 | 146 |
| Due from other Morgan Stanley Group undertakings | 38,420 | 29,667 | 38,630 | 29,820 |
| Trading receivables | 36,196 | 50,320 | 36,144 | 50,242 |
| Less: ECL | (5) | (5) | (5) | (5) |
| | 74,873 | 80,128 | 75,031 | 80,203 |
| Other receivables[1] | | | | |
| Held at exchanges | 2,886 | 624 | 2,768 | 608 |
| Due from other Morgan Stanley Group undertakings | 310 | 328 | 343 | 363 |
| Other amounts receivable | 272 | 409 | 272 | 408 |
| | 3,468 | 1,361 | 3,383 | 1,379 |
| | 78,341 | 81,489 | 78,414 | 81,582 |
| **Trade and other receivables (FVPL)** | | | | |
| Prepaid OTC contracts | 990 | 1,642 | 990 | 1,642 |
| Held at exchanges | 3 | 12 | 3 | 12 |
| | 993 | 1,654 | 993 | 1,654 |
| **Total** | 79,334 | 83,143 | 79,407 | 83,236 |

(1) There was no ECL on these amounts as at 31 December 2021 or 31 December 2020.

## 14. INTERESTS IN SUBSIDIARIES

### Composition of the Group

Details of all subsidiary undertakings are provided in the Appendix to the financial statements, including changes in holdings of subsidiaries.

| in $ millions | Subsidiary undertakings |
|---|---|
| **Cost** | |
| At 1 January 2021 | 1,232 |
| Capital Infusion | 25 |
| At 31 December 2021 | 1,257 |
| **Impairment Provisions** | |
| At 1 January 2021 and 31 December 2021 | (1,127) |
| **Carrying Amounts** | |
| At 31 December 2020 | 105 |
| At 31 December 2021 | 130 |

On 22 April 2021, the Company made a $25 million capital infusion into Morgan Stanley Taiwan, a direct subsidiary of the Company.

All subsidiaries are included in the Group's consolidated financial statements.

Information regarding interests in structured entities is included in note 15.

## 15. INTERESTS IN STRUCTURED ENTITIES

The Group is involved with various special purpose entities in the normal course of business. In most cases, these entities are deemed to be structured entities. The Group's interests in structured entities include certain debt and equity interests, commitments, guarantees, and derivative instruments.

The Group's involvement with structured entities arises primarily from:

- Loans made to, and investments in, structured entities that hold debt, equity, real estate or other assets;

- Interests purchased in connection with market-making activities and retained interests held as a result of securitisation activities, including re-securitisation transactions;
- Structuring of asset-repackaged notes designed to meet the investment objectives of clients; and
- Certain derivatives entered into with structured entities.

The risks associated with derivatives entered into with structured entities are essentially the same as similar derivatives with non-structured entity counterparties and are managed as part of the Company's overall derivative exposure.

The Group determines whether it controls, and therefore should consolidate, a structured entity upon its initial involvement with the structured entity and reassesses whether it should continue to consolidate on an ongoing basis, as long as it has any continuing involvement with the structured entity. Control is the ability to direct the activities of the entity which most significantly affect the returns of the entity and to determine the parties which benefit from these returns. Control can be exercised by a number of mechanisms, including the ability to direct the activities of the entity at the time of establishment, to manage the assets of the entity and to determine the time and method of its termination. The identification of control is based upon an analysis of the design of the structured entity, including the structured entity's structure and activities; assessment of the significance of the powers to make economic decisions which are held by the Group and its related parties and whether such powers may be used to affect its investor returns; and consideration of the significance of direct and indirect interests in the structured entity which are held by the Group and its related parties.

**Consolidated structured entities**

The table following shows information about the structured entities which the Group consolidated. Consolidated structured entity assets and liabilities are presented after intercompany eliminations and include assets financed on a non-recourse basis.

| in $ millions | Client Interm-ediation | Mortgage and asset backed securiti-sations | Total |
|---|---|---|---|
| **2021** | | | |
| Assets of structured entities | 200 | 419 | 619 |
| Liabilities of structured entities | 188 | 221 | 409 |
| **2020** | | | |
| Assets of structured entities | - | 132 | 132 |
| Liabilities of structured entities | - | 3 | 3 |

**Unconsolidated structured entities**

The Group has interests in structured entities that the Group does not control and which are therefore not consolidated.

The table on the following page shows certain non-consolidated structured entities in which the Group has an interest at 31 December 2021 and at 31 December 2020. The table includes all structured entities in which the Group has determined that its maximum exposure to loss exceeds specific thresholds or meets certain other criteria. The majority of the structured entities included in the table are sponsored by unrelated parties; the Group's involvement generally is the result of the Group's secondary market-making activities.

The Group's maximum exposure to loss is dependent on the nature of the Group's interest in the structured entity and is limited to notional amounts of certain liquidity facilities; total return swaps and the fair value of certain other derivatives and investments the Group has made in the structured entity. The reported exposure does not include the offsetting benefit of hedges, including total return swaps in relation to fund investments and other entities, or any reductions associated with the collateral held as part of a transaction with the structured entity or with any party to the structured entity. Where notional amounts are used to quantify the maximum exposure related to derivatives, such amounts do not reflect changes in fair value already recorded by the Group. Liabilities issued by structured entities generally are non-recourse to the Group.

| in $ millions | Client intermediation | Mortgage and asset-backed securitisations | Collateralised debt obligations | Total |
|---|---|---|---|---|
| **31 December 2021** | | | | |
| Assets of the structured entity | 17,150 | 5,255 | 193 | 22,598 |
| Maximum exposure to loss: | | | | |
| Debt and equity interests | 846 | 197 | 118 | 1,161 |
| Derivative and other contracts | 5,201 | - | - | 5,201 |
| **Total maximum exposure to loss** | 6,047 | 197 | 118 | 6,362 |
| Carrying value of interests - assets (1): | | | | |
| Debt and equity interests | 846 | 197 | 118 | 1,161 |
| Derivative and other contracts | 1,969 | - | - | 1,969 |
| **Total carrying value of exposure to loss - assets** | 2,815 | 197 | 118 | 3,130 |
| Carrying value of interests - liabilities (1): | | | | |
| Debt and equity interests | 1,067 | - | - | 1,067 |
| Derivative and other contracts | 354 | - | - | 354 |
| **Total carrying value of exposure to loss - liabilities** | 1,421 | - | - | 1,421 |
| **Additional interests in structured entities(2)** | 2 | 203 | 129 | 334 |

(1) The carrying value of the interests in structured entities are recognised in the consolidated statement of financial position in Trading financial assets or Trading financial liabilities – derivatives or Trading financial liabilities – Corporate and other debt.

(2) Primarily as a result of its secondary market-making activities, the Group owned additional securities issued by securitisation structured entities for which the maximum exposure to loss is less than the specific thresholds noted earlier.

| in $ millions | Client intermediation | Mortgage and asset-backed securitisations | Collateralised debt obligations | Total |
|---|---|---|---|---|
| **31 December 2020** | | | | |
| Assets of the structured entity | 16,151 | 6,591 | 1,054 | 23,796 |
| Maximum exposure to loss: | | | | |
| Debt and equity interests | 924 | 255 | 164 | 1,343 |
| Derivative and other contracts | 5,373 | - | - | 5,373 |
| Total maximum exposure to loss | 6,297 | 255 | 164 | 6,716 |
| Carrying value of interests - assets (1): | | | | |
| Debt and equity interests | 924 | 255 | 164 | 1,343 |
| Derivative and other contracts | 837 | - | - | 837 |
| **Total carrying value of exposure to loss - assets** | 1,761 | 255 | 164 | 2,180 |
| Carrying value of interests - liabilities (1): | | | | |
| Derivative and other contracts | 1,973 | - | - | 1,973 |
| Commitments, guarantees and other | 211 | - | - | 211 |
| **Total carrying value of exposure to loss - liabilities** | 2,184 | - | - | 2,184 |
| **Additional interests in structured entities(2)** | - | 146 | 159 | 305 |

(1) The carrying value of the interests in structured entities are recognised in the consolidated statement of financial position in Trading financial assets or Trading financial liabilities – derivatives or Trading financial liabilities – Corporate and other debt.

(2) Primarily as a result of its secondary market-making activities, the Group owned additional securities issued by securitisation structured entities for which the maximum exposure to loss is less than the specific thresholds noted earlier.

Client intermediation transactions represent a range of transactions designed to provide investors with returns based on the returns of underlying securities, referenced assets or indexes. The Group's involvement in these transactions is to act as the intermediary between the Structured Entity and the client, generally either through a derivative or by intermediating financing.

Securitisation transactions generally involve structured entities. Primarily as a result of its secondary market-making activities, the Group owned additional securities issued by securitisation structured entities for which the maximum exposure to loss is less than the specific threshold noted earlier.

Collateralised debt obligations are structured entities that purchase a pool of assets consisting of corporate loans ("collateralised loan obligations"), corporate bonds, ABS or synthetic exposures on similar assets through derivatives, and issue multiple tranches of debt and equity securities to investors. Although not obligated to do so, the Group generally makes a market in the securities issued by structured entities in these transactions and may retain unsold securities. These beneficial interests are included in 'Trading financial assets' and are measured at fair value.

The Group's primary risk exposure is to the securities issued by the structured entity owned by the Group, with the risk highest on the most subordinate class of beneficial interests. These securities generally are included in Trading financial assets – corporate and other debt. The Group does not provide additional support in these transactions through contractual facilities, such as liquidity facilities, guarantees or similar derivatives. The Group's maximum exposure to loss generally equals the fair value of the securities owned.

The Group has not provided financial support to, or otherwise agreed to be responsible for supporting financially, any unconsolidated structured entity.

**Sponsored unconsolidated structured entities**

The Group considers itself the sponsor of certain non-consolidated structured entities where it was primarily involved in the establishment of a structured entity and where, additionally, the Group has been involved in the transfer of assets; servicer of the assets; ability to access the assets; marketing; managing activities; purchasing protection or providing explicit guarantees; when Morgan Stanley's name is associated with the structured entity or where market participants may generally expect Morgan Stanley to be associated with the structured entity.

In some sponsored entities, the Group has been involved with the structured entity through establishing the structured entity, marketing of products associated with the structured entity in its own name, and/ or through involvement in the design of the structured entity. The Group has no interest in these entities as at 31 December 2021 (2020: $nil).

During 2021 $1,398 million (2020: $1,492 million) of assets were transferred to sponsored structured entities. It is the investors in the structured entity, rather than the Group, that are exposed to the carrying value of assets transferred. The Group's exposure to the sponsored entities is limited to net amounts receivable from swap transactions with the entity and is not directly linked to the transferred assets themselves. The loss that the Group incurred in relation to transactions with sponsored entities during 2021 was $370 million (2020: loss of $352 million). These losses are reported within 'Net trading income' in the consolidated income statement. The Group may hedge its exposure to these transactions and the gains of this hedging activity are presented within 'Net trading income', offsetting the losses incurred.

## 16. TRADE AND OTHER PAYABLES

| | Group | | Company | |
|---|---|---|---|---|
| **in $ millions** | **2021** | **2020** | **2021** | **2020** |
| **Trade and other payables (amortised cost)** | | | | |
| Trade payables | 91,950 | 89,415 | 91,948 | 89,376 |
| Other Payables | | | | |
| Due to other Morgan Stanley Group undertakings | 977 | 1,658 | 1,004 | 1,684 |
| Other amounts payable | 377 | 608 | 363 | 598 |
| | 93,304 | 91,681 | 93,315 | 91,658 |
| **Trade and other payables (designated at FVPL)** | | | | |
| Prepaid OTC contracts | 748 | 759 | 748 | 759 |
| Unfunded loan commitments | - | 3 | - | 3 |
| | 748 | 762 | 748 | 762 |
| **Total** | 94,052 | 92,443 | 94,063 | 92,420 |

## 17. DEBT AND OTHER BORROWINGS

| | Group | | Company | |
|---|---|---|---|---|
| **in $ millions** | **2021** | **2020** | **2021** | **2020** |
| **Debt and other borrowings (amortised cost)** | | | | |
| Subordinated debt | 6,400 | 5,000 | 6,400 | 5,000 |
| Senior subordinated debt | 5,600 | 6,000 | 5,600 | 6,000 |
| Other borrowings[(1)] | 31,077 | 34,459 | 30,861 | 34,212 |
| | 43,077 | 45,459 | 42,861 | 45,212 |
| **Debt and other borrowings (designated FVPL)** | | | | |
| Issued structured notes | 9,602 | 9,469 | 9,602 | 9,469 |
| | 52,679 | 54,928 | 52,463 | 54,681 |

(1) There is a floating charge over a pool of assets in favour of MSIUK to secure certain intercompany loans which MSIUK has provided to the Company and which are presented within 'Other borrowings'. The value of assets subject to this charge at 31 December 2021 was $28,518 million (2020: $32,748 million).

The amounts subject to subordinated loan agreements are wholly repayable as shown below:

| **in $ millions** | | | **2021** | | **2020** | |
|---|---|---|---|---|---|---|
| **Counterparty** | **Repayment Date** | **Interest Rate** | **Accrued Interest** | **Balance** | **Accrued Interest** | **Balance** |
| MSIUK | 21 December 2025 | OBFR[(1)] plus 2.3% | 21 | 5,000 | 21 | 5,000 |
| MSIUK | 11 August 2032 | SOFR[(2)] plus 1.44% | 8 | 1,400 | - | - |

[(1)] Overnight Bank Funding Rate ("OBFR")

[(2)] Secured Overnight Financing Rate ("SOFR")

The amounts subject to senior subordinated loan agreements are wholly repayable as shown below:

| **in $ millions** | | | **2021** | | **2020** | |
|---|---|---|---|---|---|---|
| **Counterparty** | **Repayment Date** | **Interest Rate** | **Accrued Interest** | **Balance** | **Accrued Interest** | **Balance** |
| MSIUK | 30 January 2023[(3)] | MS Proxy[(4)] | - | 5,600 | - | 6,000 |

[(3)] The repayment date can be extended for 395 days on each business day but no later than 49 years from utilisation date, and not unless a term-out notice is sent.

[(4)] Interest rate at which Morgan Stanley is offering loans, in the relevant currency, to members of the Morgan Stanley Group on such day, which counterparties have acknowledged and agreed to apply to any loan, acting on an arm's length basis.

The senior subordinated loan, including accrued interest, may be bailed in by the Bank of England in certain circumstances.

The Group has not defaulted on principal, interest or breached any terms of its subordinated loans or senior subordinated loans during the year.

All amounts outstanding under subordinated loan agreements are repayable on the repayment date.

The $1,400 million subordinated debt instrument is callable at the Company's discretion, from 11 August 2026. Any repayment of the $5,000 million subordinated debt instrument prior to contractual maturity, or the $1,400 million instrument prior to the call date, would require mutual agreement between the Company and the Lender. PRA consent is required prior to any repayment.

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
## Year ended 31 December 2021

### 18. PROVISIONS

As at 31 December 2021 and 31 December 2020 amounts reported in the following table were the same for both the Company and the Group.

| $ millions | Property | Litigation | Other | Total |
|---|---|---|---|---|
| At 31 December 2020 & 1 January 2021 | 2 | 6 | 2 | 10 |
| Additional provisions | - | 38 | - | 38 |
| Provisions utilised | - | (2) | - | (2) |
| Unused provisions reversed | - | - | (2) | (2) |
| Foreign exchange revaluation | - | (1) | - | (1) |
| **At 31 December 2021** | 2 | 41 | - | 43 |

**Litigation matters**

In addition to the matters described below, in the normal course of business, the Group has been named, from time to time, as a defendant in various legal actions, including arbitrations, class actions and other litigation, arising in connection with its activities as a global diversified financial services institution. Certain of the actual or threatened legal actions include claims for substantial compensatory and/or punitive damages or claims for indeterminate amounts of damages. In some cases, the entities that would otherwise be the primary defendants in such cases are bankrupt or are in financial distress.

The Group is also involved, from time to time, in other reviews, investigations and proceedings (both formal and informal) by governmental and self-regulatory agencies regarding the Group's business, and involving, among other matters, sales and trading activities, financial products or offerings sponsored, underwritten or sold by the Group, and accounting and operational matters, certain of which may result in adverse judgments, settlements, fines, penalties, injunctions or other relief.

The Group contests liability and/or the amount of damages as appropriate in each pending matter. Where available information indicates that it is probable a liability had been incurred at the date of the financial statements and the Group can reasonably estimate the amount of that loss, the Group accrues the estimated loss by a charge to income. The Group's future legal expenses may fluctuate from period to period, given the current environment regarding government investigations and private litigation affecting global financial services firms, including the Group.

In many proceedings and investigations, however, it is inherently difficult to determine whether any loss is probable or even possible or to estimate the amount of any loss. The Group cannot predict with certainty if, how or when such proceedings or investigations will be resolved or what the eventual settlement, fine, penalty or other relief, if any, may be, particularly for proceedings and investigations where the factual record is being developed or contested or where plaintiffs or government entities seek substantial or indeterminate damages, restitution, disgorgement or penalties. Numerous issues may need to be resolved before a loss or additional loss or range of loss or additional range of loss can be reasonably estimated for a proceeding or investigation, including through potentially lengthy discovery and determination of important factual matters, determination of issues related to class certification and the calculation of damages or other relief, and consideration of novel or unsettled legal questions relevant to the proceedings or investigations in question. Subject to the foregoing, the Group believes, based on current knowledge and after consultation with counsel, that the outcome of such proceedings and investigations will not have a material adverse effect on the financial condition of the Group, although the outcome of such proceedings or investigations could be material to the Group's operating results and cash flows for a particular period depending on, among other things, the level of the Group's revenues or income for such period.

While the Group has identified below certain proceedings that the Group believes to be material, individually or collectively, there can be no assurance that additional material losses will not be incurred from claims that have not yet been asserted or are not yet determined to be material.

On 5 October 2017, various institutional investors filed a claim against the Group and another bank in a matter now styled *Case number B-803-18 (previously BS 99-6998/2017)*, in the City Court of Copenhagen, Denmark concerning their roles as underwriters of the initial public offering ("IPO") in March 2014 of the Danish company OW Bunker A/S. The claim seeks damages of approximately DKK 529 million (approximately $81 million) plus interest in respect of alleged losses arising from investing in shares in OW Bunker, which entered into bankruptcy in November 2014. Separately, on 29 November 2017, another group of institutional investors joined the Group and another bank as defendants to pending proceedings in the High Court of Eastern Denmark against various other parties involved in the IPO in a matter styled *Case number B-2073-16*. The claim brought against the Group and the other bank has been given its own *Case number B-2564-17*. The investors claim damages of approximately DKK 767 million (approximately $117 million) plus interest from the Group and the other bank on a joint and several basis with the Defendants to these proceedings. Both claims are based on alleged prospectus liability; the second claim also alleges professional liability of banks acting as financial intermediaries. On 8 June 2018, the City Court of Copenhagen, Denmark ordered that the matters now *styled Case number B-803-18, Case number B-2073-16, and Case number B-2564-17* be heard together before the High Court of Eastern Denmark. On 29 June 2018, the Group filed its defense to the matter now styled *Case number B-2564-17*. On 4 February 2019, the Group filed its defense to the matter now styled *Case number B-803-18*.

The Group and other financial institutions are responding to a number of governmental investigations and civil litigation matters related to allegations of anticompetitive conduct in various aspects of the financial services industry, including the matter described below.

Beginning in February of 2016, the Group and certain Morgan Stanley Group affiliates were named as a defendant in multiple purported antitrust class actions now consolidated into a single proceeding in the United States District Court for the Southern District of New York styled *In Re: Interest Rate Swaps Antitrust Litigation*. Plaintiffs allege, inter alia, that the Group and certain Morgan Stanley Group affiliates, together with a number of other financial institution defendants, violated United States and New York state antitrust laws from 2008 through December of 2016 in connection with their alleged efforts to prevent the development of electronic exchange based platforms for interest rate swaps trading. Complaints were filed both on behalf of a purported class of investors who purchased interest rate swaps from defendants, as well as on behalf of two swap execution facilities that allegedly were thwarted by the defendants in their efforts to develop such platforms. The consolidated complaints seek, among other relief, certification of the investor class of plaintiffs and treble damages. On 28 July 2017, the court granted in part and denied in part the defendants' motion to dismiss the complaints. A decision on plaintiffs' motion for class certification is pending.

**Tax matters**

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. The Group has reserves arising on a number of uncertain tax matters, for which management has made judgements and interpretations about the application of inherently complex tax laws when determining these provisions. Whilst a range of outcomes is foreseeable, management considers the amount reserved to be a reasonable estimate of expected future liabilities after consideration of all pertinent facts.

Refer to accounting policy note 3(o) for more details on the Group's accounting policy on provisions.

In matters styled *Case number 15/3637 and Case number 15/4353*, the Dutch Tax Authority ("Dutch Authority") is challenging in the Dutch courts the prior set-off by a subsidiary undertaking of the Group of approximately €124 million (approximately $141 million) plus accrued interest of withholding tax credits against the subsidiary undertaking of the Group's corporation tax liabilities for the tax years 2007 to 2012. The Dutch Authority alleges that the subsidiary undertaking of the Group was not entitled to receive the withholding tax credits on the basis, inter alia, that the subsidiary undertaking of the Group did not hold legal title to certain securities subject to withholding tax on the relevant dates. The Dutch Authority has also alleged that the subsidiary undertaking of the Group failed to provide certain information to the Dutch Authority and keep adequate books and records. On 26 April 2018, the District Court in Amsterdam issued a decision dismissing the Dutch Authority's claims with respect to certain of the tax years in dispute. On 12 May 2020, the Court of Appeal in Amsterdam granted the Dutch Authority's appeal in matters re-styled *Case number 18/00318* and *Case number 18/00319.* On 22 June 2020, the subsidiary undertaking of the Group filed an appeal against the decision of the Court of Appeal in Amsterdam before the Dutch High Court. On 29 January 2021, the Advocate General of the Dutch High Court issued an advisory opinion on the subsidiary of the Group's appeal, which rejected the subsidiary of the Group's principal grounds of appeal. On 11 February 2021, the subsidiary of the Group and the Dutch Authority each responded to this opinion. On 22 June 2021, Dutch criminal authorities sought various documents in connection with an investigation related to the civil claims asserted by the Dutch Authority, concerning the accuracy of the subsidiary of the Group's tax returns and the maintenance of its books and records for 2007 to 2012.

## 19. DEFERRED TAX ASSETS AND LIABILITIES

Deferred taxes are calculated on all temporary differences under the liability method. The movement in the deferred tax account is as follows:

| | Group Deferred tax asset | | Company Deferred tax asset | |
|---|---|---|---|---|
| **in $millions** | **2021** | **2020** | **2021** | **2020** |
| At 1 January | 171 | 70 | 170 | 69 |
| Adjustment in respect of prior years | (12) | (16) | (12) | (16) |
| Amount recognised in the income statement | 45 | 36 | 45 | 36 |
| Amount recognised in other comprehensive income | (22) | 76 | (22) | 76 |
| Impact of changes in tax rates recognised in the income statement | 14 | 1 | 14 | 1 |
| Impact of changes in tax rates recognised in other comprehensive income | 17 | 4 | 17 | 4 |
| At 31 December | 213 | 171 | 212 | 170 |

For the purposes of presentation in the consolidated statement of financial position, certain deferred tax assets and liabilities have been offset in accordance with IAS 12.

The deferred tax included in the statement of financial position and changes recorded in 'Income tax expense' are detailed below:

| | Group | | | | Company | |
|---|---|---|---|---|---|---|
| | 2021 | | 2020 | | 2021 | 2020 |
| **in $ millions** | **Deferred tax asset** | **Consolidated income statement** | **Deferred tax asset** | **Consolidated income statement** | **Deferred tax asset** | **Deferred tax asset** |
| Accelerated capital allowances | 1 | - | 2 | - | 2 | 2 |
| Deferred compensation | 125 | 55 | 71 | 33 | 124 | 70 |
| Transitional adjustment | (9) | - | (9) | (1) | (9) | (9) |
| Temporary differences arising in respect of changes in Group's and Company's own credit risk | 120 | - | 125 | - | 120 | 125 |
| Unrealised gains/ (losses) | (25) | (7) | (18) | (11) | (25) | (18) |
| | 213 | 48 | 171 | 21 | 212 | 170 |

The UK statutory rate is 27% for the period, including an 8% corporation tax surcharge on the profits of banking companies. Finance Act 2022 reduced the corporation tax surcharge rate from 8% to 3% with effect from 1 April 2023. Had this change in rate been effective at the balance sheet date the net deferred tax asset recognised at 31 December 2021 would have been $22 million lower. The net deferred tax asset shown above has been recognised based on management's assessment that it is probable that the Group will have taxable profits against which the temporary differences can be utilised.

