Registered number: 34161590

Registered office:
Luna Arena
Herikerbergweg 238
1101 CM
Amsterdam
The Netherlands

MORGAN STANLEY B.V.

Report and financial statements

31 December 2022

MORGAN STANLEY B.V.

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DIRECTORS' REPORT

The Directors present their report and financial statements (which comprise the statement of comprehensive income, the statement of changes in equity, the statement of financial position, the statement of cash flows, and the related notes, 1 to 25) for Morgan Stanley B.V. (the "Company") for the year ended 31 December 2022.

RESULTS AND DIVIDENDS

The profit for the year, after tax, was €1,318,000 (2021: €2,129,000).

During the year, no dividends were paid or proposed (2021: €nil).

PRINCIPAL ACTIVITY

The principal activity of the Company is the issuance of financial instruments including notes, certificates and warrants ("structured notes") and the hedging of the obligations arising pursuant to such issuances.

The Company was incorporated under Dutch law on 6 September 2001 and has its statutory seat in Amsterdam, the Netherlands. The business office of the Company is at Luna Arena, Herikerbergweg 238, 1101 CM, Amsterdam, the Netherlands.

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

There have not been any significant changes in the Company's principal activity in the year under review and no significant change in the Company's principal activity is expected.

BUSINESS REVIEW

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

Risk factors

Risk is an inherent part of the Company's business activity. The Company 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 Morgan Stanley 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.

The Morgan Stanley Group has an established Risk Management Framework, to support the identification, monitoring and management of risk.

The primary risk areas for the Company include Market, Credit, Liquidity and Operational Risks which are discussed in the Risk Management section.

Business environment

During 2022, the global economic and geopolitical environment in which the Company operates has been characterised by elevated inflation, rising interest rates and volatility in the global financial markets. These factors have continued into 2023.

DIRECTORS' REPORT

BUSINESS REVIEW (CONTINUED)

Business environment (continued)

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

Russia and Ukraine War

The Company continues to monitor the war in Ukraine and its impact on the world economies and the financial markets. The Company's direct exposure to both Russia and Ukraine remains limited.

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

Overview of 2022

The issued structured notes expose the Company to the risk of changes in market prices of the underlying securities, interest rate risk and, where denominated in currencies other than Euros, the risk of changes in exchange rates between the Euro and the other relevant currencies. The Company uses the contracts that it purchases from other Morgan Stanley Group undertakings to hedge the market price, interest rate and foreign currency risks associated with the issuance of the structured notes.

The statement of comprehensive income for the year is set out on page 12. The Company reported a profit before income tax of €1,776,000 for the year ended 31 December 2022, compared to €2,825,000 in the prior year. The decrease in profit before income tax is driven by a decrease in the Company's share of Morgan Stanley's derivatives business revenues. The profit before income tax of the Company represents fees received in relation to intermediary services.

Other revenue of €3,745,000 for the year ended 31 December 2022 primarily comprises management recharges compared to €2,825,000 of management recharges and net foreign exchange gains of €1,023,000 in the prior year. Net foreign exchange losses of €1,549,000 were recognised in other expense in the current year. The increase in management recharges from the prior year is as a result of fees received to recover residual financing expenses. The prior year included charges, as reimbursement of residual financing income, recognised in other expense (please see note 5 and 7 for further detail). The residual financing expense and income in the current and prior year, respectively, drive the movement in net interest income of €880,000 in the prior year to net interest expense of €261,000 in the current year.

The Company has recognised a net expense of €1,393,424,000 in 'Net trading expense' compared to €79,521,000 for the prior year, with a corresponding net income of €1,393,424,000 recognised in 'Net income on other financial instruments held at fair value' compared to €79,521,000 for the prior year. This is due to fair value changes attributable to market movements in the securities underlying structured notes hedged by derivatives classified as trading financial instruments. The increase in income is mainly due to the increased market volatility with equity prices decreasing.

The statement of financial position for the Company is set out on page 14. The Company's total assets at 31 December 2022 are €10,444,666,000, an increase of €650,802,000 or 7% when compared to 31 December 2021. The increase in assets is due to net issuances of structured notes in the year, proceeds of which are lent to other Morgan Stanley Group undertakings, resulting in the increase in loans and advances. Total liabilities of €10,411,756,000 represent an increase of €649,484,000 or 7% when compared to total liabilities at 31 December 2021. These movements are primarily attributable to the value of issued structured notes and the related hedging instruments held at 31 December 2022.

DIRECTORS' REPORT

BUSINESS REVIEW (CONTINUED)

Overview of 2022 (continued)

The increase in liabilities is driven by market movements of the hedging instruments. Structured notes within debt and other borrowing remain relatively stable as the net issuances have been offset with market movements.

The performance of the Company is included in the results of the Morgan Stanley Group. The Company's Directors believe that providing further performance indicators for the Company itself would not enhance an understanding of the development, performance or position of the business of the Company.

The risk management section below sets out the Company's and the Morgan Stanley Group's policies for the management of liquidity and cash flow risk and other significant business risks.

Risk management

Risk is an inherent part of the Company's business activity. The Company 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 is managed as part of the policies and procedures of the Morgan Stanley Group's risk management policy framework. The risk management policy framework includes escalation to the appropriate senior management personnel when necessary.

Set out below is an overview of the Morgan Stanley Group's policies for the management of financial risk and other significant business risks. More detailed qualitative and quantitative disclosures about the Company's management of and exposure to financial risks are included in note 19 to the financial statements.

Market risk

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

The Company's market risk associated with its trading activities at a legal entity, trading division and at an individual product level is managed as part of the Morgan Stanley Group's market risk management policy framework.

The Morgan Stanley Group's market risk management policy framework ensures transparency of material market risks, monitors compliance with established limits, and escalates risk concentrations to appropriate senior management when necessary.

It is the policy and objective of the Company not to be exposed to net market risk.

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 Company. Credit risk includes country risk, which is further described below.

The Morgan Stanley Group's credit risk management policies and procedures, of which the Company is a part, includes escalation to the appropriate senior management personnel when necessary.

DIRECTORS' REPORT

BUSINESS REVIEW (CONTINUED)

Risk management (continued)

Credit risk (continued)

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 and 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 19.

Country risk exposure

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

The Company enters into the majority of its financial asset transactions with other Morgan Stanley Group undertakings, primarily in Luxembourg, the United Kingdom ("UK") and the United States of America ("USA"). Both the Company and the other Morgan Stanley Group undertakings are wholly-owned subsidiaries of the same ultimate parent entity, Morgan Stanley. As a result of the implicit support that would be provided by Morgan Stanley, the Company's country risk is considered a component of the Morgan Stanley Group's credit risk.

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

The Morgan Stanley 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 another 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.

Stress testing is one of the Morgan Stanley 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 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.

Liquidity risk

Liquidity risk refers to the risk that the Company 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 also encompasses the Company'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.

DIRECTORS' REPORT

BUSINESS REVIEW (CONTINUED)

Risk management (continued)

Liquidity risk (continued)

The primary goal of the Morgan Stanley Group's liquidity risk management framework is to ensure that the Morgan Stanley Group, including the Company, has access to adequate funding across a wide range of market conditions and time horizons. The framework is designed to enable the Morgan Stanley Group to fulfil its financial obligations and support the execution of the Company's business strategies. The framework is further described in note 19.

The Company continues to actively manage its capital and liquidity position to ensure adequate resources are available to support its activities, to enable it to withstand market stresses.

The Company hedges all of its financial liabilities with financial assets entered into with other Morgan Stanley Group undertakings, where both the Company and other Morgan Stanley Group undertakings are wholly-owned subsidiaries of the same parent, Morgan Stanley.

Since the Company hedges the liquidity risk of its financial liabilities with financial assets that match the maturity profile of the financial liabilities, the Company is not considered a major operating subsidiary for the purposes of liquidity risk. However, the Company would have access to the cash or liquidity reserves held by Morgan Stanley in the unlikely event that it was unable to access adequate financing to service its financial liabilities when they become payable.

Operational risk

Operational risk refers to the risk of loss, or of damage to the Company'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).

The Company may incur operational risk across the full scope of its business activities.

The Company is part of the Morgan Stanley Group's operational risk framework to identify measure, monitor and control risk across the Company and includes escalation to the appropriate senior management personnel when necessary. The framework is continually evolving to reflect changes in the Morgan Stanley Group and to respond to the changing regulatory and business environment.

The Morgan Stanley 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.

DIRECTORS' REPORT

BUSINESS REVIEW (CONTINUED)

Risk management (continued)

Operational risk (continued)

In addition, the Morgan Stanley 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 appetite established by the Board and are prioritised accordingly.

The breadth and variety of operational risk are such that the types of mitigating activities are wide-ranging. Examples of such activities include continuous enhancement of defences against cyber-attacks; 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.

The Operational Risk Management Framework requires, among other things, the proper recording and verification of a large number of transactions and events as set out in the policies and procedures. The trading risk management strategies and techniques seek to balance our ability to profit from trading positions with our 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 Morgan Stanley 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 Morgan Stanley 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 appetite. 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 Morgan Stanley Group.

The Operational Risk Department's scope includes oversight of technology risk, cybersecurity risk, information security risk, the fraud risk management and prevention program and 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 Morgan Stanley Group's advanced measurement approach for operational risk capital.

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 attacks, geopolitical unrest and pandemics.

DIRECTORS' REPORT

BUSINESS REVIEW (CONTINUED)

Risk management (continued)

Operational risk (continued)

The Morgan Stanley Group's critical processes and businesses could be disrupted by events including cyber attacks, failure or loss of access to technology and/or associated data, military conflicts, acts of terror, natural disasters, severe weather events and infectious disease. The Morgan Stanley Group maintains a resilience program designed to provide for operational resilience and enable it to respond to and recover critical processes and supporting assets in the event of a disruption impacting the Company's people, technology, facilities and third parties. The key elements of the Morgan Stanley Group's resilience program include business continuity and technical recovery planning, and testing both internally and with critical third parties to validate recovery capability in accordance with business requirements. 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. The business units also test the documented preparation 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 from a disruption impacting the assets' primary location. Disaster recovery testing is performed to validate the recovery capability of these critical technology assets.

The Company is part of the Morgan Stanley Group's programme which oversees cyber and information security risks. The cybersecurity and information security policies, procedures and technologies are designed to protect the Company'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.

In connection with its ongoing operations, the Morgan Stanley 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 Morgan Stanley 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 risk and ongoing monitoring of third-party suppliers' performance. The Morgan Stanley Group maintains a third-party risk program which is designed to align with its risk tolerance and meet regulatory requirements. The program includes governance, policies, procedures, and enabling technology. The third-party risk program includes the adoption of appropriate risk management controls and practices throughout the third-party management lifecycle to manage the risk of service failure, risk of data loss and reputational risk, among others.

Legal, regulatory and compliance risk

Legal, regulatory and compliance risk includes the risk of legal or regulatory sanctions, material financial loss; including fines, penalties, judgements, damages and/ or settlements, limitations on our business, or loss to reputation which the Company 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 our 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, anti-corruption and terrorist financing rules and regulations. The Company is generally subject to extensive regulation in the different jurisdictions in which it conducts its business.

DIRECTORS' REPORT

BUSINESS REVIEW (CONTINUED)

Risk management (continued)

Culture, values and conduct of employees

The Company, 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 Company's policies relating to business conduct, ethics and practices are followed globally.

In addition, the Company 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 Company.

Employees of the Morgan Stanley Group are accountable for conducting themselves in accordance with the Morgan Stanley Group's core values *Put Clients First, Do the Right Thing, Lead with Exceptional Ideas, Commit to Diversity and Inclusion and Give Back.* The Morgan Stanley Group's core values drive a shared set of behaviours and attributes that help employees make decisions consistent with the expectations of our clients, shareholders, regulators, Board of Directors and the public. The Morgan Stanley Group is committed to reinforcing and confirming adherence to the core values through our governance framework, tone from the top, management oversight, risk management and controls and a 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. 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, report regularly to the Morgan Stanley Group Board; and complement ongoing business and region-specific culture initiatives. A fundamental building block of this program is the Morgan Stanley Group's Code of Conduct (the "Code") which establishes standards for employee conduct that further reinforce the Morgan Stanley Group's commitment to integrity and ethical conduct. Every new hire and every employee annually is required to attest to 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.

Morgan Stanley's remuneration policies and practices ensure that there is an alignment between reward, risk, culture and conduct. Conduct, culture, and core values are considered in the employee annual performance evaluation process. The performance review process also includes evaluation of employee conduct related to risk management practices and the Morgan Stanley Group'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.

Going concern

Business risks associated with the uncertain market and economic conditions are being actively monitored and managed by the Company. Retaining sufficient liquidity and capital to withstand market pressures remains central to the Company's strategy.

The effect of relevant macroeconomic scenarios on the business of the Company 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.

DIRECTORS' REPORT

BUSINESS REVIEW (CONTINUED)

Going concern (continued)

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

DIRECTORS

The following Directors held office throughout the year and to the date of approval of this report:

A. Doppenberg
H. Herrmann
S. Ibanez
P.J.G. de Reus
TMF Management B.V.

The Company has taken notice of newly adopted Dutch Gender Balance Act, which entered into force on 1 January 2022. The Company has established appropriate and ambitious target figures for Board diversity and an action plan to reach the target. Appropriate in this case means one that takes into consideration and is dependent upon the size of the relevant Board and the current gender ratios. Ambitious is defined as one that aims to achieve a more balanced composition as compared to the existing state of affairs. The aim is that the Board of Directors comprises of at least 30% male and at least 30% female members. Currently, the composition of the Board of Directors deviates from the gender diversity objectives. Once there is a vacancy, the Company will aim at appointing a female Director to the Board.

EVENTS AFTER THE REPORTING DATE

There have been no significant events since the reporting date.

AUDIT COMMITTEE

The Company qualifies as an organisation of public interest pursuant to Dutch and the European Union ("EU") law and has established its own audit committee which complies with the applicable corporate governance rules and composition requirements as detailed in the Articles of Association of the Company.

AUDITOR

Deloitte Accountants B.V. have expressed their willingness to continue in office as auditor of the Company and their reappointment was approved by the Board on 22 September 2022.

