MORGAN STANLEY BANK ASIA LIMITED

Reports and financial statements

31 December 2022

MORGAN STANLEY BANK ASIA LIMITED

REPORTS AND FINANCIAL STATEMENTS
Year ended 31 December 2022

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MORGAN STANLEY BANK ASIA LIMITED

DIRECTORS' REPORT
Year ended 31 December 2022

The Directors present the annual report and audited financial statements (which comprise the income statement, statement of comprehensive income, statement of changes in equity, statement of financial position, statement of cash flows and related notes 1 to 32) for Morgan Stanley Bank Asia Limited (the "Company" or "MSBAL") for the year ended 31 December 2022. Except where indicated otherwise, the financial information contained in this audited financial statements have been prepared on a Company-level standalone basis.

PRINCIPAL ACTIVITIES

The Company is a private limited company incorporated in Hong Kong, with a head office in Hong Kong and a branch in Singapore ("Branch"). The Company is a full licensed bank under the Banking Ordinance in Hong Kong, regulated by the Hong Kong Monetary Authority ("HKMA"). The Branch is licensed as a wholesale bank in Singapore, regulated by the Monetary Authority of Singapore ("MAS"). The Company is also a registered institution under the Securities and Futures Ordinance.

The principal activities of the Company are to engage in the business of banking including deposit taking and lending. It also acts (a) as agent on behalf of its customers in connection with the provision of general investment, securities and futures dealing, as well as discretionary management and (b) as introducing broker to Morgan Stanley & Co. International plc for the provision of clearance, settlement and custody services in relation to the aforementioned transactions.

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 (the "Morgan Stanley Group").

The Company's immediate parent undertaking is Morgan Stanley Hong Kong 1238 Limited, which is incorporated in Hong Kong.

On 15 March 2022, 260,000,000 ordinary shares were issued by the Company to Morgan Stanley Hong Kong 1238 Limited ("MSHK1238") for a cash consideration of US$260,000,000 (the "capital injection").

On 29 March 2022, the Company acquired all the ordinary shares of Morgan Stanley Bank International (China) Limited ("MSBIC", or the "subsidiary") from Morgan Stanley Bank International Limited ("MSBIL") at a cash consideration of US$262,347,618 (the "Acquisition"). Post Acquisition, MSBAL and its subsidiary together form the MSBAL Group (the "MSBAL Group").

RESULTS AND APPROPRIATIONS

The results of the Company for the year ended 31 December 2022 are set out in the income statement on page 6.

No interim dividends were paid to the sole shareholder during the year. The Directors do not recommend the payment of a final dividend and propose that the profits be retained.

SHARE CAPITAL

Details of the Company's shares issued are set out in note 21 to the financial statements.

DIRECTORS

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

Laroia, Gokul
Rajaram, Harish
Chui, Yik Chiu Vincent
Almeida, Niall
Bindra, Amar Raj Singh (Appointed on 18 February 2022)
Fung, Choi Cheung
Gazzi, Robert
Kwan, Yin Ping
Ong, Whatt Soon Ronald
Taylor, George Alexander

DIRECTORS' MATERIAL INTERESTS IN TRANSACTIONS, ARRANGEMENTS AND CONTRACTS THAT ARE SIGNIFICANT IN RELATION TO THE COMPANY'S BUSINESS

No transactions, arrangements and contracts of significance to which the Company, its holding companies or any subsidiaries of its holding companies were a party and in which a Director of the Company had a material interest, whether directly or indirectly, subsisted at the end of the year or at any time during the year.

DIRECTORS' RIGHTS TO ACQUIRE SHARES AND DEBENTURES

Morgan Stanley, the Company's ultimate holding company, has several senior executive incentive compensation programs under which senior executives receive, as part of their total compensation, incentive awards of restricted stock units. All Directors of the Company except independent non-executive directors, are eligible to participate in such incentive compensation programs and receive awards of restricted stock units thereunder.

Details of the deferred stock awards of the ultimate holding company, in which the Directors of the Company are entitled to participate, are set out in note 30 to the financial statements.

Other than as disclosed above, at no time during the year was the Company, its holding companies or any subsidiaries of its holding companies a party to any arrangements to enable the Directors of the Company to acquire benefits by means of acquisition of shares in, or debentures of, the Company or any other body corporate.

PERMITTED INDEMNITY PROVISION

The Articles of Association of the Company provide that a Director or former Director of the Company may be indemnified out of the Company's assets against any liability incurred by the Director to a person other than the Company or an associated company of the Company in connection with any negligence, default, breach of duty or breach of trust in relation to the Company or associated company (as the case may be).

AUDITOR

A resolution will be submitted to the annual general meeting to re-appoint Messrs. Deloitte Touche Tohmatsu as auditor of the Company.

On behalf of the Board of Directors

CHUI, VINCENT YIK CHIU

DIRECTOR

26 April 2023

INDEPENDENT AUDITOR'S REPORT

TO THE SOLE MEMBER OF MORGAN STANLEY BANK ASIA LIMITED
(incorporated in Hong Kong with limited liability)

Opinion

We have audited the financial statements of Morgan Stanley Bank Asia Limited (the "Company") set out on pages 6 to 63, which comprise the statement of financial position as at 31 December 2022, and the income statement, statement of comprehensive income, statement of changes in equity and statement of cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies.

In our opinion, the financial statements give a true and fair view of the financial position of the Company as at 31 December 2022, and of its financial performance and its cash flows for the year then ended in accordance with the applicable Hong Kong Financial Reporting Standards ("HKFRSs") issued by the Hong Kong Institute of Certified Public Accountants ("HKICPA") relevant to these financial statements and have been properly prepared in compliance with the Hong Kong Companies Ordinance.

Basis for Opinion

We conducted our audit in accordance with Hong Kong Standards on Auditing ("HKSAs") issued by the HKICPA. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are independent of the Company in accordance with the HKICPA's Code of Ethics for Professional Accountants (the "Code"), and we have fulfilled our other ethical responsibilities in accordance with the Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Other Information

The Directors are responsible for the other information. The other information comprises the information included in the annual report, but does not include the financial statements and our auditor's report thereon.

Our opinion on the financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

INDEPENDENT AUDITOR'S REPORT

TO THE SOLE MEMBER OF MORGAN STANLEY BANK ASIA LIMITED
(incorporated in Hong Kong with limited liability)

Responsibilities of Directors and Those Charged with Governance for the Financial Statements

The Directors are responsible for the preparation of the financial statements that give a true and fair view in accordance with applicable HKFRSs issued by the HKICPA that are relevant to these financial statements and the Hong Kong Companies Ordinance, and for such internal control as the Directors determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

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

Those charged with governance are responsible for overseeing the Company's financial reporting process.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion solely to you in accordance with section 405 of the Hong Kong Companies Ordinance, and for no other purpose. We do not assume responsibility towards or accept liability to any other person for the contents of this report. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with HKSAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with HKSAs, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain 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.
- Obtain 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.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Directors.

INDEPENDENT AUDITOR'S REPORT

TO THE SOLE MEMBER OF MORGAN STANLEY BANK ASIA LIMITED
(incorporated in Hong Kong with limited liability)

Auditor's Responsibilities for the Audit of the Financial Statements – continued

- Conclude on the appropriateness of the Directors' 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.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Deloitte Touche Tohmatsu
Certified Public Accountants
Hong Kong
26 April 2023

MORGAN STANLEY BANK ASIA LIMITED

INCOME STATEMENT
Year ended 31 December 2022

	Note	2022	2021
		US$'000	US$'000
Interest income		112,262	46,649
Interest expense		(21,261)	(10,474)
Net interest income	4	91,001	36,175
Fee and commission income		312,874	521,284
Fee and commission expense		(1,729)	(1,176)
Net fee and commission income	5	311,145	520,108
Net (losses) / gains from financial instruments at fair value through profit or loss		(3,614)	5,977
Net losses on derecognition of financial assets measured at fair value through other comprehensive income ("FVOCI")	6	(59)	–
Other revenue	7	55,270	8,232
Total non-interest revenues		362,742	534,317
Net revenues		453,743	570,492
Non-interest expense:			
Other expense	8	(333,538)	(399,404)
Net (impairment loss) / reversal of impairment loss on financial instruments	9	(8)	37
PROFIT BEFORE INCOME TAX		120,197	171,125
Income tax	10	(17,092)	(26,107)
PROFIT FOR THE YEAR		103,105	145,018

All results were derived from continuing operations.

The notes on pages 11 to 63 form an integral part of the financial statements.

MORGAN STANLEY BANK ASIA LIMITED

STATEMENT OF COMPREHENSIVE INCOME
Year ended 31 December 2022

	Note	2022 US$'000	2021 US$'000
PROFIT FOR THE YEAR		103,105	145,018
Items that may be reclassified subsequently to profit or loss:			
FVOCI reserve:	10		
Net change in fair value		(257)	22
Net amount reclassified to income statement		49	–
OTHER COMPREHENSIVE INCOME AFTER INCOME TAX		(208)	22
TOTAL COMPREHENSIVE INCOME FOR THE YEAR ATTRIBUTABLE TO OWNER OF THE COMPANY		102,897	145,040

The notes on pages 11 to 63 form an integral part of the financial statements.

MORGAN STANLEY BANK ASIA LIMITED

STATEMENT OF CHANGES IN EQUITY
Year ended 31 December 2022

	Note	Share capital US$'000	FVOCI reserve US$'000	Retained earnings US$'000	Total equity US$'000
Balance at 1 January 2021		670,000	35	354,042	1,024,077
Profit for the year		–	–	145,018	145,018
Other comprehensive income for the year:					
FVOCI reserve:	10				
Net change in fair value		–	22	–	22
Total comprehensive income for the year		–	22	145,018	145,040
Balance at 31 December 2021 and 1 January 2022		670,000	57	499,060	1,169,117
Profit for the year		–	–	103,105	103,105
Other comprehensive income for the year:					
FVOCI reserve:	10				
Net change in fair value		–	(257)	–	(257)
Net amount reclassified to income statement		–	49	–	49
Total comprehensive income for the year		–	(208)	103,105	102,897
Transaction with owner:					
Issue of share capital		260,000	–	–	260,000
Balance at 31 December 2022		930,000	(151)	602,165	1,532,014

The notes on pages 11 to 63 form an integral part of the financial statements.

MORGAN STANLEY BANK ASIA LIMITED

STATEMENT OF FINANCIAL POSITION
As at 31 December 2022

	Note	2022	2021
		US$'000	US$'000
ASSETS			
Cash and short-term deposits	22(a)	670,280	965,337
Trading financial assets	12	4,483	32,303
Secured financing	13	2,813,802	466,245
Loans and advances	14	3,215,514	4,073,273
Investment securities	15	501,327	4,297,072
Trade and other receivables	16	142,692	62,617
Prepayments		1,570	858
Deferred tax assets	20	12,630	15,603
Investment in a subsidiary	17	262,348	–
TOTAL ASSETS		7,624,646	9,913,308
LIABILITIES AND EQUITY			
LIABILITIES			
Deposits	18	5,852,173	8,513,635
Trading financial liabilities	12	64,311	24,372
Trade and other payables	19	167,315	188,165
Current tax liabilities		6,862	16,998
Accruals		1,971	1,021
TOTAL LIABILITIES		6,092,632	8,744,191
EQUITY			
Share capital	21	930,000	670,000
FVOCI reserve	21	(151)	57
Retained earnings		602,165	499,060
Equity attributable to owner of the Company		1,532,014	1,169,117
TOTAL EQUITY		1,532,014	1,169,117
TOTAL LIABILITIES AND EQUITY		7,624,646	9,913,308

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

Signed on behalf of the Board of Directors

Chui, Vincent Yik Chiu
Director

Rajaram, Harish
Director

The notes on pages 11 to 63 form an integral part of the financial statements.

MORGAN STANLEY BANK ASIA LIMITED

STATEMENT OF CASH FLOWS
Year ended 31 December 2022

	Note	2022 US$'000	2021 US$'000
NET CASH FLOWS (USED IN)/FROM OPERATING ACTIVITIES	22(b)	(4,098,339)	1,396,202
INVESTING ACTIVITIES			
Purchase of investment securities		(2,706,567)	(8,688,518)
Proceeds from maturity/sale of investment securities		6,512,197	7,000,948
Acquisition of a subsidiary		(262,348)	—
NET CASH FLOWS FROM/(USED IN) INVESTING ACTIVITIES		3,543,282	(1,687,570)
FINANCING ACTIVITY			
Issue of ordinary share capital		260,000	—
NET CASH FLOWS FROM FINANCING ACTIVITIES		260,000	—
NET DECREASE IN CASH AND CASH EQUIVALENTS		(295,057)	(291,368)
CASH AND CASH EQUIVALENTS AT THE BEGINNING OF THE YEAR		965,337	1,256,705
CASH AND CASH EQUIVALENTS AT THE END OF THE YEAR	22(a)	670,280	965,337

The notes on pages 11 to 63 form an integral part of the financial statements.

1. CORPORATE INFORMATION

The Company is a private limited company with a head office in Hong Kong and a branch in Singapore ("Branch"). The Company is incorporated and is domiciled in Hong Kong, at the following principal place of business: Level 31, International Commerce Centre, 1 Austin Road West, Kowloon, Hong Kong.

The Company is a full licensed bank under the Banking Ordinance in Hong Kong, regulated by the HKMA. The Branch is licensed as a wholesale bank in Singapore, regulated by the MAS. The Company is also a registered institution under the Securities and Futures Ordinance. The principal activities of the Company are to engage in the business of banking including deposit taking and lending. It also acts (a) as agent on behalf of its customers in connection with the provision of general investment, securities and futures dealing, as well as discretionary management and (b) as introducing broker to Morgan Stanley & Co. International plc for the provision of clearance, settlement and custody services in relation to the aforementioned transactions.

The Company has a subsidiary, Morgan Stanley Bank International (China) Limited, which is incorporated in China. Details of the investment in a subsidiary of the Company is disclosed in note 17.

The Company's immediate parent undertaking is Morgan Stanley Hong Kong 1238 Limited, which is incorporated in Hong Kong.

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. Morgan Stanley is incorporated in the State of Delaware, the United States of America. Copies of its financial statements can be obtained from www.morganstanley.com/investorrelations.

2. BASIS OF PREPARATION

Statement of compliance

MSBAL has prepared these Company-level annual financial statements for the year ended 31 December 2022 and 31 December 2021.

For the year ended 31 December 2022, for the purposes of compliance with sections 379 and 380 of the Hong Kong Companies Ordinance, these financial statements have been prepared to present a true and fair view of the financial position and financial performance of the Company only. Consequently, they have been prepared in accordance with all applicable Hong Kong Financial Reporting Standards ("HKFRS", which term collectively includes Hong Kong Accounting Standards ("HKAS") and Interpretations) issued by the Hong Kong Institute of Certified Public Accountants ("HKICPA"), accounting principles generally accepted in Hong Kong and the requirements of the Hong Kong Companies Ordinance that are relevant to the preparation of Company level financial statements by an intermediate parent company.

As the Company is a holding company that is a wholly owned subsidiary of another body corporate, Morgan Stanley, it satisfies the exemption criteria set out in section 379(3)(a) of the Hong Kong Companies Ordinance, and is therefore not required to prepare consolidated financial statements.

Given the above, these financial statements are not prepared for the purposes of compliance with HKFRS 10 'Consolidated Financial Statements' ("HKFRS 10") so far as the preparation of consolidated financial statements is concerned. As a consequence, the financial statements do not give all the information required by HKFRS 10 about the economic activities of MSBAL Group of which the Company is the parent. Furthermore, as these financial statements are prepared in respect of the Company only, HKFRS 12 'Disclosures of Interests in Other Entities' does not apply to the financial statements.

For the year ended 31 December 2021, the Company has prepared its financial statements in accordance with HKFRS issued by the HKICPA, accounting principles generally accepted in Hong Kong and the requirements of the Hong Kong Companies Ordinance.

2. BASIS OF PREPARATION (CONTINUED)

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, these amendments to standards did not have a material impact on the Company's financial statements.

Amendments to HKAS 37 'Provisions, Contingent Liabilities and Contingent Assets': Onerous Contracts – Cost of Fulfilling a Contract were issued by the HKICPA in June 2020, for modified retrospective application in accounting periods beginning on or after 1 January 2022.

As part of the 2018-2020 Annual Improvements Cycle published in June 2020, the HKICPA made an amendment to HKFRS 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.

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

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 HKICPA but not mandatory for accounting periods beginning 1 January 2022. The Company does not expect that the adoption of the following amendments to standards will have a material impact on the Company's financial statements.

Amendments to HKAS 1 'Presentation of Financial Statements': Classification of Liabilities as Current or Non-current were issued by the HKICPA in August 2020, for retrospective application in accounting periods beginning on or after 1 January 2023.

Amendments to HKAS 8 'Accounting Policies, Changes in Accounting Estimates and Errors': Definition of Accounting Estimates were issued by the HKICPA in April 2021, for prospective application in accounting periods beginning on or after 1 January 2023. Early application is permitted.

Amendments to HKAS 1: Disclosure of Accounting Policies were issued by the HKICPA in April 2021, for prospective application in accounting periods beginning on or after 1 January 2023. Early application is permitted.

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

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.

2. BASIS OF PREPARATION (CONTINUED)

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 critical judgements in applying the Company's accounting policies are existences of impairment of financial assets and investment in a subsidiary, the probability of outflow of resources relating to provisions, and the recognition of deferred tax assets, see note 3(f), 17, 20 and 24.

The key sources of estimation uncertainty is the valuation of certain financial instruments. For further details on the assumptions and estimation uncertainties in determining the fair value of certain assets and liabilities, see notes 3(d) and 27.

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

The going concern assumption

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. As set out in the Directors' report, retaining sufficient liquidity and capital to withstand market pressures remains central to the Morgan Stanley Group's and the Company's strategy.

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.

Change in presentation

The Company has updated the income statement presentation for gains and losses arising on financial instruments measured at fair value through profit and loss ("FVPL"), such that these are now presented in the 'Net gains/(losses) from financial instruments at fair value through profit or loss' income statement line. In prior reporting periods, this information was presented as 'Net trading income'. The comparative period has also been re-presented.

3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

a. Functional currency

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

All currency amounts in the financial statements are rounded to the nearest thousand US dollars unless otherwise stated.

b. Foreign currencies

All monetary assets and liabilities denominated in currencies other than US dollars are translated into US dollars at the rates ruling at the reporting date. Transactions and non-monetary assets and liabilities denominated in currencies other than US dollars are recorded at the rates prevailing at the dates of the transactions. Foreign exchange differences arising from remeasurement of the amortised cost of FVOCI assets are recognised in the income statement. All other gains and losses from movements in foreign exchange rates on FVOCI assets are recorded in other comprehensive income. All other translation differences are taken through the income statement. Exchange differences recognised in the income statement 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 include all derivatives contracts.

Trading financial instruments are initially recorded on trade date at fair value (see note 3(d) below).

All subsequent changes in fair value and foreign exchange differences are reflected in the income statement in ‘Net gains/(losses) from financial instruments at fair value through profit or loss’.

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

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

Non-trading financial assets at FVPL include secured financing transactions such as securities purchased under agreements to resell.

Non-trading financial assets at FVPL are principally financial assets where the Company makes decisions based upon the assets’ fair values. These assets are generally recognised on settlement date at fair value (see note 3(d) below), since they are neither regular way nor are they derivatives. From the date the terms are agreed (trade date), until the financial asset is funded (settlement date), the 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 and foreign exchange differences are reflected in the income statement in ‘Net (losses)/ gains from financial instruments at fair value through profit or loss’. For these instruments, interest is included as a component of fair value, and is included within ‘Interest income’.

Transaction costs are excluded from the initial fair value measurement of the financial assets and are recognised in the income statement in ‘Other expense’(note 8).

3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

c. Financial instruments (continued)

ii) Financial assets measured at FVOCI

Financial assets measured at FVOCI include government debt securities.

Financial assets measured at FVOCI are financial instruments which are held within a business model whose objective is achieved both by collecting contractual cash flows and selling financial assets and the contractual terms of which give rise on specified dates to cash flows that are solely payments of principal and interest ("SPPI") on the principal amount outstanding. Financial assets measured at FVOCI are recorded on trade date and are initially recognised and subsequently measured at fair value (see note 3(d) below).

Transaction costs that are directly attributable to the acquisition of a financial asset measured at FVOCI are added to the fair value on initial recognition.

Interest calculated using the effective interest rate ("EIR") method (see note 3(c)(iii) below) is recognised in the income statement in 'Interest income'. Foreign exchange differences on the amortised cost of the asset are recognised in the income statement in 'Other revenue' or 'Other expense'. Movement in expected credit loss ("ECL") allowance is recognised in both the income statement in 'Net reversal of impairment loss/ (impairment loss) on financial instruments' and in the statement of comprehensive income in the 'FVOCI reserve'. All other gains and losses on financial assets measured at FVOCI are recognised in the 'FVOCI reserve' within equity.

On derecognition of a financial asset measured at FVOCI, the cumulative gain or loss in the 'FVOCI reserve' is reclassified to the income statement and reported in 'Net gains/ (losses) on derecognition of financial assets measured at FVOCI'.

iii) Financial assets and financial liabilities at amortised cost

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

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 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 ECL allowance. Interest is recognised in the income statement in 'Interest income', using the 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 income statement in 'Net reversal of impairment loss/ (impairment loss) on financial instruments'.

Financial liabilities classified at amortised cost include deposits and trade and other payables.

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 income statement in 'Interest expense' using the EIR method as described below. Transaction costs that are directly attributable to the issue of a financial liability are deducted from the fair value on initial recognition.

3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

c. Financial instruments (continued)

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

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.

iv) Investment in a subsidiary

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

Investment in a subsidiary is stated at cost, less provision for any impairment (see note 3(f) below). Dividends, impairment losses and reversals of impairment losses, if any, are recognised in the income statement in 'Net gains/ (losses) on investment in a subsidiary'.

v) Secured financing

In the course of financing its business, the Company enters into arrangements which involve the purchase of securities with resale agreements.

Securities received by the Company under resale arrangements are generally not recognised on the statement of financial position. Where cash collateralised, the resulting cash collateral receivable and accrued interest arising under resale agreements are classified as 'Non-trading at FVPL' as they are managed on a fair value basis.

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.

Where the Company manages a group of financial assets and financial liabilities on the basis of its net exposure to either market risks or credit risk, the 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.

3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

d. Fair value (continued)

Fair value measurement (continued)

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.

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 over-the-counter (“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.

3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

d. Fair value (continued)

Valuation techniques (continued)

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.

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 income statement 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 obligation created or retained in the transfer.

Upon derecognition of a financial asset measured at FVOCI, the difference between the previous carrying amount and the sum of any consideration received, together with the transfer of any cumulative gain/loss previously recognised in equity, are recognised in the income statement within 'Net gains/ (losses) on derecognition of financial assets measured at FVOCI' (see note 3(c)(ii)).

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

f. Impairment of financial instruments

The Company recognises loss allowances for ECL for the following financial instruments that are not measured at FVPL:

- financial assets measured at amortised cost; and
- financial assets measured at FVOCI.

Measurement of ECL

The Company recognises a loss allowance for expected credit losses on financial assets measured at amortised cost 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, and contract assets under HKFRS 15 *'Revenue from Contracts with Customers'* ('HKFRS 15') which do not have a significant financing component, a lifetime ECL is always calculated, without considering whether a SICR has occurred.

3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

f. Impairment of financial instruments (continued)

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.

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 ECL, 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.

More information on measurement of ECL is provided in note 24(a)(v) Financial risk management.

Presentation of ECL

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

3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

f. Impairment of financial instruments (continued)

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 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 and government debt securities 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.

Impairment losses on investments in subsidiaries are measured as the difference between cost and the current estimated recoverable amount. When the recoverable amount is less than the cost, an impairment is recognised within the income statement in 'Net gains/(losses) on investments in subsidiaries' and is reflected against the carrying amount of the impaired asset on the statement of financial position.