Group deferred tax assets are not recognised, as it is not considered probable that sufficient future taxable profits will be available, on the following items:

| in $ millions | 2021 | 2020 |
|---|---|---|
| Unused tax losses | 34 | 37 |

## 20. COMMITMENTS

### Other commitments

At 31 December, the Group and Company had the following outstanding commitments arising from off-balance sheet financial instruments:

| in $ millions | 2021 | 2020 |
|---|---|---|
| *Commitments*[1] | | |
| Loan commitments | 121 | 1,766 |
| Underwriting commitments | - | 3,037 |
| Guarantees | 348 | 395 |
| Letters of credit | - | 102 |
| Unsettled securities purchased under agreements to resell [2] | 34,493 | 32,614 |
| Unsettled securities sold under agreements to repurchase[2] | 13,619 | 5,725 |
| Other commitments | 37 | 145 |

(1) Certain loan commitments, unsettled securities sold under agreements to repurchase and guarantees are on balance sheet and designated at fair value (see note 9).

(2) Unsettled securities purchased under agreements to resell and sold under agreements to repurchase have a trade date at or prior to 31 December and settle subsequent to year end.

## 21. EQUITY INSTRUMENTS

| in $ millions | Ordinary shares of $1 each | Ordinary shares of £1 each | Class A ordinary shares of $1 each | Additional Tier 1 capital | Total equity instruments |
|---|---|---|---|---|---|
| **Issued and fully paid:** | | | | | |
| At 1 January 2020 and 31 December 2021 | 10,935 | 30 | 1,500 | 3,500 | 15,965 |
| **Voting rights at 31 December 2021** | 99.9% [1] | 0.1% [1] | Non-voting | Non-voting | 100% |

(1) Ordinary shares are pari passu with each other regardless of currency and together carry 100% of the voting rights (2020: 100%)

### Equity instruments

At 31 December 2020 and 31 December 2021, the total equity instruments in issue of the Company amounted to $15,965 million comprising 10,935,105,148 ordinary shares of $1 each, 17,615,107 ordinary shares of £1 each, 1,500,000,000 Class A Non-voting ordinary shares of $1 each and Additional Tier 1 capital instruments of $3,500,000,000. All equity instruments are fully paid. There have been no changes to equity instruments for the Company from 1 January 2020.

### Ordinary shares

The holders of the ordinary shares are entitled to receive dividends as declared from time to time and are entitled, on a show of hands, to one vote and, on a poll, one vote per share at meetings of the shareholders of the Company. All shares rank equally with regard to the Company's residual net assets. All ordinary shares are recorded at the rates of exchange ruling at the date the shares were paid up.

**Additional Tier 1 capital**

AT1 capital issued by the Company comprises two separate instruments, with balances of $2,200 million and $1,300 million, respectively (the "Instruments"). The Instruments include a trigger mechanism whereby, if the Common Equity Tier 1 capital ratio of the Company or MSI Group falls below a pre-determined level, the outstanding principal amount of the Instruments, together with any accrued interest coupon will be written down. In this situation, Morgan Stanley International Limited, the holder of the AT1, would have no further rights against the Group in respect of the AT1.

The Instruments have no defined maturity and are subordinated to senior creditors and subordinated loan creditors of the Company. The Instruments are not entitled to any participation in the residual net assets of the Company. The Instruments are callable at the Company's discretion, from 30 November 2023 for the $2,200 million instrument, and from 30 November 2025 for the $1,300 million instrument.

Coupons on the Instruments are non-cumulative. Coupons are payable at a fixed rate of 7.5% per annum for the $2,200 million instrument and 5.45% per annum for the $1,300 million instrument. Payment of the coupon is wholly at the discretion of the Company.

Coupon interest on the $2,200 million and $1,300 million instruments was paid on 30 November 2021 (see note 22).

**Reserves**

*Share premium*

The 'Share premium account' comprises the capital raised in an issue of shares that exceeds the nominal value of the shares.

*Currency translation reserve*

The 'Currency translation reserve' comprises all foreign exchange differences arising from the translation of the total assets less total liabilities of foreign operations. The tax effect of these movements is also included in the 'Currency translation reserve'.

*Capital contribution reserve*

The 'Capital contribution reserve' comprises contributions of capital from the Group's parent company to subsidiaries of the Group.

*Capital redemption reserve*

The 'Capital redemption reserve' represents transfers in prior years from retained earnings in accordance with relevant legislation.

*Pension reserve*

The 'Pension reserve' comprises cumulative actuarial gains or losses on scheme assets and obligations net of current tax and the impact of the asset surplus ceiling (see note 33).

*Debt valuation reserve*

The 'Debt valuation reserve' includes the cumulative change in fair value of certain financial liabilities designated at fair value through profit or loss that is attributable to changes in the credit risk of those liabilities at the reporting date, together with the tax effect of these movements.

**22. DIVIDENDS**

On 30 November 2021, a coupon payment on the $1,300 million AT1 capital instrument of $71,838,000 (31 December 2020: $176,800,000) was paid out of reserves available for distribution.

On 30 November 2021, a coupon payment on the $2,200 million AT1 capital instrument of $165,000,000 (31 December 2020: $165,000,000) was paid out of reserves available for distribution.

The Directors have not proposed the payment of a final dividend out of reserves available at 31 December 2021 (2020: $nil).

## 23. ADDITIONAL CASH FLOW INFORMATION

### a. Cash and cash equivalents

For the purposes of the consolidated statement of cash flows, cash and cash equivalents comprise the following balances, which have less than three months maturity from the date of acquisition:

| in $ millions | 2021 | 2020 |
|---|---|---|
| Cash and short term deposits | 28,532 | 24,934 |
| Bank loans and overdrafts | (48) | (1) |
| | 28,484 | 24,933 |

Included within Group and Company 'Cash and short term deposits' is $10,569 million (2020: $10,007 million) of segregated client money, held in accordance with the FCA's Client Money Rules. Additionally, an amount for the Group of $168 million (2020: $211 million) and for the Company of $107 million (2020: $94 million) represents other client money, that is not available for use. The corresponding payable is recognised and included in 'Trade and other payables'.

### b. Reconciliation of cash flows from operating activities

| in $ millions | Note | 2021 | 2020 |
|---|---|---|---|
| Profit for the year | | 1,351 | 969 |
| *Adjustments for:* | | | |
| Net Impairment reversal on financial instruments | | (2) | (1) |
| Depreciation on property, plant and equipment | | 6 | 7 |
| Provisions | 18 | 35 | 7 |
| Interest income | 6 | 398 | (223) |
| Interest expense | 6 | 134 | 768 |
| Income tax expense | 8 | 589 | 606 |
| Operating cash flows before changes in operating assets and liabilities | | 2,511 | 2,133 |
| Changes in operating assets | | | |
| Net increase in secured financing | | (12,098) | (21,350) |
| Net decrease in loans and advances | | 51 | 86 |
| Net (increase)/decrease in trade and other receivables | | 3,953 | (13,552) |
| Net increase in investment securities | | (14) | (10) |
| Net (increase)/decrease in trading financial assets | | 42,374 | (64,265) |
| Net increase in other assets | | (104) | (275) |
| | | 34,162 | (99,366) |
| Changes in operating liabilities | | | |
| Net increase in secured borrowing | | 8,912 | 3,876 |
| Net increase in trade and other payables | | 1,539 | 6,142 |
| Net increase/(decrease) in debt and other borrowings | | (3,176) | 6,208 |
| Net increase/(decrease) in trading financial liabilities | | (40,067) | 78,136 |
| Net increase/(decrease) in other liabilities | | (43) | 334 |
| Net decrease in provisions | | (2) | (22) |
| | | (32,837) | 94,674 |
| Interest received | | (541) | 394 |
| Interest paid | | 144 | (485) |
| Income taxes paid | | (397) | (553) |
| Effect of foreign exchange movements | | 804 | (1,334) |
| **Net cash flows used in operating activities** | | 3,846 | (4,537) |

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
# Year ended 31 December 2021

**c. Reconciliation of liabilities arising from financing activities**

| in $ millions | Note | AT1 | Senior Subordinated loans | Subordinated Loans | Total liabilities from financing activities |
|---|---|---|---|---|---|
| **Balance as at 1 January 2020** | | **3,500** | **6,000** | **5,000** | **14,500** |
| Issuance | | 1,300 | - | - | 1,300 |
| Repayment | | (1,300) | - | - | (1,300) |
| **Balance as at 31 December 2020 and 1 January 2021** | | **3,500** | **6,000** | **5,000** | **14,500** |
| Issuance | 17 | - | - | 1,400 | 1,400 |
| Repayment | 17 | - | (400) | - | (400) |
| **Balance as at 31 December 2021** | | **3,500** | **5,600** | **6,400** | **15,500** |

## 24. EXPECTED MATURITY OF ASSETS AND LIABILITIES

The table below shows an analysis of assets and liabilities analysed according to when they are expected to be recovered, realised or settled.

**Group**

| | 2021 | | | 2020 | | |
|---|---|---|---|---|---|---|
| in $ millions | Less than or equal to twelve months | More than twelve months | Total | Less than or equal to twelve months | More than twelve months | Total |
| **ASSETS** | | | | | | |
| Secured financing | 125,365 | 530 | 125,895 | 113,720 | 77 | 113,797 |
| Loans and advances | - | 67 | 67 | 23 | 93 | 116 |
| Investment securities | - | 165 | 165 | - | 151 | 151 |
| Trade and other receivables | 78,349 | 985 | 79,334 | 82,377 | 766 | 83,143 |
| Deferred tax assets | 48 | 165 | 213 | 18 | 153 | 171 |
| Property, plant and equipment | - | 33 | 33 | - | 26 | 26 |
| Other | 361,479 | - | 361,479 | 400,385 | - | 400,385 |
| | 565,241 | 1,945 | 567,186 | 596,523 | 1,266 | 597,789 |
| **LIABILITIES** | | | | | | |
| Secured borrowing | 92,568 | 4,694 | 97,262 | 86,098 | 2,252 | 88,350 |
| Trade and other payables | 93,598 | 454 | 94,052 | 91,945 | 498 | 92,443 |
| Debt and other borrowings | 4,584 | 48,095 | 52,679 | 19,930 | 34,998 | 54,928 |
| Post-employment benefit obligations | - | 9 | 9 | - | 7 | 7 |
| Other | 301,009 | - | 301,009 | 341,040 | - | 341,040 |
| | 491,759 | 53,252 | 545,011 | 539,013 | 37,755 | 576,768 |

**Company**

| | 2021 | | | 2020 | | |
|---|---|---|---|---|---|---|
| in $ millions | Less than or equal to twelve months | More than twelve months | Total | Less than or equal to twelve months | More than twelve months | Total |
| **ASSETS** | | | | | | |
| Secured financing | 125,365 | 330 | 125,695 | 113,720 | 77 | 113,797 |
| Loans and advances | - | 26 | 26 | 23 | 9 | 32 |
| Investment securities | - | 165 | 165 | - | 151 | 151 |
| Trade and other receivables | 78,439 | 968 | 79,407 | 82,486 | 750 | 83,236 |
| Deferred tax assets | 48 | 164 | 212 | 18 | 152 | 170 |
| Investments in subsidiaries, associates and joint ventures | - | 130 | 130 | - | 105 | 105 |
| Property, plant and equipment | - | 11 | 11 | - | 14 | 14 |
| Other | 361,012 | - | 361,012 | 400,053 | - | 400,053 |
| | 564,864 | 1,794 | 566,658 | 596,300 | 1,258 | 597,558 |
| **LIABILITIES** | | | | | | |
| Secured borrowing | 92,568 | 4,286 | 96,854 | 86,098 | 2,252 | 88,350 |
| Trade and other payables | 93,609 | 454 | 94,063 | 91,922 | 498 | 92,420 |
| Debt and other borrowings | 4,584 | 47,879 | 52,463 | 19,931 | 34,750 | 54,681 |
| Post-employment benefit obligations | - | 6 | 6 | - | 4 | 4 |
| Other | 300,942 | - | 300,942 | 340,952 | - | 340,952 |
| | 491,703 | 52,625 | 544,328 | 538,903 | 37,504 | 576,407 |

## 25. SEGMENT REPORTING

Segment information is presented in respect of the Group's business and geographical segments. The business segments and geographical segments are based on the Group's management and internal reporting structure. Transactions between business segments are on normal commercial terms and conditions.

### Business segment

Morgan Stanley structures its business segments primarily based upon the nature of the financial products and services provided to customers and Morgan Stanley's internal management structure. The Group's own business segments are consistent with those of Morgan Stanley.

The Group has one reportable business segment, Institutional Securities, which includes capital raising and financial advisory services; corporate lending; sales, trading, financing and market-making activities in equity and fixed income securities and related products, including global macro, credit and commodities products and investment activities.

### Geographical segments

The Group operates in three geographic regions, being Europe, Middle East and Africa ("EMEA"), the Americas and Asia.

The following table presents selected consolidated income statement and consolidated statement of financial position information of the Group's operations by geographic area. The external revenues (net of interest expense) and total assets disclosed in the following table reflect the regional view of the Group's operations, on a managed basis. The attribution of external revenues (net of interest expense) and total assets is determined by a combination of client and trading desk location.

| | EMEA | | Americas | | Asia | | Total | |
|---|---|---|---|---|---|---|---|---|
| **in $ millions** | **2021** | **2020** | **2021** | **2020** | **2021** | **2020** | **2021** | **2020** |
| Revenues net of interest | 5,174 | 4,492 | 377 | 423 | 2,014 | 1,533 | 7,565 | 6,448 |
| Profit before income tax | 1,138 | 825 | 101 | 185 | 701 | 565 | 1,940 | 1,575 |
| Total assets | 337,702 | 386,095 | 129,710 | 121,716 | 99,774 | 89,978 | 567,186 | 597,789 |

## 26. FINANCIAL RISK MANAGEMENT

### 26.1 Risk management procedures

Risk is an inherent part of the Group and Company's business activity. The Group and Company seek 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 and Company have developed their own risk management policy framework, which is consistent with and leverages the risk management policies and procedures of the Morgan Stanley Group and which include escalation to the Company's Board of Directors and to appropriate senior management personnel of the Group and Company.

Significant risks faced by the Group and Company resulting from trading, financing and investment activities are set out below.

### 26.2 Market risk

Market risk refers to the risk that a change in the level of one or more market prices, rates, indices, implied volatilities (the price volatility of the underlying instrument imputed from option prices), correlations or other market factors, such as market liquidity, will result in losses for a position or portfolio.

*26.2.1 Primary market risk exposures*

During the year, the Group had exposures to a wide range of market risk factors related to the global markets in which it conducts its trading activities. These market risk factors include interest rate and credit spread risk, equity prices, foreign exchange rates and commodity prices and the associated implied volatilities.

The Group is exposed to interest rate and credit spread risk, as well as associated implied volatility risks, as a result of its market making activities in interest rate or credit sensitive financial instruments (e.g. risk arising from changes in the level of interest rates, the shape of the yield curve and credit spreads). The activities from which those exposures arise and the markets in which the Group is active include, but are not limited to: interest rate and credit derivatives, corporate and government debt across both developed and emerging markets and asset-backed debt (including mortgage-related securities).

The Group is exposed to equity price and implied volatility risk as a result of making markets in equity securities and derivatives and maintaining other positions (including positions in non-public entities). Positions in non-public entities may include, but are not limited to, exposures to private equity, venture capital, private partnerships, real estate funds and other funds. Such positions are less liquid, have longer investment horizons and are more difficult to hedge than listed equities.

The Group is exposed to foreign exchange rate and implied volatility risk as a result of making markets in foreign currencies and foreign currency derivatives, from maintaining foreign exchange positions and from holding non-US dollar-denominated financial instruments.

The Group has exposure to commodities. This exposure is due to price and implied volatility risk as a result of market-making activities in crude and refined oil products, natural gas, electricity, and precious and base metals.

*26.2.2 Risk management*

The Group manages its trading positions by employing a variety of risk mitigation strategies. These strategies include diversification of risk exposures and hedging. Hedging activities consist of the purchase or sale of positions in related securities and financial instruments, including a variety of derivative products (e.g., futures, forwards, swaps and options). Hedging activities may not always provide effective mitigation against trading losses due to differences in the terms, specific characteristics or other basis risks that may exist between the hedge instrument and the risk exposure that is being hedged.

The Group manages and monitors its market risk exposures, including outright and basis risks, in such a way as to maintain a portfolio that the Group believes is well-diversified in the aggregate with respect to market risk factors and that reflects the Group's aggregate risk tolerance, as established by the Group's Board. The effectiveness of hedges and mitigants is monitored using processes such as risk and limit reporting.

Aggregate market risk limits have been approved for the Group in line with the risk appetite set by the Board. Additional market risk limits are assigned, as appropriate, to trading desks, products and/ or regions and are commensurate with the aggregate limits. The Market Risk Department ("MRD") monitors market risk measures against limits in accordance with policies set by the Board and senior management.

*26.2.3 Measurement - Value at Risk*

The Group uses the statistical technique known as VaR as one of the tools used to measure, monitor and review the market risk exposures of its trading portfolios. MRD calculates and distributes daily VaR-based risk measures to various levels of management.

The Group calculates VaR using a model based on historical simulation for general market risk factors and Monte Carlo simulation for name-specific risk in corporate bonds, loans and related derivatives. Market risk factors' daily moves are modelled either as difference changes or relative changes, dependent on the most suitable stochastic process (normal or lognormal diffusion process) to describe the daily risk factor changes. The model constructs a distribution of hypothetical daily changes in the value of trading portfolios based on: historical observation of daily changes in key market indices or other market risk factors; and information on the sensitivity of the portfolio values to these market risk factor changes.

*26.2.4 VaR methodology, assumptions and limitations*

The basic methodology for VaR at Morgan Stanley is historical simulation. The risk exposures used for the daily VaR calculation are based on Greeks and full-revaluation grids, and simulations cover both systematic and specific risk components. The same valuation approach is used for Stressed VaR. The time series data is updated on a weekly basis, with the exception of idiosyncratic risk factors which are updated quarterly. A set of internal processes and controls ensure that all trading positions booked by the Group are being included in VaR. Management VaR is computed at a 95% level of confidence over a one day time horizon, which is a useful indicator of possible trading losses resulting from adverse daily market moves. The 95%/one-day VaR corresponds to the unrealised loss in portfolio value that, based on historically observed market risk factor movements, could have been exceeded with a frequency of five times in every 100 trading days, if the portfolio were held constant for one day.

The Group uses VaR as one of a range of risk management tools. Among their benefits, VaR models permit estimation of a portfolio's aggregate market risk exposure, incorporating a range of market risks and portfolio assets. One key element of the VaR model is that it reflects portfolio diversification or hedging activities. However, VaR has various limitations, which include but are not limited to: use of historical changes in market risk factors, which may not be accurate predictors of future market conditions, and may not fully incorporate the risk of extreme market events that are outsized relative to observed historical market behaviour or reflect the historical distribution of results beyond the 95% confidence interval; and reporting of losses in a single day, which does not reflect the risk of positions that cannot be liquidated or hedged in one day. A small proportion of market risk generated by trading positions is not included in VaR.

The modelling of the risk characteristics of some positions relies on approximations that, under certain circumstances, could produce significantly different results from those produced using more precise measures. VaR is most appropriate as a risk measure for trading positions in liquid financial markets and will understate the risk associated with severe events, such as periods of extreme illiquidity. The Group is aware of these and other limitations and, therefore, uses VaR as only one component in its risk management oversight process. This process also incorporates stress testing and scenario analyses and extensive risk monitoring, analysis, quantification of risk not captured in VaR, and control at the trading desk, division, entity and Group levels.

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## Year ended 31 December 2021

The Group is committed to continuous review and enhancement of VaR methodologies and assumptions to capture evolving risks associated with changes in market structure and dynamics. As part of regular process improvement, additional systematic and name-specific risk factors may be added to improve the VaR model's ability to estimate more accurately risks to specific asset classes or industry sectors.

Since the reported VaR statistics are estimates based on historical data, VaR should not be viewed as predictive of the Group's future revenues or financial performance or of its ability to manage risk. There can be no assurance that the Group's actual losses on a particular day will not exceed the VaR amounts indicated in the following paragraphs or that such losses will not occur more than five times in 100 trading days for a 95%/one-day VaR. VaR does not predict the magnitude of losses which, should they occur, may be significantly greater than the VaR amount.

VaR statistics are not readily comparable across firms because of differences in the firms' portfolios, modelling assumptions and methodologies. These differences can result in materially-different VaR estimates across firms for similar portfolios. The impact of such differences varies depending on the factor history assumptions, the frequency with which the factor history is updated and the confidence level. As a result, VaR statistics are more useful when interpreted as indicators of trends in a firm's risk profile rather than as an absolute measure of risk to be compared across firms.

*VaR for the year ended 31 December 2021*

The table below presents the Management VaR for the Group and Company's trading portfolio on a year-end, average and annual high and low basis for 31 December 2021 and 31 December 2020. As at 31 December 2021 and 31 December 2020 amounts reported in the following table were the same for both the Company and the Group. See 'Risk Management - Market Risk – Year end VaR' in the Strategic Report for further details on movements.

| | 95%/ one-day VaR for the year ended 31 December 2021 | | | | 95%/ one-day VaR for the year ended 31 December 2020 | | | |
|---|---|---|---|---|---|---|---|---|
| **in $ millions** | **Period end** | **Average** | **High** | **Low** | **Period end** | **Average** | **High** | **Low** |
| *Market risk category:* | | | | | | | | |
| Interest rate and credit spread | 12 | 16 | 26 | 12 | 21 | 17 | 24 | 12 |
| Equity price | 19 | 22 | 31 | 17 | 26 | 20 | 32 | 7 |
| Foreign exchange rate | 4 | 6 | 13 | 3 | 9 | 5 | 12 | 2 |
| Commodity price | 3 | 3 | 7 | 2 | 6 | 5 | 9 | 1 |
| Less diversification benefit (1)(2) | (15) | (18) | N/A | N/A | (23) | (20) | N/A | N/A |
| Primary Risk Categories | 23 | 29 | 37 | 22 | 39 | 27 | 41 | 14 |
| Credit Portfolio(3) | 6 | 7 | 12 | 5 | 12 | 9 | 14 | 5 |
| Less diversification benefit (1)(2) | (6) | (6) | N/A | N/A | (9) | (9) | N/A | N/A |
| **Total Management VaR** | 23 | 30 | 41 | 23 | 42 | 27 | 42 | 15 |

(1) Diversification benefit equals the difference between total trading VaR and the sum of the VaRs for the four risk categories. This benefit arises because the simulated one-day losses for each of the four primary market risk categories occur on different days; similar diversification benefits also are taken into account within each category.
(2) N/A - Not Applicable. The minimum and maximum VaR values for the total VaR and each of the component VaRs might have occurred on different days during the year and therefore the diversification benefit is not an applicable measure.
(3) 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.

*Non-trading risks for the year ended 31 December 2021*

The Group and Company believe that sensitivity analysis is an appropriate representation of the Group and Company's non-trading risks. Reflected below is this analysis, which covers substantially all of the non-trading risks in the Group and Company's portfolio, with the exception of counterparty credit valuation adjustments, which are covered in the previous section.

*Interest rate risk*

The Group and Company's VaR excludes certain funding liabilities and money market transactions. The application of a parallel shift in interest rates of 200 basis points increase or decrease to these positions would result in a net loss or gain, respectively, of approximately $39.6 million as at 31 December 2021, compared to a net loss or gain of $16.3 million as at 31 December 2020.