DIRECTORS' REPORT

AUDITOR (continued)

Under EU Audit Regulation, the engagement period of a particular statutory auditor or audit firm may not exceed 10 years. As a consequence, a new auditor must be appointed for the financial year commencing 1 January 2024. During the year, the Company led a tender process which resulted in the appointment of Mazars Accountants N.V. as the Company's new auditor effective 1 January 2024. The appointment of Mazars Accountants N.V. was approved by the Board on 30 November 2022. Deloitte Accountants B.V. will continue in office as auditor of the Company for the year ending 31 December 2023.

Approved by the Board and signed on its behalf by:

26 April 2023

A. Doppenberg	H. Herrmann	S. Ibanez
P.J.G. de Reus	TMF Management B.V.	

MORGAN STANLEY B.V.

DIRECTORS' RESPONSIBILITY STATEMENT

The Directors are responsible for preparing the financial statements of the Company in compliance with the European Single Electronic Format Regulatory Technical Standard ("ESEF RTS"). In preparing the Company's financial statements in compliance with ESEF RTS, the Directors are required to prepare the financial statements in a valid xHTML format.

The Directors, the names of whom are set out on page 10, confirm to the best of their knowledge:

- the financial statements have been prepared in accordance with International Financial Reporting Standards ("IFRSs") as issued by the International Accounting Standards Board ("IASB") and as endorsed by the EU and give a true and fair view of the assets, liabilities, financial position and profit or loss of the Company; and

- the management report represented by the Directors' report includes a fair review of the development and performance of the business and the position of the Company together with a description of the principal risks and uncertainties that the Company faces.

Approved by the Board and signed on its behalf by:

26 April 2023

A. Doppenberg H. Herrmann S. Ibanez

P.J.G. de Reus TMF Management B.V.

STATEMENT OF COMPREHENSIVE INCOME
Year ended 31 December 2022

	Note	2022 €'000	2021 €'000
Net trading expense on financial assets		(515,663)	(235,970)
Net trading (expense) / income on financial liabilities		(877,761)	156,449
Net trading expense		(1,393,424)	(79,521)
Net income / (expense) on other financial assets held at fair value		43,530	(7,841)
Net income on other financial liabilities held at fair value		1,349,894	87,362
Net income on other financial instruments held at fair value	4	1,393,424	79,521
Other revenue	5	3,745	3,848
Total non-interest revenue		3,745	3,848
Interest income		14,083	11,240
Interest expense		(14,344)	(10,360)
Net interest (expense) / income	6	(261)	880
Net revenues		3,484	4,728
Non-interest expense:			
Other expense	7	(1,678)	(2,524)
Net impairment (loss) / reversal on financial instruments	8	(30)	621
PROFIT BEFORE INCOME TAX		1,776	2,825
Income tax expense	9	(458)	(696)
PROFIT AND TOTAL COMPREHENSIVE INCOME FOR THE YEAR		1,318	2,129

All operations were continuing in the current and prior year.

The notes on pages 16 to 65 form an integral part of the financial statements.

STATEMENT OF CHANGES IN EQUITY
Year ended 31 December 2022

	Share capital €'000	Retained earnings €'000	Total equity €'000
Balance as at 1 January 2021	15,018	14,445	29,463
Profit and total comprehensive income for the year	—	2,129	2,129
Balance at 31 December 2021	15,018	16,574	31,592
Profit and total comprehensive income for the year	—	1,318	1,318
Balance at 31 December 2022	15,018	17,892	32,910

The notes on pages 16 to 65 form an integral part of the financial statements.

MORGAN STANLEY B.V.
Registered number: 34161590

STATEMENT OF FINANCIAL POSITION
As at 31 December 2022
(Including Proposed Appropriation of Results)

	Note	2022	2021
		€'000	€'000
ASSETS			
Cash and short-term deposits	10	5,102	3,012
Trading financial assets	10	201,565	373,722
Loans and advances	10	8,756,464	8,117,998
Trade and other receivables	12	1,481,379	1,299,132
Current tax asset		156	—
TOTAL ASSETS		10,444,666	9,793,864
LIABILITIES AND EQUITY			
LIABILITIES			
Bank overdraft	10	—	952
Trading financial liabilities	10	1,222,037	650,317
Convertible preferred equity certificates	11	1,125,281	1,125,281
Trade and other payables	13	326,452	149,697
Debt and other borrowings	14	7,737,986	7,835,669
Current tax liability		—	356
TOTAL LIABILITIES		10,411,756	9,762,272
EQUITY			
Share capital	15	15,018	15,018
Retained earnings		17,892	16,574
Equity attributable to owners of the Company		32,910	31,592
TOTAL EQUITY		32,910	31,592
TOTAL LIABILITIES AND EQUITY		10,444,666	9,793,864

These financial statements were approved by the Board and authorised for issue on 26 April 2023.

Signed on behalf of the Board

A. Doppenberg H. Herrmann S. Ibanez

P.J.G. de Reus TMF Management B.V.

The notes on pages 16 to 65 form an integral part of the financial statements.

MORGAN STANLEY B.V.

STATEMENT OF CASH FLOWS
Year ended 31 December 2022

	Note	2022 €'000	2021 €'000
NET CASH FLOWS FROM / (USED IN) OPERATING ACTIVITIES	16	3,042	(4,990)
INVESTING ACTIVITY			
Repayment of interest from another Morgan Stanley Group undertaking		8,938	11,172
NET CASH FLOWS FROM INVESTING ACTIVITY		8,938	11,172
FINANCING ACTIVITIES			
Yield paid on convertible preferred equity certificates		(8,150)	(10,237)
Financing paid to another Morgan Stanley Group undertaking		(788)	(935)
NET CASH FLOWS USED IN FINANCING ACTIVITIES	16	(8,938)	(11,172)
NET INCREASE / (DECREASE) IN CASH AND CASH EQUIVALENTS		3,042	(4,990)
CASH AND CASH EQUIVALENTS AT THE BEGINNING OF THE YEAR		2,060	7,050
CASH AND CASH EQUIVALENTS AT THE END OF THE YEAR	16	5,102	2,060

The notes on pages 16 to 65 form an integral part of the financial statements.

1. CORPORATE INFORMATION

The Company is incorporated and domiciled in the Netherlands, at the following address:

Luna Arena, Herikerbergweg 238, 1101 CM, Amsterdam, the Netherlands.

The Company is engaged in the issuance of structured notes and the hedging of the obligations arising pursuant to such issuances with prepaid equity securities contracts, loans designated at fair value through profit or loss ("FVPL") and derivatives entered into with other Morgan Stanley Group undertakings.

The issued structured notes expose the Company to the risk of changes in the market prices of the underlying securities, interest rate risk and, where denominated in currencies other than Euros, the risk of changes in exchange rates between the Euro and the other relevant currencies. The Company uses the contracts that it purchases from other Morgan Stanley Group undertakings to hedge the market price, interest rate and foreign currency risks associated with the issuance of the structured notes.

2. BASIS OF PREPARATION

Statement of compliance

The Company has prepared its annual financial statements in accordance with IFRSs issued by the IASB as adopted by the EU, Interpretations issued by the IFRS Interpretations Committee and Part 9 of Book 2 of the Dutch Civil Code.

The Company has prepared and filed the financial statements of the Company in compliance with the ESEF RTS with the relevant member state regulator's storage mechanisms. In preparing the financial statements in compliance with ESEF RTS, the Company is required to prepare Company financial statements in a valid xHTML format.

New standards and interpretations adopted during the year

The following amendments to standards relevant to the Company's operations were adopted during the year. Except where otherwise stated, this amendment to standards did not have a material impact on the Company's financial statements.

Amendments to IAS 37 '*Provisions, Contingent Liabilities and Contingent Assets*' ('IAS 37'): 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. 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.The amendments were endorsed by the EU in July 2021.

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

2. BASIS OF PREPARATION (CONTINUED)

New standards and interpretations not yet adopted

At the date of authorisation of these financial statements, the following amendments to standards relevant to the Company's operations were issued by the IASB but not mandatory for accounting periods beginning 1 January 2022. The Company does not expect that the adoption of the following amendments to standards and interpretations will have a material impact on the Company's financial statements.

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.

Basis of measurement

The financial statements of the Company 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.

Critical accounting judgements and key sources of estimation uncertainty

In preparing the financial statements, the Company makes 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 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 key source of estimation uncertainty is the 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 reasonably possible alternative values. See note 3(d) and note 21(d)(2) 'Sensitivity of fair values to changing significant assumptions to reasonably possible alternatives'.

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

The Company evaluates the critical accounting judgements and key sources of estimation uncertainty on an ongoing basis and believes that these are reasonable.

2. BASIS OF PREPARATION (CONTINUED)

The going concern assumption

The Company's business activities, together with the factors likely to affect its future development, performance and position, are reflected in the Future Outlook and Business Review section of the Directors' report on pages 1 to 10. In addition, the notes to the financial statements include the Company's objectives, policies and processes for managing its capital; its financial risk management objectives; details of its financial instruments; and its exposures to credit risk and liquidity risk.

Taking the above factors into consideration, the Directors believe that the 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 financial statements are measured and presented in Euros, the currency of the primary economic environment in which the Company operates.

All currency amounts in the financial statements and Directors' report are rounded to the nearest thousand Euros.

b. Foreign currencies

All monetary assets and liabilities denominated in currencies other than Euros are translated into Euros at the rates ruling at the reporting date. Transactions and non-monetary assets and liabilities denominated in currencies other than Euros are recorded at the rates prevailing at the dates of the transactions. All translation differences are taken through the statement of comprehensive income. Exchange differences recognised in the statement of comprehensive income are presented in 'Other revenue' or 'Other expense', except where noted in 3(c) below.

c. Financial instruments

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

Trading financial instruments

Trading financial instruments, which includes all derivative contracts, are initially recorded on trade date at fair value (see note 3(d) below). All subsequent changes in fair value, foreign exchange differences and unrealised interest are reflected in the statement of comprehensive income in 'Net trading income / (expense)'.

Transaction costs are incremental costs that are directly attributable to the acquisition, issue or disposal of a financial instrument. Transaction costs are excluded from the initial fair value measurement of the financial instrument. These costs are recognised in the statement of comprehensive income in 'Other expense'.

3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

c. Financial instruments (continued)

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

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

Non-trading financial assets at FVPL include prepaid equity securities contracts.

Non-trading financial assets at FVPL are principally financial assets where the Company makes decisions based upon the assets' fair value and 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 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 interest are reflected in the statement of comprehensive income in 'Net (expense)/ income on other financial instruments held at fair value'.

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

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

Financial instruments designated at FVPL include issued structured notes and loans.

The Company has designated certain financial assets at FVPL when the designation at fair value eliminates or significantly reduces an accounting mismatch which would otherwise arise. The Company has also designated certain financial liabilities at FVPL where the financial liabilities are managed, evaluated and reported internally on a fair value basis.

From the date the transaction in a financial instrument designated at FVPL is entered into (trade date) until settlement date, the Company 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 and foreign exchange differences are reflected in the statement of comprehensive income in 'Net income from other financial instruments held at fair value'.

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

iii) Financial assets and financial liabilities at amortised cost

Financial assets classified at amortised cost include cash and short-term deposits and certain trade and other receivables. Financial liabilities classified at amortised cost include Convertible Preferred Equity Certificates ("CPECs"), bank overdrafts and trade and other payables.

3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

c. Financial instruments (continued)

iii) Financial assets and financial liabilities at amortised cost (continued)

Financial assets are recognised at amortised cost when the 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 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 any expected credit loss ("ECL") allowance. Interest is recognised in the statement of comprehensive income 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 statement of comprehensive income in 'Net impairment (loss) / reversal on financial instruments'.

Financial liabilities classified at amortised cost include bank loans and overdrafts, trade and other payables, and 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 Company 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 statement of comprehensive income 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 fair value on initial recognition.

The CPECs issued by the Company are classified as financial liabilities at amortised cost in accordance with the substance of the contractual arrangement and IAS 32 '*Financial Instruments: Presentation – offsetting financial instruments*'. The yield on the CPECs is recognised in the statement of comprehensive income in 'Interest expense' using the EIR method as described below.

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.

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 Company believes market participants would use in pricing the asset or liability at the measurement date.

3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

d. Fair value (continued)

Fair value measurement (continued)

Where the Company manages a group of financial assets and financial liabilities on the basis of its net exposure to either market risk or credit risk, the 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 Company uses various valuation approaches and establishes a hierarchy for inputs used in measuring fair value that requires 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 Company. Unobservable inputs are inputs that reflect assumptions the Company believes 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 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 Company in determining fair value is greatest for instruments categorised in Level 3 of the fair value hierarchy.

The 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 from Level 1 to Level 2 or from Level 2 to Level 3 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 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.

3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

d. Fair value (continued)

Fair value measurement (continued)

The Company incorporates Funding Valuation Adjustment ("FVA") into the fair value measurements of over-the-counter ("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 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 Company carries 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 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 and funding in order to arrive at fair value.

Adjustments for liquidity risk adjust model-derived mid-market amounts 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 Company applies credit-related valuation adjustments to its borrowings which are designated at FVPL and to OTC derivatives. The Company considers 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 Company's and the counterparty's credit rating is considered when measuring fair value. In determining the expected exposure, the Company simulates the distribution of the future exposure to a counterparty, then applies market-based default probabilities to the future exposure, leveraging external third-party credit default swap ("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 Company 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.

3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

d. Fair value (continued)

Valuation techniques (continued)

The Company may apply concentration adjustments to certain of its OTC derivative 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
Valuation Control ("VC") within Finance is responsible for ensuring that the inventory carried at fair value in the Company's financial statements and associated disclosures is presented in accordance with applicable accounting standards. 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 Company's inventory. VC implements valuation control processes designed to validate the fair value of the Company's financial instruments measured at fair value including those derived from pricing models.

Model Control
VC, in conjunction with the Model Risk Management Department ("MRM"), which reports to the Chief Risk Officer of the Morgan Stanley Group ("CRO"), independently reviews valuation models. VC is responsible for reviewing that the model valuation methodology is appropriate, model inputs and valuations are consistent with accounting standards and an independent price verification can be performed. The Company generally subjects 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 performs an independent review of the valuation in the books and records 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. External pricing data used to validate the valuation must meet minimum quality standards set by VC.

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

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.