3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

g. Revenue recognition

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

Fee and commission income

Fee and commission income results from transaction-based arrangements in which the client is charged a fee for the execution of transactions. Such revenues primarily arise from the Company providing services in connection with the provision of general investment, securities and futures dealing, as well as discretionary management to its customers and as introducing broker to Morgan Stanley & Co. International plc for the provision of clearance, settlement and custody services in relation to the aforementioned transactions. Fee and commission income is recognised on trade date when the performance obligation is satisfied.

Management charge income

Management charge income includes management charges to other Morgan Stanley Group undertakings for the provision of infrastructure services. These amounts are recognised as the related services are performed.

h. Fees and commission expense

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

i. Cash and cash equivalents

For the purposes of the statement of cash flows, cash and cash equivalents comprise cash and demand deposits with banks 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.

j. Income tax

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

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

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

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

Deferred tax is calculated at the tax rates that are expected to apply in the period when the liability is settled or the asset is realised, based on the laws that have been enacted or substantively enacted by the reporting date. Deferred tax is charged or credited in the income statement, except when it relates to items charged or credited directly to other comprehensive income or equity, in which case the deferred tax is reflected within other comprehensive income or equity, respectively.

3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

j. Income tax (continued)

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

k. Provisions and commitments

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

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

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

Commitments are not recognised in the financial statements. Disclosure is made unless the probability of settlement is remote.

l. 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.

m. Employee compensation plans

i) Equity-settled share-based compensation plans

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

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

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

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

Share based compensation expense is recorded within 'Other expense' in the income statement.

3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

m. Employee compensation plans (continued)

ii) Deferred cash-based compensation plans

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

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

Deferred cash-based compensation expense is recorded within ‘Other expense’ in the income statement. The liability for the awards is measured at fair value and is included within ‘Trade and other payables’ in the statement of financial position.

n. Post-employment benefits

The Company operates defined contribution post-employment plans. Additionally, the Branch of the Company participates in a defined contribution plan, the Singapore Central Provident Fund.

Contributions due in relation to the Company’s defined contribution post-employment benefit plan are recognised in ‘Other expense’ in the income statement when payable.

Details of the plans are given in note 31 to these financial statements.

4. INTEREST INCOME AND INTEREST EXPENSE

The table below presents interest income and expense by accounting classification. Interest income and expense is calculated using the EIR method for financial assets and financial liabilities measured at amortised cost and financial assets measured at FVOCI. Interest income includes accrued interest on certain financial assets measured at FVPL.

	2022 US$'000	2021 US$'000
Financial assets measured at amortised cost	85,205	45,057
Financial assets measured at FVOCI	9,277	2,493
Financial assets not measured at FVPL	94,482	47,550
Non-trading financial assets measured at FVPL	17,780	(901)
Financial assets measured at FVPL	17,780	(901)
Total interest income	112,262	46,649
Financial liabilities measured at amortised cost	(21,261)	(10,474)
Total interest expense	(21,261)	(10,474)
Net interest income	91,001	36,175

‘Interest income’ represents total interest generated from financial assets whilst ‘Interest expense’ represents total interest arising on financial liabilities.

The recognition of negative interest income may result from transactions in certain currencies which may at times have negative interest rates, mainly arising from securities purchased under agreements to resell transactions.

No other gains or losses have been recognised in respect of financial assets measured at amortised cost other than as disclosed as ‘Interest income’, impairment losses and reversals of impairment losses disclosed in ‘Net (impairment loss)/reversal of impairment loss on financial instruments’ (note 9) and foreign exchange differences disclosed in ‘Other revenue’ (note 7).

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

5. FEE AND COMMISSION

	2022 US$'000	2021 US$'000
Fee and commission income:		
Sales commissions and fees	312,872	521,284
Other fees	2	—
Total fee and commission income	312,874	521,284
Of which, revenue from contracts with customers	*9,728*	*20,189*
Fee and commission expense:		
Sales commissions and fees	(1,729)	(1,176)
Total fee and commission expense	(1,729)	(1,176)
Net fee and commission income	311,145	520,108

The Company had no unsatisfied performance obligations from contracts with customers. Total fee and commission income is stated after the transfer of revenues totalling US$303,144,000 (2021: US$501,095,000) from other Morgan Stanley Group undertakings. These transfers do not relate to revenue from contracts with customers.

6. NET LOSSES ON DERECOGNITION OF FINANCIAL ASSETS MEASURED AT FVOCI

During the year, the Company sold certain financial assets measured at FVOCI for liquidity management purpose.

The table below summarises the carrying amount of the derecognised financial assets measured at FVOCI, and the loss on derecognition.

	2022		2021	
	Carrying amount of financial assets sold US$'000	Losses arising from derecognition US$'000	Carrying amount of financial assets sold US$'000	Losses arising from derecognition US$'000
Investment securities	735,891	59	1,000	—

7. OTHER REVENUE

	2022	2021
	US$'000	US$'000
Net foreign exchange gains	48,485	1,157
Management charges to other Morgan Stanley Group undertakings	6,745	6,973
Others	40	102
	55,270	8,232
Of which, revenue from contracts with customers	*6,745*	*6,973*

The Company had no unsatisfied performance obligations from contracts with customers.

8. OTHER EXPENSE

	2022	2021
	US$'000	US$'000
Staff costs	217,578	286,878
Directors' remuneration		
Fees	222	168
Contribution to defined contribution plan	38	45
Others	4,115	10,095
Auditors' remuneration:		
Fees payable to the Company's auditor for the audit of the Company's annual financial statements	678	642
Fees payable to the Company's auditor for other services to the Company	1	1
Non-audit professional services	9,979	9,821
Management charges from other Morgan Stanley Group undertakings relating to staff costs	796	304
Management charges from other Morgan Stanley Group undertakings relating to other services	92,933	87,705
Others	7,198	3,745
	333,538	399,404

Information regarding employee compensation plans and key management compensation are provided in note 30 and note 32(b) respectively.

9. NET (IMPAIRMENT LOSS) / REVERSAL OF IMPAIRMENT LOSS ON FINANCIAL INSTRUMENTS

The following table shows the net ECL charge/(reversal) and write-offs for the year.

	2022			2021		
	Net ECL	**Write-offs**	**Total**	**Net ECL**	**Write-offs**	**Total**
	US$'000	**US$'000**	**US$'000**	**US$'000**	**US$'000**	**US$'000**
Loans and advances	8	—	8	(37)	—	(37)

All of the above impairment losses were calculated on an individual basis. No collective impairment assessments were made during the year or prior year. More information on measurement of ECL is provided in note 24(a).

10. INCOME TAX

	2022	**2021**
	US$'000	**US$'000**
Current tax		
Current year		
Hong Kong	11,511	29,661
Other jurisdiction	2,480	4,551
	13,991	34,212
Adjustments in respect of prior years		
Hong Kong	13	(196)
Other jurisdiction	95	(38)
	108	(234)
	14,099	33,978
Deferred tax		
Origination and reversal of temporary differences	3,010	(7,932)
Adjustments in respect of prior years	(17)	61
	2,993	(7,871)
Income tax	17,092	26,107

10. INCOME TAX (CONTINUED)

Reconciliation of effective tax rate

The current year income tax expense is lower (2021: lower) than that resulting from applying the standard rate of profits tax in Hong Kong for the year of 16.5% (2021:16.5%). The main differences are explained below:

	2022	2021
	US$'000	US$'000
Profit before income tax	120,197	171,125
Income tax using the standard rate of profits tax in Hong Kong of 16.5%	19,833	28,236
Impact on tax of:		
Expenses not deductible for tax purposes	984	1,522
Tax exempt income	(3,226)	(2,091)
Concessionary tax rate	(612)	(1,508)
Effect of tax rates in foreign jurisdiction	97	160
Tax under/(over) provided in prior years	91	(173)
Others	(75)	(39)
Total income tax expense in the income statement	17,092	26,107

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

	2022			2021		
	Before tax	Tax benefit/ (expense)	Net of tax	Before tax	Tax benefit/ (expense)	Net of tax
	US$'000	US$'000	US$'000	US$'000	US$'000	US$'000
FVOCI reserve:						
Net change in fair value	(300)	43	(257)	24	(2)	22
Net amount transferred to income statement	59	(10)	49	—	—	—
Other comprehensive income	(241)	33	(208)	24	(2)	22

11. 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 HKFRS 9 classifications.

31 December 2022	**FVPL (mandatorily)**	**FVOCI**	**Amortised cost**	**Total**
	US$'000	**US$'000**	**US$'000**	**US$'000**
Cash and short-term deposits	—	—	670,280	670,280
Trading financial assets	4,483	—	—	4,483
Secured financing	2,813,802	—	—	2,813,802
Loans and advances	—	—	3,215,514	3,215,514
Investment securities	—	501,327	—	501,327
Trade and other receivables	—	—	142,692	142,692
Total financial assets	2,818,285	501,327	4,028,486	7,348,098
Deposits	—	—	5,852,173	5,852,173
Trading financial liabilities	64,311	—	—	64,311
Trade and other payables	—	—	167,315	167,315
Total financial liabilities	64,311	—	6,019,488	6,083,799

31 December 2021	**FVPL (mandatorily)**	**FVOCI**	**Amortised cost**	**Total**
	US$'000	**US$'000**	**US$'000**	**US$'000**
Cash and short-term deposits	—	—	965,337	965,337
Trading financial assets	32,303	—	—	32,303
Secured financing	466,245	—	—	466,245
Loans and advances	—	—	4,073,273	4,073,273
Investment securities	—	4,297,072	—	4,297,072
Trade and other receivables	—	—	62,617	62,617
Total financial assets	498,548	4,297,072	5,101,227	9,896,847
Deposits	—	—	8,513,635	8,513,635
Trading financial liabilities	24,372	—	—	24,372
Trade and other payables	—	—	188,165	188,165
Total financial liabilities	24,372	—	8,701,800	8,726,172

12. TRADING FINANCIAL ASSETS AND LIABILITIES

Trading assets and trading liabilities are summarised as follows:

	2022			2021		
		Fair value			Fair value	
	Notional amount US$'000	Assets US$'000	Liabilities US$'000	Notional amount US$'000	Assets US$'000	Liabilities US$'000
Derivatives:						
Foreign exchange contracts	2,489,826	4,483	64,311	4,138,772	32,303	24,372

The derivatives are entered with other Morgan Stanley Group undertakings (see note 32(c)).

13. SECURED FINANCING

	2022 US$'000	2021 US$'000
Securities purchased under agreements to resell	2,813,802	466,245

The fair value of collateral accepted under these arrangements is disclosed in note 25.

14. LOANS AND ADVANCES

	2022 US$'000	2021 US$'000
Loans and advances to customers	2,966,770	3,875,696
Loans and advances to other Morgan Stanley Group undertakings	248,752	197,577
Less: ECL	(8)	—
	3,215,514	4,073,273

15. INVESTMENT SECURITIES

	2022 US$'000	2021 US$'000
Government debt securities:		
US Treasury bills and securities	299,581	4,064,140
Singapore Government Treasury bills	163,332	162,830
HKMA Exchange Fund Bills & Notes	38,414	70,102
	501,327	4,297,072

16. TRADE AND OTHER RECEIVABLES

	2022 US$'000	2021 US$'000
Trade receivables	108,276	28,864
Other receivables		
Amounts due from other Morgan Stanley Group undertakings	24,042	29,153
Interest receivable	10,132	4,175
Other amounts receivable	242	425
	142,692	62,617

17. INVESTMENT IN A SUBSIDIARY

	Subsidiary undertakings US$'000
Cost and net book value	
At 1 January 2021 and 2022	—
Addition	262,348
At 31 December 2022	262,348

17. INVESTMENT IN A SUBSIDIARY (CONTINUED)

On 29 March 2022, the Company acquired all the ordinary shares of MSBIC from MSBIL at a cash consideration of US$262,347,618.

Details of the significant investment in subsidiary of the Company at 31 December 2022 and 31 December 2021 are as follows:

Name of Company	Country of incorporation/ Principal place of business	Type of shares held	Proportion of shares held		Proportion of voting rights held		Nature of business
			2022	2021	2022	2021	
Morgan Stanley Bank International (China) Limited	China	Ordinary	100%	—	100%	—	Financial services

18. DEPOSITS

	2022 US$'000	2021 US$'000
Deposits of banks		
Current account balances	1,648	2,842
Deposits of non-bank customers		
Current account balances	4,107,559	7,277,264
Term deposits	1,742,966	1,233,529
	5,852,173	8,513,635

19. TRADE AND OTHER PAYABLES

	2022 US$'000	2021 US$'000
Trade payables	103	7,986
Other payables		
Amounts due to other Morgan Stanley Group undertakings	23,986	10,469
Staff compensation and benefits payable	122,408	162,627
Interest payable	8,975	2,973
Other amounts payable	11,843	4,110
	167,315	188,165

20. DEFERRED TAX ASSETS

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

	2022 US$'000	2021 US$'000
At 1 January	15,603	7,801
Amount recognised in the income statement	(2,993)	7,871
Amount recognised in other comprehensive income:		
Financial assets measured at FVOCI	33	(2)
Foreign exchange revaluation	(13)	(67)
At 31 December	12,630	15,603

The deferred tax included in the statement of financial position and changes recorded in 'Income tax'/ 'Other comprehensive income' are as follows:

	2022			2021		
	Deferred Tax Asset US$'000	Income statement US$'000	Other Comprehensive Income US$'000	Deferred Tax Asset US$'000	Income statement US$'000	Other Comprehensive Income US$'000
Deferred compensation	12,609	2,993	—	15,615	(7,871)	—
Financial assets measured at FVOCI	21	—	33	(12)	—	(2)
	12,630	2,993	33	15,603	(7,871)	(2)

The deferred tax assets recognised are based on management assessment that it is probable that the Company will have taxable profits against which the temporary differences can be utilised.

21. EQUITY

Ordinary share capital

	Ordinary shares Number	Ordinary shares US$'000
Authorised, issued and fully paid		
At 1 January 2021 and 31 December 2021	670,000,000	670,000
Increase in the year:		
15 March 2022	260,000,000	260,000
At 31 December 2022	930,000,000	930,000

The holders of ordinary shares are entitled to receive dividends as declared from time to time and are entitled to one vote per share at general meetings of the Company. All shares rank equally with regard to the Company's residual assets.

On 15 March 2022, 260,000,000 ordinary shares of $1 each were issued at par, fully paid, to the Company's immediate parent for cash consideration.

Reserve

FVOCI reserve

The 'FVOCI reserve' of US$151,000 deficit (2021: US$57,000 surplus) includes the cumulative net change in the fair value of FVOCI financial assets held at the reporting date. The tax effect of these movements is also included in the 'FVOCI reserve'.

22. ADDITIONAL CASH FLOW INFORMATION

a. 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 US$'000	2021 US$'000
Cash with central bank	321,621	667,134
Cash at banks	348,659	298,203
	670,280	965,337

22. ADDITIONAL CASH FLOW INFORMATION (CONTINUED)

b. Reconciliation of cash flows from operating activities

	2022 US$'000	2021 US$'000
Profit for the year	103,105	145,018
Adjustments for:		
Net losses on derecognition of financial assets measured at FVOCI	59	—
Interest income	(112,262)	(46,649)
Interest expense	21,261	10,474
Income tax	17,092	26,107
Operating cash flows before changes in operating assets and liabilities	29,255	134,950
Changes in operating assets		
(Increase)/decrease in secured financing	(2,348,784)	116,020
Decrease/(increase) in loans and advances	857,759	(635,071)
(Increase)/decrease in trade and other receivables	(74,117)	26,940
Decrease/(increase) in trading financial assets	27,820	(30,594)
(Increase)/decrease in prepayments	(712)	228
	(1,538,034)	(522,477)
Changes in operating liabilities		
(Decrease)/increase in deposits	(2,661,462)	1,705,624
(Decrease)/increase in trade and other payables	(26,852)	56,518
Increase in trading financial liabilities	39,939	13,100
Increase/(decrease) in accruals	950	(1,339)
	(2,647,425)	1,773,903
Interest received	98,254	43,332
Interest paid	(15,259)	(9,443)
Net income tax paid	(24,216)	(33,719)
Effect of foreign exchange movements	(914)	9,656
Net cash flows (used in) / from operating activities	(4,098,339)	1,396,202

23. EXPECTED MATURITY OF ASSETS AND LIABILITIES

The table below shows an analysis of assets and liabilities (other than 'investment in a subsidiary') analysed according to when they are expected to be recovered, realised or settled.

At 31 December 2022	Less than or equal to twelve months	More than twelve months	Total
	US$'000	US$'000	US$'000
ASSETS			
Cash and short-term deposits	670,280	—	670,280
Trading financial assets	4,483	—	4,483
Secured financing	2,813,802	—	2,813,802
Loans and advances	2,961,290	254,224	3,215,514
Investment securities	501,327	—	501,327
Trade and other receivables	142,692	—	142,692
Prepayments	1,570	—	1,570
Deferred tax assets	—	12,630	12,630
	7,095,444	266,854	7,362,298
LIABILITIES			
Deposits	5,852,173	—	5,852,173
Trading financial liabilities	64,311	—	64,311
Trade and other payables	125,794	41,521	167,315
Current tax liabilities	6,862	—	6,862
Accruals	1,971	—	1,971
	6,051,111	41,521	6,092,632

23. EXPECTED MATURITY OF ASSETS AND LIABILITIES (CONTINUED)

At 31 December 2021	Less than or equal to twelve months	More than twelve months	Total
	US$'000	US$'000	US$'000
ASSETS			
Cash and short-term deposits	965,337	—	965,337
Trading financial assets	32,303	—	32,303
Secured financing	466,245	—	466,245
Loans and advances	3,875,696	197,577	4,073,273
Investment securities	4,297,072	—	4,297,072
Trade and other receivables	62,617	—	62,617
Prepayments	858	—	858
Deferred tax assets	—	15,603	15,603
	9,700,128	213,180	9,913,308
LIABILITIES			
Deposits	8,513,635	—	8,513,635
Trading financial liabilities	24,372	—	24,372
Trade and other payables	142,445	45,720	188,165
Current tax liabilities	16,998	—	16,998
Accruals	1,021	—	1,021
	8,698,471	45,720	8,744,191

24. FINANCIAL RISK MANAGEMENT

Risk management procedures

Risk is an inherent part of the Morgan Stanley Group's and the Company's business activities. 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 has developed its own risk management policy framework, which is consistent with and leverages the risk management policies and procedures of the Morgan Stanley Group and which include escalation to appropriate senior management personnel of the Company as well as oversight through the Company's Board of Directors (the "Board") and through a dedicated Risk Committee that reports to the Board.

Significant risks faced by the Company resulting from its Private Wealth Management and treasury activities are set out below.

a. 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 margin loans to clients of the Private Wealth Management business segment, and to a lesser extent from treasury activities related to deposit placement, investment portfolio, securities purchased under agreements to resell transactions, and interest rate and foreign exchange hedges.

i) 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 and the Board of Directors.

The Company incurs credit risk primarily in the Private Wealth Management business through margin loans to its clients. Margin loans are asset-based in nature secured by mostly cash and marketable securities held with the Company as collateral.

The Company also incurs credit risk through a variety of treasury activities, including, but not limited to, the following:

- entering into derivative contracts with other Morgan Stanley Group undertakings under which counterparties may have obligations to make payments to the Company;
- posting margin and/or collateral to banks and other financial counterparties;
- placing funds on deposit at other financial institutions; and
- entering into securities transactions, whereby the value of these assets may fluctuate based on realised or expected defaults on the underlying obligations.

1) Monitoring and Control

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

24. FINANCIAL RISK MANAGEMENT (CONTINUED)

a. Credit risk (continued)

i) Credit risk management (continued)

1) Monitoring and Control (continued)

A Credit Limits Framework is utilised to manage credit risk levels across the Company. The Credit Limits Framework is calibrated within the Company's risk appetite and includes stress loss, product, collateral concentration, correlated collateral, single-name, regulatory, connected lending limits. The Credit Risk Management Department helps ensure timely and transparent communication of material credit risks, compliance with established limits and escalation of risk concentrations to appropriate senior management. The Credit Risk Management Department also works closely with the Market Risk Department and applicable business units to monitor risk exposures and to perform stress tests to identify, analyse and control credit risk concentrations arising from the Company's lending and treasury activities. The stress tests shock market factors (e.g. interest rates, security prices, credit spreads) and risk parameters (e.g. probability of default), in order to assess the impact of stresses on exposures, profit and loss, and the Company's capital position. Stress tests are conducted in accordance with established policies and procedures of Morgan Stanley Group and the Company and comply with methodologies outlined in the Basel regulatory framework.

2) Credit Evaluation

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

The Company's Private Wealth Management business segment generates minimal credit exposure given the collateralised nature of the business, as such the credit evaluation focuses on the counterparties' and borrowers' background and collateral evaluation, to ensure the exposures are well-collateralised and credit risk is mitigated.

In addition to assessing and monitoring its credit exposure and risk at the individual obligor level, the Company also reviews its credit exposure and risk to geographic regions. As at 31 December 2022 and 31 December 2021, credit exposure was concentrated in North American and Asian countries. In addition, the Company pays particular attention to smaller exposures in emerging markets given their unique risk profile. Sovereign ceiling ratings i.e. the maximum credit rating that can be assigned to a counterparty with a designated country of risk, are derived using methodologies generally consistent with those employed by external rating agencies.

The Company also reviews its credit exposure and risk to certain types of customers. At 31 December 2022 and 31 December 2021, the Company's material credit exposure was to sovereigns, sovereign related entities, corporate entities, financial institutions and individuals.

24. FINANCIAL RISK MANAGEMENT (CONTINUED)

a. Credit risk (continued)

i) Credit risk management (continued)

3) Risk Mitigation

The Credit Risk Management Department may seek to mitigate credit risk from its lending and treasury activities in multiple ways, including collateral provisions, guarantees and hedges.

In connection with the Company's Private Wealth Management business, the Company relies on the use of collateral to manage credit risk. The amount and type of collateral required by the Company depends on an assessment of the credit risk of the obligor. Collateral held is managed in accordance with the Company's guidelines and the relevant underlying agreements. Collateral is primarily cash and publicly traded debt and equity securities, as well as a small amount of other collateral including unlisted securities, notes, mutual funds and insurance policies that fulfill the risk management requirement of being valuable and realisable at short notice.

In connection with the Company's derivatives activities with the Company's direct and indirect parent undertakings and other Morgan Stanley Group undertakings, the Company generally enters into master netting agreements and collateral arrangements with counterparties. These agreements provide the Company with the ability to demand collateral, as well as to liquidate collateral and offset receivables and payables covered under the same master agreement in the event of a counterparty default.

In connection with securities purchased under agreements to resell transactions, the Company manages credit exposure arising from such transactions by, in appropriate circumstances, entering into Global Master Repurchase Agreements with counterparties that provide the Company, in the event of a counterparty default, with the right to net a counterparty's rights and obligations under such agreement and liquidate and set off collateral held by the Company against the net amount owed by the counterparty. Under these securities purchased under agreements to resell transactions, the Company receives collateral, including Japan and US government securities. The Company also monitors the fair value of the underlying securities as compared with the related receivable or payable, including accrued interest, and, as necessary, requests additional collateral to ensure such transactions are adequately collateralised.

ii) Exposure to credit risk

The maximum exposure to credit risk ("gross credit exposure") of the Company as at 31 December 2022 and 31 December 2021 is disclosed below, based on the carrying amounts of the financial assets and the maximum amount that the Company could have to pay in relation to unrecognised financial instruments, which the Company believes are subject to credit risk. The table 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. The Company does not have any significant exposure arising from items not recognised on the balance sheet.

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.

iii) Collateral and other credit enhancements

The Company employs a range of policies and practices to mitigate credit risk, the most common being acceptance of collateral for funds advanced. The main types of collateral held are cash and marketable securities. The Company has internal policies on the acceptability of specific classes of collateral or credit risk mitigation.

24. FINANCIAL RISK MANAGEMENT (CONTINUED)

a. Credit risk (continued)

iii) Collateral and other credit enhancements (continued)

The market value of securities received as collateral is monitored on a daily basis and securities received as collateral generally are not recognised on the statement of financial position. The Company monitors the creditworthiness of counterparties on an ongoing basis and requests additional collateral in accordance with collateral arrangements when deemed necessary.