*Funding liabilities*

The credit spread risk sensitivity of the Group's mark-to-market funding liabilities corresponds to an increase in value of approximately $5.4 million and $6.5 million for each 1 basis point widening in the Group's credit spread level at 31 December 2021 and 31 December 2020 respectively.

*Equity investments price risk*

The Group and Company are exposed to equity price risk as a result of changes in the fair value of its investments in listed and private equities classified as FVPL financial assets. These investments are predominantly equity positions with long investment horizons, the majority of which are for business facilitation purposes. The market risk related to these investments is measured by estimating the potential reduction in net revenues associated with a 10% decline in asset values as shown in the table below.

| in $ millions | 2021<br>10% sensitivity | 2020<br>10% sensitivity |
|---|---|---|
| Investment securities | 17 | 15 |

*Currency risk*

The Group and Company have foreign currency exposure arising from foreign operations. The majority of this foreign currency risk has been hedged by other members of the Morgan Stanley Group, primarily Morgan Stanley, by utilising forward foreign currency exchange contracts.

The Group and Company also have foreign currency exposure arising from its trading activities in currencies other than US dollars. The Group and Company actively manage this exposure by hedging with other Morgan Stanley Group undertakings.

The analysis on the following page details the foreign currency exposure for the Group and Company, by foreign currency, relating to the retranslation of branches and subsidiaries which are not denominated in US dollars. The analysis calculates the impact on total comprehensive income of a reasonably possible parallel shift of the foreign currency in relation to the US dollar, with all other variables held constant. This analysis does not take into account the effect of the foreign currency hedges held by other members of the Morgan Stanley Group.

| Group | 2021 | | | 2020 | | |
|---|---|---|---|---|---|---|
| | | Sensitivity to applied percentage change in currency (+/-) | | | Sensitivity to applied percentage change in currency (+/-) | |
| in $ millions | Foreign currency exposure | Percentage change applied | Other comprehensive income | Foreign currency exposure | Percentage change applied | Other comprehensive income |
| | | % | | | % | |
| Euro | 2 | 14% | - | (20) | 14% | (3) |
| Taiwan New Dollar | 195 | 8% | 16 | 153 | 8% | 12 |
| Polish Zloty | - | 17% | - | 6 | 17% | 1 |
| South Korean Won | 417 | 11% | 46 | 353 | 11% | 39 |
| Swiss Franc | 35 | 8% | 3 | 32 | 8% | 3 |
| | 649 | | 65 | 524 | | 52 |

| Company | 2021 | | | 2020 | | |
|---|---|---|---|---|---|---|
| | | Sensitivity to applied percentage change in currency (+/-) | | | Sensitivity to applied percentage change in currency (+/-) | |
| in $ millions | Foreign currency exposure | Percentage change applied | Other comprehensive income | Foreign currency exposure | Percentage change applied | Other comprehensive income |
| | | % | | | % | |
| Euro | 58 | 14% | 8 | 7 | 14% | 1 |
| Polish Zloty | - | 17% | - | 6 | 17% | 1 |
| South Korean Won | 417 | 11% | 46 | 353 | 11% | 39 |
| Swiss Franc | 35 | 8% | 3 | 32 | 8% | 3 |
| | 510 | | 57 | 398 | | 44 |

The reasonably possible percentage change in the currency rate in relation to US dollars has been calculated based on the greatest annual percentage change over the 5 year period from 1 January 2017 to 31 December 2021 (2020: 1 January 2016 to 31 December 2020).

The Group also has foreign currency exposure arising from its trading activities and assets and liabilities in currencies other than US dollars, which it actively manages by hedging with other Morgan Stanley Group undertakings.

**26.3 Credit risk**

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. Additional information on credit risk monitoring, control and mitigation is further described in the below.

*26.3.1 Primary credit risk exposures*

The Group primarily incurs credit risk to institutions and sophisticated investors, mainly through its Institutional Securities business segment.

The risk may be incurred through a variety of activities, including, but not limited to, the following:

- entering into derivative contracts under which counterparties may have obligations to make payments to the Group;
- extending credit to clients through lending commitments;
- providing short- or long-term funding that is secured by physical or financial collateral whose

value may at times be insufficient to fully cover the repayment amount;

- posting margin and/ or collateral to clearing houses, clearing agencies, exchanges, banks, securities firms and other financial counterparties;
- placing funds on deposit at other financial institutions to support the Group's clearing and settlement obligations; and
- investing or trading in securities and loan pools, whereby the value of these assets may fluctuate based on realised or expected defaults on the underlying obligations or loans.

*26.3.2 Risk management*

Stress testing

Stress testing is one of the Group's principal risk management tools, used to identify and assess the impact of severe stresses on its portfolios. A number of different scenarios are used to measure the impact on the Group's credit risks and market risks stemming from negative economic and political scenarios, including possible contagion effects where appropriate. The results of the stress tests may result in the amendment of limits or exposure mitigation.

Monitoring and control

To help protect the Group from losses, the Credit Risk Management Department establishes Morgan Stanley-wide practices to evaluate, monitor and control credit risk at the transaction, obligor and portfolio levels. The Credit Risk Management Department approves extensions of credit, evaluates the creditworthiness of the Group's counterparties and borrowers on a regular basis, and helps ensure that credit exposure is actively monitored and managed. The evaluation of counterparties and borrowers includes an assessment of the probability that an obligor will default on its financial obligations and any subsequent losses that may occur when an obligor defaults. In addition, credit risk exposure is actively managed by credit professionals and committees within the Credit Risk Management Department and through various risk committees, whose membership includes individuals from the Credit Risk Management Department.

A Credit Limits Framework is utilised to manage credit risk levels across the MSI Group. The Credit Limits Framework is calibrated within the MSI Group's risk tolerance and includes single-name limits and portfolio concentration limits by country and industry. The Credit Risk Management Department helps ensure timely and transparent communication of material credit risks, compliance with established limits and escalation of risk concentrations to appropriate senior management.

The Credit Risk Management Department also works closely with the Market Risk Department and applicable business units to monitor risk exposures and to perform stress tests to identify, analyse and, control credit risk concentrations arising in the Group's lending and trading activities. The stress tests shock market factors (e.g. interest rates, commodity prices, credit spreads), and risk parameters (e.g. default probabilities and loss given default) to assess the impact of stresses on exposures, profit and loss, and the Group's capital position. Stress tests are conducted in accordance with established Group policies and procedures.

Credit evaluation

The evaluation of corporate and institutional counterparties includes assigning obligor credit ratings, which reflect an assessment of an obligor's probability of default and loss given default. Credit evaluations typically involve the assessment of financial statements, leverage, liquidity, capital strength, asset composition and quality, market capitalisation, access to capital markets, the adequacy of collateral, if applicable, and in the case of certain loans, cash flow projections and debt service requirements. The Credit Risk Management Department also evaluates strategy, market position, industry dynamics, management and other factors that could affect the obligor's risk profile. Additionally, the Credit Risk Management Department evaluates the relative position of the Group's exposure in the borrower's capital structure and relative recovery prospects, as well as adequacy of collateral (if applicable) and other structural elements of the particular transaction.

In addition to assessing and monitoring its credit exposure and risk at the individual obligor level, the Group also reviews its credit exposure and risk to geographic regions. As at 31 December 2021, the Group had no significant geographical concentration of risk but had credit exposure to North America, Asia and Western Europe. In addition, the Group pays particular attention to smaller exposures in emerging markets given their unique risk profile. Sovereign ceiling ratings i.e. the maximum credit rating that can be assigned to a counterparty with a designated country of risk, are derived using methodologies generally consistent with those employed by external rating agencies.

The Group also reviews its credit exposure and risk to certain types of customers. At 31 December 2021, the Group's material credit exposure was to central clearing counterparties, corporate entities, financial institutions and sovereign-related entities.

*26.3.3 Risk mitigation*

The Credit Risk Management Department may seek to mitigate credit risk from its lending and trading activities in multiple ways, including collateral provisions, guarantees and hedges. At the transaction level, the Credit Risk Management Department seeks to mitigate risk through management of key risk elements such as size, tenor, financial covenants, seniority and collateral. The main types of collateral held are cash or similarly highly-liquid assets. The Group has internal policies on the acceptability of specific classes of collateral or credit risk mitigation. The Group closely monitors collateral held for financial assets considered to be credit-impaired, as in such cases it is considered more likely that the Group will take possession of collateral to mitigate potential credit losses. The Group actively hedges its lending and derivatives exposure through various financial instruments that may include single-name, portfolio and structured credit derivatives. Additionally, the Group may sell, assign or syndicate funded loans and lending commitments in the primary and secondary loan markets. In connection with its derivatives trading activities, the Group generally enters into master netting agreements and collateral arrangements with counterparties. These agreements provide the Group with the ability to demand collateral, to liquidate collateral and to offset receivables and payables covered under the same master agreement in the event of a counterparty default.

Securities purchased under agreements to resell and securities borrowed

The Group manages credit exposure arising from securities purchased under agreements to resell and securities borrowed transactions by, in appropriate circumstances, entering into master netting agreements and collateral agreements with counterparties that provide the Group, in the event of a counterparty default, with the right to net a counterparty's rights and obligations under such agreements and to liquidate and set off collateral held by the Group against the net amount owed by the counterparty. Under these securities purchased under agreements to resell and securities borrowed transactions, the Group receives collateral, including United States government and agency securities, other sovereign government obligations, corporate and other debt and corporate equities. The Group also monitors the fair value of the underlying securities as compared with the related receivable or payable, including accrued interest, and, as necessary, requests additional collateral to ensure such transactions are adequately collateralised.

Derivatives

The Group may seek to mitigate credit risk from its derivatives transactions in multiple ways, including documentation, collateral provisions, guarantees and hedges. At the transaction level, the Group seeks to mitigate risk through management of key risk elements such as size, tenor, financial covenants, seniority and collateral. The Group actively hedges its derivatives exposure through various financial instruments that may include single-name, portfolio and structured credit derivatives. The Group may enter into master netting agreements and collateral arrangements with counterparties. These master netting agreements and collateral arrangements may provide the Group with the ability to demand collateral, as well as to liquidate collateral and offset receivables and payables covered under the same master netting agreement in the event of counterparty default. The Group monitors the creditworthiness of counterparties to these transactions on an ongoing basis and requests additional collateral in accordance with collateral arrangements when deemed necessary.

*26.3.4 Exposure to credit risk*

The maximum exposure to credit risk ("gross credit exposure") of the Group and Company as at 31 December 2021 is disclosed on the following page, based on the carrying amounts of the financial assets and the maximum amount that the Group and Company could have to pay in relation to unrecognised financial instruments, which the Group and Company believes are subject to credit risk. The table includes financial instruments subject to ECL and not subject to ECL.

Where the Group or Company enters into credit enhancements, including receiving cash and security as collateral and master netting agreements, to manage the credit exposure on these financial instruments the financial effect of the credit enhancements is disclosed below. The net credit exposure represents the credit exposure remaining after the effect of the credit enhancements.

Trading financial assets are subject to traded credit risk through exposure to the issuer of the financial asset; the Group and Company manages this issuer credit risk through its market risk management infrastructure and this traded credit risk is incorporated within the VaR based risk measures included in the market risk disclosure. However, listed derivatives are included below as they are recognised as having credit risk exposure to central counterparties.

*Exposure to credit risk by class*

| | Group | | | | | |
|---|---|---|---|---|---|---|
| | 2021 | | | 2020 | | |
| Class in $ millions | Gross credit exposure | Credit enhance-ments | Net credit exposure(1) | Gross credit exposure | Credit enhance-ments | Net credit exposure(1) |
| **Subject to ECL:** | | | | | | |
| Cash and short-term deposits | 28,532 | - | 28,532 | 24,934 | (1,234) | 23,700 |
| Loans and advances | 67 | - | 67 | 99 | - | 99 |
| Trade and other receivables(2) | 78,069 | - | 78,069 | 81,079 | - | 81,079 |
| **Not subject to ECL:** | | | | | | |
| Trading financial assets: | | | | | | |
| Derivatives | 242,432 | (229,230) | 13,202 | 284,748 | (272,107) | 12,641 |
| Secured financing | 125,895 | (124,594) | 1,301 | 113,797 | (113,286) | 511 |
| Loans and advances | - | - | - | 17 | - | 17 |
| Trade and other receivables(2) | 993 | (777) | 216 | 1,654 | (1,386) | 268 |
| | 475,988 | (354,601) | 121,387 | 506,328 | (388,013) | 118,315 |
| **Unrecognised financial instruments** | | | | | | |
| **Subject to ECL:** | | | | | | |
| Loan commitments | - | - | - | 902 | - | 902 |
| Letters of credit | - | - | - | 102 | - | 102 |
| **Not subject to ECL:** | | | | | | |
| Loan commitments | 121 | (2) | 119 | 864 | (459) | 405 |
| Guarantees | - | - | - | - | - | - |
| Unsettled securities purchased under agreements to resell(3) | 34,493 | - | 34,493 | 32,614 | - | 32,614 |
| Total unrecognised financial instruments | 34,614 | (2) | 34,612 | 34,482 | (459) | 34,023 |
| | 510,602 | (354,603) | 155,999 | 540,810 | (388,472) | 152,338 |

(1) Of the residual net credit exposure, intercompany cross product netting arrangements are in place which would allow Group an additional $7,041 million of an available $31,977 million (31 December 2020: $5,287 million of an available $29,997 million) to be offset in the event of default by certain Morgan Stanley counterparties.

(2) Trade and other receivables primarily include cash collateral pledged against the payable on OTC derivative positions. These derivative liabilities are included within trading financial liabilities in the consolidated statement of financial position.

(3) For unsettled securities purchased under agreements to resell, collateral in the form of securities will be received at the point of settlement. Since the value of collateral is determined at a future date, it is currently unquantifiable and not included in the table.

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*Exposure to credit risk by class*

| | Company | | | | | |
|---|---|---|---|---|---|---|
| | 2021 | | | 2020 | | |
| **Class in $ millions** | **Gross credit exposure** | **Credit enhance-ments** | **Net credit exposure**(1) | **Gross credit exposure** | **Credit enhance-ments** | **Net credit exposure**(1) |
| **Subject to ECL:** | | | | | | |
| Cash and short-term deposits | 28,218 | - | 28,218 | 24,629 | (1,234) | 23,395 |
| Loans and advances | 26 | - | 26 | 15 | - | 15 |
| Trade and other receivables(2) | 78,144 | - | 78,144 | 81,173 | - | 81,173 |
| **Not subject to ECL:** | | | | | | |
| Trading financial assets | | | | | | |
| Derivatives | 242,445 | (229,243) | 13,202 | 284,748 | (272,107) | 12,641 |
| Secured financing | 125,695 | (124,394) | 1,301 | 113,797 | (113,286) | 511 |
| Loans and advances | - | - | - | 17 | - | 17 |
| Trade and other receivables(2) | 993 | (777) | 216 | 1,654 | (1,386) | 268 |
| | 475,521 | (354,414) | 121,107 | 506,033 | (388,013) | 118,020 |
| **Unrecognised financial instruments** | | | | | | |
| **Subject to ECL:** | | | | | | |
| Loan commitments | - | - | - | 902 | - | 902 |
| Letters of credit | - | - | - | 102 | - | 102 |
| **Not subject to ECL:** | | | | | | |
| Loan commitments | 121 | (2) | 119 | 864 | (459) | 405 |
| Unsettled securities purchased under agreements to resell(3) | 34,493 | - | 34,493 | 32,614 | - | 32,614 |
| Total unrecognised financial instruments | 34,614 | (2) | 34,612 | 34,482 | (459) | 34,023 |
| | 510,135 | (354,416) | 155,719 | 540,515 | (388,472) | 152,043 |

(1) Of the residual net credit exposure, intercompany cross product netting arrangements are in place which would allow an additional $7,039 million of an available $31,956 million (31 December 2020: $5,224 million of an available $29,992 million) to be offset in the event of default by certain Morgan Stanley counterparties.

(2) Trade and other receivables primarily include cash collateral pledged against the payable on OTC derivative positions. These derivative liabilities are included within trading financial liabilities in the statement of financial position

(3) For unsettled securities purchased under agreements to resell, collateral in the form of securities will be received at the point of settlement. Since the value of collateral is determined at a future date, it is currently unquantifiable and not included in the table

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
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The impact of master netting arrangements and similar agreements on the Group's ability to offset financial assets and financial liabilities is disclosed in note 29.

*Exposure to credit risk by internal rating grades*

Internal credit ratings are derived using methodologies generally consistent with those used by external agencies:

Investment grade: AAA - BBB

Non-investment grade: BB – CCC

Default: D

The table below presents gross carrying/ nominal amount by internal rating grade. All exposures subject to ECL are Stage 1, unless otherwise shown. For the unrated trade receivable balances, a lifetime ECL is always calculated without considering whether SICR has occurred.

**Group**

| 31 December 2021 in $ millions | Investment Grade AAA | AA | A | BBB | Non-Investment Grade | Unrated(1)/ Default | Total | Net of ECL |
|---|---|---|---|---|---|---|---|---|
| **Subject to ECL:** | | | | | | | | |
| Cash and short term deposit | 6,516 | 9,272 | 11,831 | 852 | 61 | - | 28,532 | 28,532 |
| Loans and advances | | | | | | | | |
| Stage 1 | - | - | 67 | - | - | - | 67 | 67 |
| Trade and other receivables | | | | | | | | |
| Stage 1 | 1,544 | 5,203 | 47,597 | 12,139 | 8,536 | 3,016 | 78,035 | 78,035 |
| Stage 3 | 2 | 2 | 2 | 7 | - | 26 | 39 | 34 |
| | **8,062** | **14,477** | **59,497** | **12,998** | **8,597** | **3,042** | **106,673** | **106,668** |
| **Not subject to ECL:** | | | | | | | | |
| Trading financial assets - derivatives | 2,457 | 20,476 | 155,689 | 52,764 | 11,016 | 30 | 242,432 | 242,432 |
| Secured financing | 2,324 | 37,965 | 68,978 | 11,816 | 4,765 | 47 | 125,895 | 125,895 |
| Trade and other receivables | - | - | 445 | - | 545 | 3 | 993 | 993 |
| | **4,781** | **58,441** | **225,112** | **64,580** | **16,326** | **80** | **369,320** | **369,320** |
| **Unrecognised financial instruments not subject to ECL:** | | | | | | | | |
| Unsettled securities purchased under agreements to resell | - | 26,419 | 1,374 | 5,295 | 1,405 | - | 34,493 | 34,493 |
| Loan commitments | - | - | - | - | 27 | 94 | 121 | 121 |
| | **-** | **26,419** | **1,374** | **5,295** | **1,432** | **94** | **34,614** | **34,614** |

(1) For the unrated trade receivables, a lifetime ECL is always calculated without considering whether SICR has occurred.

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**Group**

| 31 December 2020 in $ millions | AAA | Investment Grade AA | A | BBB | Non-Investment Grade | Unrated[(1)] /Default | Total | Net of ECL |
|---|---|---|---|---|---|---|---|---|
| **Subject to ECL:** | | | | | | | | |
| Cash and short term deposit | - | 9,915 | 10,771 | 4,132 | 116 | - | 24,934 | 24,934 |
| Loans and advances | | | | | | | | |
| Stage 1 | - | - | 59 | 34 | 3 | - | 96 | 96 |
| Stage 2 | - | - | - | - | 4 | - | 4 | 3 |
| Trade and other receivables | | | | | | | | |
| Stage 1 | 3,293 | 4,424 | 41,879 | 14,866 | 12,205 | 4,396 | 81,063 | 81,063 |
| Stage 3 | 2 | 2 | 2 | 4 | 3 | 8 | 21 | 16 |
| | **3,295** | **14,341** | **52,711** | **19,036** | **12,331** | **4,404** | **106,118** | **106,112** |
| **Not subject to ECL:** | | | | | | | | |
| Trading financial assets - derivatives | 4,969 | 17,334 | 174,110 | 71,556 | 16,732 | 47 | 284,748 | 284,748 |
| Secured financing | 945 | 34,355 | 40,218 | 34,592 | 3,685 | 2 | 113,797 | 113,797 |
| Loans and advances | - | - | - | - | 9 | 8 | 17 | 17 |
| Trade and other receivables | - | 38 | 525 | - | 1,091 | - | 1,654 | 1,654 |
| | **5,914** | **51,727** | **214,853** | **106,148** | **21,517** | **57** | **400,216** | **400,216** |
| **Unrecognised financial instruments subject to ECL:** | | | | | | | | |
| Loan commitments | | | | | | | | |
| Stage 1 | - | 226 | 319 | 243 | 42 | - | 830 | 830 |
| Stage 2 | - | - | - | - | 72 | - | 72 | 72 |
| Letters of credit | - | - | 102 | - | - | - | 102 | 102 |
| | **-** | **226** | **421** | **243** | **114** | **-** | **1,004** | **1,004** |
| **Unrecognised financial instruments not subject to ECL:** | | | | | | | | |
| Unsettled securities purchased under agreements to resell | - | 25,566 | 1,529 | 5,365 | 154 | - | 32,614 | 32,614 |
| Loan commitments | - | 147 | 377 | 170 | 163 | 7 | 864 | 864 |
| | **-** | **25,713** | **1,906** | **5,535** | **317** | **7** | **33,478** | **33,478** |

(1) For the unrated trade receivables, a lifetime ECL is always calculated without considering whether SICR has occurred.

**Company**

| 31 December 2021 in $ millions | Investment Grade AAA | AA | A | BBB | Non-Investment Grade | Unrated[(1)]/ Default | Total | Net of ECL |
|---|---|---|---|---|---|---|---|---|
| **Subject to ECL:** | | | | | | | | |
| Cash and short term deposits | 6,516 | 9,272 | 11,577 | 792 | 61 | - | 28,218 | 28,218 |
| Loans and advances | | | | | | | | |
| Stage 1 | - | - | 26 | - | - | - | 26 | 26 |
| Trade and other receivables | | | | | | | | |
| Stage 1 | 1,544 | 5,203 | 47,690 | 12,139 | 8,536 | 2,998 | 78,110 | 78,110 |
| Stage 3 | 2 | 2 | 2 | 7 | - | 26 | 39 | 34 |
| | **8,062** | **14,477** | **59,295** | **12,938** | **8,598** | **3,024** | **106,393** | **106,388** |
| **Not subject to ECL:** | | | | | | | | |
| Trading financial assets – derivatives | 2,457 | 20,477 | 155,697 | 52,767 | 11,017 | 30 | 242,445 | 242,445 |
| Secured financing | 2,324 | 37,965 | 68,778 | 11,816 | 4,765 | 47 | 125,695 | 125,695 |
| Trade and other receivables | - | - | 445 | - | 545 | 3 | 993 | 993 |
| | **4,781** | **58,442** | **224,920** | **64,583** | **16,327** | **80** | **369,133** | **369,133** |
| **Unrecognised financial instruments not subject to ECL:** | | | | | | | | |
| Unsettled securities purchased under agreements to resell | - | 26,419 | 1,374 | 5,295 | 1,405 | - | 34,493 | 34,493 |
| Loan commitments | - | - | - | - | 27 | 94 | 121 | 121 |
| | **-** | **26,419** | **1,374** | **5,295** | **1,432** | **94** | **34,614** | **34,614** |

(1) For the unrated trade receivables, a lifetime ECL is always calculated without considering whether SICR has occurred.