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 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 statement of comprehensive income, but is deferred and recognised over the life of the instrument or at the earlier of when the unobservable market data become observable, maturity or disposal of the instrument.

3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

e. Derecognition of financial assets and liabilities

The Company derecognises 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 Company neither transfers nor retains substantially all of the risks and rewards of the asset, then the Company determines whether it has retained control of the asset.

If the 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 Company has not retained control of the asset, it derecognises the asset and separately recognises any rights or obligations created or retained in the transfer.

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

f. Impairment of financial assets

The Company recognises loss allowances for ECL for financial assets measured at amortised cost.

Measurement of ECL

The Company recognises a loss allowance for expected credit losses on financial assets measured at amortised cost, in scope loan commitments and financial guarantees and applies 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 significant increase in credit risk

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

The determination of a SICR is generally based on changes in the probability of default ("PD"), in conjunction with a rebuttable presumption that a SICR has occurred if a financial asset is more than 30 days past due.

3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

f. Impairment of financial assets (continued)

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 EIR. 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 Company considers 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 Company measures ECL on an individual asset basis and has no purchased or originated credit-impaired ("POCI") financial assets.

If a financial asset has been the subject of modification which does not lead to its derecognition (refer note 3(e)), SICR is assessed by comparing the risk of default of the financial instrument, based on the modified terms at the reporting date, with the risk of default of the financial instrument at inception, based on the financial instrument's original, unmodified terms.

Where the modification of contractual cash flows of a financial asset leads to its derecognition and the recognition of a new asset (refer to note 3(e)), the date of modification is treated as the date of initial recognition for the new financial asset when determining whether a SICR has occurred for that modified financial asset. In rare circumstances, after modification, the new asset is considered to be credit impaired, in which case it is treated as an asset which was credit-impaired at origination.

More information on measurement of ECL is provided in note 19 Financial risk management.

3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

f. Impairment of financial assets (continued)

Presentation of ECL

ECL is recognised in the statement of comprehensive income within ‘Net impairment (loss) / reversal on financial instruments’.

Credit-impaired financial instruments

In assessing the impairment of financial instruments under the ECL model, the Company defines credit-impaired financial instruments in accordance with the 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 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 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 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 (“DPD”) has defaulted.

Write-offs

Loans are written off (either partially or in full) when they are deemed uncollectible. Financial assets that are written off could still be subject to enforcement activities for recoveries of amounts due.

g. Cash and cash equivalents

For the purposes of the 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.

h. Income tax

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

The tax currently payable is calculated based on taxable profit for the year. Taxable profit may differ from profit before taxation as reported in the statement of comprehensive income 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 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 statement of comprehensive income, 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.

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 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.

3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

i. Offsetting of financial assets and financial liabilities

Where there is a 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 statement of financial position. In the absence of such conditions, financial assets and financial liabilities are presented on a gross basis.

4. NET INCOME ON OTHER FINANCIAL INSTRUMENTS HELD AT FAIR VALUE

	2022	2021
	€'000	€'000
Net income / (expense) on:		
Non-trading financial assets at FVPL:		
Trade and other receivables:		
Prepaid equity securities contracts	(14,105)	9,124
Financial assets designated at FVPL:		
Loans and advances:		
Loans	57,635	(16,965)
Financial liabilities designated at FVPL:		
Debt and other borrowings:		
Issued structured notes	1,349,894	87,362
	1,393,424	79,521

5. OTHER REVENUE

	2022	2021
	€'000	€'000
Management recharges to other Morgan Stanley Group undertakings	3,745	2,825
Net foreign exchange gains	—	1,023
	3,745	3,848

Management recharges to other Morgan Stanley Group undertakings represents the amount of fee received in relation to intermediary services of €1,776,000 (2021: €2,825,000) and the amount of fees received on recovery of residual financing expenses of €1,969,000 (2021: €nil). These are in line with the transfer pricing principles of the Morgan Stanley Group.

The Company actively manages its foreign currency exposure risk arising on its assets and liabilities in currencies other than Euro. Net foreign exchange gains in the previous year includes translation differences that have arisen due to foreign exchange exposure created as a result of hedging assets and liabilities recognised for Morgan Stanley Group reporting purposes.

6. INTEREST INCOME AND INTEREST EXPENSE

All interest income and expense relate to financial assets and financial liabilities at amortised cost and are calculated using the EIR method (refer to note 3(c)).

No other gains or losses have been recognised in respect of financial assets measured at amortised cost other than as disclosed as ‘Interest income’, foreign exchange differences included within ‘Other expense’ (note 7) (2021: ‘Other revenue’ (note 5)) and (charge) / reversal of impairment losses recognised in ‘Net impairment (loss) / reversal on financial instruments’ (note 8).

No other gains or losses have been recognised in respect of financial liabilities at amortised cost other than as disclosed as ‘Interest expense’ and foreign exchange differences included within ‘Other expense’ (note 7) (2021: ‘Other revenue’ (note 5)).

‘Interest expense’ includes the yield payable on CPECs (see note 11).

7. OTHER EXPENSE

	2022	2021
	€'000	€'000
Auditors’ remuneration:		
Fees payable to the Company’s auditor and its associates for the audit of the Company’s financial statements	94	94
Bank charges	35	40
Net foreign exchange losses	1,549	—
Management charges from other Morgan Stanley Group undertakings	—	2,390
	1,678	2,524

The Company employed no staff during the year (2021: none).

The Company actively manages its foreign currency exposure risk arising on its assets and liabilities in currencies other than Euro. Net foreign exchange losses include translation differences that have arisen due to foreign exchange exposure created as a result of hedging assets and liabilities recognised for Morgan Stanley Group reporting purposes.

Management charges from other Morgan Stanley Group undertakings represents reimbursement of residual financing income in line with the transfer pricing principles of the Morgan Stanley Group.

8. NET IMPAIRMENT (LOSS) / REVERSAL ON FINANCIAL INSTRUMENTS

The following table shows the net ECL (charge) / reversal for the year.

	2022	2021
	€'000	€'000
Trade and other receivables	(30)	621

There were no write-offs during the current or prior year.

All of the above impairment (losses) / reversals were calculated on an individual basis. No collective impairment assessments were made during the current or prior year.

9. INCOME TAX EXPENSE

	2022	2021
	€'000	€'000
Current tax		
Current year	458	706
Adjustments in respect of prior years	—	(10)
Income tax	458	696

Reconciliation of effective tax rate

The current year income tax expense is equal to (2021: lower than) that resulting from applying the average standard rate of corporation tax in the Netherlands for the year of 25.8% (2021: 25%). The main differences are explained below:

	2022	2021
	€'000	€'000
Profit before income tax	1,776	2,825
Income tax using the average standard rate of corporation tax in the Netherlands of 25.8% (2021: 25.0%)	458	706
Impact on tax of:		
Tax over provided in prior years	—	(10)
Total income tax in the statement of comprehensive income	458	696

The Company is included in a fiscal unity with Archimedes Investments Coöperatieve U.A. and is not a stand-alone taxpayer for Dutch corporate income tax purposes. If, and to the extent that, the Company would benefit from losses of other members of the fiscal unity, these may be settled via inter-company mechanisms.

10. FINANCIAL ASSETS AND LIABILITIES BY MEASUREMENT CATEGORY

The following table analyses financial assets and financial liabilities as presented in the statement of financial position by the IFRS 9 measurement classifications.

31 December 2022	FVPL (mandatorily) €'000	FVPL (designated) €'000	Amortised cost €'000	Total €'000
Cash and short-term deposits	—	—	5,102	5,102
Trading financial assets:				
Derivatives	201,565	—	—	201,565
Loans and advances:				
Loans	—	8,756,464	—	8,756,464
Trade and other receivables:				
Trade receivables	—	—	334,470	334,470
Other receivables	—	—	1,138,890	1,138,890
Prepaid equity securities contracts	8,019	—	—	8,019
Total financial assets	209,584	8,756,464	1,478,462	10,444,510
Trading financial liabilities:				
Derivatives	1,222,037	—	—	1,222,037
Convertible preferred equity certificates	—	—	1,125,281	1,125,281
Trade and other payables:				
Trade payables	—	—	83,319	83,319
Other payables	—	—	243,133	243,133
Debt and other borrowings:				
Issued structured notes	—	7,737,986	—	7,737,986
Total financial liabilities	1,222,037	7,737,986	1,451,733	10,411,756

10. FINANCIAL ASSETS AND LIABILITIES BY MEASUREMENT CATEGORY (CONTINUED)

31 December 2021	FVPL (mandatorily) €'000	FVPL (designated) €'000	Amortised cost €'000	Total €'000
Cash and short-term deposits	—	—	3,012	3,012
Trading financial assets:				
Derivatives	373,722	—	—	373,722
Loans and advances:				
Loans	—	8,117,998	—	8,117,998
Trade and other receivables:				
Trade receivables	—	—	57,985	57,985
Other receivables	—	—	1,217,763	1,217,763
Prepaid equity securities contracts	23,384	—	—	23,384
Total financial assets	397,106	8,117,998	1,278,760	9,793,864
Bank overdraft	—	—	952	952
Trading financial liabilities:				
Derivatives	650,317	—	—	650,317
Convertible preferred equity certificates	—	—	1,125,281	1,125,281
Trade and other payables:				
Trade payables	—	—	142,566	142,566
Other payables	—	—	7,131	7,131
Debt and other borrowings:				
Issued structured notes	—	7,835,669	—	7,835,669
Total financial liabilities	650,317	7,835,669	1,275,930	9,761,916

Financial assets and liabilities designated at FVPL

The financial assets and financial liabilities shown in the tables above which are designated at FVPL consist primarily of the following financial assets and financial liabilities:

Structured notes: These relate to financial liabilities which arise from selling structured products, generally in the form of notes, certificates and warrants. These instruments contain an embedded derivative which significantly modifies the cash flows of the issuance. The return on the instrument is linked to various underliers including, but not limited to, equity-linked notes. These structured notes are designated at FVPL as the risks to which the Company is a contractual party are risk managed on a fair value basis as part of the Company's trading portfolio and the risk is reported to key management personnel on this basis.

Loans: These are loans to other Morgan Stanley Group undertakings that, along with the prepaid equity securities contracts and the derivative contracts classified as mandatorily at FVPL, are part of the hedging strategy for the obligations arising pursuant to the issuance of the structured notes.

10. FINANCIAL ASSETS AND LIABILITIES BY MEASUREMENT CATEGORY (CONTINUED)

Financial assets and liabilities designated at FVPL (continued)

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

The carrying amount of financial liabilities designated at FVPL was €65,371,000 lower than the contractual amount due at maturity (31 December 2021: €1,387,000 lower).

At initial recognition of a specific structured note issuance program, the Company's issuance process, and any planned hedging structure relating to the issuance of those structured notes, has been considered, to determine whether the presentation of fair value changes attributable to credit risk of those structured notes through other comprehensive income would create or enlarge an accounting mismatch in the statement of comprehensive income. If financial instruments, such as prepaid equity securities contracts, derivatives and loans held at FVPL, for which changes in fair value incorporating counterparty credit risk are reflected within the statement of comprehensive income, are traded to economically hedge the structured note issuances in full, the fair value incorporating any counterparty credit risk arising on the hedging instruments may materially offset any changes in the credit risk of these liabilities ("DVA") applied to structured notes, where the counterparties of the hedging instruments are part of the Morgan Stanley Group. In such cases, the DVA of those structured notes is not reflected within other comprehensive income, and instead is presented in the statement of comprehensive income.

The following table presents the change in fair value and the cumulative change recognised in the statement of comprehensive income attributable to own credit risk for issued structured notes and counterparty credit risk for loans.

	Gain or (loss) recognised in the statement of comprehensive income		Cumulative gain or (loss) recognised in the statement of comprehensive income	
	2022	2021	2022	2021
	€'000	€'000	€'000	€'000
Issued structured notes	61,916	50,757	(1,146)	(63,062)
Loans	(61,916)	(50,757)	1,146	63,062
	—	—	—	—

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Year ended 31 December 2022

10. FINANCIAL ASSETS AND LIABILITIES BY MEASUREMENT CATEGORY (CONTINUED)

The following tables present the carrying value of the Company's financial liabilities designated at FVPL, classified according to underlying security type, including, single name equities, equity indices and equity portfolio.

	Single name equities	Equity Indices	Equity portfolio	Other [1]	Total
	€'000	€'000	€'000	€'000	€'000
31 December 2022					
Certificates and warrants	23,584	1,607	11,813	—	37,004
Notes	2,063,242	3,822,142	1,243,451	572,147	7,700,982
Total debt and other borrowings	2,086,826	3,823,749	1,255,264	572,147	7,737,986
31 December 2021					
Certificates and warrants	154,634	2,107	28,417	4,853	190,011
Notes	2,646,297	2,521,839	1,707,638	769,884	7,645,658
Total debt and other borrowings	2,800,931	2,523,946	1,736,055	774,737	7,835,669

[1] Other includes structured notes that have coupon or repayment terms linked to the performance of funds, debt securities, currencies or commodities.

The majority of the Company's financial liabilities designated at FVPL provide exposure to an underlying single name equity, an equity index or portfolio of equities. The prepaid equity securities contracts, derivative contracts and loans held at FVPL that the Company enters into in order to hedge the structured notes are valued as detailed in note 3(d) and note 21(a) and have similar valuation inputs to the liabilities they hedge.

11. CONVERTIBLE PREFERRED EQUITY CERTIFICATES

On 30 March 2012, the Company issued 11,252,813 of CPECs of €100 each, classified as financial liabilities at amortised cost. The CPECs were issued to one of the Company's shareholders, Archimedes Investments Coöperatieve U.A. (a Morgan Stanley Group undertaking), in exchange for cash consideration of €1,125,281,000.

The CPECs carry no voting rights. The Company and the holder have the right to convert each issued CPEC into one ordinary share with a nominal value of €100.

On 27 February 2018, the maturity date of the CPECs was amended from 150 years to 49 years from the date of issuance. The CPECs may be redeemed earlier at the option of the Company or on liquidation of the Company.

The CPECs rank ahead of the ordinary shares in the event of liquidation.