At 31 December 2022, the carrying amount of financial assets on which no ECL were recognised because of collateral held was US$2,966,770,000 (2021: US$3,875,696,000).

The Company closely monitors collateral held for financial assets considered to be credit-impaired, as in such cases it is considered more likely that the Company will take possession of collateral to mitigate potential credit losses.

At 31 December 2022, none of the financial assets held by the Company are considered to be credit-impaired (2021: Nil).

Exposure to credit risk by class

	31 December 2022			31 December 2021		
Class	Gross credit exposure[1] US$'000	Credit enhancements US$'000	Net credit exposure US$'000	Gross credit exposure[1] US$'000	Credit enhancements US$'000	Net credit exposure US$'000
Subject to ECL:						
Cash and short-term deposits	670,280	—	670,280	965,337	—	965,337
Loans and advances[2]	3,215,514	(2,966,770)	248,744	4,073,273	(3,875,696)	197,577
Investment securities	501,327	—	501,327	4,297,072	—	4,297,072
Trade and other receivables[3]	142,692	—	142,692	62,617	—	62,617
Not subject to ECL:						
Trading financial assets:						
Derivatives	4,483	(4,483)	—	32,303	(32,303)	—
Secured financing	2,813,802	(2,813,802)	—	466,245	(464,823)	1,422
	7,348,098	(5,785,055)	1,563,043	9,896,847	(4,372,822)	5,524,025

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

(2) Loans and advances comprise (a) loans and advances to customers of US$2,966,770,000 (2021: US$3,875,696,000) which is fully secured and (b) loans and advances to other Morgan Stanley Group undertakings of US$ 248,744,000 (2021: US$197,577,000) which is unsecured. For loans and advances to customers, the amount of credit enhancements disclosed in the above table include collateral held as security which is capped at the amount of secured loans and advances. Such collateral consists of cash of US$881,684,000 (2021: US$989,446,000), securities of US$1,298,640,000 (2021: US$2,099,783,000) and other collateral of US$786,446,000 (2021: US$786,467,000).

(3) Trade and other receivables include cash collateral pledged against the payable on OTC derivative positions. These derivative liabilities are included within trading financial liabilities in the statement of financial position.

24. FINANCIAL RISK MANAGEMENT (CONTINUED)

a. Credit risk (continued)

iv) Credit quality

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

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, unless otherwise shown.

	Investment grade								
31 December 2022	**AAA**	**AA**	**A**	**BBB**	**Non-Investment Grade**	**Unrated**	**Default**	**Total**	**Net of ECL**
US$'000									
Subject to ECL:									
Cash and short-term deposits	8,572	53,427	589,304	18,977	–	–	–	670,280	670,280
Loans and advances	–	–	248,752	–	2,966,770	–	–	3,215,522	3,215,514
Investment securities	462,913	–	38,414	–	–	–	–	501,327	501,327
Trade and other receivables	212	–	132,323	6	10,032	119	–	142,692	142,692
	471,697	53,427	1,008,793	18,983	2,976,802	119	–	4,529,821	4,529,813
Not Subject to ECL:									
Trading financial assets:									
Derivatives	–	–	4,483	–	–	–	–	4,483	4,483
Secured financing	–	–	2,813,802	–	–	–	–	2,813,802	2,813,802
	–	–	2,818,285	–	–	–	–	2,818,285	2,818,285

24. FINANCIAL RISK MANAGEMENT (CONTINUED)

a. Credit risk (continued)

iv) Credit quality (continued)

Exposure to credit risk by internal rating grades (continued)

31 December 2021	Investment grade								
US$'000	AAA	A	A	BBB	Non-Investment Grade	Unrated	Default	Total	Net of ECL
Subject to ECL:									
Cash and short-term deposits	7,867	29,471	909,146	18,811	42	–	–	965,337	965,337
Loans and advances	–	–	197,577	–	3,875,696	–	–	4,073,273	4,073,273
Investment securities	4,226,970	–	70,102	–	–	–	–	4,297,072	4,297,072
Trade and other receivables	267	–	57,982	27	4,235	106	–	62,617	62,617
	4,235,104	29,471	1,234,807	18,838	3,879,973	106	–	9,398,299	9,398,299
Not Subject to ECL:									
Trading financial assets:									
Derivatives	–	–	32,303	–	–	–	–	32,303	32,303
Secured financing	–	–	466,245	–	–	–	–	466,245	466,245
	–	–	498,548	–	–	–	–	498,548	498,548

24. FINANCIAL RISK MANAGEMENT (CONTINUED)

a. Credit risk (continued)

v) Expected credit loss allowance

Financial instruments subject to the impairment requirements of HKFRS 9

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.

ECL on cash and short-term deposits, loans and advances and trade and other receivables is de minimis owing to their short term tenure and/or the collateralised nature of loans and advances. For investment securities, the gross carrying amount on which no ECL is recognised because they have an investment grade internal credit rating, corresponding to a low risk of default. See note 9 for details.

b. 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.

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 liquidity risks identified by these processes are summarised in reports produced by the Liquidity Risk Department that are circulated to and discussed with the Company's Asset & Liability Committee ("ALCO") and regional ALCO and risk committees, as appropriate.

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's liquidity risk management policies and procedures are consistent with those of the Morgan Stanley Group. The Board of Directors of the Company is ultimately responsible for establishing the liquidity risk tolerance and ensuring the Company's liquidity risk is appropriately managed. In addition to the internal liquidity risk management framework, the Company is locally subject to the liquidity regulations prescribed by the HKMA. The Company has daily monitoring and reporting processes in place to ensure compliance with its regulatory requirements.

24. FINANCIAL RISK MANAGEMENT (CONTINUED)

b. Liquidity risk (continued)

The primary goal of the Company'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 Company'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 core components of the Company's liquidity risk management framework that support our target liquidity profile, are the Required Liquidity Framework, Liquidity Stress Tests and Liquidity Resources (as defined below).

i) 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.

ii) Liquidity Stress Tests

The Company uses Liquidity Stress Tests to model external and intercompany liquidity 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 the settlement risk related to intra-day settlement and clearing of securities and financing activities.

At 31 December 2022 and 31 December 2021, the Company maintained sufficient liquidity to meet current and contingent funding obligations as modelled in its Liquidity Stress Tests.

24. FINANCIAL RISK MANAGEMENT (CONTINUED)

b. Liquidity risk (continued)

iii) Liquidity Resources

The Company maintains sufficient liquidity resources which consists of unencumbered highly liquid securities and cash deposits with banks (including central banks) ("Liquidity Resources") to meet regulatory requirements, 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 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; regulatory requirements;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. Unencumbered highly liquid securities consist netted trading assets, investment securities and securities received as collateral.

The Company holds its own Liquidity Resources which is composed of diversified cash and cash equivalents and unencumbered highly liquid securities.

Eligible unencumbered highly liquid securities include primarily non-US government securities in addition to US government securities.

iv) Funding management

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

The Company funds itself through diverse sources. These sources include the Company's equity capital, borrowings and deposits.

v) Balance sheet management

In managing both the Morgan Stanley Group's and the Company's funding risk the composition and size of the entire balance sheet, not just financial liabilities, is monitored and evaluated. The liquid nature of the marketable securities and short-term receivables provides the Morgan Stanley Group and the Company with flexibility in managing the composition and size of its balance sheet.

24. FINANCIAL RISK MANAGEMENT (CONTINUED)

b. Liquidity risk (continued)

vi) Maturity analysis

In the following maturity analysis of financial liabilities, derivatives not held as part of the Company's trading activities are disclosed according to their earliest contractual maturity; all such amounts are presented at their fair value, consistent with how these financial liabilities are managed. All other amounts represent undiscounted cash flows payable by the Company arising from its financial liabilities to earliest contractual maturities as at 31 December 2022 and 31 December 2021. 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 those financial liabilities, presented in a way that is consistent with how the liquidity risk on these financial liabilities is managed by the Company.

31 December 2022	On demand US$'000	Less than 1 month US$'000	1 month - 3 months US$'000	3 months - 1 year US$'000	1 year - 5 years US$'000	Total US$'000
Financial liabilities						
Deposits of banks	1,648	—	—	—	—	1,648
Deposits of non-bank customers	4,102,473	744,940	883,745	128,131	—	5,859,289
Trading financial liabilities:						
Derivatives	—	55,058	4,652	4,601	—	64,311
Trade and other payables	29,199	48,399	39,061	9,135	41,521	167,315
Total financial liabilities	4,133,320	848,397	927,458	141,867	41,521	6,092,563

31 December 2021	On demand US$'000	Less than 1 month US$'000	1 month - 3 months US$'000	3 months - 1 year US$'000	1 year - 5 years US$'000	Total US$'000
Financial liabilities						
Deposits of banks	2,842	—	—	—	—	2,842
Deposits of non-bank customers	7,326,314	208,284	524,473	490,788	—	8,549,859
Trading financial liabilities:						
Derivatives	—	23,586	786	—	—	24,372
Trade and other payables	21,985	57,862	59,340	3,258	45,720	188,165
Total financial liabilities	7,351,141	289,732	584,599	494,046	45,720	8,765,238

24. FINANCIAL RISK MANAGEMENT (CONTINUED)

c. Market risk

Market risk is defined by HKFRS 7 'Financial Instruments: Disclosures' ("HKFRS 7") as the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices.

The Company manages the market risk associated with its assets and liabilities management activities at both division and an individual product level, and includes consideration of market risk at the legal entity level.

Sound market risk management is an integral part of the Company's culture. The Company is responsible for ensuring that market risk exposures are well-managed and monitored. The Company also ensures transparency of material market risks, monitors compliance with established limits, and escalates risk concentrations to appropriate senior management.

To execute these responsibilities, the Morgan Stanley Group 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 framework. The market risk management policies and procedures of the Company include performing risk analyses and reporting material risks identified to appropriate senior management of the Company.

The Company is exposed to the following types of market risk under this definition: interest rate risk and currency risk.

i) Interest rate risk

Interest rate risk is defined by HKFRS 7 as the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates. The Company is primarily exposed to interest rate risk under this definition as a result of changes in the future cash flows of deposits and loans, bank balance and secured financing, changes in the fair value of fixed rate debt investments measured at FVOCI.

The Company measures and reports Interest rate risk in the banking book ("IRRBB") using the standardised framework through HKMA Return of Interest Rate Risk in the Banking Book in accordance with HKMA requirements. The Company measures its IRRBB exposures mainly through the Economic Value of Equity ("EVE") and Net Interest Income ("NII"). These are calculated weekly for internal risk management purposes, as well as monthly as part of the monthly closing process.

The Company's interest rate risk in the banking book is managed by the Treasury Department, being the risk owner (the first line of defense). The asset and liability structure is actively managed to ensure the Company does not assume excessive interest rate risk relative to its overall development strategy and commensurate with the scale, nature and complexity of its business. The Company may also enter into additional hedges such as interest rate swaps from time to time. The ALCO is responsible for ensuring that these objectives are met on an ongoing basis.

Independent market risk (including interest rate risk) management oversight is provided by Market Risk Department ("MRD"), being the independent risk management function (the second line of defense). MRD identifies market risks including IRRBB, and develops and employs risk measures and tools to monitor, control and mitigate those risks. MRD also monitors risk exposures against established limits, and produces and distributes comprehensive reports designed to keep senior management apprised of the Company's market risk and IRRBB exposures. The Company's Market Risk Management Policy sets forth principles and practices for sound management of its market risk, including interest rate risk. The policy has been established to evidence the Company's standards for independent identification, measurement, monitoring, reporting, challenge, and escalation of market risk (including interest rate risk) arising from the Company's business activities.

24. FINANCIAL RISK MANAGEMENT (CONTINUED)

c. Market risk (continued)

i) Interest rate risk (continued)

The Company's interest rate risk is controlled through conservative risk limits approved by the Board or its delegated Risk Committees including the Board Risk Committee, the Bank Risk Committee and the Credit and Market Risk Committee. The Company has clearly defined EVE and NII limits in place, in addition to other sensitivity and notional based risk limits. These limits are set by taking into account the size of the Company's balance sheet, projected business growth and risk appetite as set by the MSBAL Board of Directors. Exposure is monitored at least weekly for EVE and NII limits, and daily for sensitivity and notional based limits. These are reported back to the Risk Committees on a monthly and quarterly basis.

The Company applies the model assumptions for IRRBB prescribed by the HKMA with no deviations. The models used are reviewed on an annual basis at a minimum and independently verified by the Morgan Stanley Group's Model Risk Management ("MRM") group.

The standardised EVE risk measure is calculated according to the six shock scenarios defined in the HKMA Supervisory Policy Manual ("SPM") IR-1 "Interest Rate Risk in the Banking Book" ("SPM IR-1"). For the calculation of the change in NII, in addition to the two shock scenarios defined in SPM IR-1 for parallel up and parallel down interest rate moves, the Company also calculates a range of internal shock scenarios covering non-parallel interest rate moves combined with different repricing assumptions for customer deposits.

The net gain or loss in the income statement resulted from the application of a parallel shift in market interest rates, with a range of 100 to 400 basis points increase or decrease as defined in SPM IR-1, to these positions is disclosed in the following table.

	2022	2021
	US$'000	US$'000
Parallel up	(29,442)	(2,577)
Parallel down	29,442	2,577

24. FINANCIAL RISK MANAGEMENT (CONTINUED)

c. Market risk (continued)

ii) Currency risk

The Company has foreign currency exposure arising from its assets and liabilities (other than its investment in a subsidiary stated at cost, see note (3)(c)(iv)) in currencies other than US dollars, which it actively manages by hedging with other Morgan Stanley Group undertakings.

In addition, upon the acquisition of MSBIC, the MSBAL Group has structural foreign currency exposure (as defined in the HKMA SPM TA-2 "Foreign Exchange Risk Management") in Chinese Yuan Renminbi arising from its foreign operation through MSBIC (presented as 'investment in a subsidiary' in the statement of financial position). To hedge this foreign currency risk at the MSBAL Group level, the Company has entered into forward foreign currency exchange contracts with its ultimate parent undertaking, Morgan Stanley (note 32(c)(iii)), which results in foreign currency exposure in Chinese Yuan Renminbi at the Company level.

The analysis below details the material foreign currency exposure for the Company, by foreign currency. The analysis calculates the impact on total comprehensive income of a reasonably possible parallel shift of the foreign currency in relation to the US dollar, with all other variables held constant.

	2022			2021		
	Foreign currency exposure	**Percentage change applied**	**Sensitivity to applied percentage change in currency (+/-) Profit or loss**	**Foreign currency exposure**	**Percentage change applied**	**Sensitivity to applied percentage change in currency (+/-) Profit or loss**
	US$'000	**%**	**US$'000**	**US$'000**	**%**	**US$'000**
Chinese Yuan Renminbi	(249,847)	9	22,486	151	7	11
Hong Kong Dollar	(15,867)	1	159	(10,135)	1	101
Singapore Dollar	(4,158)	2	83	(5,483)	2	110
Japanese Yen	(199)	14	28	13	11	1
	(270,071)			(15,454)		

The reasonably possible percentage change in the currency rate in relation to US dollars has been calculated based on the greatest annual percentage change over the 2-year period from 1 January 2021 to 31 December 2022 (2021: from 1 January 2020 to 31 December 2021). Thus, the percentage change applied may not be the same percentage as the actual change in the currency rate for the year ended 31 December 2022, or for the year ended 31 December 2021.

25. FINANCIAL ASSETS ACCEPTED AS COLLATERAL

The Company's policy is generally to take possession of securities purchased under agreements to resell which the arrangement is presented as "Secured financing" in the statement of financial position. The Company monitors the fair value of the underlying securities as compared with the related receivable or payable, including accrued interest, and, as necessary, requests additional collateral to ensure such transactions are adequately collateralised. Where deemed appropriate, the Company's agreements with third parties specify its rights to request additional collateral. These transactions are mostly conducted under standard documentation used by financial market participants.

The fair value of collateral accepted under these arrangements where the Company is permitted to sell or repledge the collateral in the absence of default by the owner of the collateral, as at 31 December 2022 was US$2,822,434,000 (2021: US$464,823,000). None of this collateral has been sold or repledged to third parties in connection with financing activities, or to comply with commitments under short sale transactions (2021: Nil).

26. 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 24(a) for further details. Primarily in connection with securities purchased under agreements to resell and derivative transactions, the Company enters into master netting arrangements and collateral arrangements with its 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.

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 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 tables present information about the offsetting of financial instruments and related collateral amounts. The tables do not include information about financial instruments that are subject only to a collateral agreement. The effect of master netting arrangements, collateral agreements and other credit enhancements, on the Company's exposure to credit risk is disclosed in note 24(a)(ii) and (iii).

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

	Gross amounts	Amounts offset	Net amounts	Amounts not offset Collateralised by: Financial instruments	Cash collateral[(1)]	Net exposure	Not subject to legally enforceable master netting agreement
	US$'000	US$'000	US$'000	US$'000	US$'000	US$'000	US$'000
31 December 2022							
Assets							
Secured financing:							
Securities purchased under agreements to resell	2,813,802	–	2,813,802	(2,813,802)	–	–	–
Trading financial assets: Derivatives	4,483	–	4,483	(4,483)	–	–	–
Total assets	2,818,285	–	2,818,285	(2,818,285)	–	–	–
Liabilities							
Trading financial liabilities: Derivatives	64,311	–	64,311	(4,483)	(45,308)	14,520	–
Total liabilities	64,311	–	64,311	(4,483)	(45,308)	14,520	–
31 December 2021							
Assets							
Secured financing:							
Securities purchased under agreements to resell	466,245	–	466,245	(464,823)	–	1,422	–
Trading financial assets: Derivatives	32,303	–	32,303	(24,372)	(7,931)	–	–
Total assets	498,548	–	498,548	(489,195)	(7,931)	1,422	–
Liabilities							
Trading financial liabilities: Derivatives	24,372	–	24,372	(24,372)	–	–	–
Total liabilities	24,372	–	24,372	(24,372)	–	–	–

(1) Cash collateral not offset is recognised in the statement of financial position within "Trade and other receivables" and "Trade and other payables" respectively.

(2) In addition to the balances disclosed in the table above, legally enforceable master netting agreements are in place for certain loans and advances which are not presented net in the statement of financial position. Collateral held as security against these loans and advances would allow US$2,966,770,000 (2021: US$3,875,696,000) to be offset in the event of default (Note 24(a)(iii).

27. 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.

2022	Quoted prices in active market (Level 1)	Valuation techniques using observable inputs (Level 2)	Valuation techniques with significant unobservable inputs (Level 3)	Total
	US$'000	US$'000	US$'000	US$'000
Trading financial assets:				
- Derivatives				
Foreign exchange contracts	—	4,483	—	4,483
Secured financing:				
- Securities purchased under agreements to resell	—	2,813,802	—	2,813,802
Investment securities:				
- Government debt securities	299,581	201,746	—	501,327
Total financial assets measured at fair value	299,581	3,020,031	—	3,319,612
Trading financial liabilities:				
- Derivatives				
Foreign exchange contracts	—	64,311	—	64,311
Total financial liabilities measured at fair value	—	64,311	—	64,311

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

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

2021	Quoted prices in active market (Level 1)	Valuation techniques using observable inputs (Level 2)	Valuation techniques with significant unobservable inputs (Level 3)	Total
	US$'000	US$'000	US$'000	US$'000
Trading financial assets:				
- Derivatives				
Foreign exchange contracts	—	32,303	—	32,303
Secured financing:				
- Securities purchased under agreements to resell	—	466,245	—	466,245
Investment securities:				
- Government debt securities	4,064,140	232,932	—	4,297,072
Total financial assets measured at fair value	4,064,140	731,480	—	4,795,620
Trading financial liabilities:				
- Derivatives				
Foreign exchange contracts	—	24,372	—	24,372
Total financial liabilities measured at fair value	—	24,372	—	24,372

27. 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:

Asset and Liability / Valuation Techniques	Valuation Hierarchy Classification
Government debt securities	
US treasury securities • Fair value is determined using quoted market prices.	• Level 1 - as inputs are observable and in an active market
Non US Government Obligations • Fair value is determined using quoted prices in active markets when available. When not available, quoted prices in less-active markets are used. In the absence of position-specific quoted prices, fair value may be determined through benchmarking from comparable instruments.	• Level 1 - if actively traded and inputs are observable • Level 2 - if the market is less active or prices are dispersed • Level 3 - in instances where the prices are unobservable
Derivatives	
OTC derivative contracts (include swap contracts related to foreign currencies) • 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. In the case of more established derivative products, the pricing models used by the Company are widely accepted by the financial services industry.	• Level 2 - when valued using observable inputs, or where the unobservable input is not deemed significant • Level 3 - if an unobservable input is deemed significant
Securities purchased under agreements to resell	
• Fair value is computed using a standard cash flow discounting methodology. • The inputs to the valuation include contractual cash flows and collateral funding spreads, which are the incremental spread over the overnight indexed swap ("OIS") rate for a specific collateral rate (which refers to the rate applicable to a specific type of security pledged as collateral).	• Level 2 - when the valuation inputs are observable • Level 3 - in instances where the unobservable inputs is deemed significant

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

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.

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

There were no transfers between Level 2 and Level 3 of the fair value hierarchy during the current year and prior year.

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

Non-recurring fair value measurements of assets or 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 year and prior year.

28. 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.

29. 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 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 adjust its capital base in reaction to 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 shareholder, issue new shares, issue subordinated debt or sell assets to reduce debt.

29. CAPITAL MANAGEMENT (CONTINUED)

The Company is regulated by the HKMA and as such is subject to minimum capital requirements. The Company's capital is monitored on an ongoing basis to ensure compliance with these requirements. At a minimum, the Company must ensure that capital is greater than the capital requirement covering credit, market and operational risk.

The Company complied with all of its regulatory capital requirements during the current and prior year.

The Company manages the following items as capital:

	2022	2021
	US$'000	US$'000
Share capital	930,000	670,000
FVOCI reserve	(151)	57
Retained earnings	602,165	499,060
	1,532,014	1,169,117

The Company has earmarked part of its retained earnings for maintaining its regulatory reserve for general banking risks to satisfy the provisions of the Banking Ordinance for prudential supervision purposes. At 31 December 2022, US$16,070,000 (2021: US$20,366,000) in the retained earnings was earmarked for this purpose.

30. EMPLOYEE COMPENSATION PLANS

Morgan Stanley maintains various equity-settled share-based and cash-based deferred compensation plans for the benefit of employees. Awards under these plans are generally granted in January following the performance year.

Equity-settled share-based compensation plans

Morgan Stanley has granted RSU awards pursuant to several equity-based compensation plans. The plans provide for the deferral of a portion of certain current and former employees' incentive compensation, with awards made in the form of restricted common stock. Awards under these plans are generally subject to vesting over time, generally three years, and are generally contingent upon continued employment and subject to restrictions on sale, transfer or assignment until conversion to common stock. All, or a portion of, an award may be forfeited if employment is terminated before the end of the relevant vesting period or cancelled after the vesting period in certain situations. Recipients of equity-based awards may have voting rights, at Morgan Stanley's discretion, and generally receive dividend equivalents if the awards vest, unless this is prohibited by regulation.

During the year, Morgan Stanley granted 478,569 RSUs (2021: 817,413 RSUs) to employees of the Company with a weighted average fair value per unit of $100.09 (2021: $74.98), based on the market value of Morgan Stanley common stock at grant date.

The equity-based compensation expense recognised in the year is US$41,964,000 (2021: US$46,437,000). The Company has entered into a chargeback agreement with Morgan Stanley under which it is committed to pay to Morgan Stanley the grant date fair value of the awards granted as well as subsequent movements in their fair value. Therefore, the total amount included within 'Staff costs' and 'Management charges from other Morgan Stanley Group undertakings relating to staff costs' within 'Other expense' of US$37,170,000 (2021: US$80,169,000) includes the equity-based compensation expense and the movements in the fair value of the awards granted to employees.