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**Company**

| 31 December 2020 in $ millions | Investment grade AAA | AA | A | BBB | Non-Investment Grade | Unrated(1)/ Default (2) | Total | Net of ECL |
|---|---|---|---|---|---|---|---|---|
| **Subject to ECL:** | | | | | | | | |
| Cash and short term deposit | - | 9,912 | 10,604 | 3,997 | 116 | - | 24,629 | 24,629 |
| Loans and advances | | | | | | | | |
| Stage 1 | - | - | 2 | 6 | 4 | - | 12 | 12 |
| Stage 2 | - | - | - | - | 4 | - | 4 | 3 |
| Trade and other receivables | | | | | | | | |
| Stage 1 | 3,293 | 4,424 | 41,824 | 15,030 | 12,207 | 4,379 | 81,157 | 81,157 |
| Stage 3 | 2 | 2 | 2 | 4 | 3 | 8 | 21 | 16 |
| **Total subject to ECL** | **3,295** | **14,338** | **52,432** | **19,037** | **12,334** | **4,387** | **105,823** | **105,817** |
| **Not subject to ECL:** | | | | | | | | |
| Trading financial assets - derivatives | 4,969 | 17,334 | 174,110 | 71,556 | 16,732 | 47 | 284,748 | 284,748 |
| Secured financing | 945 | 34,355 | 40,218 | 34,592 | 3,685 | 2 | 113,797 | 113,797 |
| Loans and advances | - | - | - | - | 9 | 8 | 17 | 17 |
| Trade and other receivables | - | 38 | 525 | - | 1,091 | - | 1,654 | 1,654 |
| | **5,914** | **51,727** | **214,853** | **106,148** | **21,517** | **57** | **400,216** | **400,216** |
| **Unrecognised financial instruments subject to ECL:** | | | | | | | | |
| Loan commitments | | | | | | | | |
| Stage 1 | - | 226 | 319 | 243 | 42 | - | 830 | 830 |
| Stage 2 | - | - | - | - | 72 | - | 72 | 72 |
| Letters of credit | - | - | 102 | - | - | - | 102 | 102 |
| | **-** | **226** | **421** | **243** | **114** | **-** | **1,004** | **1,004** |
| **Total unrecognised financial instruments not subject to ECL:** | | | | | | | | |
| Unsettled securities purchased under agreements to resell | - | 25,566 | 1,529 | 5,365 | 154 | - | 32,614 | 32,614 |
| Loan commitments | - | 147 | 377 | 170 | 163 | 7 | 864 | 864 |
| | **-** | **25,713** | **1,906** | **5,535** | **317** | **7** | **33,478** | **33,478** |

(1) For the unrated trade receivables, a lifetime ECL is always calculated without considering whether SICR has occurred.

**26.4 Liquidity and funding risk**

Liquidity and funding risk refers to the risk that the Group will be unable to finance its operations due to a loss of access to the capital markets or difficulty in liquidating its assets. Liquidity and funding risk also encompasses the Group's ability to meet its financial obligations without experiencing significant business disruption or reputational damage that may threaten its viability as a going concern.

Additional information on liquidity and funding risk management is presented in the Strategic Report and forms part of the audited financial statements.

*26.4.1 Required Liquidity Framework*

The Morgan Stanley Group's Liquidity Risk Management Framework is critical to helping ensure that the Group maintains sufficient liquidity reserves and durable funding sources to meet its daily obligations and to withstand unanticipated stress events. The core components of the Liquidity Risk Management Framework are the Required Liquidity Framework, which considers Liquidity Stress Tests and Liquidity Resources, and a comprehensive set of Liquidity and Funding limits.

The Required Liquidity Framework establishes the amount of liquidity the Company must hold in both normal and stressed environments to ensure that the entity's financial condition and overall soundness are not adversely affected by an inability (or perceived inability) to meet financial obligations in a timely manner. The Required Liquidity Framework ensures the entity holds sufficient liquidity to meet both the regulatory and internal stress test requirements at the legal entity level.

The Company's Liquidity Stress Tests model external and intercompany liquidity flows across multiple scenarios over a range of time horizons. These scenarios contain various combinations of idiosyncratic and systemic stress events of different severity and duration. The methodology, implementation, production and analysis of the Liquidity Stress Tests are important components of the Liquidity Risk Management Framework.

The Company maintains sufficient Liquidity Resources to cover daily funding needs and to meet strategic liquidity targets sized by the Required Liquidity Framework and Liquidity Stress Tests. The total amount of Liquidity Resources is actively managed considering the following components: maturity profile, balance sheet size and composition; funding needs in a stressed environment, inclusive of contingent cash outflows; funding currency, collateral requirements and regulatory requirements.

*26.4.2 Liquidity and Funding limits*

The Company has a comprehensive set of limits, KRIs and targets to manage liquidity risk within the defined liquidity risk appetite. The Liquidity Risk limit and KRI framework is owned by LRD, who then recommend and set the Company's liquidity risk limits and KRIs taking into consideration the capital structure, risk profile, complexity, activities and size. LRD maintains limits at various levels of governance structure to support linkages between overall risk tolerance, which is determined by the MSI Board, and more granular risk-taking decisions and activities. Liquidity limits are set to mitigate various risk drivers, e.g. Minimum Liquidity requirements, Minimum Cash requirements, Secured Funding, Unsecured funding, Prime Brokerage, Derivatives, FX and Currency risk.

LRD ensures transparency of material liquidity and funding risks, compliance with established risk limits and KRIs as well as escalation of risk concentrations to appropriate senior management. The liquidity and funding risk metrics and limits are summarised in reports produced by LRD that are circulated to and discussed with the EMEA Asset and Liability Committee ("ALCO"), EMEA Risk Committee and the MSI Risk Committee as appropriate.

*26.4.3 Maturity analysis*

In the following maturity analysis of financial liabilities, derivative contracts and other financial liabilities held as part of the Group and Company's trading activities are presented at fair value, consistent with how these financial liabilities are managed, and disclosed as on demand. Derivatives not held as part of the Group's trading activities and financial liabilities designated at fair value through profit or loss which contain an embedded derivative are disclosed according to their earliest contractual maturity; all such amounts are presented at their fair value, consistent with how these financial liabilities are managed. All other amounts represent undiscounted cash flows payable by the Group or Company arising from its financial liabilities to their earliest contractual maturities as at 31 December 2021 and 31 December 2020. Repayments of financial liabilities that are subject to immediate notice are treated as if notice were given immediately and are classified as on demand. This presentation is considered by the Group and Company to appropriately reflect the liquidity risk arising from those financial liabilities, and is consistent with how the liquidity risk on these financial liabilities is managed by the Group and Company.

| Group<br>31 December 2021 in $millions | On demand | Less than 1 month | 1 month - 3 months | 3 months - 1 year | 1 year - 5 years | Greater than 5 years | Total |
|---|---|---|---|---|---|---|---|
| **Financial liabilities** | | | | | | | |
| Bank loans and overdrafts | 48 | - | - | - | - | - | 48 |
| Trading financial liabilities: | | | | | | | |
| Derivatives | 247,518 | - | - | - | - | - | 247,518 |
| Other | 52,807 | - | - | - | - | - | 52,807 |
| Secured borrowing | 67,880 | 14,392 | 3,739 | 6,574 | 4,492 | 221 | 97,298 |
| Trade and other payables | 92,897 | 55 | 10 | 258 | 407 | 47 | 93,674 |
| Debt and other borrowings | 1,035 | 194 | 2,321 | 1,747 | 43,926 | 5,160 | 54,383 |
| **Total financial liabilities** | 462,185 | 14,641 | 6,070 | 8,579 | 48,825 | 5,428 | 545,728 |
| Guarantees | 348 | - | - | - | - | - | 348 |
| Letters of credit | - | - | - | - | - | - | - |
| Loan commitments | 121 | - | - | - | - | - | 121 |
| Other commitments | 37 | - | - | - | - | - | 37 |
| Underwriting commitments | - | - | - | - | - | - | - |
| Unsettled securities purchased under agreements to resell(1) | 32,922 | 1,227 | - | 345 | - | - | 34,494 |
| **Total unrecognised financial instruments** | 33,428 | 1,227 | - | 345 | - | - | 35,000 |
| **31 December 2020** | | | | | | | |
| Bank loans and overdrafts | 1 | - | - | - | - | - | 1 |
| Trading financial liabilities: | | | | | | | |
| Derivatives | 288,308 | - | - | - | - | - | 288,308 |
| Other | 52,084 | - | - | - | - | - | 52,084 |
| Secured borrowing | 70,699 | 11,612 | 444 | 3,355 | 2,262 | - | 88,372 |
| Trade and other payables | 91,055 | 1 | - | 281 | 498 | - | 91,835 |
| Debt and other borrowings | 807 | 147 | 18,172 | 1,497 | 26,283 | 9,312 | 56,218 |
| **Total financial liabilities** | 502,954 | 11,760 | 18,616 | 5,133 | 29,043 | 9,312 | 576,818 |
| **Unrecognised financial instruments** | | | | | | | |
| Guarantees | 395 | - | - | - | - | - | 395 |
| Letters of credit | - | - | - | - | 102 | - | 102 |
| Loan commitments | 1,766 | - | - | - | - | - | 1,766 |
| Other commitments | 145 | - | - | - | - | - | 145 |
| Underwriting commitments | - | - | - | 3,037 | - | - | 3,037 |
| Unsettled securities purchased under agreements to resell(1) | 32,371 | - | - | 243 | - | - | 32,614 |
| **Total unrecognised financial instruments** | 34,677 | - | - | 3,280 | 102 | - | 38,059 |

(1) The Group enters into forward starting reverse repurchase agreements (agreements which have a trade date at or prior to 31 December 2021 and settle subsequent to period end). These agreements primarily settle within three business days and of the total amount at 31 December 2021, $32,922 million (31 December 2020: $32,371 million) settled within three business days.

MORGAN STANLEY & CO. INTERNATIONAL plc

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
## Year ended 31 December 2021

**Company**

| 31 December 2021 | On demand | Less than 1 month | 1 month - 3 months | 3 months - 1 year | 1 year - 5 years | Greater than 5 years | Total |
|---|---|---|---|---|---|---|---|
| **Financial liabilities** | | | | | | | |
| Bank loans and overdrafts | 48 | - | - | - | - | - | 48 |
| Trading financial liabilities: | | | | | | | |
| Derivatives | 247,518 | - | - | - | - | - | 247,518 |
| Other | 52,807 | - | - | - | - | - | 52,807 |
| Secured borrowing | 67,880 | 14,392 | 3,739 | 6,574 | 4,304 | - | 96,889 |
| Trade and other payables | 92,923 | 55 | 10 | 258 | 407 | 47 | 93,700 |
| Debt and other borrowings | 1,035 | 194 | 2,321 | 1,747 | 43,710 | 5,160 | 54,167 |
| **Total financial liabilities** | 462,211 | 14,641 | 6,070 | 8,579 | 48,421 | 5,207 | 545,129 |
| **Unrecognised financial instruments** | | | | | | | |
| Guarantees | 348 | - | - | - | - | - | 348 |
| Letters of credit | - | - | - | - | - | - | - |
| Loan commitments | 121 | - | - | - | - | - | 121 |
| Other commitments | 37 | - | - | - | - | - | 37 |
| Underwriting commitments | - | - | - | - | - | - | - |
| Unsettled securities purchased under agreements to resell(1) | 32,922 | 1,227 | - | 345 | - | - | 34,494 |
| **Total unrecognised financial instruments** | 33,428 | 1,227 | - | 345 | - | - | 35,000 |
| **31 December 2020** | | | | | | | |
| **Financial liabilities** | | | | | | | |
| Bank loans and overdrafts | 1 | - | - | - | - | - | 1 |
| Derivatives | 288,308 | - | - | - | - | - | 288,308 |
| Other | 52,084 | - | - | - | - | - | 52,084 |
| Secured borrowing | 70,699 | 11,612 | 444 | 3,355 | 2,262 | - | 88,372 |
| Trade and other payables | 91,042 | 1 | - | 281 | 498 | - | 91,822 |
| Debt and other borrowings | 807 | 147 | 18,172 | 1,491 | 26,035 | 9,312 | 55,964 |
| **Total financial liabilities** | 502,941 | 11,760 | 18,616 | 5,127 | 28,795 | 9,312 | 576,551 |
| **Unrecognised financial instruments** | | | | | | | |
| Guarantees | 395 | - | - | - | - | - | 395 |
| Letters of credit | - | - | - | - | 102 | - | 102 |
| Loan commitments | 1,766 | - | - | - | - | - | 1,766 |
| Other commitments | 145 | - | - | - | - | - | 145 |
| Underwriting commitments | - | - | - | 3,037 | - | - | 3,037 |
| Unsettled securities purchased under agreements to resell(1) | 32,371 | - | - | 243 | - | - | 32,614 |
| **Total unrecognised financial instruments** | 34,677 | - | - | 3,280 | 102 | - | 38,059 |

(1) The Company enters into forward starting reverse repurchase agreements (agreements which have a trade date at or prior to 31 December 2021 and settle subsequent to period end). These agreements primarily settle within three business days and of the total amount at 31 December 2021, $32,922 million (31 December 2020: $32,371 million) settled within three business days.

The Group does not expect that all of the cash flows associated with financial guarantees, letters of credits and loan commitments will be required.

**26.5 Operational risk**

*26.5.1 Risk management and measurement*

The Group has implemented operational risk data and assessment systems to monitor and analyse internal and external operational risk events, to assess business environment and internal control factors and to perform scenario analysis. The collected data elements are incorporated in the operational risk capital model. The model encompasses both quantitative and qualitative elements. Internal loss data and scenario analysis results are direct inputs to the capital model, while external operational incidents, business environment and internal control factors are evaluated as part of the scenario analysis process.

*26.5.2 Risk mitigation*

The Group employs a variety of risk processes and mitigants to manage its operational risk exposures. These include a governance framework, a comprehensive risk management program and insurance. Operational risks and associated risk exposures are assessed relative to the risk tolerance established by the Board and are prioritised accordingly.

The breadth and variety of operational risks are such that the types of mitigating activities are wide-ranging. Examples of such activities include continuous enhancement of defences against cyberattacks; use of legal agreements and contracts to transfer and/or limit operational risk exposures; due diligence; implementation of enhanced policies and procedures; exception management processing controls; and segregation of duties.

Operational Risk Management Framework requires, among other things, policies and procedures to record properly and verify a large number of transactions and events, however at times, these policies and procedures may not be fully effective. The Group's trading risk management strategies and techniques seek to balance the ability to profit from trading positions with exposure to potential losses.

Primary responsibility for the management of operational risk is with the business segments, the control groups and the business managers therein. The business managers maintain processes and controls designed to identify, assess, manage, mitigate and report operational risk. Each of the business segments has a designated operational risk coordinator. The operational risk coordinator regularly reviews operational risk issues and reports to the Group's senior management within each business. Each control group also has a designated operational risk coordinator and a forum for discussing operational risk matters with the Group's senior management. Oversight of operational risk is provided by the Operational Risk Oversight Committee, regional risk committees and senior management. In the event of a merger; joint venture; divestiture; reorganisation; or creation of a new legal entity, a new product or a business activity, operational risks are considered, and any necessary changes in processes or controls are implemented.

The Operational Risk Department provides independent oversight of operational risk and assesses, measures and monitors operational risk against tolerance. The Operational Risk Department works with the business divisions and control groups to help ensure a transparent, consistent and comprehensive framework for managing operational risk within each area and across the Group.

The Operational Risk Department scope includes oversight of technology risk, cybersecurity risk, information security risk, the fraud risk management and prevention program and the third party risk management (supplier and affiliate risk oversight and assessment) program. Furthermore, the Operational Risk Department supports the collection and reporting of operational risk incidents and the execution of operational risk assessments; provides the infrastructure needed for risk measurement and risk management; and ensures ongoing validation and verification of the Group's advanced measurement approach for operational risk capital.

*26.5.3 Business Continuity Management and Disaster Recovery*

The Fusion Resilience Centre's mission is to understand, prepare for, respond to, recover and learn from operational threats and incidents that impact the Morgan Stanley Group, from cyber and fraud to technology incidents, climate related events, terror attack, geopolitical unrest and pandemics. The Group's business continuity and disaster recovery programs are designed to provide assurance of business continuity in the event of disruptions impacting people, technology, facilities and third parties, and to comply with regulatory requirements. The key elements of these programs include crisis management, business continuity planning, disaster recovery, testing and verification, and process improvement. Business units within the Morgan Stanley Group maintain business continuity plans, including identifying processes and strategies to continue business critical processes during a business continuity incident. Business units also test the documented plans to provide a reasonable expectation that, during a business continuity incident, the business unit will be able to continue its critical business processes and limit the impact of the incident to the Morgan Stanley Group and its clients. Technical recovery plans are maintained for critical technology assets and detail the steps to be implemented to recover in the event of a disruption impacting the assets' primary location. Disaster recovery testing is performed to validate the recovery capability of these critical technology assets.

*26.5.4 Third-party Risk Management*

In connection with its ongoing operations, the Group utilises third party suppliers and anticipates that such usage will continue and may increase in the future. These services include, for example, outsourced processing and support functions and consulting and other professional services. The Group's risk-based approach to managing exposure to these services includes the execution of due diligence, implementation of service level and other contractual agreements, consideration of operational risks and ongoing monitoring of 'third party suppliers' performance. The Group maintains a third party risk program which is designed to align with the Group's risk tolerance and meet regulatory requirements. The program includes governance, policies, procedures, and enabling technology. The third-party risk program includes the adoption of risk management controls and practices throughout the third-party management lifecycle, to manage risk of service failure, risk of data loss and reputational risk, among others.

*26.5.5 Cyber and Information Security Risk Management*

The Group maintains a program that oversees its cyber and information security risks. Cybersecurity and information security policies, procedures and technologies are designed to protect the Group's information assets against unauthorised disclosure, modification or misuse and are also designed to address regulatory requirements. 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, an information or security breach or a technology failure could adversely affect the Morgan Stanley Group's ability to conduct business, manage exposure to risk or 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.

The Group maintains a significant amount of personal information on customers, clients, employees and certain counterparties that it is required to protect under various data protection and privacy laws.

These laws may be in conflict with one another, or courts and regulators may interpret them in ways that the Group had not anticipated or that adversely affects its business.

Cybersecurity risks for financial institutions have significantly increased in recent years in part because of the proliferation of new technologies, the use of the internet, mobile telecommunications and cloud technologies to conduct financial transactions, and the increased sophistication and activities of organised crime, hackers, terrorists and other external extremist parties, including foreign state actors, in some circumstances as a means to promote political ends.

In addition to the growing sophistication of certain parties, the commoditisation of cyber tools which are able to be weaponised by less sophisticated actors has led to an increase in the exploitation of technological vulnerabilities. Further, foreign state actors have become more sophisticated over time, increasing the risk of such an attack. Any of these parties may also attempt to fraudulently induce employees, customers, clients, vendors or other third parties or users of Morgan Stanley Group systems.

Cybersecurity risks may also derive from human error, fraud or malice on the part of employees or third parties, including third party providers, or may result from accidental technological failure. These risks may be heightened by the COVID-19 pandemic, which has caused the majority of employees to work remotely and access Morgan Stanley Group secure networks through their home networks.

There is no guarantee that the measures the Morgan Stanley Group takes will provide absolute security or recoverability given the techniques used in cyber attacks are complex and frequently change, and may not be able to be anticipated.

Like other financial services firms, the Morgan Stanley Group, its third party providers, and its clients continue to be the subject of unauthorised access attacks, mishandling or misuse of information, computer viruses or malware, and cyber attacks.

Such events could cause interruptions or malfunctions in the Group's, its clients', employees', partners', vendors', counterparties' or third parties' operations, as well as the unauthorised release, gathering, monitoring, misuse, loss or destruction of confidential, proprietary and other information of the Group, its employees, its customers or of other third parties. Any of these events could result in reputational damage with the Group's clients and the market, client dissatisfaction, additional costs to the Group to maintain and update its operational and security systems and infrastructure, regulatory investigations, litigation or enforcement, or regulatory fines or penalties, any of which could adversely affect the Group's business, financial condition or results of operations.

Given the Morgan Stanley Group's global footprint and the high volume of transactions processed, the large number of clients, partners, vendors and counterparties with which it does business, and the increasing sophistication of cyber attacks, an information or security breach could occur and persist for an extended period of time without detection.

The Group expects that any investigation of a cyber attack would be inherently unpredictable and that it would take time before the completion of any investigation and before there is availability of full and reliable information. During such time the Group would not necessarily know the extent of the harm or how best to remediate it, and certain errors or actions could be repeated or compounded before they are discovered and remediated, all or any of which would further increase the costs and consequences of a cyber attack.

While many of the Morgan Stanley Group's agreements with partners and third party vendors include indemnification provisions, the Group may not be able to recover sufficiently, or at all, under such provisions to adequately offset any losses it may incur. In addition, although the Morgan Stanley Group maintains insurance coverage that may, subject to policy terms and conditions, cover certain aspects of cyber and information security risks, such insurance coverage may be insufficient to cover all losses.

The Morgan Stanley Group continues to make investments with a view toward maintaining and enhancing its cybersecurity posture. The cost of managing cyber and information security risks and attacks along with complying with new, increasingly expansive, and evolving regulatory requirements could adversely affect the results of operations and business.

## 27. TRANSFERS OF FINANCIAL ASSETS, INCLUDING PLEDGES OF COLLATERAL

**Transferred financial assets that are not derecognised in their entirety**

In the ordinary course of business, the Group and Company enter into various arrangements including selling securities under agreements to repurchase, purchasing securities under agreements to resell, securities borrowed and securities loaned to, amongst other things, acquire securities to cover short positions and settle other securities obligations, to accommodate customers' needs and to finance the Group and Company's inventory positions.

The Group and Company pledges certain financial instruments to collateralise repurchase agreements and other securities financings. Pledged financial instruments that can be sold or repledged by the secured party are identified as trading financial instruments (pledged to various parties) in the statement of financial position. The Group and Company has determined that it retains substantially all the risks and rewards of these financial instruments including credit risk, settlement risk, country risk and market risk, and therefore has not derecognised them. In addition, it recognises a financial liability in respect of the consideration received.

Other financial assets transferred that continue to be recognised for accounting purposes include pledges of securities as collateral for derivative transactions or otherwise, as well as certain sales of securities with related transactions, such as derivatives, that result in the Group and Company retaining substantially all the risks and rewards of the financial assets transferred. In addition, the Group and Company recognise a financial liability in respect of the consideration received.

These transactions are generally conducted under standard agreements used by financial market participants and are undertaken with counterparties subject to the Group and Company's normal credit risk control processes. The resulting credit exposures are controlled by daily monitoring and collateralisation of the positions. The carrying amount of the associated financial liabilities related to financial assets transferred that continue to be recognised is $43,820 million (2020: $45,411 million).

The following table presents those financial assets which have been sold or otherwise transferred, but which for accounting purposes remain recognised in the statement of financial position. Positions presented below show long positions gross of short positions in the same security, whilst the statement of financial position presents long and short positions in the same security on a net basis.

There was no difference between Company and Group in respect of the assets presented below at 31 December 2021 or 31 December 2020.

| $millions | 2021 | 2020 |
|---|---|---|
| **Trading financial assets** | | |
| Debt securities | 20,438 | 20,314 |
| Equity instruments | 41,407 | 45,819 |
| | 61,845 | 66,133 |

## 28. FINANCIAL ASSETS ACCEPTED AS COLLATERAL

The Group and Company's policy is generally to take possession of securities received as collateral, securities purchased under agreements to resell and securities borrowed. The Group and Company monitors the fair value of the underlying securities as compared with the related receivable or payable, including accrued interest, and, as necessary, requests additional collateral to ensure such transactions are adequately collateralised. Where deemed appropriate, the Group and Company agreements with third parties specify its rights to request additional collateral. These transactions are generally conducted under standard documentation used by financial market participants.

The fair value of collateral accepted under these arrangements for Group and Company as at 31 December 2021 was $304,194 million (2020: $312,691 million). Of this amount $261,805 million (2020: $266,921 million) has been sold or repledged to third parties in connection with financing activities, or to comply with commitments under short sale transactions.

**29. FINANCIAL ASSETS AND FINANCIAL LIABILITIES SUBJECT TO OFFSETTING**

In order to manage credit exposure arising from its business activities, the Group and Company applies various credit risk management policies and procedures, see note 26 for further details. Primarily in connection with securities purchased under agreements to resell and securities sold under agreements to repurchase, securities borrowed and securities loaned transactions and derivative transactions, the Group and Company enter into master netting arrangements and collateral arrangements with their counterparties. These agreements provide the Group and Company with the right, in the ordinary course of business and/ or in the event of a counterparty default (such as bankruptcy or a counterparty's failure to pay or perform), to net a counterparty's rights and obligations under such agreement and, in the event of counterparty default, set off collateral held by the Group or Company against the net amount owed by the counterparty.