The holder of the CPECs is entitled to receive an annual yield on a date agreed by the Company and the holder. The yield for each CPEC is calculated as income deriving from the Company's activities less the necessary amounts to cover the costs of the Company divided by the number of CPECs then in issue. Other income relating to management recharges received from other Morgan Stanley Group undertakings and gains or losses from financial instruments designated or mandatorily at fair value through profit or loss are excluded from the calculation.

11. CONVERTIBLE PREFERRED EQUITY CERTIFICATES (CONTINUED)

On 29 March 2022, the Company paid the accrued yield of €8,150,000 (29 March 2021: €10,237,000) to the holders of the CPECs. An accrued yield for the year ended 31 December 2022 of €12,023,000 has been recognised in the statement of comprehensive income in 'Interest expense' (2021: €11,007,000). The liability to the holders of the CPECs at 31 December 2022, recognised within 'Trade and other payables', is €10,973,000 31 December 2021: €7,100,000).

12. TRADE AND OTHER RECEIVABLES

	2022	2021
	€'000	€'000
Trade and other receivables (amortised cost)		
Trade receivables		
Amounts due from other Morgan Stanley Group undertakings	334,470	57,985
Other receivables		
Amounts due from other Morgan Stanley Group undertakings	1,138,923	1,217,766
Less: ECL allowance	(33)	(3)
	1,138,890	1,217,763
Total trade and other receivables (amortised cost)	1,473,360	1,275,748
Trade and other receivables (non-trading at FVPL)		
Prepaid equity securities contracts	8,019	23,384
Total	1,481,379	1,299,132

13. TRADE AND OTHER PAYABLES

	2022	2021
	€'000	€'000
Trade and other payables (amortised cost)		
Trade payables:		
Amounts due to other Morgan Stanley Group undertakings	83,319	142,566
Other payables:		
Amounts due to other Morgan Stanley Group undertakings	243,133	7,131
	326,452	149,697

14. DEBT AND OTHER BORROWINGS

	2022 €'000	2021 €'000
Debt and other borrowings (designated at FVPL)		
Issued structured notes	7,737,986	7,835,669

Refer to note 10 for details of issued structured notes included within debt and other borrowings designated at FVPL.

15. EQUITY

Ordinary share capital

	Ordinary shares of €100 each €'000
Issued and fully paid	
At 1 January 2021, 31 December 2021 and 31 December 2022	15,018

On 9 December 2013, the Articles of Association of the Company were amended whereby the concept of authorised share capital was abolished. Each share confers the right to cast one vote, provided that subject to mandatory law, all resolutions of the General Meeting shall be adopted by unanimous vote in a meeting in which the entire share capital is present or represented.

The holders of ordinary shares are entitled to receive dividends as declared from time to time.

Reserves

The Company uses the contracts that it purchases from other Morgan Stanley Group undertakings to hedge the market price, interest rate, foreign currency and other market risks associated with the issuance of the structured notes, consistent with the Company's risk management strategy. Both the contracts and the structured note issuances are valued at fair value through profit or loss and no net cumulative gain or loss is expected to be realised over the life of the financial instrument contracts. Therefore, a legal revaluation reserve under Part 9, Book 2 of the Dutch Civil Code (BW2, Article 390(1)) is not necessary.

Appropriation of the net result for the year

The statement of financial position is presented after the proposed appropriation of net result for the year ended 31 December 2022. The Directors propose to add the profit to retained earnings as part of the equity shareholders' funds.

16. ADDITIONAL CASH FLOW INFORMATION

16.1. Cash and cash equivalents

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

	2022 €'000	2021 €'000
Cash and short-term deposits	5,102	3,012
Bank overdraft	—	(952)
	5,102	2,060

16.2. Reconciliation of cash flows from operating activities

	2022 €'000	2021 €'000
Profit for the year	1,318	2,129
Adjustments for:		
Interest income	(14,083)	(11,240)
Interest expense	14,344	10,360
Income tax expense	458	696
Impairment (loss) / reversal on financial instruments	30	(621)
Operating cash flows before changes in operating assets and liabilities	2,067	1,324
Changes in operating assets:		
Decrease / (increase) in trading financial assets	172,157	(23,098)
Increase in loans and advances	(638,466)	(1,354,106)
(Increase) / decrease in trade and other receivables	(176,350)	9,094
	(642,659)	(1,368,110)
Changes in operating liabilities:		
Increase in trading financial liabilities	571,720	333,084
Increase in trade and other payables	170,569	26,555
(Decrease) / increase in debt and other borrowings	(97,683)	1,003,012
	644,606	1,362,651
Interest received	6	2
Interest paid	(8)	(5)
Income taxes paid	(970)	(852)
Net cash flows from / (used in) operating activities	3,042	(4,990)

16. ADDITIONAL CASH FLOW INFORMATION (CONTINUED)

16.3. Reconciliation of liabilities arising from financing activities

	Balance at 1 January 2022	Cash flows	Non-cash changes Accrued yield	Non-cash changes Accrued financing	Balance at 31 December 2022
	€'000	€'000	€'000	€'000	€'000
Convertible preferred equity certificates	1,125,281	—	—	—	1,125,281
Trade and other payables (1)				—	
CPEC yield	7,100	(8,150)	12,023	—	10,973
Amounts due to other Morgan Stanley Group undertakings (3)	—	(877)	—	1,344	467
Total liabilities from financing activities	1,132,381	(9,027)	12,023	1,344	1,136,721
Trade and other receivables (2)					
Amounts due from other Morgan Stanley Group undertakings (3)	(89)	89	—	—	—
Total assets from financing activities	(89)	89	—	—	—

(1) €315,012,000 of trade and other payables do not arise from financing activities as at 31 December 2022.
(2) €1,481,379,000 of trade and other receivables do not arise from financing activities as at 31 December 2022.
(3) The balances represent the financing required to cover the net cash flows between liabilities arising from financing activities and assets arising from investing activities.

	Balance at 1 January 2021	Cash flows	Non-cash changes Accrued yield	Non-cash changes Accrued financing	Balance at 31 December 2021
	€'000	€'000	€'000	€'000	€'000
Convertible preferred equity certificates	1,125,281	—	—	—	1,125,281
Trade and other payables (1)					
CPEC yield	6,330	(10,237)	11,007	—	7,100
Total liabilities from financing activities	1,131,611	(10,237)	11,007	—	1,132,381
Trade and other receivables (2)					
Amounts due (from) / to other Morgan Stanley Group undertakings (3)	2,580	(935)	(1,734)	—	(89)
Total assets from financing activities	2,580	(935)	(1,734)	—	(89)

(1) €142,597,000 of trade and other payables do not arise from financing activities as at 31 December 2021.
(2) €1,299,043,000 of trade and other receivables do not arise from financing activities as at 31 December 2021.
(3) The balances represent the financing required to cover the net cash flows between liabilities arising from financing activities and assets arising from investing activities.

17. 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.

	At 31 December 2022			At 31 December 2021		
	Less than or equal to twelve months €'000	More than twelve months €'000	Total €'000	Less than or equal to twelve months €'000	More than twelve months €'000	Total €'000
ASSETS						
Cash and short-term deposits	5,102	—	5,102	3,012	—	3,012
Trading financial assets	94,203	107,362	201,565	91,839	281,883	373,722
Loans and advances	3,419,793	5,336,671	8,756,464	3,210,195	4,907,803	8,117,998
Trade and other receivables	348,079	1,133,300	1,481,379	150,467	1,148,665	1,299,132
Current tax assets	156	—	156	—	—	—
	3,867,333	6,577,333	10,444,666	3,455,513	6,338,351	9,793,864
LIABILITIES						
Bank overdraft	—	—	—	952	—	952
Trading financial liabilities	533,376	688,661	1,222,037	405,676	244,641	650,317
Convertible preferred equity certificates	—	1,125,281	1,125,281	—	1,125,281	1,125,281
Trade and other payables	326,452	—	326,452	149,697	—	149,697
Debt and other borrowings	2,974,595	4,763,391	7,737,986	2,867,240	4,968,429	7,835,669
Current tax liability	—	—	—	356	—	356
	3,834,423	6,577,333	10,411,756	3,423,921	6,338,351	9,762,272

18. SEGMENT REPORTING

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

Business segments

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 Company's own business segments are consistent with those of Morgan Stanley.

The Company has one reportable business segment, Institutional Securities, which provides financial services to financial institutions. Its business includes the issuance of financial instruments and the hedging of the obligations arising pursuant to such issuances.

18. SEGMENT REPORTING (CONTINUED)

Geographical segments

The Company operates in three geographic regions as listed below:

- Europe, Middle East and Africa ("EMEA")
- Americas
- Asia

The following table presents selected statement of comprehensive income and statement of financial position information of the Company'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 Company's operations, on a managed basis. The basis for attributing external revenues (net of interest expense) and total assets is determined by trading desk location.

	EMEA		Americas		Asia		Total	
	2022	2021	2022	2021	2022	2021	2022	2021
	€'000	€'000	€'000	€'000	€'000	€'000	€'000	€'000
External revenues net of interest	2,626	2,824	567	1,142	291	762	3,484	4,728
Profit before income tax	918	921	567	1,142	291	762	1,776	2,825
Total assets	4,516,431	3,852,585	4,177,300	3,888,905	1,750,935	2,052,374	10,444,666	9,793,864

All of the Company's external revenue (2021: 100%) arises from transactions with other Morgan Stanley Group undertakings. Further details of such transactions are disclosed in the related party disclosures in note 24.

19. FINANCIAL RISK MANAGEMENT

Risk management procedures

Risk is an inherent part of the Company's business activity. The Company 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 is managed as part of the policies and procedures of the Morgan Stanley Group's risk management policy framework. The risk management policy framework includes escalation to the appropriate senior management personnel when necessary.

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

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 Company. The Company is primarily exposed to credit risk from institutions and sophisticated investors through its Institutional Securities business segment.

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19. FINANCIAL RISK MANAGEMENT (CONTINUED)

Credit risk (continued)

Credit risk management

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.

The Company enters into all of its financial asset transactions with other Morgan Stanley Group undertakings, and both the Company and the other Morgan Stanley Group undertakings are wholly-owned subsidiaries of the same ultimate parent entity, Morgan Stanley. As a result of the implicit support that would be provided by Morgan Stanley, the Company is considered exposed to the credit risk of Morgan Stanley, except where the Company transacts with other Morgan Stanley Group undertakings that have a higher credit rating to that of Morgan Stanley.

Exposure to credit risk

The maximum exposure to credit risk ('gross credit exposure') of the Company as at 31 December 2022 is disclosed below, based on the carrying amounts of the financial assets. The table below includes financial instruments subject to ECL and not subject to ECL. Those financial instruments that bear credit risk but are not subject to ECL are subsequently measured at fair value. This table does not include receivables arising from pending securities transactions with market counterparties as credit risk is considered insignificant.

Where the 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 also disclosed below. The net credit exposure represents the credit exposure remaining after the effect of the credit enhancements.

The Company does not have any significant exposure arising from items not recognised on the statement of financial position.

Collateral and other credit enhancements

The Company has entered into collateral arrangements with other Morgan Stanley Group undertakings to mitigate credit risk. Collateral held is managed in accordance with the Morgan Stanley Group's guidelines and the relevant underlying agreements.

19. FINANCIAL RISK MANAGEMENT (CONTINUED)

Credit risk (continued)

Exposure to credit risk by class

	31 December 2022			31 December 2021		
Class	**Gross credit exposure[(1)]**	**Credit enhancements**	**Net credit exposure[(2)]**	**Gross credit exposure[(1)]**	**Credit enhancements**	**Net credit exposure[(2)]**
	€'000	**€'000**	**€'000**	**€'000**	**€'000**	**€'000**
Subject to ECL:						
Cash and short-term deposits	5,102	—	5,102	3,012	—	3,012
Trade and other receivables[(3)]	1,473,360	—	1,473,360	1,275,748	—	1,275,748
Not subject to ECL:						
Trading financial assets[(3)]	201,565	(180,006)	21,559	373,722	(336,649)	37,073
Loans and advances	8,756,464	—	8,756,464	8,117,998	—	8,117,998
Trade and other receivables[(3)]:						
Prepaid equity securities contracts	8,019	(8,019)	—	23,384	(23,384)	—
	10,444,510	(188,025)	10,256,485	9,793,864	(360,033)	9,433,831

(1) The carrying amount recognised in the statement of financial position best represents the Company's maximum exposure to credit risk.

(2) Of the residual net credit exposure, intercompany cross product netting arrangements are in place which would allow for an additional €13,000 (2021: €169,000) to be offset in the event of default by certain Morgan Stanley counterparties.

(3) At 31 December 2022, net cash collateral pledged of €262,280,000 was recognised in trade and other receivables in the statement of financial position against derivatives classified as trading financial assets/liabilities and prepaid equity securities contract. At 31 December 2021, trade and other receivables included net cash collateral pledged of €41,956,000. Cash collateral is determined and settled on a net basis.

Exposure to credit risk by internal rating grades

Internal credit ratings, as below, are derived using methodologies generally consistent with those used by external agencies:

Investment grade: AAA - BBB
Non-investment grade: BB - CCC
Default: D

19. FINANCIAL RISK MANAGEMENT (CONTINUED)

Credit risk (continued)

Exposure to credit risk by internal rating grades (continued)

The table below shows gross carrying amount and, in the case of unrecognised financial instruments, nominal amounts by internal rating grade. All exposures subject to ECL are Stage 1.

31 December 2022	AA	A	BBB	Total	Loss Allowance	Net of ECL
	€'000	€'000	€'000	€'000	€'000	€'000
Subject to ECL:						
Cash and short-term deposits	420	4,682	—	5,102	—	5,102
Trade and other receivables[(1)]	—	1,468,932	4,461	1,473,393	(33)	1,473,360
Total subject to ECL	420	1,473,614	4,461	1,478,495	(33)	1,478,462
Not subject to ECL:						
Trading financial assets – derivatives	—	193,734	7,831	201,565	—	201,565
Loans and advances	—	8,756,464	—	8,756,464	—	8,756,464
Trade and other receivables:						
Prepaid equity securities contracts	—	8,019	—	8,019	—	8,019
Total not subject to ECL	—	8,958,217	7,831	8,966,048	—	8,966,048

31 December 2021	AA	A	BBB	Total	Loss Allowance	Net of ECL
	€'000	€'000	€'000	€'000	€'000	€'000
Subject to ECL:						
Cash and short-term deposits	338	2,674	—	3,012	—	3,012
Trade and other receivables[(1)]	—	1,237,449	38,302	1,275,751	(3)	1,275,748
Total subject to ECL	338	1,240,123	38,302	1,278,763	(3)	1,278,760
Not subject to ECL:						
Trading financial assets – derivatives	—	336,165	37,557	373,722	—	373,722
Loans and advances	—	8,117,998	—	8,117,998	—	8,117,998
Trade and other receivables:						
Prepaid equity securities contracts	—	23,384	—	23,384	—	23,384
Total not subject to ECL	—	8,477,547	37,557	8,515,104	—	8,515,104

(1) At 31 December 2022, there were no financial assets past due but not impaired or individually impaired (31 December 2021: €nil).