The related liability due to Morgan Stanley at the end of the year, reported within 'Trade and other payables' in the statement of financial position, is US$79,010,000 (2021: US$98,252,000). US$37,685,000 (2021: US$54,998,000) is expected to be settled wholly within one year and US$41,325,000 (2021: US$43,254,000) thereafter.

30. EMPLOYEE COMPENSATION PLANS (CONTINUED)

Deferred cash-based compensation plans

Morgan Stanley has granted deferred cash-based compensation awards to certain employees which defer a portion of the employees' discretionary compensation. The plans generally provide a return based upon the performance of various referenced investments. Awards under these plans are generally subject to a sole vesting condition of service over time, which is normally three years from the grant date. All or a portion of an award may be forfeited if employment is terminated before the end of the relevant vesting period or cancelled after the vesting period in certain situations. The awards are settled in cash at the end of the relevant vesting period.

No deferred cash awards were granted to employees of the Company during the year (2021: US$Nil).

The liability to employees at the end of the year, reported within 'Trade and other payables' in the statement of financial position, is US$6,023,000 (2021: US$19,518,000). US$5,849,000 (2021: $15,015,000) is expected to be settled wholly within one year, and US$174,000 (2021: $4,503,000) thereafter.

Plans operated by fellow Morgan Stanley undertakings

As explained in note 8, the Company utilises the services of staff who are employed by other Morgan Stanley Group entities. Management charges are incurred in respect of these employee services which include the cost of equity-settled share-based compensation plans and deferred cash-based compensation plans.

31. POST EMPLOYMENT BENEFITS

Defined contribution plans

The Company is an employer of a defined contribution plan operated by one of the Morgan Stanley Group undertakings, which requires contributions to be made to funds held in trust, separate from the assets of the Company.

Additionally, the employees of the Branch are members of a state-managed retirement benefit plan, the Central Provident Fund, operated by the Government of Singapore. The Branch is required to contribute a specified percentage of payroll costs to the retirement benefit scheme to fund the benefits. The only obligation of the Branch with respect to the retirement plan is to make the specified contributions.

The defined contribution pension charge recognised within 'Staff costs' and 'Directors' remuneration' in 'Other expense' in the income statement was US$7,200,000 for the year (2021: US$6,730,000) of which US$322,000 was accrued at 31 December 2022 (2021: US$391,000).

32. RELATED PARTY DISCLOSURES

a. Parent and subsidiary relationships

i) Parent and ultimate controlling entity

The Company's immediate parent undertaking is Morgan Stanley Hong Kong 1238 Limited, incorporated in Hong Kong.

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.

32. RELATED PARTY DISCLOSURES (CONTINUED)

b. 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 include the Board of Directors of the Company.

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

	2022 US$'000	2021 US$'000
Short-term employee benefits	4,906	6,665
Post-employment benefits	50	47
Share-based payments	3,964	10,951
Other long-term employee benefits [1]	(116)	560
	8,804	18,223

(1) Other long-term employee benefits represent deferred cash-based compensation awards, including the adjustments for changes in the fair value of the referenced investments that the personnel select (note (3)(m)(ii)).

The share-based payment costs disclosed above reflect the amortisation of equity-based awards granted to key management personnel over the last three years and are therefore not directly aligned with other staff costs in the current year.

Key management personnel compensation is borne by Morgan Stanley Group undertakings in both the current and prior years. Management recharges (if any) in respect of key management personnel compensation borne by other Morgan Stanley Group undertakings are included in ‘Management charges from other Morgan Stanley Group undertakings relating to staff costs’ within ‘Other expense’, as disclosed in note 8.

For the years ended 31 December 2022 and 31 December 2021, the Company has not paid any (a) payments or benefits in respect of the termination of the service of directors whether in the capacity of directors or in any other capacity while being a director of the Company, and (b) consideration provided to or receivable by any third party for making available the services of a person as a director or in any other capacity while being a director of the Company.

During the year, the Company has not granted any loans, quasi-loans nor entered into any other dealings in favor of (a) the Directors, (b) entities controlled by the Directors; or (c) entities connected with the Directors (2021: Nil).

c. 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 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 in cash.

32. RELATED PARTY DISCLOSURES (CONTINUED)

c. Transactions with related parties (continued)

i) Cash

The Company receives deposits from other Morgan Stanley Group undertakings. All such transactions are entered into on an arm's length basis.

	2022		2021	
	Interest	Balance	Interest	Balance
	US$'000	US$'000	US$'000	US$'000
Amounts due to other Morgan Stanley Group undertakings	177	—	1,877	—

ii) Funding

The Company provides funding to other Morgan Stanley Group undertakings in the following form:

General funding

The Company has 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.

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

	2022		2021	
	Interest	Balance	Interest	Balance
Rolling 395-day term	US$'000	US$'000	US$'000	US$'000
Amounts due from other Morgan Stanley Group undertakings	5,432	248,744	1,311	197,577

The Company has recognised US$8,000 of ECL expense (2021: US$37,000 reversal of ECL expense) in the income statement, and US$8,000 of loss allowances for ECL (2021: US$Nil) on the above outstanding balance in the statement of financial position.

iii) Trading and risk management

In the course of funding its business, the Company enters into securities purchased under agreements to resell transactions with other Morgan Stanley Group undertakings. All such transactions are entered into on an arm's length basis.

At 31 December 2022, the Company has outstanding balance relating to securities purchased under agreements to resell transaction with other Morgan Stanley Group undertakings of US$1,639,662,000 (2021: Nil) which falls under 'Secured Financing' in the statement of financial position. For the year ended 31 December 2022, the Company incurred interest charges of US$2,371,000 (2021: US$1,084,000) to other Morgan Stanley Group undertakings arising from such transactions during the year, which is recognized within 'interest income' in the income statement (note 4).

32. RELATED PARTY DISCLOSURES (CONTINUED)

c. Transactions with related parties (continued)

iii) Trading and risk management (continued)

The Company enters into purchases and sales of securities and derivative transactions primarily to meet local regulatory liquidity requirements and to manage the market risks associated with such transactions respectively. These transactions are executed with other Morgan Stanley Group undertakings. The Company also has a cash sweep service with other Morgan Stanley Group undertakings to facilitate provision of financial services to clients on a global basis. All such transactions are entered into on an arm's length basis. The total amounts receivable and payable on such transactions not yet settled and the fair value of such derivatives contracts outstanding at the year end were as follows:

	2022 US$'000	2021 US$'000
Amounts due from the Company's direct and indirect parent undertakings	130	—
Amounts due from other Morgan Stanley Group undertakings	67,320	61,166
Amounts due to the Company's direct and indirect parent undertakings	7,791	—
Amounts due to other Morgan Stanley Group undertakings	56,520	24,372

At 31 December 2022, the Company has pledged collateral of US$5,406,000 to the Company's direct and indirect parent undertakings (2021: US$Nil) and US$39,902,000 to other Morgan Stanley Group undertakings (2021: US$7,986,000, collateral received from other Morgan Stanley Group undertakings) to mitigate credit risk on exposures arising under derivatives contracts between the Company and other Morgan Stanley Group undertakings. This is reported in the statement of financial position in 'Trade and other receivable' (2021: 'Trade and other payable').

For the year ended 31 December 2022, the Company received interest of US$16,000 (2021: US$Nil) from and incurred interest charges of US$89,000 (2021: US$Nil) to the Company's direct and indirect parent undertakings and interest of US$50,000 (2021: US$1,000) from and incurred interest charges of US$4,000 (2021: US$1,000) to other Morgan Stanley Group undertakings arising from collateral pledged and received respectively during the year.

iv) Infrastructure services and fees and commissions

The Company receives and incurs management charges from and to other Morgan Stanley Group undertakings for infrastructure services, including the provision of staff, administrative support and office facilities. Management recharges received and incurred during the year are as follows:

	2022 US$'000	2021 US$'000
Amounts recharged from other Morgan Stanley Group undertakings	93,729	88,009
Amounts recharged to other Morgan Stanley Group undertakings	6,745	6,973

32. RELATED PARTY DISCLOSURES (CONTINUED)

c. Transactions with related parties (continued)

iv) Infrastructure services and fees and commissions (continued)

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.

The Company earns fee and commission income from other Morgan Stanley Group undertakings for value added services which include sales commissions and fees arising from such policies. It also incurs fee and commission expense in respect of such services performed by other Morgan Stanley Group undertakings. Fees and commissions received during the year are as follows:

	2022	2021
	US$'000	US$'000
Fees and commissions received from other Morgan Stanley Group undertakings	303,295	501,095
Fees and commissions paid to other Morgan Stanley Group undertakings	1,729	1,176

Amounts arising from infrastructure services and fee and commission income outstanding at the reporting date are undated, unsecured and non-interest bearing, details are as follows.

	2022	2021
	US$'000	US$'000
Amounts due from other Morgan Stanley Group undertakings	24,042	29,153

	2022	2021
	US$'000	US$'000
Amounts due to other Morgan Stanley Group undertakings	23,986	10,469

v) Other related party transactions

On 15 March 2022, 260,000,000 ordinary shares were issued by the Company to MSHK1238 for a cash consideration of US$260,000,000.

On 29 March 2022, the Company acquired all the ordinary shares of MSBIC from MSBIL at a cash consideration of US$262,347,618.

Details are disclosed in notes 17 and 21.

UNAUDITED SUPPLEMENTARY FINANCIAL INFORMATION
Year ended 31 December 2022

A. BASIS OF PREPARATION

The unaudited supplementary financial information is prepared in accordance with the Banking (Disclosure) Rules and disclosed as part of the accompanying information to the financial statements to comply with the Banking (Disclosure) Rules. It does not form part of the audited financial statements.

Upon the acquisition of MSBIC, starting from the reporting period ended 31 March 2022, the unaudited supplementary financial information has been prepared on a consolidated basis (i.e. including the business of the subsidiary of the MSBAL Group), unless otherwise indicated, in accordance with the Banking (Disclosure) Rules. For reporting periods on and before 31 December 2021 that were before the acquisition, the unaudited supplementary financial information includes the business of the Company only.

Where applicable, the templates and tables disclosed as part of the unaudited supplementary financial information show the standard disclosure templates and tables specified by the HKMA under the Banking (Disclosure) Rules. Other templates or tables which are not applicable to the MSBAL Group, or have no reportable amount for the period, are not disclosed.

B. CORPORATE GOVERNANCE

Corporate Governance Practices

The Company and Morgan Stanley are committed to upholding high standards in its corporate governance practices. The HKMA has issued statutory guidelines on Corporate Governance of Locally Incorporated Authorised Institutions ("CG-1") under section 7(3) of the Banking Ordinance applicable to all locally incorporated Authorised Institutions ("AIs"). The Company has in place an effective framework which is consistent with the principles and best practices in corporate governance as set forth in the guidelines on CG-1. Throughout 2022, the Company has also implemented mechanisms to streamline parent/subsidiary oversight framework.

Board of Directors

The Board of the Company comprises of ten members as of 31 December 2022, including four Independent Non-Executive Directors. All Directors have the appropriate experience, competence, personal and professional integrity to discharge their responsibilities effectively. The Directors have sufficient independence, expertise and experience to oversee the Company's operations and manage risks appropriately.

Board Practices

Board meetings are held at least four times a year, with one in each quarter. Notice of each Board meeting is given to all Directors in advance and the agenda is sent to the Directors before the date of each Board meeting. Minutes of each Board meeting are circulated to all Directors for their comments prior to confirmation of the minutes at the following Board meeting. Minutes of Board meetings are kept by the Company Secretary and are available for inspection by the Directors.

There are four Board committees: (a) Board Audit Committee, (b) Board Remuneration and Culture, Values and Conduct Committee, (c) Board Risk Committee; and (d) Board Nomination Committee.

In addition, there are two Management committees: (a) Management Committee; and (b) Bank Risk Committee, which are in turn supported by a number of management sub-committees.

Key Board Committees

(a) Board Audit Committee

Three Board members sit on the Board Audit committee including two Independent Non-Executive Directors and one Non-Executive Director. The Board Audit Committee is chaired by an Independent Non-Executive Director and expects to meet at least 4 times a year. The Board Audit Committee's mandate is to ensure that there is effective supervision of the Company's financial reporting processes, systems of internal controls and internal audit function. The Board Audit Committee also will review and endorse the recommendation on the appointment or re-appointment of external auditors and reviews the financial statements before recommending them to the Board for approval.

B. CORPORATE GOVERNANCE (CONTINUED)

Key Board Committees (continued)

(b) Board Remuneration and Culture, Values and Conduct Committee
Three Board members sit on the Board Remuneration and Culture, Values and Conduct Committee including two Independent Non-Executive Directors and one Non-Executive Director. The Board Remuneration and Culture, Values and Conduct Committee is chaired by an Independent Non-Executive Director and meets at least twice a year. The Board Remuneration and Culture, Values and Conduct Committee's responsibility is to assist the Board in discharging its responsibility for the design and operation of the Company's remuneration system, and the oversight of the Company's culture, values and conduct programme. The Board has delegated to the Board Remuneration and Culture, Values and Conduct Committee the authority to approve the remuneration packages for the Company's senior management and key personnel, except for the chief executive and the alternate chief executive(s) with a view to creating a remuneration system that incentivises proper employee behavior, and to oversee the implementation of the Company's culture, values and conduct programme.

(c) Board Risk Committee
The Board Risk Committee comprises four Board members, including three Independent Non-Executive Directors and one Non-Executive Director. The Board Risk Committee meets at a minimum of 4 times a year and is chaired by an Independent Non-Executive Director. The Board Risk Committee oversees key financial and non-financial risk related matters and risk governance and recommends to the Board the Company's risk appetite statements. It also reviews annually the Company's risk management strategy and policy, and reviews and ensures that the Company has appropriate manpower resources, infrastructure and other resources and systems to identify, assess, monitor, and manage risks.

(d) Board Nomination Committee
Three Board members sit on the Board Nomination Committee including two Independent Non-Executive Directors and one Non-Executive Director. The Board Nomination Committee is chaired by an Independent Non-Executive Director and meets as frequently as is properly required to carry out its functions and at least once a year. The Board Nomination Committee is responsible for assisting and providing guidance to the Board in relation to the appointment of board members, and the assessment of board performance for the Company.

Key Management Committees

(a) Management Committee
The Management Committee is chaired by the Chief Executive of the Company and meets monthly. The Management Committee oversees the operations of the Company and provides a regular forum for business leaders across the Company to identify and discuss key issues and actions that need to be taken to fulfill the Company's strategy.

(b) Bank Risk Committee
The Bank Risk Committee is chaired by the Chief Executive of the Company. The Bank Risk Committee provides a regular forum for senior representatives of the Company to oversee the risk management practices within the Company.

B. CORPORATE GOVERNANCE (CONTINUED)

Internal Audit

The Internal Audit Department ("IAD") reports to the Board Audit Committee and is independent of the Business Units and Support and Control Functions and Risk Management. IAD provides an independent assessment of the design, implementation and operating effectiveness of the Company's control environment and risk management processes using a risk-based audit coverage model and audit execution methodology developed from professional auditing standards. Internal Audit also reviews and tests the Company's compliance with internal guidelines set for risk management and risk monitoring, as well as external rules and regulations governing the industry. It effects these responsibilities through risk-based periodic reviews of the Company's processes, activities, products (including the new product approval process) or information systems; targeted reviews of specific controls and activities; pre-implementation or initiative reviews of new or significantly changed processes, activities, products or information systems; retrospective reviews or special investigations required as a result of internal factors or regulatory requests; and continuous monitoring of risks and control environments. Internal Audit conducts independent closure verification of reportable Internal Audit and certain regulatory issues.

Compliance

The Company is committed to maintaining and upholding high standards of corporate governance. The Company has been in material compliance with the HKMA Module on "Corporate Governance of Locally Incorporated Authorised institutions" ("CG-1") issued under the HKMA's Supervisory Policy Manual ("SPM").

Financial disclosure policy

The Company has in place the financial disclosure policy which is reviewed and approved by the Board of the Company. It sets out (a) the process and approach in determining the content, appropriateness, frequency, relevance and adequacy of the information disclosed, and (b) governance and oversight of the Company's disclosures for verifying or reviewing the accuracy of the information disclosed.

C. OVERVIEW OF RISK MANAGEMENT AND RWA

Table OVA: Overview of risk management

Risk Management Framework

The MSBAL Group has established a risk governance framework (“RGF”), which defines the MSBAL Group's strategies and processes to manage, hedge and mitigate risks that arise from its business activities. The RGF integrates the diverse roles of the Business Units, Support and Control Functions, Firm Risk Management, and Compliance into a holistic enterprise structure and facilitates the incorporation of risk assessment into decision-making processes across the MSBAL Group. The MSBAL Group’s RGF affirms to Morgan Stanley’s firm-wide risk governance framework.

RGF recognises that risks are often interrelated and therefore should be managed firm-wide on an aggregate and individual basis. RGF encompasses the MSBAL Group’s risk management culture, principles and practices that support risk identification, measurement, monitoring, escalation and decision-making processes. RGF views risk in a broad context and considers the risk to earnings and capital adequacy in a stressed market environment, as well as the risks to future earnings due to reputational damage.

The principal risks involved in the MSBAL Group’s business activities include market, interest rate, credit, operational, liquidity, compliance, conduct and reputational risk. Strategic risk is integrated into the MSBAL Group’s business planning, embedded in the evaluation of all principal risks and overseen by the MSBAL Group’s Board of Directors (or a committee thereof).

The MSBAL Group’s articulation of the aggregate level and types of risk that it is willing to accept in order to achieve its business objectives is established, communicated and monitored in accordance with the MSBAL Group’s Risk Appetite Statement. The combination of Risk Tolerance Statements, quantitative risk limits, and Key Risk Indicators (“KRIs”) aims to ensure the MSBAL Group’s businesses are carried out in line with the risk appetite established by the MSBAL’s Board, and to protect the MSBAL Group’s capital and reputation in both normal and stressed environments. There is regular reporting, including reporting on breaches, to both management and Board committees.

Risk Management Culture

The MSBAL Group’s risk management culture requires the MSBAL Group to seek acceptable risk-adjusted returns through prudent risk-taking that protects the MSBAL Group’s capital base and franchise, and is faithful to the MSBAL Group’s risk appetite and core values. The MSBAL Group’s three lines of defense, its Business Units, Independent Risk Management and Compliance functions, and the Internal Audit Department, shall play an integral role in enabling the MSBAL Group to achieve the objectives of the RGF.

The MSBAL Group’s risk management culture is based on the following five key principles:

- **Integrity**: critical to Morgan Stanley Group’s approach to Enterprise Risk Management (“ERM”) is strong risk culture and risk governance. Developing the Morgan Stanley Group’s risk culture is a continuous process and builds upon the Morgan Stanley Group’s commitment to “doing the right thing” and its values that make managing risk each employee’s responsibility;
- **Comprehensiveness**: a well-defined, comprehensive risk governance structure maintained by employees with appropriate risk management expertise that provides for periodic assessment of the efficacy of the Morgan Stanley Group’s risk management framework;
- **Independence**: independent lines of reporting for risk managers in regard to identification, measurement, monitoring, escalation and mitigation of risk;
- **Accountability**: well-defined roles and responsibilities that establish clear accountability for risk management and are aligned with the Morgan Stanley Group’s disciplinary and compensation structure;
- **Transparency**: strong risk culture that encourages open dialogue, effective challenge, escalation and appropriate reporting of risk to senior management, the Board (or a committee thereof) and the MSBAL Group’s regulators as well as external disclosures of risk matters.

C. OVERVIEW OF RISK MANAGEMENT AND RWA (CONTINUED)

Table OVA: Overview of risk management (continued)

Risk Management Culture (continued)

The MSBAL Group executes risk oversight through multiple lines of defense, which separately identify risk owners from independent risk control functions:

- **Risk Owners (the first line of defense)** are organizational units or functions that have the ability to generate revenue or control expenses for the MSBAL Group, or that provide certain operational or information technology support and services to units or functions within the MSBAL Group. Collectively, these groups include, for example, front-line Business Units, the Operations Division and the Technology Division, as well as the Finance Division. Risk Owners are accountable for risks associated with their activities and are responsible for actively assessing and managing these risks.
- **Independent Risk Management (the second line of defense)** identify, measure, monitor and control risks, and independently validate the effectiveness and consistency of risk management processes carried out by Risk Owners and across risk categories. Independent Risk Management includes, for example, functions performed by the Market Risk Department, Credit Risk Management Department, Liquidity Risk Department, Operational Risk Department, Compliance Department, Global Financial Crimes Group ("GFC"), as well as certain functions performed by the Legal Department.
- **Internal Audit (the third line of defense)** provides independent assurance on the design quality and operating effectiveness of the MSBAL Group's internal control, risk management and governance systems and control processes.

Risk Governance Structure

Risk management requires independent bank-level oversight, accountability of the MSBAL Group's business segments, and effective communication of risk matters to senior management and the Board. The nature of the MSBAL Group's risks, coupled with this risk management philosophy, forms the MSBAL Group's risk governance structure.

The board and its committees of the Company provide oversight of the MSBAL Group's risk management. The Company's risk governance structure includes:

Above committees are further detailed in Section B of the Unaudited Supplementary Financial Information.

C. OVERVIEW OF RISK MANAGEMENT AND RWA (CONTINUED)

Table OVA: Overview of risk management (continued)

Risk Appetite Monitoring and Reporting

The MSBAL Group's Risk Appetite Framework requires a comprehensive approach to monitor, assess and report on the risk profiles of the MSBAL Group, Business Units on an ongoing basis, with regular reporting to the Bank Risk Committee and Board Risk Committee. The reporting must include quantitative measurements and qualitative assessments that enable a comparison of the MSBAL Group's current risk profile against risk limits, KRIs and Risk Tolerance Statements. Reporting must identify matters for escalation and decisions, as well as highlight emerging risks, mitigating actions and matters that are significant to the MSBAL Group's strategy.

Monitoring is an ongoing review of major risks and/or controls at a set frequency. The scope and frequency of monitoring depends on the types of risk, as well as on the specific business risk operations and activities. Adequate monitoring enables the MSBAL Group to understand its risk profile across risk types, groups, and lines of business. It also helps the MSBAL Group to ascertain how particular risks may be evolving or changing in reaction to controls and the impact of emerging risks.

Risk data and analysis are reported at and across multiple levels of the MSBAL Group, and to various audiences, through an extensive suite of periodic and ad hoc reports. Reports include backward-looking, current, and forward-looking risk management information. The goal of effective risk reporting is to provide actionable information that informs daily business decisions, prompts responses to key current and emerging issues, and ensures that senior management and the Board maintain a comprehensive view of key risk profiles.

Firm Risk Management Functions

Market Risk

The Market Risk Department ("MRD") oversees the market risk arising from the MSBAL Group's trading and non-trading business activities. This includes identifying and defining market risks; developing and employing risk measures and tools to monitor, control and mitigate those risks; establishing limits; monitoring usage against these limits; and producing and distributing comprehensive reports designed to keep senior management apprised of the MSBAL Group's market risk exposures. MRD helps ensure transparency of material market risks, which includes, but is not limited to, the escalation of risk concentrations to senior management, as well as the disclosure and reporting of market risks to the Board and the MSBAL Group's regulatory authorities.

Credit Risk

The Credit Risk Management Department ("CRM") oversees, assesses, monitors, measures, controls and reports on credit risk exposure to institutions and individuals primarily through the MSBAL Group's business activities. CRM helps ensure transparency of material credit risks, which includes the escalation of risk concentrations to senior management, as well as the disclosure and reporting of credit risks to the Board and the MSBAL Group's regulatory authorities. CRM also works closely with MRD and applicable Business Units to monitor risk exposures and to perform stress tests to identify, analyse and control credit risk concentrations arising in the MSBAL Group's lending and trading activities.

Liquidity Risk

The Liquidity Risk Department ("LRD") oversees the liquidity risk arising from the MSBAL Group's business activities. LRD independently ensures transparency of material liquidity risks, compliance with established risk limits, escalation of risk concentrations to senior management, adherence to sound business practices, and compliance with applicable regulations and supervisory guidance.