However, in certain circumstances, the Group and Company may not have such an agreement in place; the relevant insolvency regime (which is based on type of counterparty of the entity and the jurisdiction of organisation of the counterparty) may not support the enforceability of the agreement; or the Group and Company may not have sought legal advice to support the enforceability of the agreement.

In the statement of financial position, financial assets and financial liabilities are only offset and presented on a net basis where there is a current legally enforceable right to set off the recognised amounts and an intention to either settle on a net basis or to realise the asset and the liability simultaneously. In the absence of such conditions, financial assets and financial liabilities are presented on a gross basis.

The following tables present information about the offsetting of financial instruments and related collateral amounts. The tables do not include information about financial instruments that are subject only to a collateral agreement. The effect of master netting arrangements, collateral agreements and other credit enhancements, on the Group and Company's exposure to credit risk is disclosed in note 26.

| Group | | | | Amounts not offset[3] Collateralised by: | | | Not subject to legally enforceable master netting agreement |
|---|---|---|---|---|---|---|---|
| in $ millions | Gross amounts | Amounts offset[1] | Net amounts | Financial instruments | Cash collateral [2] | Net exposure[4] | |
| **31 December 2021** | | | | | | | |
| Secured Financing: | | | | | | | |
| Cash collateral on securities borrowed | 27,615 | (8,255) | 19,360 | (18,953) | - | 407 | 95 |
| Securities purchased under agreement to resell | 139,115 | (48,819) | 90,296 | (89,402) | - | 894 | 857 |
| Trading financial assets - derivatives | 319,019 | (76,587) | 242,432 | (208,784) | (20,446) | 13,202 | 2,398 |
| **TOTAL ASSETS AS AT 31 DECEMBER 2021** | 485,749 | (133,661) | 352,088 | (317,139) | (20,446) | 14,503 | 3,350 |
| Secured borrowing: | | | | | | | |
| Cash collateral on securities loaned | 37,758 | (8,255) | 29,503 | (29,492) | - | 11 | - |
| Securities sold under agreement to repurchase | 93,366 | (48,818) | 44,548 | (43,814) | - | 734 | 641 |
| Trading financial liabilities - derivatives | 325,128 | (77,610) | 247,518 | (205,666) | (30,488) | 11,364 | 3,257 |
| **TOTAL LIABILITIES AS AT 31 DECEMBER 2021** | 456,252 | (134,683) | 321,569 | (278,972) | (30,488) | 12,109 | 3,898 |
| **31 December 2020** | | | | | | | |
| Secured Financing: | | | | | | | |
| Cash collateral on securities borrowed | 37,837 | (7,659) | 30,178 | (29,740) | - | 438 | 147 |
| Securities purchased under agreement to resell | 127,675 | (57,028) | 70,647 | (70,574) | - | 73 | 73 |
| Trading financial assets derivatives | 404,768 | (120,020) | 284,748 | (239,647) | (31,690) | 13,411 | 2,411 |
| **TOTAL ASSETS AS AT 31 DECEMBER 2020** | 570,280 | (184,707) | 385,573 | (333,961) | (31,690) | 13,922 | 2,631 |
| Secured borrowing: | | | | | | | |
| Cash collateral on securities loaned | 29,661 | (7,659) | 22,002 | (21,991) | - | 11 | - |
| Securities sold under agreement to repurchase | 95,612 | (57,028) | 38,584 | (36,793) | - | 1,791 | 1,641 |
| Trading financial liabilities – derivatives | 408,785 | (120,477) | 288,308 | (237,579) | (36,585) | 14,144 | 3,366 |
| **TOTAL LIABILITIES AS AT 31 DECEMBER 2020** | 534,058 | (185,164) | 348,894 | (296,363) | (36,585) | 15,946 | 5,007 |

(1) Includes $6,697 million and $7,720 million (31 December 2020: $8,539 million and $8,997 million) of Trading financial assets – derivatives and Trading financial liabilities – derivatives, respectively, which have been offset against cash collateral received and cash collateral paid, respectively.
(2) Cash collateral not offset is recognised within Trade and other receivables and Trade and other payables.
(3) In addition to the balances disclosed in the table above, legally enforceable master netting agreements are in place for $1,170 million (31 December 2020: $1,492 million) of other secured financing and secured borrowing balances which are presented net in the statement of financial position, and for $197 million (31 December 2020: $517 million) of certain trade and other receivables and trade and other payables which are not presented net.
(4) Intercompany cross-product legally enforceable netting arrangements are in place which would allow for an additional $7,041 million (31 December 2020: $5,287 million) of the statement of financial position, to be offset in the ordinary course of business and/or in the event of default.

| Company<br>in $ millions | Gross amounts | Amounts offset[(1)] | Net amounts | Amounts not offset[(3)] Collateralised by: Financial instruments | Cash collateral [(2)] | Net exposure[(4)] | Not subject to legally enforceable master netting agreement |
|---|---|---|---|---|---|---|---|
| **31 December 2021** | | | | | | | |
| Secured Financing: | | | | | | | |
| Cash collateral on securities borrowed | 27,615 | (8,255) | 19,360 | (18,953) | - | 407 | 95 |
| Securities purchased under agreement to resell | 138,914 | (48,818) | 90,096 | (89,201) | - | 895 | 857 |
| Trading financial assets - derivatives | 319,032 | (76,587) | 242,445 | (208,797) | (20,446) | 13,202 | 2,398 |
| **TOTAL ASSETS AS AT 31 DECEMBER 2021** | 485,561 | (133,660) | 351,901 | (316,951) | (20,446) | 14,504 | 3,350 |
| Secured borrowing: | | | | | | | |
| Cash collateral on securities loaned | 37,758 | (8,255) | 29,503 | (29,492) | - | 11 | - |
| Securities sold under agreement to repurchase | 93,366 | (48,818) | 44,548 | (43,814) | - | 734 | 641 |
| Trading financial liabilities - derivatives | 325,128 | (77,610) | 247,518 | (205,666) | (30,488) | 11,364 | 3,257 |
| **TOTAL LIABILITIES AS AT 31 DECEMBER 2021** | 456,252 | (134,683) | 321,569 | (278,972) | (30,488) | 12,109 | 3,898 |
| **31 December 2020** | | | | | | | |
| Secured Financing: | | | | | | | |
| Cash collateral on securities borrowed | 37,837 | (7,659) | 30,178 | (29,740) | - | 438 | 147 |
| Securities purchased under agreement to resell | 127,675 | (57,028) | 70,647 | (70,574) | - | 73 | 73 |
| Trading financial assets derivatives | 404,768 | (120,020) | 284,748 | (239,647) | (31,690) | 13,411 | 2,411 |
| **TOTAL ASSETS AS AT 31 DECEMBER 2020** | 570,280 | (184,707) | 385,573 | (333,961) | (31,690) | 13,922 | 2,631 |
| Secured borrowing: | | | | | | | |
| Cash collateral on securities loaned | 29,661 | (7,659) | 22,002 | (21,991) | - | 11 | - |
| Securities sold under agreement to repurchase | 95,612 | (57,028) | 38,584 | (36,793) | - | 1,791 | 1,641 |
| Trading financial liabilities – derivatives | 408,785 | (120,477) | 288,308 | (237,579) | (36,585) | 14,144 | 3,366 |
| **TOTAL LIABILITIES AS AT 31 DECEMBER 2020** | 534,058 | (185,164) | 348,894 | (296,363) | (36,585) | 15,946 | 5,007 |

(1) Includes $6,697 million and $7,720 million (31 December 2020: $8,539 million and $8,997 million) of Trading financial assets – derivatives and Trading financial liabilities – derivatives, respectively, which have been offset against cash collateral received and cash collateral paid, respectively.
(2) Cash collateral not offset is recognised within Trade and other receivables and Trade and other payables.
(3) In addition to the balances disclosed in the table above, legally enforceable master netting agreements are in place for $1,170 million (31 December 2020: $1,492 million) of other secured financing and secured borrowing balances which are presented net in the statement of financial position, and for $197 million (31 December 2020: $517 million) of certain trade and other receivables and trade and other payables which are not presented net.
(4) Intercompany cross-product legally enforceable netting arrangements are in place which would allow for an additional $7,039 million (31 December 2020: $5,287 million) of the statement of financial position, to be offset in the ordinary course of business and/or in the event of default.

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
# Year ended 31 December 2021

## 30. FINANCIAL INSTRUMENTS MEASURED AT FAIR VALUE

### a. Financial assets and liabilities recognised at fair value on a recurring basis

The following tables present the carrying value of financial assets and financial liabilities recognised at fair value on a recurring basis, classified according to the fair value hierarchy. At 31 December 2020 there were no differences between Group and Company in respect of the below table.

| GROUP<br>2021<br>in $ millions | Quoted prices in active market (Level 1) | Observable inputs (Level 2) | Significant unobservable inputs (Level 3) | Total |
|---|---|---|---|---|
| Trading financial assets: | | | | |
| Government debt securities | 11,289 | 2,599 | 209 | 14,097 |
| Corporate and other debt | - | 9,617 | 1,190 | 10,807 |
| Corporate equities | 64,886 | 378 | 35 | 65,299 |
| Derivatives: | | | | |
| Interest rate contracts | 49 | 59,750 | 729 | 60,528 |
| Credit contracts | 1 | 9,859 | 290 | 10,150 |
| Foreign exchange and gold contracts | - | 85,816 | 218 | 86,034 |
| Equity contracts | 466 | 69,657 | 782 | 70,905 |
| Commodity contracts | 1,217 | 13,583 | 15 | 14,815 |
| Total trading financial assets | 77,908 | 251,259 | 3,468 | 332,635 |
| Secured financing: | | | | |
| Cash collateral on securities borrowed | - | 19,360 | - | 19,360 |
| Securities purchased under agreements to resell | - | 89,433 | 863 | 90,296 |
| Other secured financing | - | 16,239 | - | 16,239 |
| Total secured financing | - | 125,032 | 863 | 125,895 |
| Investment securities - corporate equities | - | - | 165 | 165 |
| Trade and other receivables: | | | | |
| Prepaid OTC contracts | - | 818 | 172 | 990 |
| Other | - | - | 3 | 3 |
| Total trade and other receivables | - | 818 | 175 | 993 |
| Total financial assets measured at fair value | 77,908 | 377,109 | 4,671 | 459,688 |
| Trading financial liabilities: | | | | |
| Government debt securities | 18,714 | 1,761 | - | 20,475 |
| Corporate and other debt | - | 3,718 | 6 | 3,724 |
| Corporate equities | 28,541 | 36 | 31 | 28,608 |
| Derivatives: | | | | |
| Interest rate contracts | 46 | 60,333 | 371 | 60,750 |
| Credit contracts | - | 9,103 | 224 | 9,327 |
| Foreign exchange and gold contracts | 2 | 85,120 | 207 | 85,329 |
| Equity contracts | 655 | 75,428 | 1,242 | 77,325 |
| Commodity contracts | 1,133 | 13,643 | 11 | 14,787 |
| Total trading financial liabilities | 49,091 | 249,142 | 2,092 | 300,325 |
| Secured borrowing: | | | | |
| Cash collateral on securities loaned | - | 25,141 | - | 25,141 |
| Securities sold under agreements to repurchase | - | 19,609 | - | 19,609 |
| Other secured borrowing | - | 20,053 | - | 20,053 |
| Total secured borrowing | - | 64,803 | - | 64,803 |
| Trade and other payables – prepaid OTC contracts | - | 576 | 172 | 748 |
| Debt and other borrowings - issued structured notes | - | 9,496 | 106 | 9,602 |
| Total financial liabilities measured at fair value | 49,091 | 324,017 | 2,370 | 375,478 |

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
# Year ended 31 December 2021

| COMPANY<br>2021<br>in $ millions | Quoted prices in active market (Level 1) | Observable inputs (Level 2) | Significant unobservable inputs (Level 3) | Total |
|---|---|---|---|---|
| Trading financial assets: | | | | |
| Government debt securities | 11,289 | 2,599 | 209 | 14,097 |
| Corporate and other debt | - | 9,418 | 1,190 | 10,608 |
| Corporate equities | 64,886 | 378 | 35 | 65,299 |
| Derivatives: | | | | |
| Interest rate contracts | 49 | 59,750 | 729 | 60,528 |
| Credit contracts | 1 | 9,859 | 290 | 10,150 |
| Foreign exchange and gold contracts | - | 85,829 | 218 | 86,047 |
| Equity contracts | 466 | 69,657 | 782 | 70,905 |
| Commodity contracts | 1,217 | 13,583 | 15 | 14,815 |
| Total trading financial assets | 77,908 | 251,073 | 3,468 | 332,449 |
| Secured financing: | | | | |
| Cash collateral on securities borrowed | - | 19,360 | - | 19,360 |
| Securities purchased under agreements to resell | - | 89,233 | 863 | 90,096 |
| Other secured financing | - | 16,239 | - | 16,239 |
| Total secured financing | - | 124,832 | 863 | 125,695 |
| Investment securities - corporate equities | - | - | 165 | 165 |
| Trade and other receivables: | | | | |
| Prepaid OTC contracts | - | 818 | 172 | 990 |
| Other | - | - | 3 | 3 |
| Total trade and other receivables | - | 818 | 175 | 993 |
| Total financial assets measured at fair value | 77,908 | 376,723 | 4,671 | 459,302 |
| Trading financial liabilities: | | | | |
| Government debt securities | 18,714 | 1,761 | - | 20,475 |
| Corporate and other debt | - | 3,718 | 6 | 3,724 |
| Corporate equities | 28,541 | 36 | 31 | 28,608 |
| Derivatives: | | | | |
| Interest rate contracts | 46 | 60,333 | 371 | 60,750 |
| Credit contracts | - | 9,103 | 224 | 9,327 |
| Foreign exchange and gold contracts | 2 | 85,120 | 207 | 85,329 |
| Equity contracts | 655 | 75,428 | 1,242 | 77,325 |
| Commodity contracts | 1,133 | 13,643 | 11 | 14,787 |
| Total trading financial liabilities | 49,091 | 249,142 | 2,092 | 300,325 |
| Secured borrowing: | | | | |
| Cash collateral on securities loaned | - | 25,141 | - | 25,141 |
| Securities sold under agreements to repurchase | - | 19,609 | - | 19,609 |
| Other secured borrowing | - | 20,053 | - | 20,053 |
| Total secured borrowing | - | 64,803 | - | 64,803 |
| Trade and other payables – prepaid OTC contracts | - | 576 | 172 | 748 |
| Debt and other borrowings - issued structured notes | - | 9,496 | 106 | 9,602 |
| Total financial liabilities measured at fair value | 49,091 | 324,017 | 2,370 | 375,478 |

| Group and Company 2020 in $ millions | Quoted prices in active market (Level 1) | Observable inputs (Level 2) | Significant unobservable inputs (Level 3) | Total |
|---|---|---|---|---|
| Trading financial assets: | | | | |
| Government debt securities | 13,943 | 2,518 | 266 | 16,727 |
| Corporate and other debt | - | 10,347 | 822 | 11,169 |
| Corporate equities | 61,511 | 846 | 8 | 62,365 |
| Derivatives: | | | | |
| Interest rate contracts | 61 | 99,151 | 1,111 | 100,323 |
| Credit contracts | - | 7,026 | 488 | 7,514 |
| Foreign exchange and gold contracts | - | 105,250 | 373 | 105,623 |
| Equity contracts | 554 | 62,612 | 1,519 | 64,685 |
| Commodity contracts | 212 | 6,383 | 8 | 6,603 |
| Total trading financial assets | 76,281 | 294,133 | 4,595 | 375,009 |
| Secured financing: | | | | |
| Cash collateral on securities borrowed | - | 30,178 | - | 30,178 |
| Securities purchased under agreements to resell | - | 69,869 | 778 | 70,647 |
| Other secured financing | - | 12,972 | - | 12,972 |
| Total secured financing | - | 113,019 | 778 | 113,797 |
| Loans and advances - corporate loans | - | 10 | 7 | 17 |
| Investment securities - corporate equities | - | - | 151 | 151 |
| Trade and other receivables: | | | | |
| Prepaid OTC contracts | - | 351 | 1,291 | 1,642 |
| Other | - | - | 12 | 12 |
| Total trade and other receivables | - | 351 | 1,303 | 1,654 |
| **Total financial assets measured at fair value** | 76,281 | 407,513 | 6,834 | 490,628 |
| Trading financial liabilities: | | | | |
| Government debt securities | 23,021 | 1,550 | 15 | 24,586 |
| Corporate and other debt | - | 4,036 | 3 | 4,039 |
| Corporate equities | 23,246 | 212 | 1 | 23,459 |
| Derivatives: | | | | |
| Interest rate contracts | 126 | 94,878 | 471 | 95,475 |
| Credit contracts | - | 6,940 | 368 | 7,308 |
| Foreign exchange and gold contracts | 4 | 103,806 | 186 | 103,996 |
| Equity contracts | 557 | 72,229 | 2,197 | 74,983 |
| Commodity contracts | 134 | 6,404 | 8 | 6,546 |
| Total trading financial liabilities | 47,088 | 290,055 | 3,249 | 340,392 |
| Secured borrowing: | | | | |
| Cash collateral on securities loaned | - | 1 | - | 1 |
| Securities sold under agreements to repurchase | - | 17,842 | - | 17,842 |
| Other secured borrowing | - | 25,761 | - | 25,761 |
| Total secured borrowing | - | 43,604 | - | 43,604 |
| Trade and other payables: | | | | |
| Prepaid OTC contracts | - | 518 | 241 | 759 |
| Unfunded loan commitments | - | 3 | - | 3 |
| Total trade and other payables | - | 521 | 241 | 762 |
| Debt and other borrowings - issued structured notes | - | 9,135 | 334 | 9,469 |
| **Total financial liabilities measured at fair value** | 47,088 | 343,315 | 3,824 | 394,227 |

The Group's valuation approach and fair value hierarchy categorisation for certain significant classes of financial instruments recognised at fair value on a recurring basis is as follows:

**Government debt securities**

***US Treasury Securities***

Valuation Technique:

- Fair value is determined using quoted market prices

Valuation Hierarchy Classification:

- Level 1 – as inputs are observable and in an active market

***Non US Government Obligations***

Valuation Technique:

- Fair value is determined using quoted prices in active markets when available. When not available, quoted prices in less-active markets are used. In the absence of position-specific quoted prices, fair value may be determined through benchmarking from comparable instruments.

Valuation Hierarchy Classification:

- Level 1 – if actively traded and inputs are observable
- Level 2 – if the market is less active or prices are dispersed
- Level 3 – in instances where the prices are unobservable

**Corporate and Other Debt and Corporate Loans**

Mortgage- and Asset-backed securities ("MABS")

Valuation Technique:

- MABS may be valued based on price or spread data obtained from observed transactions or independent external parties such as vendors or brokers.
- When position-specific external price data are not observable, the fair value determination may require benchmarking to comparable instruments, and/or analysing ECL, default and recovery rates, and/or applying discounted cash flow techniques. When evaluating the comparable instruments for use in the valuation of each security, security collateral-specific attributes, including payment priority, credit enhancement levels, type of collateral, delinquency rates and loss severity, are considered. In addition, for Residential mortgage-backed securities ("RMBS") borrowers, Fair Isaac Corporation scores and the level of documentation for the loan are considered.
- Market standard cash flow models may be utilised to model the specific collateral composition and cash flow structure of each transaction. Key inputs to these models are market spreads, forecasted credit losses, and default and prepayment rates for each asset category.
- Valuation levels of RMBS and Commercial mortgage-backed securities ("CMBS") indices are used as an additional data point for benchmarking purposes or to price outright index positions.

Valuation Hierarchy Classification:

- Level 2 – if value based on observable market data for comparable instruments.
- Level 3 – if external prices or significant spread inputs are unobservable, or if the comparability assessment involves significant subjectivity related to property type differences, cash flows, performance or other inputs.

*Corporate Bonds*

Valuation Techniques:

- Fair value is determined using recently executed transactions, market price quotations, bond spreads and CDS spreads obtained from independent external parties, such as vendors and brokers, adjusted for any basis difference between cash and derivative instruments.
- The spread data used are for the same maturity as the bond. If the spread data do not reference the issuer, then data that reference comparable issuers are used. When position-specific external price data are not observable, fair value is determined based on either benchmarking to comparable instruments or cash flow models with yield curves, bond or single-name CDS spreads and recovery rates as significant inputs.

Valuation Hierarchy Classification:

- Level 2 – if value based on observable market data for comparable instruments.
- Level 3 – in instances where prices or significant spread inputs are unobservable or if the comparability assessment involves significant sensitivity.

*Collateralised Debt Obligations ("CDO")*

Valuation Techniques:

- The Group holds cash CDOs that typically reference a tranche of an underlying synthetic portfolio of single name CDS spreads collateralised by corporate bonds ("credit-linked notes") or cash portfolio of asset-backed securities/loans ("asset-backed CDOs").

- Credit correlation, a primary input used to determine the fair value of credit-linked notes, is usually unobservable and derived using a benchmarking technique. Other model inputs such as credit spreads, including collateral spreads, and interest rates are typically observable.
- Asset-backed CDOs are valued based on an evaluation of the market and model input parameters sourced from comparable instruments as indicated by market activity. Each asset-backed CDO position is evaluated independently taking into consideration available comparable market levels, underlying collateral performance and pricing, deal structures and liquidity.

Valuation Hierarchy Classification:

- Level 2 – when either comparable market transactions are observable, or credit correlation input is insignificant.
- Level 3 – when either comparable market transactions are unobservable, or the credit correlation input is significant.

*Loans and Lending Commitments*

Valuation Techniques:

- Fair value of corporate loans is determined using recently executed transactions, market price quotations (where observable), implied yields from comparable debt, market observable CDS spread levels obtained from independent external parties adjusted for any basis difference between cash and derivative instruments, along with proprietary valuation models and default recovery analysis where such transactions and quotations are unobservable.
- Fair value of contingent corporate lending commitments is determined by using executed transactions on comparable loans and the anticipated market price based on pricing indications from syndicate banks and customers. The valuation of loans and lending commitments also takes into account fee income that is considered an attribute of the contract.

Valuation Hierarchy Classifications:

- Level 2 – if value based on observable market data for comparable instruments.
- Level 3 – in instances where significant spread inputs are unobservable or if the comparability assessment involves significant subjectivity.

**Corporate Equities and Equity Investments**

Valuation Techniques:

- Exchange traded equity securities are generally valued based on quoted prices from the exchange.
- Unlisted equity securities are generally valued based on an assessment of each security, considering rounds of financing and third-party transactions, discounted cash flow analyses and market-based information, including comparable transactions, trading multiples and changes in market outlook, among other factors.
- Listed fund units are generally marked to the exchange-traded price if actively traded or Net Asset Value ("NAV") if not. Unlisted fund units are generally marked to NAV.

Valuation Hierarchy Classification:

- Level 1 – actively traded exchange-traded securities and fund units.
- Level 2 – if not actively traded, inputs are observable, or if undergoing a recent mergers and acquisitions event or corporate action;
- Level 3 – if not actively traded, inputs are unobservable, or if undergoing an aged mergers and acquisitions event or corporate action.

**Derivatives**

*Exchange-Traded Derivative Contracts*

Valuation Techniques:

- Exchange-Traded derivatives that are actively traded are valued based on quoted prices from the exchange.
- Exchange-Traded derivatives that are not actively traded are valued using the same techniques as those applied to OTC derivatives.

Valuation Hierarchy Classification:

- Level 1 – when actively traded.
- Level 2 – when not actively traded.

*OTC Derivative Contracts*

Valuation Techniques:

- OTC derivative contracts include forward, swap and option contacts related to interest rates, foreign currencies, credit standing of reference entities, equity prices or commodity prices.
- Depending on the product and the terms of the transaction, the fair value of OTC derivative products can be modelled using a series of

techniques, including closed-form analytic formulas, such as the Black-Scholes option-pricing model, simulation models or a combination thereof. Many pricing models do not entail material subjectivity as the methodologies employed do not necessitate significant judgement, since model inputs may be observed from actively quoted markets, as is the case for generic interest rate swaps, many equity, commodity and foreign currency option contracts and certain credit default swaps. In the case of more established derivative products, the pricing models used by the Group are widely accepted by the financial services industry.