19. FINANCIAL RISK MANAGEMENT (CONTINUED)

Credit risk (continued)

Exposure to credit risk by internal rating grades (continued)

Reconciliation of gross carrying amount and ECL

	Gross carrying / nominal amount	Allowance for ECL
	€'000	€'000
Other receivables		
As at 1 January 2022	1,217,766	3
Derecognised due to repayment	(78,843)	—
Changes in credit risk	—	30
As at 31 December 2022	1,138,923	33
As at 1 January 2021	1,257,932	624
Derecognised due to repayment	(40,166)	—
Changes in credit risk	—	(621)
As at 31 December 2021	1,217,766	3

The above gross carrying amounts are Stage 1 and exclude financial assets at amortised cost of €339,572,000 (2021: €60,997,000) as the corresponding ECL is immaterial.

There have been no changes made to estimation techniques or significant assumptions for estimating impairment during the year. There were no modifications to financial assets during the year or since origination and therefore modifications have not impacted ECL staging. As at 31 December 2022, there is no collateral held against credit-impaired assets (2021: €nil). There are no financial assets which have been written off during the year ended 31 December 2022 (2021: €nil).

Liquidity risk

Liquidity risk refers to the risk that the Company 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 Company's ability (or perceived ability) to meet its financial obligations without experiencing significant business disruption or reputational damage that may threaten the Company's 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 Company incurs liquidity risk as a result of its trading, lending, investing and client facilitation activities.

19. FINANCIAL RISK MANAGEMENT (CONTINUED)

Liquidity risk (continued)

The Morgan Stanley Group’s Liquidity Risk Management Framework is critical to helping ensure that the Company maintains sufficient liquidity resources and durable funding sources to meet its daily obligations and to withstand unanticipated stress events. The Liquidity Risk Department is a distinct area in Risk Management, which oversees and monitors liquidity risk. The Liquidity Risk Department ensures transparency of material liquidity risks, compliance with established risk limits and escalation of risk concentrations to appropriate senior management. To execute these responsibilities, the Liquidity Risk Department:

- Establishes limits in line with the Morgan Stanley Group’s risk appetite;
- Identifies and analyses emerging liquidity risks to ensure such risks are appropriately mitigated;
- Monitors and reports risk exposures against metrics and limits; and
- Reviews the methodologies and assumptions underpinning the Morgan Stanley Group’s Liquidity Stress Tests to ensure sufficient liquidity and funding under a range of adverse scenarios.

The Treasury Department and applicable business units have primary responsibility for evaluating, monitoring and controlling the liquidity risks arising from the Morgan Stanley Group’s business activities and for maintaining processes and controls to manage the key risks inherent in their respective areas. The Liquidity Risk Department coordinates with the Treasury Department and these business units to help ensure a consistent and comprehensive framework for managing liquidity risk across the Morgan Stanley Group.

The Company is part of the Morgan Stanley Group's liquidity risk management policies and procedures.

The primary goal of the Morgan Stanley Group’s liquidity risk and funding 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 following principles guide the Morgan Stanley Group’s liquidity risk management framework:

- Sufficient liquid assets should be maintained to cover maturing liabilities and other planned and contingent outflows;
- Maturity profile of assets and liabilities should be aligned, with limited reliance on short-term funding;
- Source, counterparty, currency, region, and term of funding should be diversified; and
- Liquidity Stress Tests should account for stressed liquidity requirements and the amount of liquidity held should be greater than those stressed requirements.

The Company hedges all of its financial liabilities with financial assets entered into with other Morgan Stanley Group undertakings, where both the Company and other Morgan Stanley Group undertakings are wholly-owned subsidiaries of the same parent, Morgan Stanley. Further, the maturity profile of the financial assets matches the maturity profile of the financial liabilities.

The core components of the Morgan Stanley Group’s liquidity management framework that support our target liquidity profile, which includes consideration of the liquidity risk for each individual legal entity, are the Required Liquidity Framework, Liquidity Stress Tests and the Liquidity Resources (as defined below).

19. FINANCIAL RISK MANAGEMENT (CONTINUED)

Liquidity risk (continued)

Required Liquidity Framework

The Required Liquidity Framework establishes the amount of liquidity the Company must hold in both normal and stressed environments to ensure that its financial condition and overall soundness is not adversely affected by an inability (or perceived inability) to meet its financial obligations in a timely manner. The Required Liquidity Framework considers the most constraining liquidity requirement to satisfy all regulatory and internal limits at a Morgan Stanley Group and legal entity level.

Liquidity Stress Tests

The Morgan Stanley Group uses Liquidity Stress Tests to model external and intercompany flows across multiple scenarios and a range of time horizons. These scenarios contain various combinations of idiosyncratic and market stress events of different severity and duration. The methodology, implementation, production and analysis of the Company's Liquidity Stress Tests are important components of the Required Liquidity Framework.

Liquidity Stress Tests are produced for the Company, to capture specific cash requirements and cash availability. The Liquidity Stress Tests assume that a legal entity will use its own liquidity first to fund its obligations before drawing liquidity from its ultimate parent undertaking, Morgan Stanley. Morgan Stanley will support its subsidiaries and will not have access to subsidiaries' liquidity resources that are subject to any regulatory, legal or tax constraints. In addition to the assumptions underpinning the Liquidity Stress Tests, the Company takes into consideration settlement risk related to intra-day settlement and clearing of securities and financing activities.

Since the Company hedges the liquidity risk of its financial liabilities with financial assets that match the maturity profile of the financial liabilities, the Company is not considered a major operating subsidiary for the purposes of liquidity risk. However, the Company would have access to the cash or liquidity reserves held by Morgan Stanley in the unlikely event that it was unable to access adequate financing to service its financial liabilities when they become payable.

The Required Liquidity Framework and Liquidity Stress Tests are evaluated on an ongoing basis and reported to the Firm Risk Committee, Asset/ Liability Management Committee, and other appropriate risk committees.

Liquidity Resources

The Company maintains sufficient liquidity resources which consist of cash deposits with banks ("Liquidity Resources") to cover daily funding needs and to meet strategic liquidity targets sized by the Required Liquidity Framework and Liquidity Stress Tests. The Company actively manages the amount of its Liquidity Resources considering the following components: unsecured debt maturity profile; balance sheet size and composition; funding needs in a stressed environment inclusive of contingent cash outflows; and collateral requirements. The amount of liquidity resources the Company holds is based on the Company's risk tolerance and is subject to change depending on market and firm-specific events.

The Morgan Stanley Group's Liquidity Resources, to which the Company has access, are held within Morgan Stanley and its major operating subsidiaries and are composed of diversified cash and cash equivalents and unencumbered highly liquid securities.

19. FINANCIAL RISK MANAGEMENT (CONTINUED)

Liquidity risk (continued)

Liquidity Resources (continued)

Eligible unencumbered highly liquid securities include US government securities, US agency securities, US agency mortgage-backed securities, non-US government securities and other highly liquid investment grade securities.

Liquidity Resources may fluctuate from period to period based on the overall size and composition of the statement of financial position, the maturity profile of our unsecured debt and estimates of funding needs in a stressed environment, among other factors.

The ability to monetise assets during a liquidity crisis is critical. The Morgan Stanley Group believes that the assets held in its Liquidity Resources can be monetised within five business days in a stressed environment given the highly liquid and diversified nature of the resources.

Funding management

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

The Morgan Stanley Group funds its balance sheet on a global basis through diverse sources, which includes consideration of the funding risk of each legal entity. These sources include the Morgan Stanley Group's equity capital, long-term borrowing, securities sold under agreements to repurchase ("repurchase agreements"), securities lending, deposits, letters of credit and lines of credit. The Morgan Stanley Group has active financing programmes for both standard and structured products targeting global investors and currencies.

Balance sheet management

In managing both the Morgan Stanley Group's and the Company's funding risk, the composition and size of the entire statement of financial position, 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 provides the Morgan Stanley Group and the Company with flexibility in managing the composition and size of its statement of financial position.

Maturity analysis

In the following maturity analysis of financial assets and financial liabilities, derivative contracts and other financial instruments held at FVPL are disclosed according to their earliest contractual maturity; all such amounts are presented at their fair value, consistent with how these financial instruments are managed. All other amounts represent undiscounted cash flows receivable and payable by the Company arising from its financial assets and financial liabilities to earliest contractual maturities as at 31 December 2022 and 31 December 2021. Receipts of financial assets and 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 Company to appropriately reflect the liquidity risk arising from these financial assets and financial liabilities, presented in a way that is consistent with how the liquidity risk on these financial assets and financial liabilities is managed by the Company.

19. FINANCIAL RISK MANAGEMENT (CONTINUED)

Liquidity risk (continued)

Maturity analysis (continued)

31 December 2022	On demand	Less than 1 year	1 year - 2 years	2 years - 5 years	Greater than 5 years	Total
	€'000	€'000	€'000	€'000	€'000	€'000
Financial assets						
Cash and short-term deposits	5,102	—	—	—	—	5,102
Trading financial assets:						
Derivatives	3,694	90,520	26,218	68,182	12,951	201,565
Loans and advances:						
Loans	26,679	3,396,456	1,624,590	2,506,056	1,202,683	8,756,464
Trade and other receivables:						
Trade receivables	334,470	—	—	—	—	334,470
Other receivables	1,138,890	—	—	—	—	1,138,890
Prepaid equity securities contracts	8,019	—	—	—	—	8,019
Total financial assets	1,516,854	3,486,976	1,650,808	2,574,238	1,215,634	10,444,510
Financial liabilities						
Trading financial liabilities:						
Derivatives	8,910	527,254	340,659	286,197	59,017	1,222,037
Convertible preferred equity certificates	1,125,281	—	—	—	—	1,125,281
Trade and other payables:						
Trade payables	83,319	—	—	—	—	83,319
Other payables	243,133	—	—	—	—	243,133
Debt and other borrowings:						
Issued structured notes	23,457	2,959,722	1,310,149	2,288,041	1,156,617	7,737,986
Total financial liabilities	1,484,100	3,486,976	1,650,808	2,574,238	1,215,634	10,411,756

19. FINANCIAL RISK MANAGEMENT (CONTINUED)

Liquidity risk (continued)

Maturity analysis (continued)

31 December 2021	On demand	Less than 1 year	1 year - 2 years	2 years - 5 years	Greater than 5 years	Total
	€'000	€'000	€'000	€'000	€'000	€'000
Financial assets						
Cash and short-term deposits	3,012	—	—	—	—	3,012
Trading financial assets:						
Derivatives	29,597	90,678	58,767	172,505	22,175	373,722
Loans and advances:						
Loans	209,407	3,013,335	1,181,746	2,424,879	1,288,631	8,117,998
Trade and other receivables:						
Trade receivables	57,985	—	—	—	—	57,985
Other receivables	1,217,763	—	—	—	—	1,217,763
Prepaid equity securities contracts	23,384	—	—	—	—	23,384
Total financial assets	1,541,148	3,104,013	1,240,513	2,597,384	1,310,806	9,793,864
Financial liabilities						
Bank overdraft	952	—	—	—	—	952
Trading financial liabilities:						
Derivatives	62,062	379,265	74,445	122,509	12,036	650,317
Convertible preferred equity certificates	1,125,281	—	—	—	—	1,125,281
Trade and other payables:						
Trade payables	142,566	—	—	—	—	142,566
Other payables	7,131	—	—	—	—	7,131
Debt and other borrowings:						
Issued structured notes	171,208	2,724,748	1,166,068	2,474,875	1,298,770	7,835,669
Total financial liabilities	1,509,200	3,104,013	1,240,513	2,597,384	1,310,806	9,761,916

Market risk

Market risk is defined by IFRS 7 '*Financial Instruments – Disclosures*' as the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices.

The Morgan Stanley Group's market risk management policy framework ensures transparency of material market risks, monitors compliance with established limits, and escalates risk concentrations to appropriate senior management when necessary.

To execute these responsibilities, the Company monitors the market risk of the firm against limits on aggregate risk exposures, performs a variety of risk analyses, including monitoring Value-at-risk ("VaR") and stress testing analyses, routinely reports risk summaries and maintains the VaR and scenario analysis methodologies. The Company is managed within the Morgan Stanley Group's Global Market Risk Framework. The market risk management policies and procedures of the Morgan Stanley Group include performing risk analyses and reporting material risks identified to appropriate senior management of the Company.

Under this definition of market risk, the Company is exposed to: equity price risk.

19. FINANCIAL RISK MANAGEMENT (CONTINUED)

Market risk (continued)

Equity price sensitivity analysis

The sensitivity analysis below is determined based on the exposure to equity price risk at 31 December 2022 and 31 December 2021 respectively.

The market risk related to such equity price risk is measured by estimating the potential reduction in total comprehensive income associated with a 10% decline in the underlying equity price as shown in the table below.

	Impact on Total Comprehensive Income Gains/(Losses)	
	2022	**2021**
	€'000	**€'000**
Trading financial instruments	(772,997)	(781,229)
Trade and other receivables – at FVPL	(802)	(2,338)
Debt and other borrowings	773,799	783,567
	—	—

The Company's equity price risk is on equity securities spread across EMEA, Americas and Asia.

The Company enters into the majority of its financial asset transactions with other Morgan Stanley Group undertakings, where both the Company and the other Morgan Stanley Group undertakings are wholly-owned subsidiaries of the same group parent entity, Morgan Stanley.