Operational Risk

The Operational Risk Department ("ORD") provides independent oversight and challenge of Operational Risk management within the MSBAL Group by identifying, measuring, monitoring and controlling Operational Risks and independently validating the effectiveness and consistency of risk management processes via its Operational Risk management framework.

C. OVERVIEW OF RISK MANAGEMENT AND RWA (CONTINUED)

Table OVA: Overview of risk management (continued)

Legal and Compliance Department

The MSBAL Group has established procedures based on legal and regulatory requirements that are designed to facilitate compliance with applicable statutory and regulatory requirements as well as Morgan Stanley's global standard relating to business conduct, ethics and practices.

Compliance Department

- The Compliance Department provides advice that helps the MSBAL Group to ensure compliance and adherence to the relevant laws, regulations, and standards that govern its business activities as well as adherence to the internal policies and procedures. Moreover, Compliance Department also assists in identifying, measuring, mitigating and reporting on compliance related risks.

Legal Department

- The Legal Department reports to the International General Counsel and provides legal and regulatory advice that protects the MSBAL Group's financial well-being and reputation and assists the Business Units to understand legal risk and to comply with relevant financial services related laws, regulations, guidance, policies and standards.

Global Financial Crimes

- The Morgan Stanley Group, has established a policy that outlines the Morgan Stanley Group's global anti-money laundering ("AML") compliance program, which is applicable to the MSBAL Group. This policy sets forth the guiding principles and consistent standards for best practices reasonably designed to protect the business of the Morgan Stanley Group, including the MSBAL Group, from being used to facilitate money laundering, terrorist financing, or other illicit activities.
- The MSBAL Group is subject to risk of major regulatory sanctions and reputation damage if the MSBAL Group significantly fails to comply with applicable AML, sanction screening laws, or Anti-Bribery and Corruption rules.
- Financial crimes related issues are reported as required to the Franchise Risk Officer, the MSBAL Group's Global Financial Crimes Committee, and the Bank Risk Committee.

C. OVERVIEW OF RISK MANAGEMENT AND RWA (CONTINUED)

Table OVA: Overview of risk management (continued)

Internal Audit Department

IAD provides perspectives to both senior management and the Board Audit Committee for their consideration in discharging their legal, fiduciary, and oversight responsibilities. It is further detailed in Section B of the Unaudited Supplementary Financial Information.

Stress Testing

Stress testing is one of the MSBAL Group's principal risk management tools, which is used to identify and assess the impact of scenarios on its portfolios and capital. Stress testing complements other Morgan Stanley Group-wide risk metrics by providing a flexible approach to understanding risk and assessing the MSBAL Group's resilience to different scenarios over a range of severities, relevant to current market conditions and forward looking macroeconomic views. Most notably, stress testing is used for:

- Risk Management: Identifying areas of potential weakness in the MSBAL Group's portfolio as a basis for senior management to take portfolio-level decisions, determining risk mitigation actions, setting risk limits, and improving risk and control environment.
- Capital and Liquidity planning: Informing the proposed stressed capital and liquidity forecasts through severe but plausible stress tests.
- Others including recovery planning, business planning, new product evaluation and strategic business decision.

The MSBAL Stress Testing Framework utilises stress testing methodologies, including single factors shocks and scenario analyses, to identify and assess the MSBAL Group's resilience to different stress conditions.

Adequacy of Risk Management Arrangements

The MSBAL Group is satisfied that the risk management arrangements and systems, as described, are appropriate given the strategy and risk profile of the MSBAL Group. These elements are reviewed at least annually and, where applicable, updated to reflect best practice, evolving market conditions and changing regulatory requirements.

C. OVERVIEW OF RISK MANAGEMENT AND RWA (CONTINUED)

Template KM1 : Key Prudential Ratios

		The MSBAL Group				The Company
		As at 31 December 2022	As at 30 September 2022	As at 30 June 2022	As at 31 March 2022	As at 31 December 2021
		US$'000	US$'000	US$'000	US$'000	US$'000
	Regulatory capital (amount)					
1	Common Equity Tier 1 ("CET1")	1,488,405	1,459,364	1,430,636	1,409,697	1,133,128
2	Tier 1	1,488,405	1,459,364	1,430,636	1,409,697	1,133,128
3	Total capital	1,504,334	1,473,938	1,443,836	1,426,854	1,149,042
	RWA (amount)					
4	Total RWA	2,266,195	2,165,505	2,038,196	2,391,293	2,149,094
	Risk-based regulatory capital ratios (as a percentage of RWA)					
5	CET1 ratio (%) (1)	66 %	67 %	71 %	59 %	53 %
6	Tier 1 ratio (%) (1)	66 %	67 %	71 %	59 %	53 %
7	Total capital ratio (%) (1)	66 %	68 %	71 %	60 %	53 %
	Additional CET1 buffer requirements (as a percentage of RWA)					
8	Capital conservation buffer requirement (%)	2.500 %	2.500 %	2.500 %	2.500 %	2.500 %
9	Countercyclical capital buffer requirement (%)	0.484 %	0.416 %	0.379 %	0.393 %	0.473 %
10	Higher loss absorbency requirements (%) (applicable only to G-SIBs or D-SIBs)	0 %	0 %	0 %	0 %	0 %
11	Total Authorised Institution ("AI")-specific CET1 buffer requirements (%)	2.984 %	2.916 %	2.879 %	2.893 %	2.973 %
12	CET1 available after meeting the AI's minimum capital requirements (%)	58 %	60 %	63 %	52 %	45 %
	Basel III leverage ratio					
13	Total leverage ratio ("LR") exposure measure	7,738,008	7,784,942	9,236,779	10,572,757	9,875,839
14	LR (%)	19 %	19 %	16 %	13 %	11 %
	Liquidity Maintenance Ratio ("LMR")					
17a	LMR (%) (2)	72 %	67 %	70 %	69 %	67 %
	Core Funding Ratio ("CFR")					
20a	CFR (%) (2) (3)	245 %	265 %	295 %	260 %	235 %

Note 1: The capital adequacy ratios of the Company and the MSBAL Group (where applicable) were calculated in accordance with Banking (Capital) Rules.

Note 2: The LMR and CFR disclosed above represent the arithmetic mean of the average LMR and average CFR of the 3 calendar months within each quarter respectively. The MSBAL Group is not required, under the Banking (Liquidity) Rules, to calculate Liquidity Coverage Ratio or Net Stable Funding Ratio for its liquidity risk.

Note 3: Decrease in average CFR during the second half of 2022 is mainly due to a decrease in average deposits from customers.

C. OVERVIEW OF RISK MANAGEMENT AND RWA (CONTINUED)

Template OV1: Overview of RWA

		The MSBAL Group		The MSBAL Group
		RWA		Minimum capital requirements [1]
		As at 31 December 2022 US$'000	As at 30 September 2022 US$'000	As at 31 December 2022 US$'000
1	Credit risk for non-securitization exposures	1,246,358	1,129,009	99,709
2	Of which Standardised (Credit Risk) Approach ("STC approach")	1,246,358	1,129,009	99,709
2a	Of which Basic Approach ("BSC approach")	—	—	—
3	Of which foundation Internal Ratings-Based ("IRB") Approach	—	—	—
4	Of which supervisory slotting criteria approach	—	—	—
5	Of which advanced IRB approach	—	—	—
6	Counterparty default risk and default fund contributions	27,987	36,971	2,239
7	Of which Standardised (Counterparty Credit Risk) ("SA-CCR") Approach	2,603	7,839	208
7a	Of which Current Exposure Method ("CEM")	—	—	—
8	Of which Internal Models (Counterparty Credit Risk) Approach ("IMM(CCR) approach")	—	—	—
9	Of which others	25,384	29,132	2,031
10	Credit Valuation Adjustment ("CVA") risk	1,851	6,054	148
11	Equity positions in banking book under the simple risk-weight method and internal models method	—	—	—
12	Collective investment scheme ("CIS") exposures – Look-Through Approach ("LTA")	—	—	—
13	CIS exposures – Mandate-Based Approach ("MBA")	—	—	—
14	CIS exposures – Fall-Back Approach ("FBA")	—	—	—
14a	CIS exposures – combination of approaches	—	—	—
15	Settlement risk			—
16	Securitization exposures in banking book	—	—	—
17	Of which Securitization Internal Ratings-Based Approach ("SEC-IRBA")	—	—	—
18	Of which Securitization External Ratings-Based Approach ("SEC-ERBA") (including Internal Assessment Approach ("IAA"))	—	—	—
19	Of which Securitization Standardised Approach ("SEC-SA")	—	—	—
19a	Of which Securitization Fall-Back Approach ("SEC-FBA")	—	—	—
20	Market risk [2]	41,135	62,200	3,291
21	Of which Standardised (Market Risk) Approach ("STM approach")	41,135	62,200	3,291
22	Of which Internal Models Approach ("IMM approach")	—	—	—
23	Capital charge for switch between exposures in trading book and banking book (not applicable before the revised market risk framework takes effect)		Not applicable	
24	Operational risk	943,296	922,591	75,464
24a	Sovereign concentration risk	6,287	9,847	503
25	Amounts below the thresholds for deduction (subject to 250% Risk-Weight ("RW"))	—	—	—
26	Capital floor adjustment	—	—	—
26a	Deduction to RWA	719	1,167	58
26b	Of which portion of regulatory reserve for general banking risks and collective provisions which is not included in Tier 2 Capital	719	1,167	58
26c	Of which portion of cumulative fair value gains arising from the revaluation of land and buildings which is not included in Tier 2 Capital	—	—	—
27	**Total**	**2,266,195**	**2,165,505**	**181,296**

C. OVERVIEW OF RISK MANAGEMENT AND RWA (CONTINUED)

Template OV1: Overview of RWA (continued)

Note 1: The disclosure on minimum capital requirement is made by multiplying the MSBAL Group's RWA derived from the relevant calculation approach by 8%, not the MSBAL Group's actual "regulatory capital".

The following approaches are used to calculate its capital charge for:

(a) credit risk: STC approach;

(b) counterparty credit risk: SA-CCR approach;

(c) operational risk: Basic Indicator Approach ("BIA approach"); and

(d) market risk: STM approach [(2)].

Note 2: For reporting periods ended on and before 31 December 2021, there was no RWA for market risk for the Company because the Company was exempted by the HKMA from the calculation of market risk. Upon completion of the acquisition, the HKMA has revoked the exemption as the MSBAL Group no longer meets the threshold and conditions required for the exemption under the Banking (Capital) Rules. As a result, starting from the reporting period ended 31 March 2022, market risk RWA is calculated for the MSBAL Group.

D. LINKAGES BETWEEN FINANCIAL STATEMENTS AND REGULATORY EXPOSURES

Template LI1: Differences between accounting and regulatory scopes of consolidation and mapping of financial statement categories with regulatory risk categories

			Carrying values of items:				
As at 31 December 2022	Carrying values as reported in published financial statements	Carrying values under scope of regulatory consolidation	subject to credit risk framework	subject to counterparty credit risk framework	subject to the securitization framework	subject to market risk framework	not subject to capital requirements or subject to deduction from capital
	US$'000	US$'000	US$'000	US$'000	US$'000	US$'000	US$'000
Assets							
Cash and short-term deposits	670,280	845,192	845,192	—	—	—	—
Trading financial assets	4,483	116,276	—	4,483	—	111,793	—
Secured Financing	2,813,802	2,813,802	—	2,813,802	—	—	—
Loans and advances	3,215,514	3,283,529	3,283,529	—	—	—	—
Investment securities	501,327	501,327	501,327	—	—	—	—
Trade and other receivables	142,692	146,286	146,286	—	—	—	—
Deferred tax assets	12,630	13,516	—	—	—	—	13,516
Fixed assets	—	6,593	6,593	—	—	—	—
Prepayments	1,570	3,803	3,803	—	—	—	—
Investment in subsidiaries	262,348	—	—	—	—	—	—
Total assets	**7,624,646**	**7,730,324**	**4,786,730**	**2,818,285**	**—**	**111,793**	**13,516**
Liabilities							
Deposits	5,852,173	5,913,242	—	—	—	—	5,913,242
Trading financial liabilities	64,311	64,311	—	64,311	—	—	—
Trade and other payables	167,315	226,091	—	—	—	—	226,091
Current tax liabilities	6,862	6,862	—	—	—	—	6,862
Accruals	1,971	2,039	—	—	—	—	2,039
Total liabilities	**6,092,632**	**6,212,545**	**—**	**64,311**	**—**	**—**	**6,148,234**

D. LINKAGES BETWEEN FINANCIAL STATEMENTS AND REGULATORY EXPOSURES (CONTINUED)

Template LI2: Main sources of differences between regulatory exposure amounts and carrying values in financial statements

		(a)	(b)	(c)	(d)	(e)
			Items subject to:			
		Total	credit risk framework	securitization framework	counterparty credit risk framework	market risk framework
	As at 31 December 2022	**US$'000**	**US$'000**	**US$'000**	**US$'000**	**US$'000**
1	**Asset carrying value amount under scope of regulatory consolidation (as per template LI1)**	7,716,808	4,786,730	—	2,818,285	111,793
2	Liabilities carrying value amount under regulatory scope of consolidation (as per template LI1)	64,311	—	—	64,311	—
3	Total net amount under regulatory scope of consolidation	7,652,497	4,786,730	—	2,753,974	111,793
4	Off-balance sheet amounts	6,386	6,386	—	—	—
5	Differences due to credit risk mitigation	(4,955,849)	(2,200,633)	—	(2,755,216)	—
6	Differences due to replacement cost of derivatives	60,178	—	—	60,178	—
7	Differences due to potential future exposures of derivatives	7,790	—	—	7,790	—
8	Differences due to net open position for foreign exchange exposures	10,129	—	—	—	10,129
9	Differences due to consideration of provisions	847	847	—	—	—
10	**Exposure amounts considered for regulatory purposes**	2,781,978	2,593,330	—	66,726	121,922

D. LINKAGES BETWEEN FINANCIAL STATEMENTS AND REGULATORY EXPOSURES (CONTINUED)

Template LIA: Explanations of differences between accounting and regulatory exposure amounts

The difference of "Carrying values as reported in published financial statements" and "Carrying values under scope of regulatory consolidation" in Template LI1 represents the difference in basis of preparation. The audited financial statements are prepared on a company-level standalone basis. Pillar 3 disclosures are prepared on a consolidated basis (i.e. including the business of the subsidiary of the MSBAL Group). Details of basis of preparation are further detailed in note 2 to the audited financial statements and section A of the unaudited supplementary financial information respectively.

The key differences between "Asset carrying value amount under scope of regulatory consolidation" and "Exposure amounts considered for regulatory purposes" in Template LI2 are:

Off-balance sheet amounts

Off-balance sheet amounts include the undrawn portions of committed facilities and guarantees after application of credit conversion factors.

Differences due to credit risk mitigation

Exposure value under the STC approach is calculated after deducting credit risk mitigation, whereas carrying value is before such deductions.

Differences due to replacement cost and potential future exposures of derivatives

Derivative regulatory exposures are netted (where an enforceable master netting agreement is in place). Replacement cost and potential future exposures are included for counterparty credit risk.

Differences due to net open position for foreign currency exposures

Under the market risk framework, net open position for foreign currency exposures is considered.

Differences due to consideration of provisions

The carrying value is net of provisions. However, regulatory exposures under STC approach are before deducting general provisions but net of specific provisions.

D. LINKAGES BETWEEN FINANCIAL STATEMENTS AND REGULATORY EXPOSURES (CONTINUED)

Template PV1: Prudent valuation adjustments

The following table shows the detailed breakdown of the constituent elements of prudent valuation adjustments, for assets measured at fair value.

		Equity	Interest rates	Foreign Exchange ("FX")	Credit	Commodities	Total	Of which: In the trading book	Of which: In the banking book
	As at 31 December 2022	**US$'000**	**US$'000**	**US$'000**	**US$'000**	**US$'000**	**US$'000**	**US$'000**	**US$'000**
1	Close-out uncertainty, of which	—	80	24	—	—	104	51	53
2	Mid-market value	—	25	—	—	—	25	33	(8)
3	Close-out costs	—	55	24	—	—	79	18	61
4	Concentration	—	—	—	—	—	—	—	—
5	Early termination	—	—	—	—	—	—	—	—
6	Model risk	—	—	—	—	—	—	—	—
7	Operational risks	—	4	1	—	—	5	2	3
8	Investing and funding costs						—	—	—
9	Unearned credit spreads						—	—	—
10	Future administrative costs	—	—	—	—	—	—	—	—
11	Other adjustments [1]	—	(40)	(12)	—	—	(52)	(25)	(27)
12	**Total adjustments**	**—**	**44**	**13**	**—**	**—**	**57**	**28**	**29**

Note 1: For other adjustments, it refers to the diversification benefits from mid-market value and close-out costs, resulting in reduction in valuation adjustment required.

The highest amount of valuation adjustments are attributable to the interest rate products measured at fair value, mainly government debt securities.

For rows that are not applicable, there are immaterial risks and financial impacts from those elements of valuation adjustments regarding to the MSBAL Group's financial assets.

E. COMPOSITION OF REGULATORY CAPITAL

Template CC1: Composition of regulatory capital

	As at 31 December 2022	The MSBAL Group Amount US$'000	The MSBAL Group Source based on reference numbers/ letters of the balance sheet under the regulatory scope of consolidation (Template CC2)
	CET1 capital: instruments and reserves		
1	Directly issued qualifying CET1 capital instruments plus any related share premium	930,000	(1)
2	Retained earnings	606,602	(2)
3	Disclosed reserves	(18,823)	(2)
4	*Directly issued capital subject to phase-out arrangements from CET1 (only applicable to non-joint stock companies)*	Not applicable	Not applicable
5	Minority interests arising from CET1 capital instruments issued by consolidated bank subsidiaries and held by third parties (amount allowed in CET1 capital of the consolidation group)	—	
6	**CET1 capital before regulatory deductions**	1,517,779	
	CET1 capital: regulatory deductions		
7	Valuation adjustments	57	
8	Goodwill (net of associated deferred tax liabilities)	—	
9	Other intangible assets (net of associated deferred tax liabilities)	—	
10	Deferred tax assets (net of associated deferred tax liabilities)	13,516	(3)
11	Cash flow hedge reserve	—	
12	Excess of total EL amount over total eligible provisions under the IRB approach	—	
13	Credit-enhancing interest-only strip, and any gain-on-sale and other increase in the CET1 capital arising from securitization transactions	—	
14	Gains and losses due to changes in own credit risk on fair valued liabilities	—	
15	Defined benefit pension fund net assets (net of associated deferred tax liabilities)	—	
16	Investments in own CET1 capital instruments (if not already netted off paid-in capital on reported balance sheet)	—	
17	Reciprocal cross-holdings in CET1 capital instruments	—	
18	Insignificant LAC investments in CET1 capital instruments issued by financial sector entities that are outside the scope of regulatory consolidation (amount above 10% threshold)	—	
19	Significant LAC investments in CET1 capital instruments issued by financial sector entities that are outside the scope of regulatory consolidation (amount above 10% threshold)	—	
20	Mortgage servicing rights (net of associated deferred tax liabilities)	Not applicable	Not applicable
21	Deferred tax assets arising from temporary differences (net of associated deferred tax liabilities)	Not applicable	Not applicable
22	Amount exceeding the 15% threshold	Not applicable	Not applicable
23	of which: significant investments in the ordinary share of financial sector entities	Not applicable	Not applicable
24	of which: mortgage servicing rights	Not applicable	Not applicable
25	of which: deferred tax assets arising from temporary differences	Not applicable	Not applicable
26	National specific regulatory adjustments applied to CET1 capital	—	
26a	Cumulative fair value gains arising from the revaluation of land and buildings (own-use and investment properties)	—	
26b	Regulatory reserve for general banking risks	15,801	

E. COMPOSITION OF REGULATORY CAPITAL (CONTINUED)

Template CC1: Composition of regulatory capital (continued)

	As at 31 December 2022	The MSBAL Group Amount US$'000	Source based on reference numbers/ (Template CC2)
26c	Securitization exposures specified in a notice given by the MA	—	
26d	Cumulative losses below depreciated cost arising from the institution's holdings of land and buildings	—	
26e	Capital shortfall of regulated non-bank subsidiaries	—	
26f	Capital investment in a connected company which is a commercial entity (amount above 15% of the reporting institution's capital base)	—	
27	Regulatory deductions applied to CET1 capital due to insufficient AT1 capital and Tier 2 capital to cover deductions	—	
28	**Total regulatory deductions to CET1 capital**	29,374	
29	**CET1 capital**	1,488,405	
	AT1 capital: instruments		
30	Qualifying AT1 capital instruments plus any related share premium	—	
31	of which: classified as equity under applicable accounting standards	—	
32	of which: classified as liabilities under applicable accounting standards	—	
33	Capital instruments subject to phase-out arrangements from AT1 capital	—	
34	AT1 capital instruments issued by consolidated bank subsidiaries and held by third parties (amount allowed in AT1 capital of the consolidation group)	—	
35	*of which: AT1 capital instruments issued by subsidiaries subject to phase-out arrangements*	—	
36	AT1 capital before regulatory deductions	—	
	AT1 capital: regulatory deductions		
37	Investments in own AT1 capital instruments	—	
38	Reciprocal cross-holdings in AT1 capital instruments	—	
39	Insignificant LAC investments in AT1 capital instruments issued by financial sector entities that are outside the scope of regulatory consolidation (amount above 10% threshold)	—	
40	Significant LAC investments in AT1 capital instruments issued by financial sector entities that are outside the scope of regulatory consolidation	—	
41	National specific regulatory adjustments applied to AT1 capital	—	
42	Regulatory deductions applied to AT1 capital due to insufficient Tier 2 capital to cover deductions	—	
43	**Total regulatory deductions to AT1 capital**	—	
44	**AT1 capital**	—	
45	**Tier 1 capital (T1 = CET1 + AT1)**	1,488,405	
	Tier 2 capital: instruments and provisions		
46	Qualifying Tier 2 capital instruments plus any related share premium	—	
47	*Capital instruments subject to phase-out arrangements from Tier 2 capital*	—	
48	Tier 2 capital instruments issued by consolidated bank subsidiaries and held by third parties (amount allowed in Tier 2 capital of the consolidation group)	—	
49	of which: capital instruments issued by subsidiaries subject to phase-out arrangements	—	

E. COMPOSITION OF REGULATORY CAPITAL (CONTINUED)

Template CC1: Composition of regulatory capital (continued)

		The MSBAL Group	
	As at 31 December 2022	Amount US$'000	Source based on reference numbers/ (Template CC2)
50	Collective provisions and regulatory reserve for general banking risks eligible for inclusion in Tier 2 capital	15,929	
51	**Tier 2 capital before regulatory deductions**	15,929	
	Tier 2 capital: regulatory deductions		
52	Investments in own Tier 2 capital instruments	—	
53	Reciprocal cross-holdings in Tier 2 capital instruments and non-capital LAC liabilities	—	
54	Insignificant LAC investments in Tier 2 capital instruments issued by, and non-capital LAC liabilities of, financial sector entities that are outside the scope of regulatory consolidation (amount above 10% threshold and, where applicable, 5% threshold)	—	
54a	Insignificant LAC investments in non-capital LAC liabilities of financial sector entities that are outside the scope of regulatory consolidation (amount formerly designated for the 5% threshold but no longer meets the conditions) (for institutions defined as "section 2 institution" under §2(1) of Schedule 4F to BCR only)	—	
55	Significant LAC investments in Tier 2 capital instruments issued by financial sector entities that are outside the scope of regulatory consolidation (net of eligible short positions)	—	
55a	Significant LAC investments in non-capital LAC liabilities of financial sector entities that are outside the scope of regulatory consolidation (net of eligible short positions)	—	
56	National specific regulatory adjustments applied to Tier 2 capital	—	
56a	Add back of cumulative fair value gains arising from the revaluation of land and buildings (own-use and investment properties) eligible for inclusion in Tier 2 capital	—	
56b	Regulatory deductions applied to Tier 2 capital to cover the required deductions falling within §48(1)(g) of BCR	—	
57	**Total regulatory adjustments to Tier 2 capital**	—	
58	**Tier 2 capital (T2)**	15,929	
59	**Total regulatory capital (TC = T1 + T2)**	1,504,334	
60	**Total RWA**	2,266,195	
	Capital ratios (as a percentage of RWA)		
61	**CET1 capital ratio**	66 %	
62	**Tier 1 capital ratio**	66 %	
63	**Total capital ratio**	66 %	
64	**Institution-specific buffer requirement (capital conservation buffer plus countercyclical capital buffer plus higher loss absorbency requirements)**	2.984 %	
65	of which: capital conservation buffer requirement	2.500 %	
66	of which: bank specific countercyclical capital buffer requirement	0.484 %	
67	of which: higher loss absorbency requirement	—	
68	CET1 (as a percentage of RWA) available after meeting minimum capital requirements	58 %	
	National minima (if different from Basel 3 minimum)		
69	National CET1 minimum ratio	Not applicable	Not applicable
70	National Tier 1 minimum ratio	Not applicable	Not applicable
71	National Total capital minimum ratio	Not applicable	Not applicable

E. COMPOSITION OF REGULATORY CAPITAL (CONTINUED)

Template CC1: Composition of regulatory capital (continued)

		The MSBAL Group	
	As at 31 December 2022	Amount US$'000	Source based on reference numbers/ letters of the balance sheet under the regulatory scope of consolidation (Template CC2)
	Amounts below the thresholds for deduction (before risk weighting)		
72	Insignificant LAC investments in CET1, AT1 and Tier 2 capital instruments issued by, and non-capital LAC liabilities of, financial sector entities that are outside the scope of regulatory consolidation	—	
73	Significant LAC investments in CET1 capital instruments issued by financial sector entities that are outside the scope of regulatory consolidation	—	
74	Mortgage servicing rights (net of associated deferred tax liabilities)	Not applicable	Not applicable
75	Deferred tax assets arising from temporary differences (net of associated deferred tax liabilities)	Not applicable	Not applicable
	Applicable caps on the inclusion of provisions in Tier 2 capital		
76	Provisions eligible for inclusion in Tier 2 in respect of exposures subject to the BSC approach, or the STC approach and SEC-ERBA, SEC-SA and SEC-FBA (prior to application of cap)	16,648	
77	Cap on inclusion of provisions in Tier 2 under the BSC approach, or the STC approach, and SEC-ERBA, SEC-SA and SEC-FBA	15,929	
78	Provisions eligible for inclusion in Tier 2 in respect of exposures subject to the IRB approach and SEC-IRBA (prior to application of cap)	—	
79	Cap for inclusion of provisions in Tier 2 under the IRB approach and SEC-IRBA	—	
	Capital instruments subject to phase-out arrangements (only applicable between 1 Jan 2018 and 1 Jan 2022)		
80	Current cap on CET1 capital instruments subject to phase-out arrangements	Not applicable	Not applicable
81	Amount excluded from CET1 due to cap (excess over cap after redemptions and maturities)	Not applicable	Not applicable
82	Current cap on AT1 capital instruments subject to phase-out arrangements	—	
83	Amount excluded from AT1 capital due to cap (excess over cap after redemptions and maturities)	—	
84	Current cap on Tier 2 capital instruments subject to phase-out arrangements	—	
85	Amount excluded from Tier 2 capital due to cap (excess over cap after redemptions and maturities)	—	

Elements where a more conservative definition has been applied in the BCR relative to that set out in Basel III capital standards are disclosed below in Notes to the Template.