- More complex OTC derivative products are typically less liquid and require more judgement in the implementation of the valuation technique since direct trading activity or quotes are unobservable. This includes certain types of interest rate derivatives with both volatility and correlation exposure, equity, commodity or foreign currency derivatives that are either longer-dated or include exposure to multiple underlyings and credit derivatives, including credit default swaps on certain mortgage or asset-backed securities, basket CDS. Where required inputs are unobservable, relationships to observable data points, based on historical and/or implied observations, may be employed as a technique to estimate the model input values.

Valuation Hierarchy Classification:

- Level 2 – when valued using observable inputs, or where the unobservable input is not deemed significant.
- Level 3 – if the unobservable input is deemed significant.

**Securities Purchased under Agreements to Resell, Securities Sold under Agreements to Repurchase, Cash Collateral on Securities Borrowed and Securities Loaned and Other Secured Financings and Secured Borrowings**

Valuation Techniques:

- Fair value is computed using a standard cash flow discounting methodology.
- The inputs to the valuation include contractual cash flows and collateral funding spreads, which are the incremental spread over the overnight indexed swap ("OIS") rate for a specific collateral rate (which refers to the rate applicable to a specific type of security pledged as collateral).

Valuation Hierarchy Classification:

- Level 2 – when the valuation inputs are observable.
- Level 3 – in instances where the unobservable inputs are deemed significant.

**Prepaid OTC contracts and issued structured notes**

Valuation Techniques:

- The Group carries structured notes and prepaid OTC contracts which are primarily composed of instruments whose payments and redemption values are linked to the performance of a specific index, a basket of stocks, a specific security, a commodity, a credit exposure or basket of credit exposures, and instruments with various interest-rate-related features including step-ups, step-downs, and zero coupons.
- Fair value is determined using valuation models for the derivative and debt portions of the instruments. These models incorporate observable inputs referencing identical or comparable securities, including prices to which the instruments are linked, interest rate yield curve, option volatility and currency rates, and commodity or equity prices.
- Independent, external and traded prices for the instruments are considered as well as the impact of the Company's own credit spreads which are based on observed secondary bond market spreads.

Valuation Hierarchy Classification:

- Level 2 – when valued using observable inputs, or where the unobservable input is not deemed significant.
- Level 3 – in instances where the unobservable inputs are deemed significant.

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
# Year ended 31 December 2021

**b. Transfers between Level 1 and Level 2 of the fair value hierarchy for financial assets and liabilities recognised at fair value on a recurring basis**

During the year, the Group and Company reclassified approximately $935 million of European government debt assets and $773 million of European government debt securities liabilities from Level 1 to Level 2 (31 December 2020: $nil). The reclassifications were due to decreased market activity in these instruments.

**c. Changes in Level 3 financial assets and liabilities recognised at fair value on a recurring basis**

The following tables present the changes in the fair value of the Group's Level 3 financial assets and financial liabilities for the years ended 31 December 2021 and 31 December 2020. Level 3 instruments may be hedged with instruments classified in Level 1 and Level 2. The realised and unrealised gains/ (losses) for assets and liabilities within the Level 3 category presented in the following tables do not reflect the related realised and unrealised gains/ (losses) on hedging instruments that have been classified by the Group within the Level 1 and/ or Level 2 categories.

There were no differences at 31 December 2021 or 31 December 2020 between Group and Company in respect of the following table.

Unrealised gains/ (losses) during the period for assets and liabilities within the Level 3 category presented in the following tables herein may include changes in fair value during the period that were attributable to both observable and unobservable inputs.

The Morgan Stanley Group operates a number of intra-group policies to ensure that, where possible, revenues and related costs are matched. Where the trading positions included in the below table are risk managed using financial instruments held by other Morgan Stanley Group undertakings, these policies potentially result in the recognition of offsetting gains or losses in the Group.

| **$ in millions** | **2021** | **2020** |
|---|---|---|
| **TRADING FINANCIAL ASSETS:** | | |
| **Government debt securities** | | |
| Beginning balance | 266 | 3 |
| Total gains/(losses) recognised in the consolidated income statement[1] | (1) | 1 |
| Purchases | 143 | 264 |
| Sales | (189) | (2) |
| Net transfers in and/or (out) of Level 3[2] | (10) | - |
| **Ending balance** | **209** | **266** |
| Unrealised gains/(losses)[3] | - | 1 |
| **Corporate and other debt** | | |
| Beginning balance | 822 | 481 |
| Total gains/(losses) recognised in the consolidated income statement[1] | (157) | (15) |
| Purchases | 914 | 457 |
| Sales | (308) | (139) |
| Net transfers in and/or (out) of Level 3[2] | (81) | 38 |
| **Ending balance** | **1,190** | **822** |
| Unrealised gains/(losses)[3] | (41) | (4) |
| **Corporate equities** | | |
| Beginning balance | 8 | 28 |
| Total gains/(losses) recognised in the consolidated income statement[1] | (7) | (9) |
| Purchases | 44 | 1 |
| Sales | (9) | (15) |
| Net transfers in and/or (out) of Level 3[2] | (1) | 3 |
| **Ending balance** | **35** | **8** |
| Unrealised gains/(losses)[3] | (5) | (2) |
| **Net derivative contracts[4]** | | |
| Beginning balance | 269 | (81) |
| Total gains/(losses) recognised in the consolidated income statement[1] | 221 | 942 |
| Purchases | 303 | 768 |
| Issuances | (626) | (843) |
| Settlements | (245) | (439) |
| Net transfers in and/or (out) of Level 3[2] | 57 | (78) |
| **Ending balance** | **(21)** | **269** |
| Unrealised gains/(losses)[3] | (196) | 500 |

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
## Year ended 31 December 2021

| $ in millions | 2021 | 2020 |
|---|---|---|
| **SECURED FINANCING** | | |
| **Securities purchased under agreements to resell** | | |
| Beginning balance | 778 | 257 |
| Purchases | 863 | 778 |
| Sales | (778) | (257) |
| **Ending balance** | **863** | **778** |
| **LOANS AND ADVANCES** | | |
| **Corporate loans** | | |
| Beginning balance | 7 | 9 |
| Sales | (7) | - |
| Settlements | - | (2) |
| **Ending balance** | **-** | **7** |
| **INVESTMENT SECURITIES** | | |
| **Corporate equities** | | |
| Beginning balance | 151 | 122 |
| Total gains/(losses) recognised in the consolidated income statement(1) | (6) | 12 |
| Purchases | 24 | 27 |
| Sales | (4) | (10) |
| **Ending balance** | **165** | **151** |
| Unrealised gains/(losses)(3) | (6) | 12 |
| **TRADE AND OTHER RECEIVABLES** | | |
| **Prepaid OTC contracts** | | |
| Beginning balance | 1,291 | 353 |
| Total gains/(losses) recognised in the consolidated income statement(1) | - | (160) |
| Purchases | 171 | 1,098 |
| Sales | (241) | - |
| Net transfers in and/or (out) of Level 3(2) | (1,049) | - |
| **Ending balance** | **172** | **1,291** |
| Unrealised gains/(losses)(3) | - | (160) |
| **Other** | | |
| Beginning balance | 12 | 21 |
| Settlements | (9) | (9) |
| **Ending balance** | **3** | **12** |
| **TRADING FINANCIAL LIABILITIES** | | |
| **Government debt securities** | | |
| Beginning balance | 15 | - |
| Net transfers in and/or (out) of Level 3(2) | (15) | 15 |
| **Ending balance** | **-** | **15** |

| $ in millions | 2021 | 2020 |
|---|---|---|
| **Corporate and other debt** | | |
| Beginning balance | 3 | 20 |
| Purchases | - | (17) |
| Sales | 3 | - |
| **Ending balance** | **6** | **3** |
| **Corporate equities** | | |
| Beginning balance | 1 | 7 |
| Total (gains)/losses recognised in the consolidated income statement(1) | (15) | (1) |
| Purchases | (8) | (6) |
| Sales | 53 | 1 |
| **Ending balance** | **31** | **1** |
| Unrealised (gains)/losses(3) | (15) | (1) |
| **TRADE AND OTHER PAYABLES** | | |
| **Prepaid OTC contracts** | | |
| Beginning balance | 241 | 341 |
| Total (gains)/losses recognised in the consolidated income statement(1) | - | (120) |
| Issuances | 171 | - |
| Settlements | (240) | 20 |
| **Ending balance** | **172** | **241** |
| Unrealised (gains)/losses(3) | - | (120) |
| **Unfunded loan commitments** | | |
| Beginning balance | - | 1 |
| Settlements | - | (1) |
| **Ending balance** | **-** | **-** |
| **DEBT AND OTHER BORROWINGS** | | |
| **Issued structured notes** | | |
| Beginning balance | 334 | 314 |
| Total gains/(losses) recognised in the consolidated income statement(1) | (4) | (4) |
| Total (gains)/losses recognised in consolidated statement of comprehensive income(1) | 4 | 5 |
| Issuances | 70 | 82 |
| Settlements | (148) | (45) |
| Net transfers in and/or (out) of Level 3(2) | (150) | (18) |
| **Ending balance** | **106** | **334** |
| Unrealised (gains)/losses | 1 | 2 |

1) The total gains or losses are recognised in the consolidated income statement as detailed in the financial instruments accounting policy (note 3c).
(2) For financial assets and financial liabilities that were transferred into or out of Level 3 during the year, gains or (losses) are presented as if the assets or liabilities had been transferred into or out of Level 3 as at the beginning of the year.
(3) Amounts represent unrealised gains or (losses) for the year ended 31 December 2021 related to assets and liabilities still outstanding at 31 December 2020. The unrealised gains or (losses) are recognised in the consolidated income statement or consolidated statement of comprehensive income as detailed in the financial instruments accounting policy (note 3c).
(4) Net derivative contracts represent trading financial liabilities derivative contracts net of trading financial assets - derivative contracts.

During the year, the Group and Company reclassified approximately $1,049 million of prepaid OTC contracts from Level 3 to Level 2 (31 December 2020: $nil). The reclassification was due to unobservable inputs not being significant to the overall fair value measurements.

There were no material transfers from Level 2 to Level 3 of the fair value hierarchy (2020: no material transfers).

**d. Valuation of Level 3 financial assets and liabilities recognised at fair value on a recurring basis**

The following disclosures provide information on the sensitivity of fair value measurements to key inputs and assumptions.

i. Quantitative information about and qualitative sensitivity if significant unobservable inputs

The following table on the next page provides information on the valuation techniques, significant unobservable inputs and their ranges and averages for each material category of assets and liabilities measured at fair value on a recurring basis.

The level of aggregation and breadth of products cause the range of inputs to be wide and not evenly distributed across the inventory. Further, the range of unobservable inputs may differ across groups in the financial services industry because of diversity in the types of products included in each group's inventory. The following disclosures also include qualitative information on the sensitivity of the fair value measurements to changes in the significant unobservable inputs. There are no predictable relationships between multiple significant unobservable inputs attributable to a given valuation technique. A single amount is disclosed when there is no significant difference between the minimum, maximum and average (weighted average or similar average / median).

# MORGAN STANLEY & CO. INTERNATIONAL plc

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
## Year ended 31 December 2021

| 31 December 2021 | Fair value $millions | Predominant valuation techniques/ Significant unobservable inputs | Range (Average)(1) |
|---|---|---|---|
| **ASSETS** | | | |
| **Trading financial assets:** | | | |
| - Government debt securities | 209 | Comparable pricing | |
| | | Comparable bond pricing | 100 to 140pts (120pts) |
| - Corporate and other debt: | | | |
| - Mortgage- and asset-backed securities | 219 | Comparable pricing | |
| | | Comparable bond price | 40 to 101pts (75pts) |
| - Corporate bonds | 787 | Comparable pricing | |
| | | Comparable bond price | 50 to 162pts (104.31pts) |
| - Loans and lending commitments | 177 | Comparable pricing | |
| | | Comparable loan price | 18.0 to 100.0pts (81.95pts) |
| - Corporate equities | 35 | Comparable pricing | |
| | | Comparable equity price | 1pts (1pts) |
| **Investment securities:** | | | |
| - Corporate equities | 165 | Comparable pricing | |
| | | Comparable equity price | 80% to 100% (98%) |
| **Secured financing:** | | | |
| - Securities purchased under agreements to resell | 863 | Consensus data on underlying curves | |
| | | Funding spread | 23bps to 98bps (60bps) |
| **Trade and other receivables:** | | | |
| - Prepaid OTC contracts | 172 | Discounted cash flow | |
| | | Recovery rate | 54% to 84% (62%/54%) |
| **LIABILITIES** | | | |
| **Trading financial liabilities:** | | | |
| - Net derivatives contracts:(2) | | | |
| - Interest rate | 358 | Option model | |
| | | Inflation volatility | 24% to 65% (44%/40%) |
| | | Interest rate-foreign exchange correlation | 53% to 56% (55%/54%) |
| | | Interest rate curve correlation | 62% to 98% (84%/83%) |
| | | Inflation curve | 2.1% to 2.2% (2.1%/2.1%) |
| | | Interest rate volatility skew | 44% to 80% (65%/64%) |
| | | Interest rate – inflation correlation | -80% to -5% (-42%/-48%) |
| | | Bond volatility | 5% to 32% (14%/11%)) |
| - Credit | 66 | Comparable pricing | |
| | | Credit spread | 2bps to 341bps (96.36bps) |
| | | Comparable bond price | 8 to 101pts (53 pts) |
| | | Funding spread | 52.8bps to 79.7bps (64 bps) |
| - Foreign exchange and gold(3) | 11 | Option model | |
| | | Interest rate-foreign exchange correlation | 53% to 56% (55%/54%) |
| | | Interest rate volatility skew | 44% to 80% (65%/64%) |
| | | Deal execution probability | 90% to 95% (94%/95%) |
| | | Foreign exchange volatility skew | 0.4% to 0.5% (0.4%/0.4%) |
| | | Currency basis | -0.6% to 7% (0.03%/0.02%) |

| 31 December 2021 | Fair value $millions | Predominant valuation techniques/ Significant unobservable inputs | Range (Average)(1) |
|---|---|---|---|
| **LIABILITIES** | | | |
| **Trading financial liabilities:** | | | |
| - Net derivatives contracts:(2) | | | |
| - Equity(3) | (460) | Option model | |
| | | Equity volatility | 5% to 62% (19%) |
| | | Equity volatility skew | -5% to 0% (-1%) |
| | | Equity correlation | 5% to 99% (77%) |
| | | Equity FX correlation | -80% to 37% (-36%) |
| - Corporate equities | (31) | Comparable pricing | |
| | | Comparable equity price | 100% (100%) |
| **Debt and other borrowings:** | | | |
| - Issued structured notes | (106) | Option model | |
| | | Equity volatility | 17% to 69% (17%) |
| | | Equity volatility skew | -1% to 0% (-1%) |
| | | Equity correlation | 43% to 76% (56%) |
| | | Equity FX correlation | -45% to 10% (-24%) |
| **Trade and other payables:** | | | |
| - Prepaid OTC contracts | (172) | Discounted cash flow | |
| | | Recovery rate | 54% to 84% (62%/54%) |

(1) A single amount is disclosed for range and average when there is no significant difference between the minimum, maximum and average. Amounts represent weighted averages, except where simple averages and the median of the inputs, respectively, are provided when more relevant.
(2) Net derivative contracts represent trading financial liabilities – derivative contracts net of trading financial assets – derivative contracts
(3) Includes derivative contracts with multiple risks (i.e. hybrid products)

# MORGAN STANLEY & CO. INTERNATIONAL plc

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
## Year ended 31 December 2021

| 31 December 2020 | Fair value $millions | Predominant valuation techniques/ Significant unobservable inputs | Range (Average)[1] |
|---|---|---|---|
| **ASSETS** | | | |
| **Trading financial assets:** | | | |
| - Government debt securities | 266 | Comparable pricing | |
| | | Comparable bond pricing | 91.3 to 106.18pts (105.54pts) |
| - Corporate and other debt: | | | |
| - Mortgage and asset-backed securities | 184 | Comparable pricing | |
| | | Comparable bond price | 32 to 100 pts (73 pts) |
| - Corporate bonds | 487 | Comparable pricing | |
| | | Comparable bond price | 59 to 133 pts (107 pts) |
| - Loans and lending commitments | 151 | Comparable pricing | |
| | | Comparable loan price | 25.5 to 101.97 pts (94.67 pts) |
| - Net derivatives contracts:[2] | | | |
| - Interest rate | 640 | Option model | |
| | | Inflation volatility | 25% to 66% (45%/43%) |
| | | Interest rate-foreign exchange correlation | 55% to 59% (56%/56%) |
| | | Interest rate curve correlation | 46% to 91% (70%/72%) |
| | | Inflation curve | 0.94% to 0.95% (0.95%/0.95%) |
| | | Interest rate volatility skew | 0% to 349% (62%/59%) |
| | | Foreign exchange volatility skew | 0.0% to 0.4% (0%/0%) |
| | | Interest rate – inflation correlation | -80% to -5% (-42%/-48% |
| | | Bond volatility | 6% to 24% (13%/13%)) |
| - Credit | 120 | Credit default swap model | |
| | | Credit spread | 4bps to 360bps (73.07bps) |
| | | Comparable bond price | 8 to 85 pts (48 pts) |
| | | Funding spread | 64.84bps to 118.03bps (83.57 bps) |
| | | Funding spread | 64.84bps to 118.03bps (89.34bps) |
| | | Comparable bond price | 8 to 85pts (48pts) |
| | | Credit spread | 4bps to 360bps (68.47bps) |
| - Foreign exchange and gold[3] | 187 | Option model | |
| | | Interest rate-foreign exchange correlation | 18% to 59% (44%/44%) |
| | | Interest rate volatility skew | 0% to 349% (62%/59%) |
| | | Deal execution probability | 50% to 95% (83%/93%) |
| | | Foreign exchange volatility skew | -21.7% to 28.3% (3.2%/0.9%) |
| | | Currency basis | 6% to 8% (7.2%/7.5%) |
| - Equity | (678) | Option model | |
| | | Equity volatility | 15% to 68% (26%) |
| | | Equity volatility skew | -3% to 0% (-1%) |
| | | Equity equity correlation | 37% to 95% (70%) |
| | | Equity FX correlation | -80% to 60% (-25%) |
| **Investment securities:** | | | |
| - Corporate equities | 151 | Comparable pricing | |
| | | Comparable equity price | 80% to 100% (99%) |
| **Trade and other receivables:** | | | |
| - Prepaid OTC contracts | 1,291 | Option model | |
| | | Equity volatility | 21% (21%) |

| 31 December 2020 | Fair value $millions | Predominant valuation techniques/ Significant unobservable inputs | Range (Average)[1] |
|---|---|---|---|
| **ASSETS** | | | |
| **Securities borrowed:** | | | |
| - Securities purchased under agreements to resell | 778 | Discounted cash flow | |
| | | Collateral funding spread | 2 to 84bps (43bps) |
| **LIABILITIES** | | | |
| **Debt and other borrowings:** | | | |
| - Issued structured notes | (334) | Option model | |
| | | Equity volatility | 12% to 45% (26%) |
| | | Equity volatility skew | -1% to 0% (-1%) |
| | | Equity equity correlation | 20% to 92% (68%) |
| | | Equity FX correlation | -72% to 10% (-19%) |
| **Trade and other payables:** | | | |
| - Prepaid OTC contracts | (241) | Discounted cash flow | |
| | | Recovery rate | 40% to 62% (46%/40%) |

(1) A single amount is disclosed for range and average when there is no significant difference between the minimum, maximum and average. Amounts represent weighted averages, except where simple averages and the median of the inputs, respectively, are provided when more relevant.
(2) Net derivative contracts represent trading financial liabilities – derivative contracts net of trading financial assets – derivative contracts
(3) Includes derivative contracts with multiple risks (i.e. hybrid products)

## Significant Unobservable Inputs – Description and Sensitivity

During 2021, there were no significant revisions made to the descriptions of the significant unobservable inputs.

An increase/(decrease) to the following inputs would generally result in a higher/(lower) fair value:

- Comparable bond price: A pricing input used when prices for the identical instrument are not available for comparable instruments. Significant subjectivity may be involved when fair value is determined using pricing data available for comparable instruments. Valuation using comparable instruments can be done by calculating an implied yield (or spread over a liquid benchmark) from the price of a comparable bond or loan, then adjusting that yield (or spread) to derive a value for the bond or loan. The adjustment to yield (or spread) should account for the relevant differences in the bonds or loans such as maturity or credit quality. Alternatively, a price-to-price basis can be assumed between the comparable instrument and the bond being valued in order to establish the value of the bond.
- Comparable equity price: A price derived from equity raises, share buybacks and external bid levels, etc. A discount or premium may be included in the fair value estimate.
- Recovery rate: Amount expressed as a percentage of par that is expected to be received when a credit event occurs.

An increase/(decrease) to the following inputs would generally result in a lower/(higher) fair value:

- Credit spread: The credit spread reflects the additional net yield an investor can earn from a security with more credit risk relative to one with less credit risk. The credit spread of a particular security is often quoted in relation to the yield on a credit risk-free benchmark security or reference rate.
- Funding spread: The cost of borrowing defined as the incremental spread over the OIS rate for a specific collateral rate (which refers to the rate applicable to a specific type of security pledged as collateral).

An increase/(decrease) to the following inputs would generally result in an impact to the fair value, but the magnitude and direction of the impact would depend on whether the Group is long or short the exposure:

- Correlation: A pricing input where the payoff is driven by more than one underlying risk. Correlation is a measure of the relationship between the movements of two variables (i.e. how the change in one variable influences a change in the other variable).
- Interest rate curve: The term structure of interest rates (relationship between interest rates and the time to maturity) and a market's measure of future interest rates at the time of observation. An interest rate curve is used to set interest rate and foreign exchange derivative cash flows and is a pricing input used in the discounting of any OTC derivative cash flow.
- Volatility: The measure of the variability in possible returns for an instrument given how much that instrument changes in value over time. Volatility is a pricing input for options, and, generally, the lower the volatility, the less risky the option. The level of volatility used in the valuation of a particular option depends on a number of factors, including the nature of the risk underlying that option, the tenor and the strike price of the option.
- Volatility skew: The measure of the difference in implied volatility for options with identical underliers and expiry dates but with different strikes.

ii. Sensitivity of fair values to changing significant assumptions to reasonably possible alternatives

As detailed in note 3, the valuation of Level 3 financial instruments requires the application of critical accounting judgement, involving estimations and assumptions and it is recognised that there could be a range of reasonably possible alternative values.

The Group has reviewed the unobservable parameters to identify those which would change the fair value measurement significantly if replaced by a reasonably possible alternative assumption.

In estimating the potential variability, the unobservable parameters were varied individually using statistical techniques and historic data. The potential variability estimated is likely to be greater than the actual uncertainty relating to the financial instruments, as any diversification effect has been excluded.

The following table presents the potential impact of both favourable and unfavourable changes, both of which would be reflected in the consolidated income statement.

| | 31 December 2021 | | 31 December 2020 | |
|---|---|---|---|---|
| **in $ millions** | **Favourable changes** | **Unfavourable changes** | **Favourable changes** | **Unfavourable changes** |
| Trading financial assets: | | | | |
| Government debt securities | - | - | 17 | (7) |
| Corporate and other debt | 15 | (18) | 16 | (14) |
| Corporate equities | 2 | (8) | - | - |
| Net derivative contracts[1][2] | 88 | (100) | 76 | (32) |
| Secured Financing: | | | | |
| Securities purchased under agreements to sell | 1 | (1) | - | - |
| Investment securities: | | | | |
| Corporate equities | 24 | (15) | 17 | (23) |
| Trading financial liabilities: | | | | |
| Corporate equities | 9 | (2) | - | - |
| Debt and other borrowings: | | | | |
| Issued structured notes | 1 | (7) | 3 | (2) |
| | 140 | (151) | 129 | (78) |

(1) Net derivative contracts represent trading financial assets – derivative contracts net of trading financial liabilities – derivative contracts.
(2) CVA and FVA are included in the fair value, but excluded from the effect of reasonably possible alternative assumptions in the table above. CVA is deemed to be a Level 3 input when the underlying counterparty credit curve is unobservable. FVA is deemed to be a Level 3 input in its entirety given the lack of observability of funding spreads in the principle market.