The issued structured notes expose the Company to the risk of changes in the market prices of the underlying securities, interest rate risk and, where denominated in currencies other than Euros, the risk of changes in rates of exchange between the Euro and the other relevant currencies. The Company uses the contracts that it purchases from other Morgan Stanley Group undertakings to hedge the market price, interest rate and foreign currency risks associated with the issuance of the structured notes, consistent with the Company's risk management strategy. As such, the Company is not exposed to any net market risk on these financial instruments.

The net foreign exchange losses recognised in 'Other expense' (2021: net foreign exchange gains recognised in 'Other revenue') have arisen as a result of exposure to hedging on assets and liabilities recognised for Morgan Stanley Group purposes, under the Morgan Stanley Group's local reporting requirements.

20. FINANCIAL ASSETS AND FINANCIAL LIABILITIES SUBJECT TO OFFSETTING

In order to manage credit exposure arising from its business activities, the Company applies various credit risk management policies and procedures, see note 19 for further details. Primarily in connection with derivative transactions, the Company enters into master netting arrangements and collateral arrangements with their counterparties. These agreements provide the 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 Company against the net amount owed by the counterparty.

20. FINANCIAL ASSETS AND FINANCIAL LIABILITIES SUBJECT TO OFFSETTING (CONTINUED)

However, in certain circumstances, the 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 Company may not have sought legal advice to support the enforceability of the agreement. In cases where the Company has not determined an agreement to be enforceable, the related amounts are not offset in the tabular disclosures.

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 assets and the liabilities simultaneously. In the absence of such conditions, financial assets and financial liabilities are presented on a gross basis.

The following table presents information about the offsetting of financial instruments and related collateral amounts. The effect of master netting arrangements, collateral agreements and other credit enhancements, on the Company's exposure to credit risk is disclosed in note 19.

20. FINANCIAL ASSETS AND FINANCIAL LIABILITIES SUBJECT TO OFFSETTING (CONTINUED)

	Gross and net amounts presented in the statement of financial position(1)	Amounts not offset in the statement of financial position(2) (4)	Net exposure
		Cash collateral(3)	
	€'000	€'000	€'000
31 December 2022			
Assets			
Trading financial assets:			
Derivatives	201,565	(180,006)	21,559
Trade and other receivables:			
Prepaid equity securities contracts	8,019	(8,019)	—
TOTAL	209,584	(188,025)	21,559
Liabilities			
Trading financial liabilities:			
Derivatives	1,222,037	(450,291)	771,746
Debt and other borrowings:			
Issued structured notes	7,737,986	—	7,737,986
TOTAL	8,960,023	(450,291)	8,509,732
31 December 2021			
Assets			
Trading financial assets:			
Derivatives	373,722	(336,648)	37,074
Trade and other receivables:			
Prepaid equity securities contracts	23,384	(23,384)	—
TOTAL	397,106	(360,032)	37,074
Liabilities			
Trading financial liabilities:			
Derivatives	650,317	(339,332)	310,985
Debt and other borrowings:			
Issued structured notes	7,835,669	—	7,835,669
TOTAL	8,485,986	(339,332)	8,146,654

(1) Amounts include €21,559,000 (31 December 2021: €37,073,000) of trading financial assets – derivatives, €nil (31 December 2021: €nil) of trade and other receivables – prepaid equity securities contracts, €709,985,000 (31 December 2021: €310,985,000) of trading financial liabilities – derivatives and €7,646,305,000 (31 December 2021: €7,675,252,000) of debt and other borrowings – issued structured notes which are either not subject to master netting agreements or collateral agreements or are subject to such agreements but the Company has not determined the agreements to be legally enforceable.

(2) Amounts relate to master netting arrangements and collateral arrangements which have been determined by the Company to be legally enforceable but do not meet all criteria required for net presentation within the statement of financial position.

(3) Cash collateral used to mitigate credit risk on exposures arising under derivatives contracts and prepaid equity securities contracts is determined and settled on a net basis and has been recognised in the statement of financial position within 'Trade and other receivables'in 2022.

(4) In addition to the balances disclosed in the table above, certain 'Trade and other receivables' of €18,903,000 (31 December 2021: €15,316,000 of 'Trade and other receivables') not presented net within the statement of financial position have legally enforceable master netting agreements in place and can be offset in the ordinary course of business and/or in the event of default.

21. ASSETS AND LIABILITIES 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 the Company's financial assets and financial liabilities recognised at fair value on a recurring basis, classified according to the fair value hierarchy.

31 December 2022	Quoted prices in active market (Level 1) €'000	Valuation techniques using observable inputs (Level 2) €'000	Valuation techniques with significant unobservable inputs (Level 3) €'000	Total €'000
Trading financial assets:				
Derivatives:				
Interest rate contracts	—	4,094	3,949	8,043
Equity contracts	—	184,804	8,718	193,522
	—	188,898	12,667	201,565
Trade and other receivables:				
Prepaid equity securities contracts	—	8,019	—	8,019
Loans and advances:				
Loans	—	8,756,464	—	8,756,464
Total financial assets measured at fair value	—	8,953,381	12,667	8,966,048
Trading financial liabilities:				
Derivatives:				
Interest rate contracts	—	50,489	14,492	64,981
Equity contracts	—	1,090,482	66,371	1,156,853
Foreign exchange contracts	—	203	—	203
	—	1,141,174	80,863	1,222,037
Debt and other borrowings:				
Certificates and warrants	—	33,038	3,966	37,004
Notes	—	7,596,454	104,528	7,700,982
Total debt and other borrowings	—	7,629,492	108,494	7,737,986
Total financial liabilities measured at fair value	—	8,770,666	189,357	8,960,023

21. ASSETS AND LIABILITIES MEASURED AT FAIR VALUE (CONTINUED)

a. Financial assets and liabilities recognised at fair value on a recurring basis (continued)

31 December 2021	Quoted prices in active market (Level 1) €'000	Valuation techniques using observable inputs (Level 2) €'000	Valuation techniques with significant unobservable inputs (Level 3) €'000	Total €'000
Trading financial assets:				
Derivatives:				
Interest rate contracts	—	25,758	8,881	34,639
Equity contracts	—	327,448	11,572	339,020
Commodity contracts	—	63	—	63
	—	353,269	20,453	373,722
Trade and other receivables:				
Prepaid equity securities contracts	—	23,384	—	23,384
Loans and advances:				
Loans	—	8,117,998	—	8,117,998
Total financial assets measured at fair value	—	8,494,651	20,453	8,515,104
Trading financial liabilities:				
Derivatives:				
Interest rate contracts	—	5,645	7,531	13,176
Equity contracts	—	592,318	44,715	637,033
Foreign exchange contracts	—	95	—	95
Commodity contracts	—	—	13	13
	—	598,058	52,259	650,317
Debt and other borrowings:				
Certificates and warrants	—	190,011	—	190,011
Notes	—	7,524,757	120,901	7,645,658
Total debt and other borrowings	—	7,714,768	120,901	7,835,669
Total financial liabilities measured at fair value	—	8,312,826	173,160	8,485,986

21. ASSETS AND LIABILITIES MEASURED AT FAIR VALUE (CONTINUED)

a. Financial assets and liabilities recognised at fair value on a recurring basis (continued)

The Company'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:

<table>
<tr><th colspan="2">Derivatives</th></tr>
<tr><th>Asset and Liability / Valuation Techniques</th><th>Valuation Hierarchy Classification</th></tr>
<tr><td>Derivatives</td><td></td></tr>
<tr><td>OTC Derivative Contracts
• OTC derivative contracts include forward, swap and option contracts 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 modeled 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 Company 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, commodity derivatives that are either longer-dated or include exposure to multiple underlyings and credit derivatives, including credit default swaps on certain mortgage or asset-back securities, basket CDS. Where these inputs are unobservable, relationships to observable data points, based on historic and/or implied observations, may be employed as a technique to estimate the model input values.</td><td>• Generally Level 2 - OTC derivative products valued using observable inputs, or where the unobservable input is not deemed significant.
• Level 3 - OTC derivatives products for which the unobservable input is deemed significant</td></tr>
<tr><th colspan="2">Prepaid equity securities contracts and issued structured notes</th></tr>
<tr><td>Prepaid equity securities contracts and issued structured notes designated at fair value through profit or loss
• The Company issues structured notes and trades prepaid equity securities 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 of structured notes and traded prepaid equity securities contracts is determined using valuation models for the derivative and debt portions of the structured notes and traded prepaid equity securities contracts. These models incorporate observable inputs referencing identical or comparable securities, including prices to which the notes are linked, interest rate yield curves, option volatility and currency rates, and commodity or equity prices.
• Independent, external and traded prices for the notes are considered as well as the impact of the Company's own credit spreads which are based on observed secondary bond market spreads.</td><td>• Generally Level 2
• Level 3 - in instances where the unobservable inputs are deemed significant</td></tr>
</table>

21. ASSETS AND LIABILITIES MEASURED AT FAIR VALUE (CONTINUED)

a. Financial assets and liabilities recognised at fair value on a recurring basis (continued)

Prepaid equity securities contracts and issued structured notes (continued)	
Notes • Notes give a risk exposure tailored to market views and risk appetite and mainly provide exposure to the underlying single name equity, equity index or portfolio of equities. Typically, the redemption payment of the note is significantly dependent on the value of embedded equity derivatives. In general, call and put options, digital options, straddles and callability features are combined to create a bespoke coupon rate or redemption payoff for each note issuance, with risk exposure to one or more equity underlyings or indices. The Company values the embedded derivatives using market standard models, which are assessed for appropriateness at least annually. Model inputs, such as equity forward rates, equity implied volatility and equity correlations are marked such that the fair value of the derivatives match prices observable in the inter-dealer markets. In arriving at fair value, the Company uses discount rates appropriate to the funding rates specific to the instrument. In general, this results in overnight rates being used to discount the Company assets and liabilities. In addition, since the notes bear Morgan Stanley's credit risk, the Company considers this when assessing the fair value of the notes, by adjusting the discount rates to reflect the prevailing credit spread at the reporting date. • The Company has a small number of notes where the cash flows due on the notes is dependent on embedded derivatives linked to the interest rate, foreign exchange or commodity markets. The Company values these notes in the same way as for equity-linked notes, by using market standard models and marking the inputs to match prices observed in the inter-dealer OTC markets. Similarly to equity-linked notes, these issuances bear Morgan Stanley's credit risk, and the valuation is assessed accordingly.	• Generally Level 2 • Level 3 - Notes with significant unobservable inputs
Certificates and warrants • Certificates and warrants provide exposure to the underlying single name equity, equity index or portfolio of equities. They therefore provide risk exposure to the value of the underlying position and to the dividends paid or received. The Company values the underlying position using observable data where available (for instance, exchange closing prices), or alternatively using information from third parties (for example net asset values obtained from fund administrators) or using Morgan Stanley's own valuation assumptions if required. The Company estimates future dividend payments using a variety of available data, including market prices for forwards and futures, analytical review and estimates of future tax rates, incorporating the Company's own assumptions where required. The certificates and warrants can typically be redeemed at short notice and so the certificates and warrants provide minimal exposure to the credit risk of Morgan Stanley.	• Level 2 • Level 3 - in instances where the unobservable inputs are deemed significant
Loans • The fair value of loans to other Morgan Stanley Group undertakings is estimated based on the present value of expected future cash flows using its best estimate of interest rate yield curves.	• Level 2

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

There were no transfers between Level 1 and Level 2 of the fair value hierarchy during the current year and prior year.

21. ASSETS AND LIABILITIES MEASURED AT FAIR VALUE (CONTINUED)

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 Company's Level 3 financial assets and financial liabilities for the years ended 31 December 2022 and 31 December 2021. 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 Company within the Level 1 and/ or Level 2 categories.

The unrealised gains/(losses) during the year 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.

31 December 2022

	Balance at 1 January 2022	Total gains or (losses) recognised in statement of comprehensive income (1)	Purchases	Issuances	Settlements	Net transfers in and/or out of Level 3 (2)	Balance at 31 December 2022	Unrealised gains or (losses) for Level 3 assets/ (liabilities) outstanding as at 31 December 2022 (3)
	€'000	€'000	€'000	€'000	€'000	€'000	€'000	€'000
Trading financial liabilities:								
Net derivative contracts (4)	(31,806)	(47,066)	388	(1,284)	(10,846)	22,418	(68,196)	(53,666)
Debt and other borrowings:								
Issued structured notes	(120,901)	6,520	—	(28,810)	41,255	(6,558)	(108,494)	6,521
Total financial liabilities measured at fair value	**(152,707)**	**(40,546)**	**388**	**(30,094)**	**30,409**	**15,860**	**(176,690)**	**(47,145)**

(1) The total gains or (losses) are recognised in the statement of comprehensive income as detailed in the financial instruments accounting policy (note 3 (c)).
(2) For financial assets and financial liabilities that were transferred into and out of Level 3 during the period, 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 period.
(3) Amounts represent unrealised gains or (losses) for the period ended 31 December related to assets and liabilities still outstanding at 31 December. The unrealised gains or (losses) are recognised in the statement of comprehensive income as detailed in the financial instruments accounting policy (note 3 (c)).
(4) Net derivative contracts represent trading financial assets – derivative contracts net of trading financial liabilities – derivative contracts.

During the year, the Company reclassified €nil net derivative contracts (2021: €nil) and €38,348,000 of issued structured notes (2021: €4,392,000) from Level 2 to Level 3. The reclassifications were due to a reduction in the volume of recently executed transactions or a lack of available broker quotes for these instruments, such that certain significant inputs became unobservable.

During the year, the Company reclassified approximately €22,418,000 of net derivative contracts (2021: €20,049,000) and €31,790,000 of issued structured notes (2021: €245,812,000) from Level 3 to Level 2. The reclassifications were due to the availability of market data for these or comparable instruments, or available broker quotes, or consensus data such that certain significant inputs became observable.