E. COMPOSITION OF REGULATORY CAPITAL (CONTINUED)

Template CC1: Composition of regulatory capital (continued)

Notes to the Template

		The MSBAL Group	
		Hong Kong basis	**Basel III basis**
	Description	**US$'000**	**US$'000**
10	**Deferred tax assets ("DTAs") (net of associated deferred tax liabilities)**	13,516	13,516
	Explanation As set out in paragraphs 69 and 87 of the Basel III text issued by the Basel Committee (December 2010), DTAs of the bank to be realised are to be deducted, whereas DTAs which relate to temporary differences may be given limited recognition in CET1 capital (and hence be excluded from deduction from CET1 capital up to the specified threshold). In Hong Kong, an AI is required to deduct all DTAs in full, irrespective of their origin, from CET1 capital. Therefore, the amount to be deducted as reported in row 10 may be greater than that required under Basel III. The amount reported under the column "Basel III basis" in this box represents the amount reported in row 10 (i.e. the amount reported under the "Hong Kong basis") adjusted by reducing the amount of DTAs to be deducted which relate to temporary differences to the extent not in excess of the 10% threshold set for DTAs arising from temporary differences and the aggregate 15% threshold set for MSRs, DTAs arising from temporary differences and significant investments in CET1 capital instruments issued by financial sector entities (excluding those that are loans, facilities or other credit exposures to connected companies) under Basel III.		

Abbreviations:
- CET1: Common Equity Tier 1
- AT1: Additional Tier 1

E. COMPOSITION OF REGULATORY CAPITAL (CONTINUED)

Template CC2: Reconciliation of regulatory capital to balance sheet

As at 31 December 2022	Balance sheet as in published financial disclosure statements US$'000	Under regulatory scope of consolidation US$'000	Reference to template CC1
Assets			
Cash and short-term deposits	670,280	845,192	
Trading financial assets	4,483	116,276	
Secured Financing	2,813,802	2,813,802	
Loans and advances	3,215,514	3,283,529	
Investment securities	501,327	501,327	
Trade and other receivables	142,692	146,286	
Deferred tax assets	12,630	13,516	(3)
Fixed assets	—	6,593	
Prepayments	1,570	3,803	
Investment in a subsidiary	262,348	—	
Total assets	**7,624,646**	**7,730,324**	
Liabilities			
Deposits	5,852,173	5,913,242	
Trading financial liabilities	64,311	64,311	
Trade and other payables	167,315	226,091	
Current tax liabilities	6,862	6,862	
Accruals	1,971	2,039	
Total liabilities	**6,092,632**	**6,212,545**	
Shareholders' equity			
Share capital	930,000	930,000	
Of which: amount eligible for CET1	930,000	930,000	(1)
FVOCI reserve	(151)	(151)	(2)
Retained earnings and other comprehensive income	602,165	587,930	(2)
Total shareholders' equity	**1,532,014**	**1,517,779**	

E. COMPOSITION OF REGULATORY CAPITAL (CONTINUED)

Table CCA: Main features of regulatory capital instruments

The following table shows the main features of outstanding capital instruments issued.

		Quantitative / qualitative information
1	Issuer	Morgan Stanley Bank Asia Limited
2	Unique identifier (e.g. CUSIP, ISIN or Bloomberg identifier for private placement)	Not applicable
3	Governing law(s) of the instrument	Hong Kong Law
	Regulatory treatment	
4	Transitional Basel III rules1	Not applicable
5	Post-transitional Basel III rules2	Common Equity Tier 1
6	Eligible at solo / group / solo and group	Solo
7	Instrument type (types to be specified by each jurisdiction)	Ordinary shares
8	Amount recognised in regulatory capital (currency in millions, as of most recent reporting date)	US$930 million
9	Par value of instrument	Not applicable
10	Accounting classification	Shareholders' equity
11	Original date of issuance	· 1 share issued on 19 May 2014 · 13,000,000 shares issued on 11 July 2014 · 156,999,998 shares issued on 13 January 2015 · 1 share issued on 9 February 2015 · 500,000,000 shares issued on 22 March 2019 · 260,000,000 share issued on 15 March 2022
12	Perpetual or dated	Perpetual
13	Original maturity date	No maturity
14	Issuer call subject to prior supervisory approval	No
15	Optional call date, contingent call dates and redemption amount	Not applicable
16	Subsequent call dates, if applicable	Not applicable
	Coupons / dividends	
17	Fixed or floating dividend / coupon	Floating
18	Coupon rate and any related index	Not applicable
19	Existence of a dividend stopper	No
20	Fully discretionary, partially discretionary or mandatory	Fully discretionary
21	Existence of step-up or other incentive to redeem	No
22	Non-cumulative or cumulative	Non-cumulative
23	Convertible or non-convertible	Non-convertible
24	If convertible, conversion trigger(s)	Not applicable
25	If convertible, fully or partially	Not applicable
26	If convertible, conversion rate	Not applicable
27	If convertible, mandatory or optional conversion	Not applicable
28	If convertible, specify instrument type convertible into	Not applicable
29	If convertible, specify issuer of instrument it converts into	Not applicable
30	Write-down feature	No
31	If write-down, write-down trigger(s)	Not applicable
32	If write-down, full or partial	Not applicable
33	If write-down, permanent or temporary	Not applicable

E. COMPOSITION OF REGULATORY CAPITAL (CONTINUED)

Table CCA: Main features of regulatory capital instruments

		Quantitative / qualitative information
34	If temporary write-down, description of write-up mechanism	Not applicable
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument in the insolvency creditor hierarchy of the legal entity concerned).	Not applicable
36	Non-compliant transitioned features	No
37	If yes, specify non-compliant features	Not applicable

Footnote:

1. Regulatory treatment of capital instruments subject to transitional arrangements provided for in Schedule 4H to the BCR.
2. Regulatory treatment of capital instruments not subject to transitional arrangements provided for in Schedule 4H to the BCR.

Information relating to the disclosure of the full terms and conditions of the MSBAL Group's capital instruments can be viewed on the website: http://www.morganstanley.com/about-us/global-offices/hong-kong.

F. COUNTERCYCLICAL CAPITAL BUFFER RATIO

Template CCyB1: Geographical distribution of credit exposures used in countercyclical capital buffer ("CCyB")

		The MSBAL Group			
		As at 31 December 2022			
	Geographical breakdown by Jurisdiction (J)	Applicable JCCyB ratio in effect	RWA used in computation of CCyB ratio	AI-specific CCyB ratio	CCyB amount
		%	US$'000	%	US$'000
1	Hong Kong SAR	1.000 %	405,443		
2	Luxembourg	0.500 %	248,749		
3	United Kingdom	1.000 %	43,405		
4	Sum		697,597		
5	**Total (Note)**		**1,183,745**	**0.484 %**	**10,968**

Note:

The geographical allocation of private sector credit exposures to the various jurisdictions is based on "ultimate risk basis". "Ultimate risk basis" means the allocation of exposures to the jurisdictions where the risk ultimately lies, as defined as the location where the "ultimate obligor" resides

Total RWA on Row 5 represents total sum of the RWA for private sector credit exposures across all jurisdictions to which the MSBAL Group is exposed, including jurisdictions with no applicable JCCyB ratio or with applicable JCCyB ratio set at zero.

The CCyB amount as at 31 December 2022 represents the MSBAL Group's specific CCyB ratio multiplied by the MSBAL Group's total RWA, as specified by the standard disclosure templates issued by the HKMA, instead of the MSBAL Group's RWA relating to private sector credit exposures.

G. LEVERAGE RATIO

Template LR1: Summary comparison of accounting assets against leverage ratio exposure measure

	As at 31 December 2022	**The MSBAL Group**
		Value under the LR framework
	Item	**US$'000**
1	Total consolidated assets as per published financial disclosure statements	7,730,324
2	Adjustment for investments in banking, financial, insurance or commercial entities that are consolidated for accounting purposes but outside the scope of regulatory consolidation	—
2a	Adjustment for securitised exposures that meet the operational requirements for the recognition of risk transference	—
3	Adjustment for fiduciary assets recognised on the balance sheet pursuant to the applicable accounting standard but excluded from the LR exposure measure	—
3a	Adjustments for eligible cash pooling transactions	—
4	Adjustments for derivative contracts	22,010
5	Adjustment for securities financing transactions ("SFTs") (i.e. repos and similar secured lending)	8,662
6	Adjustment for off-balance sheet ("OBS") items (i.e. conversion to credit equivalent amounts of OBS exposures)	6,386
6a	Adjustments for prudent valuation adjustments and specific and collective provisions that are allowed to be excluded from exposure measure	(904)
7	Other adjustments	(28,470)
8	**Leverage ratio exposure measure**	**7,738,008**

G. LEVERAGE RATIO (CONTINUED)

Template LR2: Leverage Ratio

		The MSBAL Group	
		As at 31 December 2022	As at 30 September 2022
		US$'000	US$'000
On-balance sheet exposures			
1	On-balance sheet exposures (excluding those arising from derivative contracts and securities financing transactions ("SFTs"), but including collateral)	4,912,886	4,472,736
2	Less: Asset amounts deducted in determining Tier 1 capital	(29,374)	(26,744)
3	**Total on-balance sheet exposures (excluding derivative contracts and SFTs) (1)**	4,883,512	4,445,992
Exposures arising from derivative contracts			
4	Replacement cost associated with all derivative contracts (where applicable net of eligible cash variation margin and/or with bilateral netting)	—	10,039
5	Add-on amounts for potential future exposure ("PFE") associated with all derivative contracts	26,493	32,485
6	Gross-up for collateral provided in respect of derivative contracts where deducted from the balance sheet assets pursuant to the applicable accounting framework	—	—
7	Less: Deductions of receivables assets for cash variation margin provided under derivative contracts	—	—
8	Less: Exempted Central Counterparty ("CCP") leg of client-cleared trade exposures	—	—
9	Adjusted effective notional amount of written credit-related derivative contracts	—	—
10	Less: Adjusted effective notional offsets and add-on deductions for written credit-related derivative contracts	—	—
11	**Total exposures arising from derivative contracts**	26,493	42,524
Exposures arising from SFTs			
12	Gross SFT assets (with no recognition of netting), after adjusting for sale accounting transactions	2,813,802	3,290,579
13	Less: Netted amounts of cash payables and cash receivables of gross SFT assets	—	—
14	Counterparty Credit Risk ("CCR") exposure for SFT assets	8,662	6,338
15	Agent transaction exposures	—	—
16	**Total exposures arising from SFTs (1)**	2,822,464	3,296,917
Other off-balance sheet exposures			
17	Off-balance sheet exposure at gross notional amount	6,386	—
18	Less: Adjustments for conversion to credit equivalent amounts	—	—
19	**Off-balance sheet items**	6,386	—
Capital and total exposures			
20	**Tier 1 capital**	1,488,405	1,459,364
20a	**Total exposures before adjustments for specific and collective provisions**	7,738,855	7,785,433
20b	**Adjustments for specific and collective provisions**	(847)	(491)
21	**Total exposures after adjustments for specific and collective provisions**	7,738,008	7,784,942
Leverage ratio			
22	**Leverage ratio**	**19 %**	**19 %**

Note 1: In the fourth quarter of 2022, decrease in total exposures arising from SFTs is mainly due to a decrease in secured financing. This is partially offset by an increase in total on-balance sheet exposures, which is mainly driven by (a) an increase in loans and advances to customers and other Morgan Stanley Group undertakings, and (b) an increase in investment securities.

H. CREDIT RISK

Table CRA: General information about credit risk

Overview

Credit risk refers to the risk of loss arising when a borrower, counterparty or issuer does not meet its financial obligations to the MSBAL Group.

The MSBAL Group incurs credit risk primarily from the MSBAL Group's lending activities through the Company and MSBIC, its trading activities through MSBIC, and to a lesser extent from treasury activities related to deposit placement, investment portfolio, securities purchased under agreements to resell transactions, and derivatives for hedging purpose.

Credit Risk Management

The MSBAL Group's credit risk management policies and procedures establish the framework for identifying, measuring, monitoring and controlling credit risk while ensuring transparency of material credit risks, compliance with established limits and escalating risk concentrations to appropriate senior management and the Board of Directors. A Credit Limits Framework is utilised to manage credit risk levels across the MSBAL Group. The Credit Limits Framework is calibrated within the MSBAL Group's risk appetite and includes stress loss, single name, product, industry, collateral concentration, correlated collateral, as well as regulatory and internal limits on large exposures (to single counterparty or SCG) and connected parties exposures per regulatory definitions.

The MSBAL Group executes oversight of credit risk management through three lines of defense. The MSBAL Group believes this structure creates clear delineation of responsibilities and facilitates effective implementation of the control framework. The three lines of defense is further detailed in Table OVA: Overview of risk management.

Credit risk exposure is actively managed by business unit, CRM and senior management. A variety of credit risk reports are distributed daily to business unit and CRM, monthly to Credit and Market Risk Committee and Bank Risk Committee where membership includes senior management, and quarterly to Board Risk Committee and the Board of Directors.

Credit risk management of the MSBAL Group is consistent with the Company. Details of the Financial Risk Managements are further detailed in note 24 to the audited financial statements, and Table OVA of the Unaudited Supplementary Financial Information.

H. CREDIT RISK (CONTINUED)

Template CR1: Credit quality of exposures

		The MSBAL Group						
		Gross carrying amounts of		Allowances / impairments	Of which expected credit loss ("ECL") accounting provisions for credit losses on STC approach exposures		Of which ECL accounting provisions for credit losses on IRB approach exposures	Net values
		Defaulted exposures	Non-defaulted exposures		Allocated in regulatory category of specific provisions	Allocated in regulatory category of collective provisions		
	As at 31 December 2022	**US$'000**	**US$'000**	**US$'000**	**US$'000**	**US$'000**	**US$'000**	**US$'000**
1	Loans	—	3,294,519	620	—	620	—	3,293,899
2	Debt securities	—	501,327	—	—	—	—	501,327
3	Off-balance sheet exposures	—	12,721	12	—	12	—	12,709
4	**Total**	**—**	**3,808,567**	**632**	**—**	**632**	**—**	**3,807,935**

Loans included loans and advances and related accrued interest receivables.

H. CREDIT RISK (CONTINUED)

Table CRB: Additional disclosure related to credit quality of exposures

A financial asset is considered past due when a counterparty has failed to make a payment when contractually due.

A financial instrument is credit-impaired when, based on current information and events, it is probable that the MSBAL Group will be unable to collect all scheduled payments of principal or interest when due according to the contractual terms of the agreement.

Methods adopted for determining impairments of the MSBAL Group are consistent with the Company, please refer to the notes 3(f) to the audited financial statements for details.

As at 31 December 2022, the MSBAL Group had no exposure which is past due for more than 90 days but is not impaired.

Restructured exposures refer to assets that have been restructured and renegotiated between the MSBAL Group and the counterparties because of a deterioration in the financial position of the counterparties or of the inability of the counterparties to meet the original repayment schedule and for which the revised repayment terms, either of interest or of repayment period, are non-commercial to the MSBAL Group. As at 31 December 2022, the MSBAL Group had no restructured exposures.

The following tables show the breakdown of the MSBAL Group's exposures by geographical areas, industry and residual maturity as at 31 December 2022. These amounts do not include the effects of recognised credit risk mitigation.

	2022
Exposures by geographical areas	**US$'000**
Hong Kong	1,679,510
Mainland China	720,038
Luxembourg	248,806
Others[1]	2,136,678
Total	4,785,032

	2022
Exposures by industry	**US$'000**
Industrial, commercial and financial	2,882,843
Others[1]	1,902,189
Total	4,785,032

	2022
Exposures by residual maturity	**US$'000**
Less than 1 year	4,505,875
Between 1 and 5 years	279,157
Total	4,785,032

Note (1): Any segment which constitutes less than 10% of the MSBAL Group's total RWA for credit risk (after taking into account of any recognised credit risk mitigation) is not separately disclosed and grouped on an aggregated basis under the category "others".

H. CREDIT RISK (CONTINUED)

Table CRC: Qualitative disclosures related to credit risk mitigation

In order to manage credit exposure arising from its business activities, the MSBAL Group also applies various and consistent credit risk management policies and procedures with the Company, see note 24(a) to the audited financial statements for further details.

The MSBAL Group's primary method of mitigating credit risk is the use of eligible collateral for the margin loan portfolio. Eligible collaterals include cash, marketable securities and other investment products. Majority of the MSBAL Group's collaterals are cash and marketable securities, including equity securities, bonds and mutual funds, where collateral values are being revaluated daily. The MSBAL Group maintains policies and procedures related to collateral management. It applies a conservative margin policy to ensure with a high degree of confidence that claims can be repaid in full through the liquidation of assets in the client portfolio securing the exposure.

The Company's subsidiary, MSBIC, also considers a combination of approaches to mitigate credit risk during the process to evaluate and approve an extension of credit. Approaches to mitigating credit risk, in addition to client selection, due diligence and credit analysis, include, documentation/covenants, collaterals, guarantees and participations.

In addition, the MSBAL Group enters into valid bilateral netting agreements with Morgan Stanley affiliates which satisfied the conditions set out under section 2 of the Banking (Capital) Rules for recognised netting. As at 31 December 2022, minimal recognised netting is applied for both on- and off-balance sheet exposures.

Template CR3: Overview of recognised credit risk mitigation

		The MSBAL Group				
		Exposures unsecured: carrying amount (1)	Exposures to be secured	Exposures secured by recognised collateral	Exposures secured by recognised guarantees	Exposures secured by recognised credit derivative contracts
	As at 31 December 2022	US$'000	US$'000	US$'000	US$'000	US$'000
1	Loans	1,096,232	2,197,667	2,197,667	—	—
2	Debt securities	501,327	—	—	—	—
3	**Total**	**1,597,559**	**2,197,667**	**2,197,667**	**—**	**—**
4	Of which defaulted	—	—	—	—	—

Loans included loans and advances and related accrued interest receivables.

Note (1): As at 31 December 2022, loans and advances of the Group comprise (a) the MSBAL Group's loans and advances to customers of US$2,966,770,000 which is fully secured, (b) the MSBAL Group's loans and advances to other non-bank Morgan Stanley Group undertakings of US$248,744,000 which is unsecured and (c) the subsidiary's loans and advances to customers of US$68,015,000 which is unsecured. For the MSBAL Group's loans and advances to customers, unsecured exposures disclosed in the above table are either because the loans are unsecured, or the relevant collateral is not considered as recognised collateral, or the carrying amount of such recognised collateral is subject to standard supervisory haircut in accordance with the Banking (Capital) Rules.

Table CRD: Qualitative disclosures on use of ECAI ratings under STC approach

The MSBAL Group uses the STC approach to calculate its credit risk.

Standard & Poor's Rating Services, Moody's Investors Service and Fitch Ratings are the external credit assessment institutions (the "ECAIs") that the MSBAL Group used to determine the risk weight of the exposure classes, including sovereign, bank, securities firm, corporate and other exposures which are not past due exposures. The MSBAL Group follows the process as prescribed in Part 4 of the Banking (Capital) Rules to map ECAI issuer ratings to exposures booked in its banking book.