**e. Financial instruments valued using unobservable market data**

The amounts not recognised in the consolidated income statement relating to the difference between the fair value at initial recognition (the transaction price) and the amounts determined at initial recognition using valuation techniques are as follows:

| **$ millions** | **2021** | **2020** |
|---|---|---|
| At 1 January | 409 | 342 |
| New transactions | 142 | 167 |
| Amounts recognised in the consolidated income statement during the year | (182) | (100) |
| **At 31 December** | 369 | 409 |

The balance above predominately relates to derivatives.

**f. Assets and liabilities measured at fair value on a non-recurring basis**

Non-recurring fair value measurements of assets and liabilities are those which are required or permitted in the consolidated statement of financial position in particular circumstances. There were no assets or liabilities measured at fair value on a non-recurring basis during the current or prior year.

## 31. ASSETS AND LIABILITIES NOT MEASURED AT FAIR VALUE

The tables below present the carrying value, fair value and fair value hierarchy category of certain financial assets and financial liabilities that are not measured at fair value in the statement of financial position. Financial assets and financial liabilities not measured at fair value for which the carrying value is considered a reasonable approximation of fair value are excluded from the tables below.

| | | | Fair value measurement using: | | |
|---|---|---|---|---|---|
| **in $ millions** | **Carrying** | | **Quoted prices in active market** | **Observable** | **Significant unobservable** |
| **31 December 2021** | **value** | **Fair value** | **(Level 1)** | **inputs (Level 2)** | **inputs (Level 3)** |
| Subordinated loan liabilities | 6,400 | 6,842 | - | 6,842 | - |
| | | | | | |
| **31 December 2020** | | | | | |
| Subordinated loan liabilities | 5,000 | 5,414 | - | 5,414 | - |

## 32. EMPLOYEE COMPENSATION PLANS

Morgan Stanley maintains various equity-settled share-based and cash-based deferred compensation plans for the benefit of employees. Awards under these plans are generally granted in January following the performance year.

**Equity-settled share-based compensation plans**

Morgan Stanley has granted RSU awards pursuant to several equity-based compensation plans. The plans provide for the deferral of a portion of certain employees' incentive compensation, with awards made in the form of restricted common stock. Awards under these plans are subject to vesting over time, generally six months to seven years, and are generally contingent upon continued employment and subject to restrictions on sale, transfer or assignment until conversion to common stock. All, or a portion of, an award may be forfeited if employment is terminated before the end of the relevant vesting period or cancelled after the vesting period in certain situations. Recipients of equity-based awards may have voting rights, at Morgan Stanley's discretion, and generally receive dividend equivalents if the awards vest, unless this is prohibited by regulation.

*Group:*

During the year, Morgan Stanley granted 4,184,369 RSUs (2020: 2,756,768 RSUs) to employees of the Group with a weighted average fair value per unit of $73.60 (2020: $55.86), based on the market value of Morgan Stanley common stock at grant date. The equity-based compensation expense recognised in the year is $357 million (2020: $183 million). As a result of the chargeback agreement described in accounting policy 3q(i), the total amount of equity-based compensation expense recognised within 'Direct staff costs' and 'Management charges from other Morgan Stanley Group undertakings relating to staff costs' within 'Operating expense' was $392 million (2020: $201 million). This includes the equity-based compensation expense and movements in the fair value of the awards granted to employees.

The related liability due to Morgan Stanley at the end of the year, reported within 'Accruals and deferred income' in the consolidated statement of financial position, is $400 million (2020: $189 million) of which $199 million (2020: $85 million) is expected to be settled wholly within one year and $201 million (2020: $104 million) thereafter.

The unrecognised compensation cost related to unvested equity-based awards is shown in the table below:

| in $ millions | Unvested awards granted: | | |
|---|---|---|---|
| | To 31 December 2021 | In January 2022 | Total |
| Expense expected to be recognised in: | | | |
| 2022 | 72 | 214 | 286 |
| 2023 | 26 | 52 | 78 |
| 2024 | 5 | 27 | 32 |
| Thereafter | 1 | 11 | 12 |
| | 104 | 304 | 408 |

Amounts above do not reflect forfeitures, cancellations, accelerations or future adjustments to fair value for certain awards.

*Company:*

During the year, Morgan Stanley granted 4,177,776 RSUs (2020: 2,749,748 RSUs) to employees of the Company with a weighted average fair value per unit of $73.60 (2020: $55.83), based on the market value of Morgan Stanley common stock at grant date. The equity-based compensation expense recognised in the year is $356 million (2020: $182 million). As a result of the chargeback agreement described in accounting policy 3q(i), the total amount of equity-based compensation expense recognised within 'Direct staff costs' and 'Management charges from other Morgan Stanley Group undertakings relating to staff costs' within 'Operating expense' was $391 million (2020: $200 million). This includes the equity-based compensation expense and movements in the fair value of the awards granted to employees.

The related liability due to Morgan Stanley at the end of the year, reported within 'Accruals and deferred income' in the statement of financial position, is $398 million (2020: $188 million) of which $198 million (2020: $85 million) is expected to be settled wholly within one year and $200 million (2020: $103 million) thereafter.

**Deferred cash-based compensation plans**

Morgan Stanley has granted deferred cash-based compensation awards to certain employees which defer a portion of the employees' discretionary compensation. The plans generally provide a return based upon the performance of various referenced investments. Awards under these plans are generally subject to a sole vesting condition of service over time, which normally ranges from one to seven years from the date of grant. All, or a portion of an award may be forfeited if employment is terminated before the end of the relevant vesting period or cancelled after the vesting period in certain situations. The awards are settled in cash at the end of the relevant vesting period.

For performance year 2020, certain changes were made to the Morgan Stanley Group's compensation deferral schedule formula resulting in minimal cash-based deferred compensation being granted to employees of the Group in January 2021 and January 2022.

*Group:*

Awards with a value of $2 million (2020: $90 million) were granted to employees of the Group during the year.

The deferred cash-based compensation expenses recognised in the year is shown in the table below:

| in $ millions | 2021 | 2020 |
|---|---|---|
| Deferred cash-based awards (notional cash amount) | 32 | 92 |
| Return on referenced investments | | |
| Carried interest | - | (1) |
| Other | 4 | 6 |
| | 36 | 97 |

The liability to employees at the end of the year, which is reported within 'Accruals and deferred income' in the consolidated statement of financial position, is $97 million (2020: $126 million) of which $61 million (2020: $62 million) is expected to be settled wholly within one year and $36 million (2020: $64 million) thereafter.

The unrecognised expense related to deferred cash-based compensation awards is $11 million of which $8 million is expected to be recognised in 2022, $2 million in 2023 and $1 million thereafter. Amounts do not include unrecognised expense for forfeitures, cancellations, accelerations or assumptions about future market conditions.

The Group economically hedges the exposure created by certain of these deferred compensation plans by entering into derivative transactions with other Morgan Stanley Group undertakings. The derivative balance at the end of the year, recognised within 'Trading financial assets' is $1 million (2020: $2 million). The related loss recorded within 'Net trading income' for the year is $1 million (2020: $1 million profit).

*Company:*

Awards with a value of $2 million (2020: $90 million) were granted to employees of the Company during the year.

The liability to employees at the end of the year, which is reported within 'Accruals and deferred income' in the statement of financial position, is $97 million (2020: $125 million) of which $61 million (2020: $61 million) is expected to be settled wholly within one year and $36 million (2020: $64 million) thereafter.

The Company economically hedges the exposure created by certain of these deferred compensation plans by entering into derivative transactions with other Morgan Stanley Group undertakings. The derivative balance at the end of the year, recognised within 'Trading financial assets' is $1 million (2020: $2 million). The related loss recorded within 'Net trading income' for the year is $1 million (2020: $1 million profit).

**Management charges from fellow Morgan Stanley undertakings**

As described in note 7, the Group and Company utilise the services of staff who are employed by other Morgan Stanley Group undertakings. Management charges are incurred in respect of these employee services which include the cost of equity-settled share-based and deferred cash-based compensation plans.

## 33. POST EMPLOYMENT BENEFITS

**Defined contribution plans**

The Group operates several Morgan Stanley defined contribution plans, which require contributions to be made to funds held in trust, separate from the assets of the Group.

The defined contribution plans are as follows:

- MSII Offshore Retirement Benefit Plan IV, Dubai Section;
- Morgan Stanley DIFC Workplace Savings Scheme (Dubai);
- Morgan Stanley Asia Limited Retirement Benefit Plan (Taiwan);
- Morgan Stanley & Co. International plc, Seoul Branch Defined Contribution Plan; and
- Morgan Stanley & Co. International plc Zurich Branch Top-up Plan

The Group pays fixed contributions to the funds, with no legal or constructive obligation to pay further contributions.

The defined contribution pension charge in relation to the above schemes recognised within 'Direct staff costs' in 'Operating expense' in the consolidated income statement was $3.6 million for the year (2020: $3.5 million) of which $nil was accrued at 31 December 2021 (2020: $nil).

**Defined benefit plans**

The Group also operates several Morgan Stanley defined benefit plans, which provide post-employment benefits that are based on length of service and salary.

The defined benefits plans are as follows:

- Morgan Stanley Asia (Taiwan) Limited Retirement Scheme;
- Morgan Stanley Asia (Taiwan) Limited Book Reserve Plan;
- Morgan Stanley Asia (Taiwan) Limited Grandfather Plan;
- Morgan Stanley & Co. International plc Zurich Branch Base Plan; and
- Morgan Stanley & Co. International plc Dubai Branch End of Service Gratuity

The Group's cumulative amount of actuarial gains and losses recognised in other comprehensive income is a $1.1 million loss (2020: $2.9 million loss). A net liability of $7.8 million (2020: $8.8 million) is recognised in the Group's consolidated statement of financial position in respect of these plans.

**Plans operated by fellow Morgan Stanley undertakings**

In addition to the above, the Group incurs management charges from fellow Morgan Stanley undertakings for post-employment benefit costs related to the Morgan Stanley UK Group Pension Plan ('the Plan') operated by MSUKL. The Plan is a defined contribution scheme with a closed defined benefit section.

**Defined contribution section of the Plan**

MSUKL pays fixed contributions to the funds, with no legal or constructive obligation to pay further contributions.

The defined contribution pension charge recognised within 'Direct staff costs' in 'Operating expense' in the income statement was $23.7 million for the year (2020: $21.3 million) of which $nil was accrued at 31 December 2021 (2020: $nil).

As described in note 7, the Group utilises the services of staff who are employed by other Morgan Stanley Group undertakings. Management charges are incurred in respect of these employee services which include the cost of the Plan.

***Defined benefit section of the Plan ("DB Plan")***

Under contractual group recharging arrangements, a material proportion of the net defined benefit cost for the DB Plan as a whole, whether recognised in the profit for the year or other comprehensive income, is recharged to the Group, on this basis the management recharge for the year in respect of the DB plan recognised within 'Management charges to other Morgan Stanley Group undertakings' was $1.2 million (2020: $1.8 million income). Information on the DB plan is provided below.

The DB Plan has been closed to new members and future accrual since 1996. The DB Plan was previously open to permanent employees of the Morgan Stanley Group employed in the UK, and with the consent of the Trustees, other Morgan Stanley employees located outside of the UK who had previously been employed in the UK and who at some point had been members of the DB Plan.

The DB Plan provides post-employment benefits to members on retirement which are dependent on years of service and salary at the time of closure of the DB Plan in 1996. Additionally, the DB Plan also includes a Guaranteed Minimum Pension ("GMP") underpin in respect of certain defined contribution members who transferred their benefits from the defined benefit section in the past. Under the GMP underpin, if the value of each member's investment at retirement is less than the amount needed to secure the GMP benefits that accrued under the defined benefit section, the shortfall must be covered by the DB Plan.

The DB Plan is administered by the Trustees and the assets are held in a fund which is legally separate from MSUKL. The Trustees of the fund are required by law to act in the interest of the fund and of all relevant stakeholders in the scheme. The Trustees of the scheme are responsible for the investment policy with regards to the scheme assets.

The DB Plan exposes MSUKL to actuarial risks such as: investment risk, interest rate risk, inflation risk, longevity risk, liquidity risk and credit risk. As a result of the DB Plan's investment strategy (outlined on the following page) the interest rate and inflation risks are largely hedged for the majority of the defined benefit liabilities on a funding basis. The GMP underpin liabilities are volatile because they represent the difference between a defined benefit liability and the value of members' defined contribution assets (which depends on how the individual invests) and are only approximately hedged.

As required by the UK regulatory framework, a full actuarial valuation of the DB Plan is conducted at least every three years and updated annually between full triennial valuations to determine the position of the DB Plan on a funding basis. The funding basis uses assumptions reflective of the cost of securing the benefits built up in the DB Plan with an insurance company and is reviewed each year as part of the annual funding update.

The most recent full actuarial valuation of the DB Plan, carried out at 31 December 2018, and the most recent quarterly update both showed a surplus of scheme assets over liabilities. Accordingly, no new schedule of contributions was agreed and there were no contributions payable to the DB Plan during 2021 (2020: $nil). The expected timeline for completion of the next full triennial valuation as at 31 December 2021 falls after the approval of these financial statements.

An actuarial valuation of the DB Plan is carried out annually on an accounting basis by a qualified actuary. Under the accounting basis, the obligations are measured by discounting the best estimate of future cash flows to be paid out by the DB Plan using the projected unit credit method. As accrual of future benefits ceased in 1996, no benefit has been attributed to service during subsequent reporting periods and the accumulated benefit obligation is an actuarial measure of the present value of benefits for service already rendered.

On an accounting basis, the DB Plan has a surplus of scheme assets over liabilities.

The following table provides a summary of the present value of the defined benefit obligation and fair value of DB Plan assets included in the statement of financial position of MSUKL:

| in $ millions | 2021 | 2020 |
|---|---|---|
| Present value of the funded defined benefit obligation | (315) | (354) |
| Fair value of plan assets | 418 | 453 |
| Plan surplus | 103 | 99 |
| Impact of asset ceiling | (80) | (79) |
| Net DB Plan Asset | 23 | 20 |

The surplus recognised in the MSUKL statement of financial position is limited to the amount of future economic benefits available to the entity in the form of reduced contributions.

Of the defined benefit obligation, $303,973,000 (2020: $352,448,000) relates to deferred members and $10,850,000 (2020: $1,653,000) relates to retired members. Upon reaching retirement, up until 31 December 2018, most retiring members were settled through the purchase of an annuity contract in the name of the member, with MSUKL having no further obligation. A High Court ruling on 26 October 2018 confirmed that pensions schemes are required to equalise male and female members' GMP benefits ("GMP equalisation"). The Trustee has temporarily suspended the practice of individually buying out members' benefits until the legal position and benefit entitlements with respect to GMP equalisation are clearer. Since the end of 2018, individuals who have reached benefit age have been retained as members in the DB Plan.

The weighted average duration of the defined benefit obligation at 31 December 2021 is 28 years (2020: 28 years).

**Movement in the net defined benefit asset and impact of asset ceiling**

The following tables provide a summary of the present value of the obligation, the fair value of the DB Plan assets and the impact of the asset ceiling recognised by MSUKL:

| 2021<br>in $ millions | Present value of obligation | Fair value of plan assets | Total | Impact of asset ceiling | Total |
|---|---|---|---|---|---|
| At 1 January 2021 | (354) | 453 | 99 | (79) | 20 |
| Past service costs | (1) | - | (1) | - | (1) |
| Net interest (expense)/ income | (4) | 5 | 1 | (1) | - |
| **Amounts recognised in the income statement** | (5) | 5 | - | (1) | (1) |
| Remeasurements: | | | | | |
| The return on scheme assets (excluding amounts included in net interest expense) | - | (28) | (28) | - | (28) |
| Actuarial gain arising from changes in demographic assumptions | 1 | - | 1 | - | 1 |
| Actuarial gain arising from changes in financial assumptions | 26 | - | 26 | - | 26 |
| Actuarial gain arising from experience adjustments | 6 | - | 6 | - | 6 |
| Adjustments for restrictions on the defined benefit asset | - | - | - | (1) | (1) |
| **Amounts recognised in the statement of comprehensive income** | 33 | (28) | 5 | (1) | 4 |
| Foreign exchange rate changes | 3 | (4) | (1) | 1 | - |
| Benefit payments | 8 | (8) | - | - | - |
| **At 31 December 2021** | (315) | 418 | 103 | (80) | 23 |

| 2020<br>in $millions | Present value of obligation | Fair value of plan assets | Total | Impact of asset ceiling | Total |
|---|---|---|---|---|---|
| At 1 January 2020 | (299) | 389 | 90 | (69) | 21 |
| Past service costs | (2) | - | (2) | - | (2) |
| Net interest (expense)/ income | (5) | 7 | 2 | (2) | - |
| **Amounts recognised in the income statement** | (7) | 7 | - | (2) | (2) |
| Remeasurements: | | | | | |
| The return on scheme assets (excluding amounts included in net interest expense) | - | 48 | 48 | - | 48 |
| Actuarial gain arising from changes in demographic assumptions | (1) | - | (1) | - | (1) |
| Actuarial (loss) arising from changes in financial assumptions | (45) | - | (45) | - | (45) |
| Actuarial gain arising from experience adjustments | 5 | - | 5 | - | 5 |
| Adjustments for restrictions on the defined benefit asset | - | - | - | (7) | (7) |
| **Amounts recognised in the statement of comprehensive income** | (41) | 48 | 7 | (7) | - |
| Foreign exchange rate changes | (12) | 14 | 2 | (1) | 1 |
| Benefit payments | 5 | (5) | - | - | - |
| **At 31 December 2020** | (354) | 453 | 99 | (79) | 20 |

A further High Court ruling on 20 November 2020 confirmed that pension schemes are required to equalise male and female members' GMP benefits in respect of historic statutory transfers paid out since 17 May 1990. An additional liability has been estimated to incorporate the impact of this requirement which is treated as a plan amendment. An estimate of $1 million has been recognised as a past service cost in the current year (2020: $2 million). This estimate may be revised as the Trustee works with the plan actuary and administrator to review historical data and fully assess the impact of the ruling on the plan.

**Actuarial assumptions**

The following table presents the principal actuarial assumptions used in the valuation of the DB Plan:

| | 2021 % | 2020 % |
|---|---|---|
| Pre-retirement discount rate | 1.8% | 1.1% |
| Post-retirement discount rate | 1.3% | 1.3% |
| Inflation (RPI) | 3.5% | 2.7% |
| Revaluation in deferment – inflation (CPI) | 2.9% | 2.1% |

The mortality assumptions used give the following life expectancy:

| | Life expectancy at age 65 for a male member currently: | | Life expectancy at age 65 for a female member currently: | |
|---|---|---|---|---|
| | Aged 65 | Aged 45 | Aged 65 | Aged 45 |
| **31 December 2021** | | | | |
| UK | 89.4 | 90.6 | 90.9 | 92.3 |
| **31 December 2020** | | | | |
| UK | 89.4 | 90.6 | 90.8 | 92.2 |

No allowance is made for COVID-19 mortality experience, however, this will continue to be monitored in the future.

The sensitivities regarding the principal assumptions used to measure the defined benefit obligation are as follows:

**2021**

| Assumption | Change in assumption | Impact on scheme liabilities |
|---|---|---|
| Discount rate | Increase/ decrease by 0.25% | Decrease/ increase by 6.5%/ 7.0% |
| Inflation assumption | Increase/ decrease by 0.25% | Increase/ decrease by 1.1%/ 1.1% |
| Life expectancy | Increase/decrease by 1 year | Increase/decrease by 4.3%/4.3% |

**2020**

| Assumption | Change in assumption | Impact on scheme liabilities |
|---|---|---|
| Discount rate | Increase/ decrease by 0.25% | Decrease/ increase by 6.6%/ 7.1% |
| Inflation assumption | Increase/ decrease by 0.25% | Increase/ decrease by 1.2%/ 1.1% |
| Life expectancy | Increase/decrease by 1 year | Increase/decrease by 4.3%/4.2% |

The sensitivity analysis presented above has been determined based on reasonably possible changes of the assumptions occurring at 31 December 2021 and 31 December 2020, assuming that all other assumptions are held constant. The methods and types of assumptions used in preparing the sensitivity analysis did not change compared to the prior year.

**DB Plan assets**

MSUKL and the Trustees, in consultation with their independent investment consultants and actuaries, determine the asset allocation targets based on their assessment of business and financial conditions, demographic and actuarial data, funding characteristics and related risk factors. Other relevant factors, including industry practices and long-term historical and prospective capital market returns, are also considered. The overall investment objective is expected to minimise the volatility of the Plan's surplus or deficit through asset liability matching. The investment strategy is considered to be low risk.

Specific risks which are managed through the asset allocation targets include:

- Interest rate and inflation risk – Plan liabilities will change in response to changes in interest rates and inflation. The policy is to hedge this risk as far as possible;

- Asset volatility – investment in asset classes such as equities gives rise to volatility in the value of the assets. The policy is to invest in asset classes which closely match the Plan's liabilities and therefore minimise asset volatility;
- Credit risk – any default or downgrade in instruments such as corporate bonds and money market instruments may result in losses. The policy is to partially mitigate this risk by investment in a range of different credit instruments via pooled funds;
- Liquidity risk – the liquidity of investments may change over time which may have an impact on the expected transaction costs. The Trustees and MSUKL have reviewed the likely cash requirements of the Plan and are satisfied that the investment arrangements provide sufficient liquidity;
- Longevity risk – the longevity experience may differ from expectations and expectations may change over time.

In line with the above investment objectives, the DB Plan holds investments in a range of pooled investment vehicles of varying maturities intended to broadly reflect the expected liability profile of the Plan. The major categories and fair values of scheme assets at the end of the reporting period are set out below.

**Fair value of Plan assets**

| | **2021** | | | **2020** | | |
|---|---|---|---|---|---|---|
| **in $ millions** | **Quoted in an active market** | **Other** | **Total** | **Quoted in an active market** | **Other** | **Total** |
| Cash and cash equivalents | - | 53 | 53 | - | 71 | 71 |
| Corporate bonds | 103 | - | 103 | 110 | - | 110 |
| Government bonds | 262 | - | 262 | 272 | - | 272 |
| | 365 | 53 | 418 | 382 | 71 | 453 |

MSUKL and the Trustees conducted a full asset-liability review for the DB Plan during 2019 with underlying investments updated in January 2020. Overall investment strategies remain unchanged with the primary objective being to invest the DB Plan's assets to minimise the volatility of the DB Plan's net surplus or deficit. The asset-liability review occurs every three years with the next scheduled review due to take place in 2022. These studies are used to assist the Trustees and MSUKL in determining the optimal long-term asset allocation with regard to the structure of liabilities within the scheme.The main strategic choices formulated in the actuarial and technical policy documents of the scheme are:

a) Assets invested in hedging assets such as gilts, corporate bonds and swap-based hedging funds in order to hedge liability-related risks.
b) Interest rate sensitivity caused by the duration of the defined benefit obligation should be reduced by the use of debt instruments such as gilts in combination with interest rate swap-based hedging funds.
c) In respect of GMP underpin liabilities, investment in long-dated corporate bonds to approximately hedge annuity prices, provide a degree of liquidity and generate modest degree of excess investment return.

## 34. Related Party Disclosures

**Parent and subsidiary relationships**

*Parent and ultimate controlling entity*

The Group's immediate parent undertaking is Morgan Stanley Investments (UK) which is registered in England and Wales. Copies of its financial statements can be obtained from the Registrar of Companies for England and Wales, Companies House, Crown Way, Cardiff CF14 3UZ.

The ultimate parent undertaking and controlling entity is Morgan Stanley. This is the largest group of which the Group is a member and for which group financial statements are prepared. Morgan Stanley has its registered office c/o The Corporation Trust Company, The Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801, United States of America and is incorporated in the state of Delaware, in the United States of America. Copies of its financial statements can be obtained from www.morganstanley.com/investorrelations.