21. ASSETS AND LIABILITIES MEASURED AT FAIR VALUE (CONTINUED)

c. Changes in Level 3 financial assets and liabilities recognised at fair value on a recurring basis (continued)

31 December 2021

	Balance at 1 January 2021	Total gains or (losses) recognised in statement of comprehensive income (1)	Purchases	Issuances	Settlements	Net transfers in and/or out of Level 3 (2)	Balance at 31 December 2021	Unrealised gains or (losses) for Level 3 assets/ (liabilities) outstanding as at 31 December 2021 (3)
	€'000	€'000	€'000	€'000	€'000	€'000	€'000	€'000
Trading financial liabilities:								
Net derivative contracts (4)	(41,334)	18,532	382	(8,930)	(20,505)	20,049	(31,806)	(8,276)
Debt and other borrowings:								
Issued structured notes	(413,378)	(14,848)	—	(54,019)	119,924	241,420	(120,901)	(10,182)
Total financial liabilities measured at fair value	**(454,712)**	**3,684**	**382**	**(62,949)**	**99,419**	**261,469**	**(152,707)**	**(18,458)**

(1) The total gains or (losses) are recognised in the statement of comprehensive income as detailed in the financial instruments accounting policy (note 3 (c)).
(2) For financial assets and financial liabilities that were transferred into and out of Level 3 during the period, 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 period.
(3) Amounts represent unrealised gains or (losses) for the period ended 31 December related to assets and liabilities still outstanding at 31 December. The unrealised gains or (losses) are recognised in the statement of comprehensive income as detailed in the financial instruments accounting policy (note 3 (c)).
(4) Net derivative contracts represent trading financial assets – derivative contracts net of trading financial liabilities – derivative contracts.

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.

1. Quantitative information about and qualitative sensitivity of significant unobservable inputs

The following table provides information on the valuation techniques, significant unobservable inputs and the ranges and averages for each material category of assets and liabilities measured at fair value on a recurring basis.

21. ASSETS AND LIABILITIES MEASURED AT FAIR VALUE (CONTINUED)

d. Valuation of Level 3 financial assets and liabilities recognised at fair value on a recurring basis (continued)

1. Quantitative information about and qualitative sensitivity of significant unobservable inputs (continued)

The level of aggregation and breadth of products cause the range of inputs to be wide and not evenly distributed across the inventory of financial instruments. 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).

31 December 2022	Fair value €'000	Predominant valuation techniques/ Significant unobservable inputs	Range [(2)] (Averages)[(3)]
LIABILITIES			
Net derivative contracts: [(1)]			
- Interest rate	(10,543)	Option model	
		Interest rate – Interest rate curve correlation	76% to 95% (mean 88%, median 86%)
		Net asset value ("NAV") NAV	149%-149% (149%)
- Equity	(57,653)	Option model	
		Equity volatility	7% to 75% (25%)
		Volatility skew	-2% to 0% (-1%)
		Equity – Equity correlation	35% to 98% (74%)
		Equity – Foreign exchange correlation	-68% to 40% (-22%)
Debt and other borrowings:			
- Issued Structured Notes	(108,494)	Option model	
		Equity volatility	18% to 66% (28%)
		Volatility skew	-1% (-1%)
		Equity – Equity correlation	-52% to 97% (85%)
		Equity – Foreign exchange correlation	-33% to 0% (18%)

(1) Net derivative contracts represent trading financial liabilities – derivative contracts net of trading financial assets – derivative contracts.

(2) The ranges of significant unobservable inputs are represented in percentages.

(3) Amounts represent weighted averages except where simple averages and the median of the inputs are provided when more relevant.

21. ASSETS AND LIABILITIES MEASURED AT FAIR VALUE (CONTINUED)

d. Valuation of Level 3 financial assets and liabilities recognised at fair value on a recurring basis (continued)

1. Quantitative information about and qualitative sensitivity of significant unobservable inputs (continued)

31 December 2021	**Fair value €'000**	**Predominant valuation techniques/ Significant unobservable inputs**	**Range [2] (Averages)[3]**
LIABILITIES			
Net derivative contracts: [1]			
- Interest rate	1,337	Option model	
		Interest rate – Foreign exchange correlation	53% to 56% (mean 55%, median 54%)
		Interest rate – Interest rate curve correlation	62% to 98% (mean 84%, median 83%)
		Net asset value ("NAV") NAV	164%-164% (164%)
- Equity	(33,143)	Option model	
		Equity volatility	6% to 73% (29%)
		Volatility skew	-3% to 0% (-1%)
		Equity – Equity correlation	35% to 96% (76%)
		Equity – Foreign exchange correlation	-72% to 40% (-26%)
Debt and other borrowings:			
- Issued Structured Notes	(120,901)	Option model	
		Equity volatility	16% to 73% (27%)
		Volatility skew	-1% to 0% (-1%)
		Equity – Equity correlation	40% to 87% (83%)
		Equity – Foreign exchange correlation	-55% to 25% (-23%)
		Issued structured notes – Interest rate curve correlation	62% to 98% (mean 84%, median 83%)

(1) Net derivative contracts represent trading financial liabilities – derivative contracts net of trading financial assets – derivative contracts.

(2) The ranges of significant unobservable inputs are represented in percentages.

(3) Amounts represent weighted averages except where simple averages and the median of the inputs are provided when more relevant.

21. ASSETS AND LIABILITIES MEASURED AT FAIR VALUE (CONTINUED)

d. Valuation of Level 3 financial assets and liabilities recognised at fair value on a recurring basis (continued)

1. Quantitative information about and qualitative sensitivity of significant unobservable inputs (continued)

   An increase / (decrease) to the following significant unobservable inputs would generally result in an impact to the fair value, but the magnitude and direction of the impact would depend on whether the Company 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).
- 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.
- NAV: A pricing input that is the value of a company's assets minus the value of its liabilities, often in relation to open-end or mutual funds, since shares of such funds registered with the US Securities and Exchange Commission are redeemed at their net asset value. Shares and interests in such funds are not traded between investors, but are issued by the fund to each new investor and redeemed by the fund when an investor withdraws. A fund will issue and redeem shares and interests at a price calculated by reference to the NAV of the fund, with the intention that new investors receive a fair proportion of the fund and redeeming investors receive a fair proportion of the fund's value in cash.

2. Sensitivity of fair values to changing significant assumptions to reasonably possible alternatives

   As detailed in note 2, 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 Company 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.

21. ASSETS AND LIABILITIES MEASURED AT FAIR VALUE (CONTINUED)

d. Valuation of Level 3 financial assets and liabilities recognised at fair value on a recurring basis (continued)

2. Sensitivity of fair values to changing significant assumptions to reasonably possible alternatives (continued)

The following table presents the potential impact of both favourable and unfavourable changes, both of which would be reflected in the statement of comprehensive income:

	2022		2021	
	Favourable changes [2]	**Unfavourable changes** [2]	**Favourable changes** [2]	**Unfavourable changes** [2]
	€'000	**€'000**	**€'000**	**€'000**
Trading financial liabilities:				
Net derivatives contracts[1]	4,735	(12,265)	10,118	(11,695)
Debt and other borrowings:				
Issued structured notes	7,412	(10,667)	8,661	(14,467)
	12,147	(22,932)	18,779	(26,162)

[1] Net derivative contracts represent trading financial assets – derivative contracts net of trading financial liabilities – derivative contracts. The reasonably possible alternative assumptions are applied to derivative assets and derivative liabilities separately when assessing potential variability of the fair value measurement.
[2] The difference between the total favourable and total unfavourable changes is primarily a result of net derivative contracts classified as Level 3 in the fair value hierarchy hedging issued structured notes which can be classified as either Level 2 or Level 3 in the fair value hierarchy.

e. 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 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.

22. ASSETS AND LIABILITIES NOT MEASURED AT FAIR VALUE

For all financial instruments not measured at fair value, the carrying amount is considered to be a reasonable approximation of fair value due to the short term nature of these assets and liabilities.

Regarding the CPECs, their carrying value including the accrued yield in 'Trade and other payables', as detailed in note 11, are considered in aggregate as an approximation of their fair value.

23. CAPITAL MANAGEMENT

The Morgan Stanley Group manages its capital on a global basis with consideration for its legal entities. The capital managed by the Morgan Stanley Group broadly includes ordinary share capital, preference share capital, subordinated loans and reserves.

The Morgan Stanley Group's required capital ("Required Capital") estimation is based on the Required Capital Framework, an internal capital adequacy measure. This framework is a risk-based and leverage use-of-capital measure, which is compared with the Morgan Stanley Group's regulatory capital to ensure that the Morgan Stanley Group maintains an amount of going concern capital after absorbing potential losses from stress events where applicable, at a point in time. The Morgan Stanley Group defines the difference between its total average common equity and the sum of the average common equity amounts allocated to our business segments as Parent common equity. The Morgan Stanley Group generally holds Parent common equity for prospective regulatory requirements, organic growth, potential future acquisitions and other capital needs.

The Required Capital Framework is expected to evolve over time in response to changes in the business and regulatory environment, for example, to incorporate stress testing or enhancements in modelling techniques. The Morgan Stanley Group will continue to evaluate the framework with respect to the impact of future regulatory requirements, as appropriate.

The Morgan Stanley Group actively manages its consolidated capital position based upon, among other things, business opportunities, risks, capital availability and rates of return together with internal capital policies, regulatory requirements and rating agency guidelines. In the future, the Morgan Stanley Group may expand or contract its capital base to address the changing needs of its businesses.

The Company views capital as an important source of financial strength. It manages and monitors its capital in line with established policies and procedures and in compliance with local regulatory requirements.

The Morgan Stanley Group also aims to adequately capitalise at a legal entity level whilst safeguarding that entity's ability to continue as a going concern and ensuring that it meets all regulatory capital requirements, so that it can continue to provide returns for the Morgan Stanley Group.

In order to maintain or adjust the capital structure as described above, the Company may adjust the amount of dividends paid, return capital to shareholders, issue new shares, convert the CPEC into shares or sell assets to reduce debt.

The Company manages the following items as capital:

	2022	2021
	€'000	€'000
Share capital	15,018	15,018
Retained earnings	17,892	16,574
	32,910	31,592

24. RELATED PARTY DISCLOSURES

Parent and ultimate controlling entity

The Company's immediate parent undertaking is Archimedes Investments Coöperatieve U.A., which is registered in the Netherlands.

The ultimate parent undertaking and controlling entity and the largest group of which the Company is a member and for which group financial statements are prepared is Morgan Stanley. 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.

Key management compensation

Key management personnel are defined as those persons having authority and responsibility for planning, directing and controlling the activities of the Company. Key management personnel includes only the Board of Directors of the Company.

Key management personnel compensation, in respect of their services rendered to the Company, comprised the following:

	2022	2021
	€'000	€'000
Short-term employee benefits	9	12
Post-employment benefits	1	1
Share-based payments	—	1
	10	14

The share-based payment costs disclosed above reflect the amortisation of equity-based awards granted to key management personnel.

Key management personnel compensation noted in the above table reflects an apportionment of Directors total compensation from the Firm. None of the Directors received any compensation from the Company during the year (2021: €nil) and total compensation was borne by and paid by other Morgan Stanley Group undertakings in both the current and prior years.

In addition to the above, TMF Management B.V., not in the Morgan Stanley Group, provided key management services to the Company. For these services and for other administrative services TMF Netherlands B.V. charged a total fee of €977,000 for the year (2021: €1,028,000). This service fee includes €13,000 (2021: €13,000) for the provision of two employees of TMF Netherlands B.V. in their roles as statutory Directors of the Company. The fees are payable to TMF Management B.V. and not to employees of TMF Netherlands B.V., therefore this is not included in the key management personnel compensation in the table above. There were no amounts accrued at the current and prior year end.

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 Company is closely integrated with the operations of the

24. RELATED PARTY DISCLOSURES (CONTINUED)

Transactions with related parties (continued)

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. Settlement of the outstanding balances will be made via inter-company mechanisms.

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 undertakings. The Morgan Stanley Group operates a number of intra-group policies to ensure that, where possible, revenues and related costs are matched. For the year ended 31 December 2022, a net gain of €3,745,000 (2021: net gain of €435,000) was recognised in the statement of comprehensive income arising from such policies.

Funding

The Company 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 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.

Other funding

Other funding includes CPECs issued to the Company's direct parent undertaking, Archimedes Investments Coöperatieve U.A. The specific terms of the related yield are detailed in note 11.

Details of the outstanding balances on these funding arrangements and the related interest income or expense recognised in the statement of comprehensive income during the year are shown in the table below:

	2022		2021	
	Interest	**Balance**	**Interest**	**Balance**
	€'000	**€'000**	**€'000**	**€'000**
Amounts due from the Company's indirect parent undertaking	13,366	1,136,696	11,196	1,132,290
Amounts due from other Morgan Stanley Group undertakings	—	2,194	108	85,473
	13,366	1,138,890	11,304	1,217,763
Amounts due to the Company's direct parent undertaking	12,023	1,136,254	11,007	1,132,381
Amounts due to other Morgan Stanley Group undertakings	2,361	232,160	—	31
	14,384	1,368,414	11,007	1,132,412

24. RELATED PARTY DISCLOSURES (CONTINUED)

Transactions with related parties (continued)

Trading and risk management

The Company issues structured notes and hedges the obligations arising from the issuance by entering into prepaid equity securities contracts, derivative contracts and loans designated at fair value through profit or loss with other Morgan Stanley Group undertakings. All such transactions are entered into on an arm's length basis. The total amounts receivable and payable on the above financial instruments as well as the collateral on derivative and prepaid equity securities contracts, reported within 'Trade receivables' and 'Trade payables', were as follows:

	2022		2021	
	Interest	Balance	Interest	Balance
	€'000	€'000	€'000	€'000
Amounts due from other Morgan Stanley Group undertakings	700	9,300,519	(64)	8,573,089
Amounts due to other Morgan Stanley Group undertakings	(66)	1,397,037	(653)	953,299

The Company has pledged net cash collateral of €262,280,000 from other Morgan Stanley Group undertakings (2021: net received €52,449,000) in order to mitigate credit risk on exposures arising under derivatives contracts and prepaid equity securities contracts between the Company and other Morgan Stanley Group undertakings.

Infrastructure services

The Company uses infrastructure services including the provision of office facilities, operated by other Morgan Stanley Group undertakings at no charge.

25. EVENTS AFTER THE REPORTING PERIOD

There have been no significant events since the reporting date.

ADDITIONAL INFORMATION
Year ended 31 December 2022

Independent auditor's report

The independent auditor's report is recorded on the next page.

Statutory rules concerning appropriation of the net result

The Articles of Association of the Company provide that the net result for the year is at the disposition of the General Meeting of Shareholders.