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H. CREDIT RISK (CONTINUED)

Template CR4: Credit risk exposures and effects of recognised credit risk mitigation – for STC approach

		The MSBAL Group					
		Exposures pre-CCF and pre-CRM		Exposures post-CCF and post-CRM		RWA and RWA density	
	As at 31 December 2022	On-balance sheet amount	Off-balance sheet amount	On-balance sheet amount	Off-balance sheet amount	RWA	RWA density
	Exposure classes	**US$'000**	**US$'000**	**US$'000**	**US$'000**	**US$'000**	**%**
1	Sovereign exposures	952,876	—	952,876	—	25	0 %
2	Public Sector Entity ("PSE") exposures	—	—	—	—	—	—
2a	Of which: domestic PSEs	—	—	—	—	—	—
2b	Of which: foreign PSEs	—	—	—	—	—	—
3	Multilateral development bank exposures	—	—	—	—	—	—
4	Bank exposures	434,960	—	434,960	—	86,992	20 %
5	Securities firm exposures	87,320	—	86,899	—	43,450	50 %
6	Corporate exposures	2,882,843	12,721	1,001,222	6,386	1,004,904	100 %
7	CIS exposures	—	—	—	—	—	—
8	Cash items	—	—	—	—	—	—
9	Exposures in respect of failed delivery on transactions entered into on a basis other than a delivery-versus-payment basis	—	—	—	—	—	—
10	Regulatory retail exposures	—	—	—	—	—	—
11	Residential mortgage loans	—	—	—	—	—	—
12	Other exposures which are not past due exposures	427,033	—	110,987	—	110,987	100 %
13	Past due exposures	—	—	—	—	—	—
14	Significant exposures to commercial entities	—	—	—	—	—	—
15	**Total**	**4,785,032**	**12,721**	**2,586,944**	**6,386**	**1,246,358**	**48 %**

H. CREDIT RISK (CONTINUED)

Template CR5: Credit risk exposures by asset classes and by risk weights – for STC approach

		The MSBAL Group										
		As at 31 December 2022										
	Risk Weight	0%	10%	20%	35%	50%	75%	100%	150%	250%	Others	Total credit risk exposures amount (post CCF and post CRM)
	Exposure class	US$'000	US$'000	US$'000	US$'000	US$'000	US$'000	US$'000	US$'000	US$'000	US$'000	US$'000
1	Sovereign exposures	952,751	—	125	—	—	—	—	—	—	—	952,876
2	PSE exposures	—	—	—	—	—	—	—	—	—	—	—
2a	Of which: domestic PSEs	—	—	—	—	—	—	—	—	—	—	—
2b	Of which: foreign PSEs	—	—	—	—	—	—	—	—	—	—	—
3	Multilateral development bank exposures	—	—	—	—	—	—	—	—	—	—	—
4	Bank exposures	—	—	434,960	—	—	—	—	—	—	—	434,960
5	Securities firm exposures	—	—	—	—	86,899	—	—	—	—	—	86,899
6	Corporate exposures	—	—	—	—	5,406	—	1,002,202	—	—	—	1,007,608
7	CIS exposures	—	—	—	—	—	—	—	—	—	—	—
8	Cash items	—	—	—	—	—	—	—	—	—	—	—
9	Exposures in respect of failed delivery on transactions entered into on a basis other than a delivery-versus-payment basis	—	—	—	—	—	—	—	—	—	—	—
10	Regulatory retail exposures	—	—	—	—	—	—	—	—	—	—	—
11	Residential mortgage loans	—	—	—	—	—	—	—	—	—	—	—
12	Other exposures which are not past due exposures	—	—	—	—	—	—	110,987	—	—	—	110,987
13	Past due exposures	—	—	—	—	—	—	—	—	—	—	—
14	Significant exposures to commercial entities	—	—	—	—	—	—	—	—	—	—	—
15	**Total**	**952,751**	**—**	**435,085**	**—**	**92,305**	**—**	**1,113,189**	**—**	**—**	**—**	**2,593,330**

I. COUNTERPARTY CREDIT RISK

Table CCRA: Qualitative disclosures related to counterparty credit risk (including those arising from clearing through CCPs)

Counterparty credit risk refers to the risk of loss associated with the failure by one or more sales and trading counterparties to perform against its contractual obligations. The MSBAL Group's counterparty credit risk arises from securities purchased under agreements to resell with external counterparties and derivative transactions with Morgan Stanley affiliates in relation to treasury activities of the Company. Counterparty credit exposure is managed by eligible collateral with daily margining between the Company and counterparties and the collateral requirement is not linked to credit rating. Given the nature of such transactions, there is no general wrong-way-risk and specific wrong-way risk. Operating limits in relation to exposures arising from the derivative transactions with Morgan Stanley affiliates are set as a percentage of the Company's capital based on historical usage of such activities.

Details of such transactions are further detailed in note 24(a) and note 26 to the audited financial statements.

Template CCR1: Analysis of counterparty default risk exposures (other than those to CCPs) by approaches

		The MSBAL Group					
		Replacement cost ("RC")	PFE	Effective EPE	Alpha (α) used for computing default risk exposure	Default risk exposure after CRM	RWA
	As at 31 December 2022	US$'000	US$'000	US$'000	US$'000	US$'000	US$'000
1	SA-CCR approach (for derivative contracts)	250	5,564		1.4	8,140	2,603
1a	CEM (for derivative contracts)	—	—		1.4	—	—
2	IMM (CCR) approach			—	—	—	—
3	Simple approach (for SFTs)					—	—
4	Comprehensive approach (for SFTs)					58,586	25,384
5	Value-at-risk ("VaR") (for SFTs)					—	—
6	**Total**						**27,987**

I. COUNTERPARTY CREDIT RISK (CONTINUED)

Template CCR2: CVA capital charge

		The MSBAL Group	
		Exposure at default (“EAD”) post CRM	**RWA**
	As at 31 December 2022	**US$’000**	**US$’000**
	Netting sets for which CVA capital charge is calculated by the advanced CVA method	—	—
1	(i) VaR (after application of multiplication factor if applicable)		—
2	(ii) Stressed VaR (after application of multiplication factor if applicable)		—
3	Netting sets for which CVA capital charge is calculated by the standardised CVA method	8,140	1,851
4	**Total**	**8,140**	**1,851**

I. COUNTERPARTY CREDIT RISK (CONTINUED)

Template CCR3: Counterparty default risk exposures (other than those to CCPs) by asset classes and by risk weights – for STC approach

		The MSBAL Group										
		As at 31 December 2022										
	Risk Weight	0%	10%	20%	35%	50%	75%	100%	150%	250%	Others	Total default risk exposure after CRM
	Exposure class	US$ '000	US$ '000	US$ '000	US$ '000	US$ '000	US$ '000	US$ '000	US$ '000	US$ '000	US$ '000	US$ '000
1	Sovereign exposures	—	—	—	—	—	—	—	—	—	—	—
2	PSE exposures	—	—	—	—	—	—	—	—	—	—	—
2a	Of which: domestic PSEs	—	—	—	—	—	—	—	—	—	—	—
2b	Of which: foreign PSEs	—	—	—	—	—	—	—	—	—	—	—
3	Multilateral development bank exposures	—	—	—	—	—	—	—	—	—	—	—
4	Bank exposures	—	—	17,917	—	—	—	—	—	—	—	17,917
5	Securities firm exposures	—	—	—	—	45,558	—	—	—	—	—	45,558
6	Corporate exposures	—	—	—	—	3,251	—	—	—	—	—	3,251
7	CIS exposures	—	—	—	—	—	—	—	—	—	—	—
8	Regulatory retail exposures	—	—	—	—	—	—	—	—	—	—	—
9	Residential mortgage loans	—	—	—	—	—	—	—	—	—	—	—
10	Other exposures which are not past due exposures	—	—	—	—	—	—	—	—	—	—	—
11	Significant exposures to commercial entities	—	—	—	—	—	—	—	—	—	—	—
12	**Total**	**—**	**—**	**17,917**	**—**	**48,809**	**—**	**—**	**—**	**—**	**—**	**66,726**

I. COUNTERPARTY CREDIT RISK (CONTINUED)

Template CCR5: Composition of collateral for counterparty default risk exposures (including those for contracts or transactions cleared through CCPs)

	The MSBAL Group					
	Derivative contracts				SFTs	
	Fair value of recognised collateral received		Fair value of posted collateral		Fair value of recognised collateral received	Fair value of posted collateral
	Segregated	Unsegregated	Segregated	Unsegregated		
As at 31 December 2022	**US$'000**	**US$'000**	**US$'000**	**US$'000**	**US$'000**	**US$'000**
Cash - domestic currency	—	—	—	45,308	794	121
Cash - other currencies	—	—	—	—	—	—
Domestic sovereign debt	—	—	—	—	—	—
Other sovereign debt	—	—	—	—	2,755,216	—
Government agency debt	—	—	—	—	—	—
Corporate bonds	—	—	—	—	—	—
Equity securities	—	—	—	—	—	—
Other collateral	—	—	—	—	—	—
Total	—	—	—	**45,308**	**2,756,010**	**121**

Domestic currency refers to the reporting currency of the MSBAL Group, i.e. USD.

J. MARKET RISK

Table MRA: Qualitative disclosures related to market risk

a. Definition

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

b. Governance

The MSBAL Group manages the market risk associated with its trading activities commensurate with the nature and volume of transactions. Market risk is managed at a division, business area and individual product level, and includes consideration of market risk at the legal entity level.

Sound market risk management is an integral part of the Morgan Stanley Group culture. The MSBAL Group is responsible for ensuring that market risk exposures are well-managed and monitored. The MSBAL Group Market Risk Department ("MRD") is responsible for ensuring transparency of material market risks, monitors compliance with established limits, and escalates risk concentrations to appropriate senior management. MRD is an independent risk oversight group headed by the Asia Head of Market Risk, who reports directly to both the Asia Chief Risk Officer and the Global Head of Market Risk.

Market risk policies and limits are reviewed at least annually. Together with any significant market risk matters, these are reviewed and discussed in the appropriate risk forums on a monthly/quarterly basis. These forums include the MSBAL Credit and Market Risk Committee, the MSBAL Bank Risk Committee, and the MSBAL Board Risk Committee, and are attended by the MSBAL Group's senior management including the MSBAL Group CRO and CEO.

c. Risk Measurement and Monitoring

To execute these responsibilities, MRD monitors the market risk against limits on aggregate risk exposures and performs a variety of risk analyses. This includes monitoring VaR, stress testing and scenario analyses, routine reporting of risk exposures, and maintenance of the VaR and scenario analysis methodologies. The material risks identified by these processes are summarised and reported to senior management.

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

d. Risk Mitigation Policies

The MSBAL Group manages its trading positions by employing a variety of risk mitigation strategies. These strategies include diversification of risk exposures and hedging. Hedging activities consist of the purchase or sale of positions in related securities and financial instruments, including a variety of derivative products (e.g., futures, forwards, swaps, and options). Hedging activities may not always provide effective mitigation against trading losses due to differences in the terms, specific characteristics or other basis risks that may exist between the hedge instrument and the risk exposure that is being hedged. The MSBAL Group manages and monitors its market risk exposures, including outright and basis risks, in such a way as to maintain a portfolio that the MSBAL Group believes is well-diversified in the aggregate with respect to market risk factors, and that reflects the MSBAL Group's aggregate risk tolerance as established by the MSBAL Group senior management. The effectiveness of hedges and mitigants is monitored using processes such as risk and limit reporting.

e. Data Quality

MRD has a data quality control process to monitor, validate, remediate, escalate, and report data quality issues that impact market risk and capital reporting. The Market Risk Middle Office team is responsible for coordinating data quality control with the aim of providing MRD with high quality data that is accurate, complete, and delivered in a timely manner. Threshold based checks are performed on market risk data. Large moves are validated, and data adjustments are made where necessary, along with the appropriate escalation to ensure ongoing remediation, completeness, accuracy, and timeliness. Key Performance Indicators ("KPIs") for market risk metrics are reported to the senior management risk committees.

J. MARKET RISK (CONTINUED)

Table MRA: Qualitative disclosures related to market risk (continued)

f. Value at Risk ("VaR")

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

The MSBAL Group calculates VaR using a model based on historical simulation for general market risk factors and for name-specific equity risk and on Monte Carlo simulation for name-specific risk in bonds. Market risk factors' daily moves are modelled either as absolute changes or relative changes, dependent on the most suitable stochastic process (normal or lognormal diffusion process) to describe the daily risk factor changes. The model constructs a distribution of hypothetical daily changes in the value of trading portfolios based on historical observation of daily changes in key market indices or other market risk factors, and information on the sensitivity of the portfolio values to these market risk factor changes. The methodology for VaR at Morgan Stanley Group, which is also applicable to MSBAL Group, is 1-year historical simulation.

A set of internal processes and controls ensure that all relevant trading positions booked by the MSBAL Group are included in VaR. VaR is most appropriate as a risk measure for trading positions in liquid financial markets and will understate the risk associated with severe events such as periods of extreme illiquidity. The MSBAL Group is aware of these and other limitations and therefore uses VaR as only one component in its risk management oversight process. This process also incorporates stress testing and scenario analyses and extensive risk monitoring, analysis, quantification of risk not captured in VaR, and control at the trading desk, division and the MSBAL Group levels.

The MSBAL Group is committed to continuous review and enhancement of VaR methodologies and assumptions in order to capture evolving risks associated with changes in market structure and dynamics. As part of regular process improvement, additional systematic and name-specific risk factors may be added to improve the VaR model's ability to more accurately estimate risks to specific asset classes or industry sectors. The Morgan Stanley Group's VaR model, which is adopted by the MSBAL Group, is reviewed at least annually and verified by the Morgan Stanley Group's independent Model Risk Management ("MRM") group.

J. MARKET RISK (CONTINUED)

Template MR1: Market risk under STM approach

		The MSBAL Group
		RWA
		US$'000
	Outright product exposures	
1	Interest rate exposures (general and specific risk)	31,006
2	Equity exposures (general and specific risk)	—
3	Foreign exchange (including gold) exposures	10,129
4	Commodity exposures	—
	Option exposures	
5	Simplified approach	—
6	Delta-plus approach	—
7	Other approach	—
8	Securitization exposures	—
9	**Total**	**41,135**

K. INTEREST RATE RISK IN THE BANKING BOOK

Table IRRBBA: Interest rate risk in banking book – risk management objectives and policies

Interest rate risk in the banking book (IRRBB) arises due to maturity mismatches from the MSBAL Group's balance sheet positions in the banking book.

Management and oversight of the interest rate risk in the banking book of the MSBAL Group is consistent with that of the Company, which is detailed in note 24(c)(i).

In addition, the IAD, being the third line of defense, independently assesses the MSBAL Group's control environment and risk management processes through conducting regular audit reviews. IAD reports to the Board Audit Committee and is independent of the business units and risk management functions.

The standardised EVE risk measure is calculated according to the six shock scenarios defined in the HKMA SPM IR-1. For non-maturity deposits (NMDs), behavioral maturities have been modelled using the MSBAL Group's own observed data covering the past 10 years. The MSBAL Group's average and longest behavioral maturity of NMDs are 0.26 years and 4 years respectively.

For the calculation of the change in NII, in addition to the two shock scenarios defined in SPM IR-1 for parallel up and parallel down interest rate moves, the MSBAL Group also calculates a range of internal shock scenarios covering non-parallel interest rate moves combined with different repricing assumptions for customer deposits.

Template IRRBB1: Quantitative information on interest rate risk in banking book

The following table shows the impact of six interest rate scenarios on EVE of the MSBAL Group, and impact of parallel up and parallel down scenarios on the earnings of the MSBAL Group in a period of 12 months, as prescribed in the SPM IR-1 issued by the HKMA and the Return on IRRBB.

		The MSBAL Group	The Company	The MSBAL Group	The Company
		ΔEVE		ΔNII	
		As at 31 December 2022	As at 31 December 2021	As at 31 December 2022	As at 31 December 2021
		US$'000	US$'000	US$'000	US$'000
1	Parallel up	—	—	(31,307)	(2,577)
2	Parallel down	19,330	12,251	31,307	2,577
3	Steepener	4,452	1,813		
4	Flattener	13	13,995		
5	Short rate up	—	12,533		
6	Short rate down	14,728	6,701		
7	**Maximum**	19,330	13,995	31,307	2,577
		The MSBAL Group		The Company	
		As at 31 December 2022		As at 31 December 2021	
		US$'000		US$'000	
8	**Tier 1 capital**	1,488,405		1,133,128	

Note: Positive values indicate losses under the respective scenarios.

As at 31 December 2022 and 31 December 2021, the maximum change in EVE under the standardised framework in SPM IR-1 on the MSBAL Group's interest rate sensitive positions in the banking book is below the threshold of 15% of the MSBAL Group's Tier 1 Capital as set by HKMA. Overall movement in EVE and NII due to reduced duration of investment securities coupled with an increase in term deposits for the year end 31 December 2022.

L. LIQUIDITY RISK

Table LIQA: Liquidity risk management

a. Governance of liquidity risk management

(i) Risk tolerance

Liquidity risk refers to the risk that the MSBAL Group will be unable to finance its operations due to a loss of access to the capital markets or difficulty in liquidating its assets.

The MSBAL Group's Liquidity Risk Management Framework is critical to helping ensure that the MSBAL Group maintains sufficient liquidity reserves and durable funding sources to meet its daily obligations and to withstand unanticipated stress events.

Details of the Required Liquidity Framework is further detailed in note 24(b)(i) to the audited financial statements.

(ii) Risk management function

Senior management establishes and maintains liquidity policies. Through various risk and control committees, senior management reviews business performance relative to these policies, monitors the availability of alternative sources of financing, and oversees the liquidity, interest rate and currency sensitivity of asset and liability positions. Treasury Department, Liquidity Risk Department, ALCO and other committees and control groups assist in evaluating, monitoring and controlling the impact that business activities have on the balance sheet, liquidity and capital structure. Liquidity matters are reported regularly to the Board and the Risk Committees of the MSBAL Group.

b. Funding strategy

The primary goal of the MSBAL Group's liquidity risk and funding management framework is to ensure that the MSBAL Group has access to adequate funding across a wide range of market conditions and time horizons. Details of the funding strategy is further detailed in note 24(b) to the audited financial statements.

c. Liquidity Stress Tests

The MSBAL Group uses Liquidity Stress Tests to model external and intercompany liquidity flows across multiple scenarios and a range of time horizons. Details of the Liquidity Stress Tests is further detailed in note 24(b)(ii) to the audited financial statements.

d. Liquidity risk mitigation techniques

Liquidity Resources

The MSBAL Group maintains sufficient liquidity resources which consists of unencumbered highly liquid securities and cash deposits with banks (including central banks) ("Liquidity Resources") to meet regulatory requirements, cover daily funding needs and to meet strategic liquidity targets sized by the Required Liquidity Framework and Liquidity Stress Tests. Details of the Liquidity Resources is further detailed in note 24(b)(iii) to the audited financial statements.

L. LIQUIDITY RISK (CONTINUED)

Table LIQA: Liquidity risk management (continued)

d. Liquidity risk mitigation techniques (continued)

Funding Management

The MSBAL Group manages its funding in a manner that reduces the risk of disruption to the MSBAL Group's operations. Details of the Funding Management is further detailed in note 24(b)(iv) to the audited financial statements.

The MSBAL Group funds itself through diverse sources. These sources may include the MSBAL Group's equity capital, borrowings and deposits. The table below shows the MSBAL Group's significant funding sources as at 31 December 2022:

Significant funding sources (as a percentage of the total liabilities and equity)	**As at 31 December 2022**
Funding from deposits	77 %
Funding from share capital	12 %

Balance sheet management

Details of the balance sheet management is further detailed in note 24(b)(v) to the audited financial statements.

The table below shows the MSBAL Group's future cash flows, taking into account off-balance sheet risks, as at 31 December 2022, which is disclosed in accordance with the numbers reported in the Return of Liquidity Position for the month of 31 December 2022 submitted to the HKMA.

	As at 31 December 2022 US$'000
Liquefiable assets (weighted amount)	3,790,904
Qualifying liabilities (weighted amount)	5,275,645

L. LIQUIDITY RISK (CONTINUED)

Table LIQA: Liquidity risk management (continued)

d. Liquidity risk mitigation techniques (continued)

Maturity analysis

The table below shows the analysis of on- and off- balance sheet items by remaining maturity and the resultant liquidity gaps. This presentation is considered by the MSBAL Group to appropriately reflect the liquidity risk arising from those assets and liabilities, presented in a way that is consistent with how the liquidity risk is managed by the MSBAL Group. The below information is prepared in accordance with the numbers reported in the Return of Liquidity Monitoring Tools as at 31 December 2022, based on the completion instruction from the HKMA. Accordingly, the classification of on-balance sheet assets, on-balance sheet liabilities, off-balance sheet claims and off-balance sheet obligations are not the same as that disclosed under the audited financial statements.

	Breakdown of cash flows by remaining maturity						
	Not more than 1 month	More than 1 month but not more than 3 months	More than 3 months but not more than 6 months	More than 6 months but not more than 1 year	More than 1 year but not more than 5 years	Over 5 years	Balancing amount
As at 31 December 2022	**US$'000**	**US$'000**	**US$'000**	**US$'000**	**US$'000**	**US$'000**	**US$'000**
On-balance sheet items							
Amount receivable arising from securities financing transactions	2,813,802	—	—	—	—	—	—
Amount receivable arising from derivative contracts	2,056,030	116,082	—	—	—	—	—
Due from banks and central banks (1)	880,273	8	—	—	—	—	4,834
Debt securities	531,835	81,285	—	—	—	—	—
Loans and advances to non-bank customers	2,918,408	42,440	2,997	50,897	279,219	—	—
Other assets	95,149	1,082	997	—	—	—	22,615
Total on-balance sheet assets	**9,295,497**	**240,897**	**3,994**	**50,897**	**279,219**	**—**	**27,449**
Total off-balance sheet claims	**10,105**	**—**	**—**	**—**	**—**	**—**	**—**
On-balance sheet items							
Deposits from non-bank customers	4,881,073	882,753	136,095	70,914	62	—	—
Amount payable arising from derivative contracts	2,117,511	117,546	—	—	—	—	—
Due to banks	2,441	—	—	—	—	—	—
Other liabilities	76,725	37,083	9,221	5,224	43,244	3,401	—
Capital and reserves	—	—	—	—	—	—	1,517,778
Total on-balance sheet liabilities	**7,077,750**	**1,037,382**	**145,316**	**76,138**	**43,306**	**3,401**	**1,517,778**
Toal off-balance sheet obligations	**805,357**	**10,175**	**—**	**—**	**—**	**—**	**—**
Contractual Maturity Mismatch	**1,422,495**	**(806,660)**	**(141,322)**	**(25,241)**	**235,913**	**(3,401)**	**N/A**
Cumulative Contractual Maturity Mismatch	**1,422,495**	**615,835**	**474,513**	**449,272**	**685,185**	**681,784**	**N/A**

Note (1): "Due from banks and central banks" includes due from banks, due from HKMA for accounts of exchange fund, and due from overseas central banks

L. LIQUIDITY RISK (CONTINUED)

Table LIQA: Liquidity risk management (continued)

e. Contingency funding plan

The MSBAL Group has developed a Recovery Plan which serve the purpose of Contingency Funding Plan. The Recovery Plan defines the roles and responsibilities and primary functions that manage the MSBAL Group's operating and strategic response to liquidity stress events.

The Recovery Plan supports the existing liquidity risk management framework and outlines the process by which the MSBAL Group:

- Determines whether there is a potential or actual liquidity stress event;
- Enacts a heightened decision-making and governance structure;
- Identifies available contingent funding sources;
- Identifies a liquidity stress event management team that would execute the action plan;
- Takes action in a deliberate and coordinated way to respond to liquidity shortfalls;
- Strategically communicates with internal and external stakeholders;
- Decides to return to standard operating liquidity management status; and
- Reviews its preparedness for a stress event through post-event analysis.

M. OPERATIONAL RISK

Operational risk refers to the risk of loss, or of damage to the MSBAL Group's reputation, resulting from inadequate or failed processes or systems, from human factors or from external events (e.g. fraud, theft, legal and compliance risks, cyber-attacks or damage to physical assets). Operational risk relates to the following risk event categories as defined by Basel Capital Standards: internal fraud; external fraud; employment practices and workplace safety; clients, products and business practices; business disruption and system failure; damage to physical assets; and execution, delivery and process management.

The scope also includes oversight of technology risk, cybersecurity risk, information security risk, and third party risk management (supplier and affiliate risk).

Operational Risk Management

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

The MSBAL 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.

In addition, the MSBAL Group employs a variety of risk processes and mitigants to manage its operational risk exposures. These include a governance framework, a comprehensive risk management program and insurance. Operational risks and associated risk exposures are assessed relative to the risk tolerance established by the Board and are prioritised accordingly.

The breadth and variety of operational 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, policies and procedures to record properly and verify a large number of transactions and events, however at times, these policies and procedures may not be fully effective. The trading risk management strategies and techniques seek to balance our ability to profit from trading positions with our exposure to potential losses.

Roles and responsibilities

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 MSBAL 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 MSBAL 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.

M. OPERATIONAL RISK (CONTINUED)

Operational Risk Department

The Operational Risk Department provides independent oversight of operational risk and assesses measures and monitors operational risk against tolerance. The Operational Risk Department works with the business divisions and control groups to help ensure a transparent, consistent and comprehensive framework for managing operational risk within each area and across the MSBAL Group.

The Operational Risk Department scope includes oversight of technology risk, cybersecurity risk, information security risk, the fraud risk management and prevention programme and third party risk management (supplier and affiliate risk oversight and assessment) programme. 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.