**Key management compensation**

Key management personnel are defined as those persons having authority and responsibility for planning, directing and controlling the activities of the Group.

The Morgan Stanley Group's corporate governance framework gives consideration to legal, geographical and business lines through a combination of boards of Directors and regional and global management committees. Accordingly, in addition to the Directors of the Company, key management personnel of the Group is considered to include: the boards of Directors of certain parent companies, including that of Morgan Stanley, certain members of key Morgan Stanley Group management committees, those designated as senior managers under the UK's Senior Manager regime and certain executive officers of Morgan Stanley.

The boards of the Group's parent companies, the management committees and the executive officers cover the full range of the Morgan Stanley Group's business activities. Only those members with responsibility for the Institutional Securities business, being the reportable business segment of the Group, are considered to be key management personnel of the Group. The aggregate compensation below represents the proportion of compensation paid to these key management personnel, including the Directors of the Company, in respect of their services to the Group.

Key management personnel compensation in respect of their services rendered to the Group comprised the following:

| in $ millions | 2021 | 2020 |
|---|---|---|
| Short-term employee benefits | 85 | 70 |
| Share-based payments | 115 | 61 |
| Other long-term employee benefits | 5 | 26 |
| | 205 | 157 |

The share-based payment costs disclosed above reflect the amortisation of equity-based awards granted to key management personnel and are therefore not directly aligned with other staff costs in the current year.

Key management personnel compensation is borne directly by the Group as well as other Morgan Stanley Group undertakings in the current year. Management recharges in respect of key management personnel compensation borne by other Morgan Stanley Group undertakings are included in 'Management charges from other Morgan Stanley Group undertakings relating to staff costs' within 'Other expense', as disclosed in note 7.

**Directors' remuneration**

| in $ millions | 2021 | 2020 |
|---|---|---|
| **Total remuneration of all Directors:** | | |
| Aggregate remuneration | 16 | 17 |
| Long term incentive schemes | 1 | 2 |
| | 17 | 19 |
| **Disclosures in respect of the highest paid Director:** | | |
| Aggregate remuneration | 7 | 6 |
| Long term incentive schemes | 1 | - |
| | 8 | 6 |

Directors' remuneration has been calculated as the sum of cash, bonuses and benefits in kind.

All Directors who are employees of the Morgan Stanley Group are eligible for shares of the parent company, Morgan Stanley, awarded under the Morgan Stanley Group's equity-based long term incentive schemes. In accordance with Schedule 5 paragraph 1(3)(a) of The Large and Medium-sized Companies and Groups (Accounts and Reports) Regulations 2008, the above disclosures do not include the value of shares awarded. During the year seven Directors received restricted stock unit awards in respect of qualifying services (2020: nine).

The value of assets (other than shares) awarded under other long term incentive schemes has been included in the above disclosures when the awards vest, which is generally within three years from the date of the award.

There are two Directors to whom retirement benefits are accruing under a non-UK defined benefits scheme (2020: two). In addition, one Director has benefits accruing under the Alternative Retirement Plan, a defined benefits scheme, operated by MSUKL (2020: one).

The Morgan Stanley Group operates a defined contribution pension scheme, the Morgan Stanley UK Group Pension Plan. There are six Directors to whom retirement benefits are accruing under this scheme (2020: seven). One Director has benefits accruing under a non-UK defined contribution scheme (2020: one).

The Group has not provided any loans or other credit advances to its Directors during the year (2020: $nil).

**Transactions with related parties**

The Morgan Stanley Group conducts business for clients globally through a combination of both functional and legal entity organisational structures. Accordingly, the Group is closely integrated with the operations of the Morgan Stanley Group and enters into transactions with other Morgan Stanley Group undertakings on an arm's length basis for the purposes of utilising financing, trading and risk management, and infrastructure services. The nature of these relationships along with information about the transactions and outstanding balances is given below. The Group has not recognised any expense and has made no provision for impairment relating to the amount of outstanding balances from related parties (2020: $nil).

*Cash*

The Group places cash with other Morgan Stanley Group undertakings. All such transactions are entered into on an arm's length basis.

| | 2021 | | 2020 | |
|---|---|---|---|---|
| **$ millions** | **Interest** | **Balance** | **Interest** | **Balance** |
| Amounts due from other Morgan Stanley Group undertakings | 2 | 100 | - | 3,685 |

*Funding*

The Group receives funding from and provides funding to other Morgan Stanley Group undertakings in the following forms:

*General funding*

General funding is undated, unsecured, floating rate lending, other than certain funding which is dated on a rolling 40, 60, 190 or 395 day term. Funding may be received or provided for specific transaction related funding requirements, or for general operational purposes. The interest rates are established by the Morgan Stanley Group Treasury function for all entities within the Morgan Stanley Group and approximate the market rate of interest that the Morgan Stanley Group incurs in funding its business

Details of the outstanding balances on these funding arrangements and the related interest income or expense recognised in the consolidated income statement during the year are shown in the table on the following page:

| | 2021 | | 2020 | |
|---|---|---|---|---|
| $ millions | Interest | Balance | Interest | Balance |
| ***Undated*** | | | | |
| Amounts due from the Group's direct and indirect parent undertakings | - | 156 | - | 145 |
| Amounts due from other Morgan Stanley Group undertakings | 1 | 155 | 2 | 183 |
| | 1 | 311 | 2 | 328 |
| ***Rolling 395 day term*** | | | | |
| Amounts due from the Group's direct and indirect parent undertakings | 1 | 32 | 2 | 57 |
| Amounts due from other Morgan Stanley Group undertakings | - | 38 | - | 36 |
| | 1 | 70 | 2 | 93 |
| ***Undated*** | | | | |
| Amounts due to the Group's direct and indirect parent undertakings | - | 410 | - | 205 |
| Amounts due to other Morgan Stanley Group undertakings | 10 | 537 | 28 | 1,432 |
| | 10 | 947 | 28 | 1,637 |
| ***40 day termed*** | | | | |
| Amounts due to other Morgan Stanley Group undertakings | 4 | 303 | 5 | 291 |
| ***60 day termed*** | | | | |
| Amounts due to the Group's direct and indirect parent undertakings | 39 | 1,431 | 150 | 11,405 |
| ***190 day termed*** | | | | |
| Amounts due to the Group's direct and indirect parent undertakings | 76 | - | 4 | 6,000 |
| ***Rolling 395 day term*** | | | | |
| Amounts due to the Group's direct and indirect parent undertakings | 347 | 28,938 | 227 | 16,288 |
| Amounts due to other Morgan Stanley Group undertakings | 7 | 405 | 7 | 476 |
| | 354 | 29,343 | 234 | 16,764 |

*Subordinated loans*

The Group received a subordinated loan and a senior subordinated loan from another Morgan Stanley Group undertaking. Details of the terms of these loans, including the contractual maturity and the interest rate are shown in note 17.

*Trading and risk management*

In the course of funding its business, the Group enters into collateralised financing transactions with other Morgan Stanley Group undertakings. All such transactions are entered into on an arm's length basis.

Details of the outstanding on such transactions and the related interest income / expense recognised in the consolidated income statement during the year are shown in the table below:

| | 2021 | | 2020 | |
|---|---|---|---|---|
| in $ millions | Interest | Balance | Interest | Balance |
| **Financial assets measured at fair value** | | | | |
| Amounts due to the Group's direct and indirect parent undertakings | - | 285 | - | - |
| Amounts due from other Morgan Stanley Group undertakings | (212) | 49,016 | (55) | 44,477 |
| | (212) | 49,301 | (55) | 44,477 |
| **Financial liabilities measured at amortised cost** | | | | |
| Amounts due to other Morgan Stanley Group undertakings | (28) | 7,112 | (24) | 26,884 |
| **Financial liabilities measured at fair value** | | | | |
| Amounts due to the Group's direct and indirect parent | 1 | - | - | 150 |
| Amounts due to other Morgan Stanley Group undertakings | (112) | 28,532 | (7) | 10,442 |
| | (111) | 28,532 | (7) | 10,592 |

The Group enters into purchases and sales of securities and derivative transactions with other Morgan Stanley Group undertakings to facilitate the provision of financial services to clients on a global basis and to manage the market risks associated with such business. The Group also enters into derivative transactions with other Morgan Stanley Group undertakings to manage the market risks associated with certain of its compensation plans. All such transactions are entered into on an arm's length basis. The total amounts receivable and payable from such transactions not yet settled and the fair value of such derivatives contracts outstanding at the year end were as follows:

| in $ millions | 2021 | 2020 |
|---|---|---|
| Amounts due from the Group's direct and indirect parent undertakings on securities and derivative transactions | 812 | 2,033 |
| Amounts due from other Morgan Stanley Group undertakings on securities and derivative transactions | 125,582 | 110,225 |
| | 126,394 | 112,258 |
| Amounts due to the Group's direct and indirect parent undertakings on securities and derivative transactions | 731 | 3,167 |
| Amounts due to other Morgan Stanley Group undertakings on securities and derivative transactions | 124,463 | 106,341 |
| | 125,194 | 109,508 |

The Group has received collateral of $11 million (2020: $2,303 million) from the Group's direct and indirect parent undertaking and $6,862 million (2020: $1,710 million) from other Morgan Stanley Group undertakings. The Group has pledged collateral of $446 million (2020: $104 million) to the Group's direct and indirect parent undertakings and $33,464 million (2020: $23,840 million) to other Morgan Stanley Group undertakings. The Group has received and pledged collateral to mitigate credit risk on exposures arising under derivatives contracts between the Group and other Morgan Stanley Group undertakings.

In addition, the management and execution of business strategies on a global basis results in many Morgan Stanley transactions impacting a number of Morgan Stanley Group entities. The Morgan Stanley Group has Global Transfer Pricing Policies in place among the Ultimate Parent and its consolidated subsidiaries to ensure arm's length pricing. These policies are consistent with 2017 OECD transfer pricing guidelines for multinational enterprises and tax administrations. The Firm has also engaged in negotiations of Advanced Pricing Agreements with selected tax authorities in respect of its key transfer pricing methodologies. For the year ended 31 December 2021, a net amount of $921 million was transferred to other Morgan Stanley Group undertakings relating to such revenue transfer pricing policies and recognised in the consolidated income statement arising from such policies (2020: net transfer of $1,353 million).

*Infrastructure services*

The Group receives and incurs management charges to and from other Morgan Stanley Group undertakings for infrastructure services, including the provision of staff and office facilities. Management recharges received and incurred during the year are as follows:

| | 2021 | | 2020 | |
|---|---|---|---|---|
| in $ millions | Staff costs | Other services | Staff costs | Other services |
| Amounts recharged from the Group's direct and indirect parent undertakings | 11 | - | 22 | - |
| Amounts recharged from other Morgan Stanley Group undertakings(1) | 613 | 1,396 | 549 | 1,293 |
| | 624 | 1,396 | 571 | 1,293 |

(1) Amounts related to Other services include expenses reported as 'Commission and other similar arrangements' of $205 million (2020: $238 million).

Amounts outstanding at the reporting date are included within the general funding balances disclosed above.

## 35. PLANNED REPLACEMENT OF LIBOR AND REPLACEMENT OR REFORM OF OTHER INTEREST RATE BENCHMARKS

Central banks around the world, including the Bank of England and the Federal Reserve, have commissioned committees and working groups of market participants and official sector representatives to replace LIBOR and replace or reform IBORs. A transition away from use of the IBORs to alternative rates and other potential interest rate benchmark reforms is underway and will continue over the course of the next few years. These reforms have caused and may in the future cause such rates to perform differently than in the past, or to cease entirely, or have other consequences that are contrary to market expectations.

In accordance with announcements by the FCA and the ICE Benchmark Administration, which administers LIBOR publication, the publication of most non-US dollar LIBOR rates ceased as of the end of December 2021. While publication of the 1, 3 and 6 month Sterling and Japanese yen LIBOR settings will continue at least for one year on the basis of a synthetic methodology (known as "synthetic LIBOR"), these rates have been designated unrepresentative by the FCA and are solely available for use in legacy transactions. Furthermore, while certain US dollar LIBOR tenors are expected to continue to be published until 30

June 2023, the US banking agencies and the FCA have issued guidance instructing banks to cease entering into new contracts referencing LIBOR no later than 31 December 2021, with certain exceptions.

As of 31 December 2021, the Group's exposure to LIBOR-referencing contracts was primarily concentrated in derivatives contracts. Non-derivative trading financial assets and financial liabilities as well as structured notes which reference IBORs do not comprise a significant exposure for the Group.

A significant majority of derivative contracts, and a majority of non-derivative contracts contain fallback provisions, or otherwise have an expected path which will allow for the transition to an alternative reference rate upon the cessation of the applicable LIBOR rate.

While substantial progress has been made in the transition away from the IBORs, the Group nonetheless currently remains party to a significant number of US dollar LIBOR-linked contracts. A significant majority of the Group's US dollar derivatives contracts contain IBOR fallback provisions due to incorporation of the ISDA Fallbacks Supplement or through amendment by adherence to the 2020 IBOR Fallbacks Protocol. Further, to the extent that a US dollar LIBOR-linked derivatives or non-derivatives contract is governed by US law, US federal legislation has been enacted that will replace LIBOR references in certain contracts under certain circumstances with a benchmark based on the Secured Overnight Financing Rate, including any spread adjustment, recommended by the Federal Reserve. For those US dollar LIBOR-linked contracts without appropriate fallbacks and for which the US federal legislation is not expected to apply, the Group is actively developing appropriate transition plans in light of the planned 30 June 2023 cessation date for the remaining US dollar LIBOR tenors.

Central counterparties have converted cleared derivatives which referenced IBORs that ceased to be published at the end of December 2021 to alternative reference rates, and generally aim to have converted all derivatives which reference US dollar LIBOR no later than 30 June 2023.

Following the cessation or non-representativeness designation of non-US dollar LIBOR rates as of 31 December 2021, non-US dollar LIBOR-linked contracts containing fall back provisions transitioned to alternative reference rates through the operation of the fallbacks within the contracts. For example, as of the first reset date following 31 December 2021, derivatives contracts referencing non-US dollar LIBOR that either incorporate the International Swaps and Derivatives Association ("ISDA") IBOR Fallbacks Supplement or that were amended through adherence to the 2020 IBOR Fallbacks Protocol, are or will be valued using the adjusted version of the applicable risk-free reference rate selected as an alternative to the IBORs by the appropriate national committee (e.g., SONIA in place of Sterling LIBOR and the Tokyo Overnight Average rate in place of Japanese yen LIBOR).

As of 31 December 2021, the Group's maximum nominal exposure to bilateral external derivatives which mature after the expected cessation of the referenced IBOR and which did not contain fallback provisions to allow for the transition to alternative reference rates upon the cessation of the applicable IBOR rate was $15 billion (approximately 1% of the Group's total nominal exposure to bilateral external derivatives which reference IBORs at the end of the reporting period), $14 billion of which comprised derivatives which referenced US dollar LIBOR. Of the remaining portion of non-US dollar LIBOR-linked derivatives that have not transitioned to alternative reference rates through the operation of fallback provisions, many of these contracts reference Sterling or Japanese Yen LIBOR settings for which a synthetic rate will be published, therefore these contracts will continue to reference synthetic LIBOR at least for the duration of 2022. Where a single trade references multiple IBORs, each IBOR exposure is counted separately. All derivatives which the Group has with other Morgan Stanley entities contained fallback provisions which allowed for the transition to alternative reference rates upon the cessation of the relevant LIBOR. Certain bilateral external derivatives have indirect exposure to USD IBORs via Swap Rates which may not be fully addressed by industry-standard IBOR fallbacks, and may require additional remediation.

The ongoing market transition away from IBORs and other interest rate benchmarks to alternative reference rates is complex and could have a range of adverse impacts on our business, financial condition and results of operations. In particular, such transition or reform could:

- Adversely impact the pricing, liquidity, value of, return on and trading for a broad array of financial products, including any IBOR-linked securities, loans and derivatives that are included in our financial assets and liabilities;
- Require further extensive changes to documentation that governs or references IBOR or IBOR-based products, including, for example, pursuant to time-consuming renegotiations of existing documentation to modify the terms of outstanding securities and related hedging transactions;
- Result in a population of products with documentation that governs or references IBOR or IBOR-based products but that cannot be amended due to an inability to obtain sufficient consent from counterparties or product owners;
- Result in inquiries, reviews or other actions from regulators in respect of our (or the market's) preparation, readiness, transition plans and actions regarding the replacement of an IBOR with one or more alternative reference rates, including regulatory guidance regarding constraints on the entry into new US dollar IBOR-linked contracts after 31 December 2021;
- Result in disputes, litigation or other actions with clients, counterparties and investors, in various scenarios, such as regarding the interpretation and enforceability of provisions in IBOR-based products such as fallback language or other related provisions, including in the case of fallbacks to the alternative reference rates, any economic, legal, operational or other impact resulting from the fundamental differences between the IBORs and the various alternative reference rates;
- Require the additional transition and/or further development of appropriate systems and analytics to effectively transition our risk management processes from IBORs to those based on one or more alternative reference rates in a timely manner, including by quantifying value and risk for various alternative reference rates, which may prove challenging given the limited history of the proposed alternative reference rates; and
- Cause us to incur additional costs in relation to any of the above factors.

Other factors include the pace of the transition to the alternative reference rates, timing mismatches between cash and derivative markets, the specific terms and parameters for and market acceptance of any alternative reference rate, market conventions for the use of any alternative reference rate in connection with a particular product (including the timing and market adoption of any conventions proposed or recommended by any industry or other group), prices of and the liquidity of trading markets for products based on alternative reference rates, and our ability to further transition and develop appropriate systems and analytics for one or more alternative reference rates.

The Morgan Stanley Group's IBOR transition plan is overseen by a global steering committee, with senior management oversight, and the Morgan Stanley Group continues to execute against the Firm-wide IBOR transition plan to complete the transition to alternative reference rates, including implementing regulatory guidance to cease entering into new contracts referencing US dollar LIBOR after 31 December 2021, with certain exceptions.

## APPENDIX TO THE FINANCIAL STATEMENTS

List of subsidiaries, including indirect subsidiaries, as at 31 December 2021 and 31 December 2020:

| Name of Company | Address of undertaking's registered office/ principal place of business (2) | Proportion of shares held by the Group (1)(3) 2021 | 2020 | Nature of Business |
|---|---|---|---|---|
| Morgan Stanley Taiwan Limited | 14th & 22nd Floors, Taipei Metro, 207 Tun Hwa South Road, Sec. 2, Taipei, 106, Taiwan | 100% | 100% | Financial Services |
| Morgan Stanley Strategic Investments Limited | | 100% | 100% | Financial Services |
| Morgan Stanley Turnberry Limited | | 100% | 100% | Holding company |
| Morgan Stanley Mallard Investments Limited | | 100% | 100% | Holding company |
| Morgan Stanley Montgomerie Investments Limited | | 100% | 100% | Holding company |
| Morgan Stanley Northcote Investments Limited (In Liquidation 30 December 2020) | 25 Farringdon Street, London EC4A 4AB, United Kingdom | 100% | 100% | Holding company |
| Morgan Stanley Silvermere Limited (In Liquidation 30 December 2020) | 25 Farringdon Street, London EC4A 4AB, United Kingdom | 100% | 100% | Holding company |
| Morgan Stanley Humboldt Investments Limited | | 100% | 100% | Financial Services |
| Morgan Stanley Rivelino Investments Limited | | 100% | 100% | Holding company |
| Morgan Stanley Havel GmbH | Grosse Gallusstrasse 18, 60312, Frankfurt am Main, Germany | 100% | 100% | Holding company |
| Morgan Stanley Cooper Investments Limited | 25 Farringdon Street, London, EC4A 4AB, United Kingdom | N/A(4) | 100% | Holding company |
| Morgan Stanley Montrose Investments Limited | 25 Farringdon Street, London, EC4A 4AB, United Kingdom | N/A(4) | 100% | Financial Services |
| Morgan Stanley Langtree Investments B.V. | | 100% | 100% | Financial Services |
| Morgan Stanley Equity Investments (UK) Limited | Maples Corporate Services Limited, PO Box 309, Ugland House, George Town, Grand Cayman, KY1-1104, Cayman Islands | 100% | 100% | Financial Services |
| Clearcreek, S.L.U. | Travessera de Gracia, No. 11, 5th floor, 08021, Barcelona, Spain | 100% | 100% | Financial Services |
| Cabot 38 Limited | | N/A(4) | 100% | Financial Services |
| Morgan Stanley Millbrae Investments B.V. (3) | | 100% | 100% | Financial Services |
| Morgan Stanley Derivative Products (Netherlands) B.V. | Luna Arena, Herikerbergweg 238, 1101 CM, Amsterdam , Netherlands | 100% | 100% | Financial Services |
| Morgan Stanley Longcross Limited | | 100% | 100% | Holding company |
| Morgan Stanley Derivative Products Spain S.L. | Serrano 55, 28006, Madrid, Spain | 100% | 100% | Financial Services |
| Morgan Stanley Equity Investments Unlimitied Company | Custom House, Plaza Block 6, International Financial Services Centre, Dublin, DUBLIN 1, Ireland | 100% | 100% | Holding company |
| Morgan Stanley Langton Limited | | 100% | 100% | Holding company |
| Morgan Stanley Equity Finance (Malta) Limited | SmartCity Malta, SCM 01 TMF Group (Malta) 401, Ricasoli, Kalkara SCM 1001, Malta | 100% | 100% | Financial Services |
| Morgan Stanley Equity Derivative Services (Luxembourg) S.a r.l | Citco Luxembourg, 20, rue de la Poste, L-2346, Luxembourg | 100% | 100% | Financial Services |
| Morgan Stanley Equity Financing Limited (In Liquidation 30 December2020) | 25 Farringdon Street, London EC4A 4AB, United Kingdom | 100% | 100% | Financial Services |
| Drake II Investments Limited | Maples Corporate Services Limited, PO Box 309, Ugland House, George Town, Grand Cayman, KY1-1104, Cayman Islands | 100% | 100% | Financial Services |
| Morgan Stanley Grund S.a.r.L | 46A, Avenue J.F. Kennedy, L-1855, Luxembourg | 100% | 100% | Financial Services |

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| Morgan Stanley Corporate Holdings Unlimited Company | Custom House, Plaza Block 6, International Financial Services Centre, Dublin, DUBLIN 1, Ireland | 100% | 100% | Holding company |
| Morgan Stanley Heythorp Investments Unlimited Company | Custom House, Plaza Block 6, International Financial Services Centre, Dublin, DUBLIN 1, Ireland | 100% | 100% | Holding company |
| Morgan Stanley Equity Holding (Netherlands) B.V. | Luna Arena, Herikerbergweg 238, 1101 CM, Amsterdam, Netherlands | 100% | 100% | Financial Services |
| Morstan Nominees Limited | 25 Cabot Square, Canary Wharf, London, E14 4QA, United Kingdom | 100% | 100% | Nominee company |
| Global Equity High Yield Fund B.V. | Coolsingel 61, 7th Floor (Right), 3012 AB, Rotterdam, Netherlands | 100% | 100% | Financial Services |
| Morgan Stanley Client Securities Nominees Limited | 25 Cabot Square, Canary Wharf, London, E14 4QA, United Kingdom | 100% | 100% | Nominee company |
| Morgan Stanley Euro Financing Unlimited Company | Custom House, Plaza Block 6, International Financial Services Centre, Dublin, DUBLIN 1, Ireland | 100% | 100% | Holding company |

(1) The proportion of voting rights held by the Group is the same as the proportion of shares held by the Group unless otherwise stated.

(2) All entities have a registered address of 20 Bank Street, Canary Wharf, London, E14 4AD, United Kingdom, unless otherwise stated.

(3) All shares held in each Company are ordinary shares with the exception of Morgan Stanley Millbrae Investments B.V. where ordinary and preference shares are held.

(4) During 2021, Cabot 38 Limited, Morgan Stanley Cooper Investments Limited and Morgan Stanley Montrose Investments Limited were dissolved.