Distribution can only be made to the extent that the Shareholder's equity exceeds the reserves provided for by the Articles of Association. The Board of Directors must grant its approval which it can only withhold in the event that it knows or reasonably should have known that, following the distribution, the Company will not be able to continue with the payments of its debts becoming due and payable in the foreseeable future.

Deloitte.

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INDEPENDENT AUDITOR'S REPORT

To the shareholders of Morgan Stanley B.V.

Report on the audit of the financial statements 2022 included in the annual accounts

Our opinion

We have audited the financial statements 2022 of Morgan Stanley B.V., based in Amsterdam.

In our opinion, the accompanying financial statements give a true and fair view of the financial position of Morgan Stanley B.V. as at December 31, 2022, and of its result and its cash flows for 2022 in accordance with International Financial Reporting Standards as adopted by the European Union (EU-IFRS) and with Part 9 of Book 2 of the Dutch Civil Code.

The financial statements comprise:

1. The statement of financial position as at December 31, 2022.
2. The following statements for 2022: the statements of comprehensive income, changes in equity and cash flows.
3. The notes comprising material accounting policy information.

Basis for our opinion

We conducted our audit in accordance with Dutch law, including the Dutch Standards on Auditing. Our responsibilities under those standards are further described in the 'Our responsibilities for the audit of the financial statements' section of our report.

We are independent of Morgan Stanley B.V. in accordance with the EU Regulation on specific requirements regarding statutory audit of public-interest entities, the Wet toezicht accountantsorganisaties (Wta, Audit firms supervision act), the Verordening inzake de onafhankelijkheid van accountants bij assurance-opdrachten (ViO, Code of Ethics for Professional Accountants, a regulation with respect to independence) and other relevant independence regulations in the Netherlands. Furthermore, we have complied with the Verordening gedrags- en beroepsregels accountants (VGBA, Dutch Code of Ethics).

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

Information in support of our opinion

We designed our audit procedures in the context of our audit of the financial statements as a whole and in forming our opinion thereon. The following information in support of our opinion was addressed in this context, and we do not provide a separate opinion or conclusion on these matters.

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Materiality

Based on our professional judgement we determined the materiality for the financial statements as a whole at EUR 104,400,000. The materiality is based on 1% of total assets. We have also taken into account misstatements and/or possible misstatements that in our opinion are material for the users of the financial statements for qualitative reasons.

We agreed with the Audit Committee that misstatements in excess of EUR 2,088,000, which are identified during the audit, would be reported to them, as well as smaller misstatements that in our view must be reported on qualitative grounds.

Our 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. We have communicated the key audit matters to the Audit Committee. The key audit matters are not a comprehensive reflection of all matters discussed.

<table>
<tr><td colspan="2">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</td></tr>
<tr><td>Relevant references in the financial statements</td><td>• Note 2 – Basis of Preparation – Critical judgements and key sources of estimation uncertainty.

• Note 3 – Summary of significant accounting policies - (d) Fair value.

• Note 22 – Assets and liabilities measured at fair value – (a) (c) (d) (e).</td></tr>
<tr><td>Key audit matter description</td><td>Morgan Stanley B.V.'s (the Company) trading and financing activities will at times result in the Company carrying material financial asset and liability positions which are valued at fair value using unobservable inputs, thus having limited price transparency. Under IFRS 13 Fair Value Measurement, these financial instruments are classified as Level 3 financial assets or liabilities.

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 more complex than other financial instruments whose values or inputs are readily observable. 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 Company's valuation of Level 3 financial instruments therefore contains subjectivity and presents certain challenges in evaluating the judgements of the valuation and estimates.

Significant judgements made include the use 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.</td></tr>
</table>

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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 to assist in performing our audit procedures. Our valuation audit procedures included the following procedures: • We obtained an understanding and tested Morgan Stanley B.V.'s valuation controls including the: - model Risk Management control, which is designed to review 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 designed 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 valuation estimate by comparing such estimate against relevant subsequent transactions; - developed independent valuation estimates, using externally sourced inputs and independent valuation models, and used such estimates to further evaluate management's fair value estimate, by investigating the differences between our estimate and that of Morgan Stanley, including; comparing the fair value estimate with similar transactions; and, evaluating management's assumptions inclusive of the inputs, as applicable; - tested the revenues arising from the trade date valuation estimate for certain structured transactions classified as Level 3 financial instruments. For a selection of such transactions, we developed independent valuation estimates test the valuation inputs and assumptions used by management and evaluated whether the methods were consistent with the relevant Morgan Stanley's valuation policies; - assessed the consistency by which management has applied significant and unobservable valuation assumptions; - performed a retrospective assessment of management's valuation estimates for a sample of financial instrument selections by comparing such estimates to relevant transactions; - assessment of financial statement disclosures related to financial instruments measured 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 based on the circumstances and in line with the accounting policies of the company.

Consideration of fraud in the audit of financial statements

Owing to the inherent limitations of an audit, there is an unavoidable risk that some material misstatements of the financial statements may not be detected. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

We performed the following procedures:

- We made inquiries of management and those charged with governance regarding the risk of material misstatements in the financial statements due to fraud, their process for identifying and responding to the risk of fraud, the internal communication regarding their views on business practices and ethical behavior and whether they have knowledge of any actual, suspected or alleged fraud affecting the Company.

- We obtained an understanding of how those charged with governance exercise oversight of management's processes for identifying and responding to the risks of fraud in the Company and the internal control that management has established to mitigate these risks.

- We evaluated whether unusual or unexpected relationships have been identified in performing analytical procedures that may indicate risks of material misstatement due to fraud.

- We held discussions amongst team members to identify fraud risk factors and considered whether other information obtained from our risk assessment procedures indicated risks of material misstatement due to fraud.

- We determined overall responses to address the assessed risks of material misstatement due to fraud at the financial statement level or at the assertion level by:
  - assigning and supervising personnel with the adequate knowledge, skills and ability;
  - evaluating whether the selection and application of accounting policies, particularly those related to subjective measurements and complex transactions, may be indicative of fraudulent financial reporting;
  - testing the appropriateness of journal entries recorded in the general ledger and other adjustments made in the preparation of the financial statements;
  - evaluating whether the judgments and decisions made by management in making the accounting estimates included in the financial statements indicate a possible bias that may represent a risk of material misstatement due to fraud;
  - for significant transactions evaluating whether the business rationale of the transactions suggests that they may have been entered into to engage in fraudulent financial reporting or to conceal misappropriation of assets.

Consideration of laws and regulations in the audit of financial statements

We are responsible for obtaining reasonable assurance that the financial statements, taken as a whole, are free from material misstatement, whether due to fraud or error taking into account the applicable legal and regulatory framework. However, we are not responsible for preventing non-compliance and cannot be expected to detect non-compliance with all laws and regulations.

In the context of laws and regulations, the potential effects of inherent limitations on the auditor's ability to detect material misstatements are greater for such reasons as the following:

- There are many laws and regulations, relating principally to the operating aspects of an entity, that typically do not affect the financial statements and are not captured by the entity's information systems relevant to financial reporting.

- Non-compliance may involve conduct designed to conceal it, such as collusion, forgery, deliberate failure to record transactions, management override of controls or intentional misrepresentations being made to the auditor.

- Whether an act constitutes non-compliance is ultimately a matter to be determined by a court or other appropriate adjudicative body.

Ordinarily, the further removed non-compliance is from the events and transactions reflected in the financial statements, the less likely the auditor is to become aware of it or to recognize the non-compliance.

We performed the following procedures:

- As part of obtaining an understanding of the Company and its environment we obtained a general understanding of (i) the legal and regulatory framework applicable to the Company and the industry in which it operates and (ii) how the Company is complying with that framework.

- We obtained sufficient appropriate audit evidence regarding provisions of those laws and regulations generally recognized to have a direct effect on the determination of material amounts and disclosures in the financial statements such as (corporate) tax and pension laws and financial reporting regulations and the requirements under Part 9 of Book 2 of the Dutch Civil Code.

- Apart from these, the Company is subject to other laws and regulations where the consequences of non-compliance could have a material effect on amounts and/or disclosures in the financial statements, for instance, through imposing fines of litigation. Given the nature of Company's business and the complexity of laws and regulation, there is a risk of non-compliance with the requirements of such laws of regulations.

- Our procedures are more limited with respect to these laws and regulations that do not have a direct effect on the determination of the amounts and disclosures in the financial statements. Compliance with these laws and regulations may be fundamental to the operating aspects of the business, to the Company's ability to continue its business, or to avoid material penalties (e.g., compliance with the terms of operating licenses and permits or compliance with environmental regulations) and therefore non-compliance with such laws and regulations may have a material effect on the financial statements. Our responsibility is limited to undertaking specified audit procedures to help identify non-compliance with those laws and regulations that may have a material effect on the financial statements.

- Our procedures are limited to (i) inquiry of management and others within the Company as to whether the Company is in compliance with such laws and regulations and (ii) inspecting correspondence, if any, with the relevant licensing or regulatory authorities to help identify non-compliance with those laws and regulations that may have a material effect on the financial statements.

- Naturally, we remained alert to the indications of (suspected) non-compliance throughout the audit.

- Finally, we obtained written representations that all known instances of (suspected) fraud or non-compliance with laws and regulations have been disclosed to us.

Report on the other information included in the annual accounts

The annual accounts contain other information, in addition to the financial statements and our auditor's report thereon.

The other information consists of:

- Directors' Report.
- Directors' Responsibilities Statement.
- Other Information as required by Part 9 of Book 2 of the Dutch Civil Code.

Based on the following procedures performed, we conclude that the other information:

- Is consistent with the financial statements and does not contain material misstatements.
- Contains all the information regarding the management report and the other information as required by Part 9 of Book 2 of the Dutch Civil Code.

We have read the other information. Based on our knowledge and understanding obtained through our audit of the financial statements or otherwise, we have considered whether the other information contains material misstatements.

By performing these procedures, we comply with the requirements of Part 9 of Book 2 of the Dutch Civil Code and the Dutch Standard 720. The scope of the procedures performed is substantially less than the scope of those performed in our audit of the financial statements.

Management is responsible for the preparation of the other information, including Directors' Report in accordance with Part 9 of Book 2 of the Dutch Civil Code, and the other information as required by Part 9 of Book 2 of the Dutch Civil Code.

Report on other legal and regulatory requirements and ESEF

Engagement

We were engaged by the Audit Committee as auditor of Morgan Stanley B.V. as of the audit for the year 2001 and have operated as statutory auditor ever since that financial year.

No prohibited non-audit services

We have not provided prohibited non-audit services as referred to in Article 5(1) of the EU Regulation on specific requirements regarding statutory audit of public-interest entities.

European Single Electronic Format (ESEF)

Morgan Stanley B.V. has prepared its annual report in ESEF. The requirements for this are set out in the Commission Delegated Regulation (EU) 2019/815 with regard to regulatory technical standards on the specification of a single electronic reporting format (hereinafter: the RTS on ESEF).

In our opinion, the annual report, prepared in XHTML format, including the financial statements of Morgan Stanley B.V., complies in all material respects with the RTS on ESEF.

Management is responsible for preparing the annual report including the financial statements in accordance with the RTS on ESEF.

Our responsibility is to obtain reasonable assurance for our opinion whether the annual report complies with the RTS on ESEF.

We performed our examination in accordance with Dutch law, including Dutch Standard 3950N 'Assurance-opdrachten inzake het voldoen aan de criteria voor het opstellen van een digitaal verantwoordingsdocument' (assurance engagements relating to compliance with criteria for digital reporting).

Our examination included amongst others:

- Obtaining an understanding of the company's financial reporting process, including the preparation of the annual report.

- Identifying and assessing the risks that the annual report does not comply in all material respects with the RTS on ESEF and designing and performing further assurance procedures responsive to those risks to provide a basis for our opinion, including obtaining the annual report and performing validations to determine whether the annual report containing the Inline XBRL instance and the XBRL extension taxonomy files has been prepared in accordance with the technical specifications as included in the RTS on ESEF.

Description of responsibilities regarding the financial statements

Responsibilities of management and the Audit Committee for the financial statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with EU-IFRS and Part 9 of Book 2 of the Dutch Civil Code. Furthermore, management is responsible for such internal control as management determines is necessary to enable the preparation of the financial statements that are free from material misstatement, whether due to fraud or error.

As part of the preparation of the financial statements, management is responsible for assessing the company's ability to continue as a going concern. Based on the financial reporting frameworks mentioned, management should prepare the financial statements using the going concern basis of accounting unless management either intends to liquidate the company or to cease operations, or has no realistic alternative but to do so.

Management should disclose events and circumstances that may cast significant doubt on the company's ability to continue as a going concern in the financial statements.

The Audit Committee is responsible for overseeing the Company's financial reporting process.

Our responsibilities for the audit of the financial statements

Our objective is to plan and perform the audit assignment in a manner that allows us to obtain sufficient and appropriate audit evidence for our opinion.

Our audit has been performed with a high, but not absolute, level of assurance, which means we may not detect all material errors and fraud during our audit.

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. The materiality affects the nature, timing and extent of our audit procedures and the evaluation of the effect of identified misstatements on our opinion.

We have exercised professional judgement and have maintained professional skepticism throughout the audit, in accordance with Dutch Standards on Auditing, ethical requirements and independence requirements. Our audit included among others:

- Identifying and assessing the risks of material misstatement of the financial statements, whether due to fraud or error, designing and performing audit procedures responsive to those risks, and obtaining audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtaining an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the company's internal control.

- Evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.

- Concluding on the appropriateness of management's use of the going concern basis of accounting, and based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the company to cease to continue as a going concern.

- Evaluating the overall presentation, structure and content of the financial statements, including the disclosures.

- Evaluating whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with Audit Committee regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant findings in internal control that we identified during our audit. In this respect we also submit an additional report to the audit committee in accordance with Article 11 of the EU Regulation on specific requirements regarding statutory audit of public-interest entities. The information included in this additional report is consistent with our audit opinion in this auditor's report.

We provide the Audit Committee with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with the Audit Committee, we determine the key audit matters: those matters that were of most significance in the audit of the financial statements. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, not communicating the matter is in the public interest.

Amsterdam, April 26, 2023

Deloitte Accountants B.V. Initials for identification purposes:

J. Penon