Business continuity management and disaster recovery

The MSBAL Group Business Continuity and Disaster recovery programs are designed to provide assurance of business continuity in the event of disruptions impacting the MSBAL Group's people, technology, facilities and third parties, and to comply with regulatory requirements. The key elements of these programs include crisis management, business continuity planning, disaster recovery, testing verification, and process improvement. Business units within the Morgan Stanley Group maintain business continuity plans, including identifying processes and strategies to continue business critical processes during a business continuity incident. 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.

Third-party risk management

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

Cyber and information security risk management

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

N. CLIMATE RISK MANAGEMENT

Introduction

Climate change and other environmental considerations are a driver of a number of existing risks for the Morgan Stanley Group and the MSBAL Group, including credit, operational, market, and liquidity/funding risk, and these are managed within the MSBAL Group's existing risk appetite. Overall, the MSBAL Group's strategy for managing risks from climate change is closely aligned with Morgan Stanley Group's strategy as articulated in Morgan Stanley Climate Report ("Global MS Climate Report")[1].

The Morgan Stanley Group was the first major U.S.-headquartered global financial services firm to commit to achieving net-zero financed emissions by 2050. The firm advances its climate change strategy across four pillars: supporting the transition to the low-carbon economy, managing climate risk, providing transparent climate-related disclosures, and enhancing the resilience of our operations.

This local disclosure is specific to the MSBAL Group and guided by the recommendations of the Task Force on Climate-related Financial Disclosures ("TCFD") pursuant to regulatory requirements applicable to the MSBAL Group. It complements and should be read in conjunction with the latest Global MS Climate Report.

Governance

Climate change management is a priority for senior leadership at the Morgan Stanley Group which evaluates and drives decisions that help address and mitigate climate change impacts to its businesses, clients, investments, operations, employees and local communities. The Governance and Sustainability Committee of the Morgan Stanley Board of Directors reviews corporate governance principles and environmental, social and governance ("ESG") initiatives and the Risk Committee of the Morgan Stanley Board of Directors oversees climate-related risks. Morgan Stanley Group's Chief Risk Officer ("CRO") leads the Firm Risk Management Division and has ultimate responsibility for managing climate-related risks across the Morgan Stanley Group's businesses and operations, reporting to the Morgan Stanley Board Risk Committee. The Environmental and Social Risk Management Group is responsible for identification and assessment of broader environmental and social risks that could impact the Morgan Stanley Group's reputation and the Global Sustainable Finance Group drives Morgan Stanley Group's climate change strategy. For details, please refer to the "Governance" section of the latest Global MS Climate Report.

Morgan Stanley Group takes an integrated approach to ESG management, with oversight from leadership and input from across its business segments. To coordinate and support the Asia Pacific ("APAC") region's efforts around sustainability, an APAC governance body for ESG related matters is in the process of being established. This committee, as part of the Morgan Stanley Group's global ESG governance framework, is intended to report to the appropriate Firm ESG oversight bodies and will drive ESG efforts regionally, in order to ensure a consistent and harmonized approach to ESG and align local climate-related initiatives with global approaches.

For the MSBAL Group, the MSBAL Board of Directors has put in place a framework for climate-related risk management with delegation to appropriate management and relevant committees, including the MSBAL Management Committee, the MSBAL Board Risk Committee and the MSBAL Bank Risk Committee.

In addition, a dedicated ESG committee, the MSBAL PWM Asia ESG Committee, has been established under the MSBAL Management Committee to assist the MSBAL Board of Directors and senior management in their oversight of climate-related risks for PWM Asia. At MSBIC, the MSBIC Board of Directors has put in place a governance framework for green finance overseen by senior management and relevant committees, including the MSBIC Strategy Committee, the MSBIC Risk Committee and the MSBIC Loan Commitment Committee. The MSBAL Board of Directors has approved the set-up of a reporting mechanism of ESG matters, as they pertain to MSBIC, to MSBAL Management Committee and MSBAL Bank Risk Committee, which currently have MSBIC representatives to escalate risk and operational matters as necessary.

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[1] Please refer to https://www.morganstanley.com/about-us/sustainability-reports-research for the latest Morgan Stanley Climate Report ("Global MS Climate Report").

N. CLIMATE RISK MANAGEMENT (CONTINUED)

Strategy

As part of the Morgan Stanley Group, the MSBAL Group's climate change strategy is built on four pillars:

- Supporting the transition to a low-carbon economy by mobilising capital toward low carbon solutions and publishing industry-leading research and thought leadership for an investor audience
- Managing climate risk by integrating climate change considerations into risk management processes and governance structures
- Providing relevant, transparent and useful climate-related disclosures in Morgan Stanley's Climate report and other publications (see Global MS Climate Report)
- Enhancing the climate resilience of operations by minimising footprint and enhancing operational resiliency

An important component of Morgan Stanley Group's climate strategy is the commitment, announced in September 2020, to reach net-zero financed emissions by 2050. For details, please refer to the "Strategy" section of the latest Global MS Climate Report.

Risk Management

In line with the TCFD recommendations, the Morgan Stanley Group and the MSBAL Group divides climate risks into two main categories; transition risks and physical risks. These climate risks are managed by integrating climate change considerations across risk management processes and governance structures.

Climate risk management of the Morgan Stanley Group is focused on risk identification, stress testing, exposure calculation and risk appetite and rating integration. For details, please refer to the "Risk Management" section of the latest Global MS Climate Report.

MSBAL Group adopts the abovementioned approach for climate risk management and continues to enhance its processes to meet the requirements set out in new and evolving regulations applicable to MSBAL.

As part of its established risk identification and materiality assessment process, MSBAL Group evaluates the impact of climate-related risks on risks identified under the MSBAL risk taxonomy for credit, market, liquidity, operational, reputation and strategic risk. The outcome of these assessments has guided the MSBAL Group in developing key risk indicator to monitor MSBAL Group's transition risk stress losses from credit and market risk on a quarterly basis. In addition, climate-related risk management is incorporated in the Risk Appetite Statement of the MSBAL Group as a driver of existing risks.

Metrics and Targets

The Morgan Stanley Group has developed a comprehensive suite of metrics and targets to guide efforts to execute the four pillar climate strategy and help manage the lending activity of the Morgan Stanley Group towards net-zero financed emissions by 2050. For details, including 2030 interim financed emissions reduction targets and the latest financed emissions tables, please refer to the "Metrics and Targets" section of the latest Global MS Climate Report.

MSBAL Group is fully integrated into the Morgan Stanley Group's metrics and targets. In addition to the climate-related key risk indicator and review of climate risk related incidents, MSBAL will continue to assess whether additional metrics and targets would further assist in the development of MSBAL Group's climate change strategy.

O. SEGMENTAL INFORMATION

Below shows the segmental information of the Company by geographical area and class of business.

a. By geographical area

The geographical segmental analysis for the year ended 31 December 2022 is as follows:

2022	Hong Kong [(1)] US$'000	Singapore [(1)] US$'000	Total US$'000
Total operating income (Net of interest expense)	386,008	67,735	453,743
Profit before ECL	109,632	10,573	120,205
Profit before income tax	109,624	10,573	120,197
Total assets	5,096,840	2,527,806	7,624,646
Total liabilities	3,584,251	2,508,381	6,092,632

(1) The amounts disclosed above are after elimination of interoffice balances or transactions between the head office in Hong Kong and the Branch.

b. By class of business

The Company structures its business segments primarily based upon the nature of the financial products and services provided to customers and the Company's internal management structure. The Company has one reportable business segment, Private Wealth Management, where the Company engages in the business of banking including deposit taking and lending. It also acts (a) as agent on behalf of its customers in connection with the provision of general investment, securities dealing, as well as discretionary management and (b) as introducing broker to Morgan Stanley & Co. International plc for the provision of clearance, settlement and custody services in relation to the aforementioned transactions.

The Company's business segment results for the year ended 31 December 2022 are as follows:

2022	Private Wealth Management US$'000
Total operating income (Net of interest expense)	453,743
Profit before ECL	120,205
Profit before income tax	120,197
Total assets	7,624,646

P. OFF-BALANCE SHEET EXPOSURE OTHER THAN DERIVATIVE TRANSACTIONS

The Company does not have off-balance sheet exposure other than derivative transactions as at 31 December 2022.

Q. LOANS AND ADVANCES - SECTOR INFORMATION

The following breakdown of the Company's loans and advances by industry sectors is prepared in accordance with the categories as set out in the Banking (Disclosure) Rules, and the definitions contained in the Completion Instruction of HKMA Return of Quarterly Analysis of Loans and Advances and Provisions and HKMA Supervisory Policy Manual "CA-D-1 Guideline on the Application of the Banking (Disclosure) Rules".

Loans and Advances are exposures of counterparties based on the location of the counterparties after taking into account any risk transfer for the purpose of disclosure. The risk transfers have been made if the claims are on an overseas branch of a bank whose head office is located in another geographical area.

As at 31 December 2022, loans and advances of the Company comprise (a) loans and advances to customers of US$2,966,770,000 which is fully secured and (b) loans and advances to other Morgan Stanley Group undertakings of US$248,744,000 which is unsecured.

Sector classification	As at 31 December 2022 US$'000
Loans and advances for use in Hong Kong	
Industrial, commercial and financial:	
– Financial concerns	16,967
– Individuals	217,346
– Others [1]	747,141
Loans and advances for use outside Hong Kong	2,234,060
Total	3,215,514

(1) These represents loans and advances to "non-stockbroking companies for the purchase of shares" defined in the Completion Instruction of HKMA Return of Quarterly Analysis of Loans and Advances and Provisions.

Below table shows the loans and advances by geographical areas in accordance with the location of the counterparties. The table shows individual geographical area to which not less than 10% of the Company's total amount of loans and advances are attributable in accordance with the Banking (Disclosure) Rules.

	As at 31 December 2022 US$'000
Geographical Areas	
Hong Kong	981,454
West Indies UK	676,009
China	359,937
Others	1,198,114
Total	3,215,514

R. INTERNATIONAL CLAIMS

The following breakdown of the Company's international claims is prepared in accordance with the completion instruction of the HKMA Return of International Banking Statistics ("IBS").

International claims are on-balance sheet exposures of counterparties based on the location of the counterparties after taking into account any risk transfer for the purpose of disclosure. In accordance with Completion Instruction of the HKMA Return of IBS, risk is considered transferred from the location of the branch to that of the head office if the claims are on an overseas branch of a bank whose head office is located in another geographical area.

The table shows individual geographical segment or country to which not less than 10% of the Company's total international claims are attributable, after taking into account of any recognized risk transfer, in accordance with the Banking (Disclosure) Rules.

			Non-bank private sector		
	Bank	**Offical sector**	**Non-bank financial institutions**	**Non-bank private sector**	**Total**
31 December 2022	**US$'000**	**US$'000**	**US$'000**	**US$'000**	**US$'000**
Developed countries	317,285	299,581	1,975,789	5,598	2,598,253
of which: Japan	33,343	—	1,639,668	—	1,673,011
Offshore centres	1,201,255	—	292,729	1,601,890	3,095,874
of which: Hong Kong	1,198,296	—	58,146	659,070	1,915,512
Developing Asia and Pacific	289,042	—	55,674	750,086	1,094,802

S. OVERDUE AND RESCHEDULED ASSETS

The Company has no overdue or rescheduled assets as at 31 December 2022.

T. MAINLAND ACTIVITIES

The below breakdown is prepared on the same basis as the Return of Mainland Activities, which includes non-bank Mainland China exposures of the Hong Kong office of the Company and its subsidiary in China, in accordance with the Banking (Disclosure) Rules. The Mainland China exposures to non-bank counterparties are categorized into the specified categories as defined under the Banking (Disclosure) Rules with reference to the Return of Mainland Activities submitted to the HKMA.

As at 31 December 2022	**On-balance sheet exposures**	**Off-balance sheet exposures [1]**	**Total**
Type of counterparties	**US$'000**	**US$'000**	**US$'000**
Central governments, central government-owned entities and their subsidiaries and joint ventures ("JVs")	21,334	—	21,334
The People's Republic of China ("PRC") nationals residing in Mainland China or other entities incorporated in Mainland China and their subsidiaries and JVs	110,321	12,670	122,991
Of which, PRC nationals residing in Mainland China or entities beneficially-owned by Mainland interest	64,346	—	64,346
Other counterparties where the exposures are considered by the reporting institution to be non-bank Mainland China exposures	358,855	50	358,905
Total	490,510	12,720	503,230

(1) These represent off-balance sheet exposures of the Company's Mainland subsidiary.

U. CURRENCY RISK

The disclosure in this note is prepared on the same basis as the Return of Foreign Currency Position, which includes foreign currency positions of the MSBAL Group, in accordance with the Banking (Disclosure) Rules. The currency risk arising from the MSBAL Group's operation for those individual currencies which each constitutes more than 10% of the total net positions in all foreign currencies are as follows:

	RMB	**SGD**	**USD**
As at 31 December 2022	**US$'000**	**US$'000**	**US$'000**
Spot assets	752,610	301,483	4,206,989
Spot liabilities	(577,631)	(225,730)	(5,859,824)
Forward purchases	72,337	41,075	2,076,406
Forward sales	(249,852)	(120,986)	(413,420)
Net (short)/long position[1]	(2,536)	(4,158)	10,151

(1) Net (short)/long positions in individual currencies of the MSBAL Group are reported in gross, i.e. interoffice balances and transactions between the head office in Hong Kong and the Branch are not eliminated.

The net structural position of the MSBAL Group for each individual currency that constitutes not less than 10% of the MSBAL Group's total net structural position in all foreign currencies are as follows:

As at 31 December 2022	**US$'000**
RMB	12,496

The MSBAL Group had no option in any particular foreign currency as at 31 December 2022.

V. REMUNERATION

Table REMA: Remuneration policy

Governance structure

The Board Remuneration and Culture, Values and Conduct Committee appointed by the Board of Directors of the MSBAL Group assists the Board of Directors in discharging its responsibility for the design and operation of the MSBAL Group's remuneration system, and makes recommendation in respect of remuneration policy and practices to the Board of Directors. The Board Remuneration and Culture, Values and Conduct Committee comprises of three Board members, two of whom are independent non-executive directors of the MSBAL Group. No external consultants have been engaged by the MSBAL Group since the set up of the Board Remuneration and Culture, Values and Conduct Committee. Three meetings were held by the Board Remuneration and Culture, Values and Conduct Committee during the year ended 31 December 2022.

The Board of Directors endorses and issues the remuneration policy for the MSBAL Group and its branch. The remuneration policy takes into consideration the global practices of the Morgan Stanley Group on remuneration. In addition, local market and competitor practices are also taken into consideration in determining the MSBAL Group's remuneration policy.

Senior management is defined as those persons who are responsible for oversight of the MSBAL Group's strategy or activities and/or those of the MSBAL Group's material business lines. Key personnel are defined as individual employees whose duties or activities in the course of their employment involve the assumption of material risk or taking on of material exposures on behalf of the MSBAL Group. For the year ended 31 December 2022, the MSBAL Group has 22 senior management and no key personnel. Quantitative information on the remuneration for senior management and key personnel is set out in Templates REM1, REM2 and REM3 below.

Remuneration structure

The MSBAL Group's remuneration policies and procedures are consistent with those of the Morgan Stanley Group. The Morgan Stanley Group is committed to responsible and effective compensation program, which is continually evaluated with a view towards balancing the following objectives, all of which support shareholders' interests:

<u>Deliver Pay for Sustainable Performance</u>

The Morgan Stanley Group applies "pay-for-performance" philosophy that pervades its culture and motivates the employees. The Morgan Stanley Group rewards employees by directly linking compensation to performance based on their annual objective setting and annual performance evaluation, taking account of the overall performance of the MSBAL Group as a whole over the longer term; performance of the relevant business units; contribution of individual employees to the above performance; and outlook of the overall Morgan Stanley Group.

Compensation programs for the majority of employees comprised two key elements, including base salary and discretionary compensation which may be payable in cash or partially in cash and partially in deferred compensation awards depending on the level of total compensation, seniority and the role of the employees.

V. REMUNERATION (CONTINUED)

Table REMA: Remuneration policy (continued)

Remuneration structure (continued)

Deliver Pay for Sustainable Performance (continued)
In addition, for employees in the most senior roles, a significant portion of compensation is delivered in the form of long-term incentive awards, which closely tie such employees' compensation to the Morgan Stanley Group's long-term performance.

Investment Representatives ("IRs") are also eligible to receive commissions, which are formulaically calculated based on predetermined production goals and also payable in cash or partially in cash and partially in deferred compensation awards.

Align Employees' Compensation with Shareholders' Interests
The Morgan Stanley Group links a significant portion of employees' incentive compensation to performance and delivers annual deferred compensation awards which helps motivate employees to achieve the Morgan Stanley Group's financial and strategic goals.

Compensation decisions for employees in risk control functions (including risk management, financial control, compliance, legal and internal audit functions) are determined by senior management of these divisions, wholly independent of the performance of the business units, and not by the management of the business units.

Attract and Retain Top Talent
The Morgan Stanley Group competes for talent globally with other banks and financial institutions. The Morgan Stanley Group continually monitors competitive pay levels and structures its incentive awards to attract and retain the most qualified employees.

Mitigate Excessive Risk-Taking
The Compensation, Management Development and Succession Committee (the "CMDS Committee") of the Morgan Stanley Group is advised by the Morgan Stanley Group's CRO and the CMDS Committee's independent compensation consultant to help ensure that the structure and design of compensation arrangements disincentivise unnecessary or excessive risk-taking that threatens the Morgan Stanley Group's interests or give rise to risks that could have a material adverse effect on the Morgan Stanley Group.

Remuneration process

In the first quarter of each year, senior management of the Morgan Stanley Group proposes and works with the members of the Morgan Stanley Group's Operating Committee (including the CRO of the Morgan Stanley Group) and the Board of Directors of the Morgan Stanley Group to establish financial and non-financial performance priorities that are aligned with the Morgan Stanley Group's business strategy and to incorporate risk-adjusted measures and objectives.

The CRO of the Morgan Stanley Group evaluates the Morgan Stanley Group's current compensation programs on annual basis and has determined that such programs do not encourage excessive risk-taking behavior, due in part to (i) the balance of fixed compensation and variable compensation; (ii) the balance between short-term and long-term incentives; (iii) mandatory deferrals into both equity-based and/or cash-based incentives programs; (iv) the governance procedures followed in making compensation decisions; and (v) the risk-mitigating features of the deferred incentive compensation awards, such as cancellation and clawback provisions. Details of the deferred compensation plans are set out in note 30 to the financial statements.

V. REMUNERATION (CONTINUED)

Table REMA: Remuneration policy (continued)

Remuneration process (continued)

The overall discretionary bonus pool is established in consultation with the CMDS Committee. Risk-Adjusted Return on Equity is the primary quantitative metric reviewed with the CMDS Committee to determine the size of the bonus pool. Employee eligibility for bonus compensation is discretionary and bonus decisions are subject to a multi-dimensional process, which considers financial and non-financial individual, business unit and Morgan Stanley Group's performance measures.

Non-financial performance criteria that may be taken into account in deciding whether to award, and the amount of any bonus compensation, include (but are not limited to):

- Individual conduct, including but not limited to, adherence to the Morgan Stanley Group's Code of Conduct and policies and the Morgan Stanley Group's cultural values;
- Contribution to the performance and profitability of both the business unit and the Morgan Stanley Group and the strategic objectives of the Morgan Stanley Group, business unit and the team and the associated value attributed to the role;
- Commercial impact, including business/functional knowledge and judgment, client relationships, innovation and execution;
- Leadership skills, including teamwork, communication and management;
- Professional skills, including recruiting, diversity and inclusion; and
- Adherence to compliance and risk policies, including ethics, control and risk management.

Senior management of the Morgan Stanley Group and the CMDS Committee oversee the Morgan Stanley Group's controls regarding the year-end compensation process to help eliminate incentives for excessive risk-taking, including:

- Sizing the incentive compensation pool to more fully consider risk-adjusted returns, compliance with risk limits and the market and competitive environment;
- Allocating the incentive compensation pool among businesses after consideration of the business' returns on certain financial and return on capital metrics;
- Delivering a substantial portion of compensation in multi-year deferrals subject to malus/cancellation;
- Directing compensation managers to consider malus/cancellation events and an employee's risk management activities and outcomes in making compensation decisions; and
- Undertaking a rigorous review process by risk control functions to identify potential malus/cancellation situations.

In addition, on an annual basis, business heads and Operating Committee members representing the Morgan Stanley Group's revenue-generating divisions will prepare a Pay and Performance Analysis report that is presented to the CMDS Committee. This report sets the stage for the CMDS Committee to understand the outcomes of pay from the prior year relative to the market, and the linkage of prior year pay and performance. In turn, this enables the CMDS Committee to consider where the starting baseline of pay either trails or leads the market and whether such a position is warranted or should be rectified in light of current year known performance. Compensation outcomes are symmetric with risk outcomes at the Morgan Stanley Group level.

The MSBAL Group's remuneration policy provides the MSBAL Group ability to adjust commission payments, discretionary bonus, and cancel unvested deferrals where the employee's conduct fall below the MSBAL Group's standard and expectation.

V. REMUNERATION (CONTINUED)

Template REM1: Remuneration awarded during financial year

Below table shows the quantitative information on remuneration for the year ended 31 December 2022

Remuneration amount and quantitative information			2022 Senior management US$'000	2022 Key personnel US$'000
1	Fixed remuneration	Number of employees	22	—
2		**Total fixed remuneration**	6,660	—
3		Of which: cash-based	6,660	—
4		Of which: deferred	—	—
5		Of which: shares or other share-linked instruments	—	—
6		Of which: deferred	—	—
7		Of which: other forms	—	—
8		Of which: deferred	—	—
9	Variable remuneration	Number of employees	22	—
10		**Total variable remuneration**	10,982	—
11		Of which: cash-based	7,822	—
12		Of which: deferred	—	—
13		Of which: shares or other share-linked instruments	3,160	—
14		Of which: deferred	3,160	—
15		Of which: other forms	—	—
16		Of which: deferred	—	—
17	**Total remuneration**		17,642	—

Note:

1. Fixed remuneration includes base salary, pension contribution, extra payments, sign-on bonus, termination payments and other allowances where applicable.
2. Cash based variable remuneration includes bonus and deferred cash. Share based variable remuneration includes deferred stock units.
3. For the year ended 31 December 2022, only deferred share-based compensation and no deferred cash-based compensation were granted.

V. REMUNERATION (CONTINUED)

Template REM2: Special payments

Below table shows the quantitative information on special payment for the year ended 31 December 2022.

Special payments	2022 Guaranteed bonuses Number of employees	Guaranteed bonuses Total amount US$'000	Sign-on awards Number of employees	Sign-on awards Total amount US$'000	Severance payments Number of employees	Severance payments Total amount US$'000
1 Senior management	—	—	—	—	2	752
2 Key personnel	—	—	—	—	—	—

Template REM3: Deferred remuneration

Below table shows the quantitative information on deferred and retained remuneration.

	Deferred and retained remuneration	2022 Total amount of outstanding deferred remuneration US$'000	Of which: Total amount of outstanding deferred and retained remuneration exposed to ex post explicit and/or implicit adjustment US$'000	Total amount of amendment during the year due to ex post explicit adjustments US$'000	Total amount of amendment during the year due to ex post implicit adjustments US$'000	Total amount of deferred remuneration paid out in the financial year US$'000
1	Senior management					
2	Cash	—	—	—	(137)	3,412
3	Shares	14,928	14,928	—	(1,875)	8,530
4	Cash-linked instruments	—	—	—	—	—
5	Others	—	—	—	—	—
6	Key personnel					
7	Cash	—	—	—	—	—
8	Shares	—	—	—	—	—
9	Cash-linked instruments	—	—	—	—	—
10	Others	—	—	—	—	—
11	**Total**	**14,928**	**14,928**	**—**	**(2,012)**	**11,942**

Note:

Total amount of amendment to total amount of outstanding deferred remuneration during the year due to ex post implicit adjustments was a reduction of US$2,012,000 (2021: an increase of US$7,020,000), mainly due to a decrease (2021: an increase) in market price of Morgan Stanley common stock during the year in relation to deferred share-based compensation.